

ASAPA 20204 LOCAL ORGANISING COMMITTEE

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Student Member	Liteboho Senyane
Coordinator	Matseliso Moremoholo

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Welcome Note by Local Organising Committee Chair



Dr Nthabiseng Mokoena-Mokhali (LOC Chair)

Dear Colleagues and Participants,

On behalf of the Local Organising Committee, it gives me immense pleasure to welcome you all to the ASAPA 2024 Biennial Meeting, hosted by the National University of Lesotho (NUL). We are truly excited and honoured to host esteemed delegates from different parts of the globe, including Europe, Asia, the United States of America, and different parts of Africa. Our theme this year “Southern African Archaeology: Transcending Regional and National Borders,” is not only a clear reflection of our diverse research interests, but also of our common identity as archaeologists. Over the next four or five days, we anticipate engaging discussions, insightful presentations, and valuable networking opportunities that will hopefully enrich our understanding of archaeology in this unique region and beyond. Your presence here underscores the importance of collaboration and knowledge-sharing in our field. We are particularly pleased to have received papers that represent and reflect the diversity within our discipline.

We have organised exciting events this year, including a roundtable discussion with representatives from different parts of the region. We are looking forward to an intriguing and thoughtful discussion on a topic that affects us all. The National University of Lesotho is nestled in a valley surrounded by rich cultural heritage, including rock art sites and dinosaur footprints sites, and we look forward to visiting these sites in the coming days. We have also lined up a trip to the Thaba-Bosiu National Heritage and the Sehlabathebe World Heritage Sites. We will conclude this conference with a dinner for all delegates to enjoy a well-prepared four-course meal by our internationally renowned Mosotho chef.

We extend our heart-felt gratitude to our sponsors this year. Without your contribution, this conference would not have been possible and, surely, we would not have such a rich attendance of students across the region.

I thank members of our Local Organising Committee for their support and commitment to make this conference a success. The success of this meeting is surely attributed to your hard work and triumph over the challenges we faced.

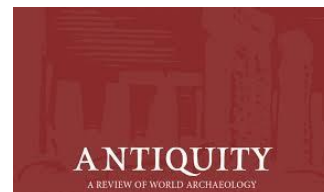
To all participants, let us make this conference a memorable event, filled with new discoveries and meaningful conversations. *Khotso, Pula, Nala.*



SPONSORS :A very special thanks to all our sponsors and partners for their generous support



Southern African Archaeology: Transcending Regional and National Borders



THE SOUTH AFRICAN ARCHAEOLOGICAL SOCIETY



KEYNOTE SPEAKERS



Prof Peter Mitchell's research focuses on African archaeology, especially that of past hunter-gatherer populations in southern Africa, where he has undertaken or directed extensive fieldwork in Lesotho, most recently as Senior Consultant for the World Bank-funded Metolong Dam Archaeology Project. He is currently preparing a second edition of his synthesis of southern Africa's archaeology, *The Archaeology of Southern Africa* (2002 Cambridge University Press). Recent papers of note have used stable isotope analysis to track the long-distance movement of ostrich eggshell beads across the southern African landscape (Stewart *et al.* 2020 *PNAS* 117; 6453-6462) and document unexpectedly early evidence of livestock-keeping by hunter-gatherer groups in highland Lesotho (Fewlass *et al.* 2020 *Nature Human Behaviour* 4: 791-799).

As well as his longstanding focus on southern Africa, Prof. Mitchell has written widely on Africa's precolonial past and the relations between animals and people. Books on these themes include *African Connections: Archaeological Perspectives on Africa and the Wider World* (2005: AltaMira Press), *The First Africans* (2008: Cambridge University Press, co-authored with Larry Barham); *The Oxford Handbook of African Archaeology* (2013: Oxford University Press, co-edited with Paul Lane), *Horse Nations: The Worldwide Impact of the Horse on Indigenous Societies Post-1492* (2015: OUP) and *The Donkey in Human History* (2018: OUP). His latest book, *African Islands: A Comparative Archaeology*, will be published by Routledge in April 2022.

Prof Mitchell's research is facilitated by holding a Research Associateship at the Rock Art Research Institute, University of the Witwatersrand, Johannesburg, a connection that has also helped undergraduate members of St Hugh's undertake fieldwork in South Africa and Lesotho. Although his own work emphasises the southern end of the continent, his doctoral students (several of them members of the College) have also worked in the Sahara and the Sahel, Kenya, and Madagascar.

Prof Mitchell is a past President (2004-2006) and Organizing Secretary (2018-22) of the Society of African Archaeologists, the 25th meeting of which was scheduled to take place at St Hugh's in 2020 until it was derailed by the coronavirus pandemic. He is a long-serving member of the Governing Council of the British Institute of Eastern Africa, a Fellow of the Society of Antiquaries, and co-editor of the journal *Azania: Archaeological Research in Africa*.



'Mekananelo Kumalo is a highly experienced environmental project manager with more than 20 years of experience managing environmental and social impacts in Lesotho. She has a master's degrees in business administration and environmental management, a Post Graduate Diploma in Public Health, a Bachelor of Science Degree in Environmental Ecology as well as a Bachelor of Science in Biology and Chemistry. She is an experienced multidisciplinary expert, with experience in different agencies such as Non-Governmental Organisations, donor-

funded agencies, government parastatals and consultancies; with extensive focus in urban and rural water sector, dam construction, public health sector, private sector development, hygiene and sanitation, emergency relief and disaster management, biodiversity monitoring, public participation, environmental and social impact assessments, environmental and social compliance monitoring and auditing, projects design, monitoring and evaluation, proposal writing and project management. She is currently a Project Manager for Environmental, Social and Public Health at the prestigious Phase II of the Lesotho Highlands Water Project, with the role of managing a team of multidisciplinary and multicultural experts in the environmental and social fields. She is responsible for ensuring compliance of Project activities to international best practices and local laws and guidelines, as well as ensuring continual improvement, while maintaining relationships with different stakeholders, especially the affected communities. Since the beginning of the Project, she has been intimately involved in the assessment of impacts of the project on the communities and biophysical environment, which included overseeing the Baseline Study on Archaeological and Heritage (2014), cultural heritage study as part of the Environmental and Social Assessment studies, as well as the development of the Cultural Heritage Management Plan. Besides being an experienced project manager and environmental manager, Mekananelo is a wife, a mother and a passionate traveller in and out of Lesotho.

ROUNDTABLE DISCUSSION

Chair



Dr. Brian A. Stewart is Associate Professor of Anthropology at the University of Michigan, USA, where he is also Curator of African Archaeology in the Museum of Anthropological Archaeology. His research explores the deep-time selective contexts and biocultural responses that led to the evolution of our species' adaptive elasticity. His primary focus is the archaeology of hunter-gatherers in southern Africa, where he investigates and compares human engagements with challenging environments like

deserts and mountains. He has worked in highland Lesotho since 2008, re-excavating a series of rock-shelter sites with key Pleistocene sequences, including Melikane and Sehonghong. His current project at Ha Soloja Shelter in Sehlabathebe seeks to understand early peopling processes in the Maloti-Drakensberg and the development of high-altitude hunting. He obtained his PhD (2008) and Masters (2001) from the University of Oxford, after earning a BA from the University of Vermont (2000). From 2008–2012 he was a Postdoctoral Research Fellow at the University of Cambridge and from 2012–2013 a College Fellow at Harvard University.

Speakers



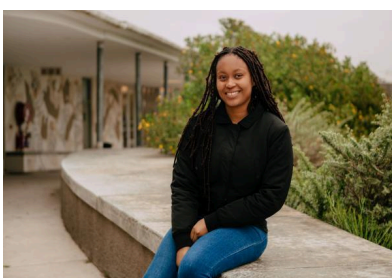
Dr Nthabiseng Mokoena-Mokhali is a lecturer at the National University of Lesotho (NUL) where she teaches Archaeology and Cultural Heritage Studies. She holds a PhD from the University of Cape Town and a Masters from the University of the Witwatersrand. She completed her undergraduate studies with the National University of Lesotho. Her research interests are Iron Age archaeology, Rock Art and Community Heritage Management. One of her recent research projects is an archaeological study of Thaba-Bosiu and the reconstruction of the history of the mountain. She is a

co-editor for the third edition of the Historical Dictionary of Lesotho. Dr Mokoena-Mokhali is also a board member for the Royal Museum of Lesotho and an associate researcher for the Rock Art Research Institute (RARI) at the University of the Witwatersrand.



Cezar Mahumane – is a Mozambican Maritime Archaeologist, he is currently a PhD student at University of Pretoria (South Africa) and holds a Master's in Maritime archaeology from the University of Cape Town (South Africa). He is a lecturer in Maritime archaeology in the Department of Archaeology and Anthropology at University Eduardo Mondlane and the Director of the Center of Archaeology, Research and Resource of Mozambique Island. Over the last few years, he has worked in different research programs in


Mozambique Island, with emphasis on the Slave Wrecks Project (SWP); development of in situ preservation strategies for shipwrecks and training of local monitors in the preservation of the Maritime Heritage.



Liteboho Senyane was born in the Mountain Kingdom of Lesotho. She undertook her undergraduate studies at the National University of Lesotho with a double major of Environmental

History and Development studies. She furthered her studies at the University of Johannesburg where she earned her Honors in Anthropology under the Paleo-Research Institute. Her work focuses on use-trace analysis of bone tools with the aim of broadening our understanding of southern African archeological assemblages of worked bone. She is currently pursuing her Masters' at UJ with plans to undertake PhD in the same field. She is also working at the University of Johannesburg as a tutor, Writing Center Consultant as well as at the Paleo-Research Institute as a Post-Graduate Coordinator. "My passion for education has always driven me to want to provide support to any student who might need a helping hand".



 **Dr. Andrew Skinner** is a postdoctoral fellow with the Department of Anthropology and Archaeology at the University of South Africa. He is interested in notions of place, space and navigation in historic ethnographies, and the persistence of forager idiom and beliefs in contemporary indigenous knowledge systems across southern Africa. Apologies again, and thank you.




<<archaeologists


THE ASSOCIATION OF SOUTHERN AFRICAN PROFESSIONAL ARCHAEOLOGISTS

Wouter Fourie is a Director and one of the founding members of PGS Heritage. He has been involved in heritage resources management for the past 25 years acting as specialist consultant on various high-profile projects involving heritage and archaeology. He specialises in providing tailor-made heritage solutions to the mining, water and oil and gas industries. Such projects include the heritage management implementation for the Clanwilliam dam project in South Africa, the Polihali Dam Project in Lesotho and the Mozambique Liquid Natural Gas Project on the Afungi Peninsula in Northern Mozambique. Other countries of experience include Botswana, Zimbabwe, Zambia, Malawi, Mauritius and the Democratic Republic of the Congo. Wouter holds a BA (Hon) (Cum Laude) in Archaeology and has completed an MPhil in the Conservation of the Built Environment graduating in 2024 . His main expertise covers Project Management, archaeological input in surveys, mitigation and management, grave relocation action plans and management, Historical Research, GIS management and technical liaisons, heritage impact management and project analysis. Wouter is accredited with the Association of Professional Heritage Practitioners (APHP) as a Professional Heritage Practitioner, Amafa and ASAPA as a Professional Archaeologist and has CRM grading as a Principal Investigator in Grave Relocations, Iron Age and Stone and Field Director in Colonial Period Archaeology.



 **Prof Morongwa .N. Mosothwane** graduated with a PhD at the University of the Witwatersrand in 2010 and proceeded to do a Post-Doctoral Research Fellowship at the University of Pretoria (2011). She has been employed by the University of Botswana since 2010 where she is a lecturer in the Archaeology program. Her courses of the last 10 years include among others, Introduction to African Archaeology, Bioarchaeology and Introduction to Archaeology. Besides teaching, she has been actively involved in various research projects covering areas of paleo-demography, stable isotope studies, documentation and repatriation of human remains, osteobiographies of various skeletal collections, ethics and management of human remains and southern African Iron Age and more. She has been a principal investigator in numerous grave rescues from archaeological (e.g., Ingombe Illede, Demafonte Hill, Bosutswe Hill) historical (e.g., Letsholathebe hospital, King William's Town) and recent contexts (e.g. Thune Dam, Lotsane Dam). Prof Mosothwane has presented papers at many conferences in the discipline of Archaeology and Museums. She has served as a member of the executive committee of ASAPA, SAFA, ICOM Botswana, Iziko Museum Human Remains Advisory Committee, Commonwealth Museums Association (CAM), Botswana Association of Archaeology Professionals (BAAP). She has also been an editorial board member of Museums International and the SAAB. Her publication record extends over local, regional and international accredited journals, book chapters, bulletins and academic magazines. She serves as forensic pathologist for the Botswana Police Services, moderator and co-supervisor at Botswana International University of Science and Technology (BIUST) and University of Namibia (UNAM).



 **Prof. Seke Katsamudanga**, is currently Associate Professor of Archaeology and Heritage Management, based at the University of Zimbabwe. He is the Chairperson of the Department of History Heritage and Knowledge Systems at the University of Zimbabwe. He is also Chairperson of the Friends of the Zimbabwe Museum of Human Sciences Trust. His research interests are in the areas of GIS Applications in Archaeology, Public Archaeology, Climate and Environmental Change, Heritage Management and Community Development. Encapsulated in most of his current works is the idea of 'usable pasts'. His latest work is the chapter 'Legal protection of African cultural heritage in the 21 st century and beyond: A prognosis and futures perspective', published In: Ndoro, W and Abungu, G (eds), Cultural Heritage Management in Africa: The Heritage of the Colonised. Routledge: New York.

DAY1

24 JUNE 2024


Time	
8:30 – 16:00	Arrival and registration of delegates at ISAS Building, NUL
18:00 – LATE	Welcome function: Meet and Greet at Refectory, NUL

DAY2

PLENARY

25 JUNE 2024

Plenary Session

Time	ACTIVITY	
7:00 – 9:00	Registration at ISAS Building	SAASS activity: What is Science? Where do we fit in this idea?
09:00-09:20	Welcome and Opening- ETF 1 Lesotho National Anthem Vice Chancellor <i>Professor Olusola Isaac Fajana</i>	Join us at our stand to explore making science accessible. Come through in your own time and engage with some mini activities on the topic. 11:10-17:00 
09:20-09:40	Minister of Tourism, Sports, Arts and Culture <i>Hon. Motlatsi Maqelepo</i>	
09:40-10:00	Performances by Prof Rantso' and Dr Thabo Martins Performance by Student Molise	
10:00-10:10	ASAPA Council Chair	
10:10-10:50	Keynotes Professor Peter Mitchell Mrs 'Makananelo Kumalo	
10:50 – 11:20	TEA BREAK	



DAY2 MORNING SESSIONS
25 JUNE 2024

Venue 1	Venue 2
<p>Using the Future to Know the Past: Conversations on Technology in Heritage Session chairs: Jake Harding & Rachel King</p> <p>11:20 –11:30 Arches: An Open-source Heritage Database Alternative</p> <p><i>Renier van der Merwe, Mahmoud Abdelrazek, D.I. Redhouse, Stefania Merlo</i></p>	<p>Archaeology of the Maloti-Drakensberg foothills Session chairs: Iris Guillemard & David Pearce</p> <p>11:20 –11:30 Reviving Stone Age research in the eastern Free State with spotlight on Rose Cottage Cave</p> <p><i>Viola C. Schmid et al.</i></p>
<p>11:30- 11:40 Reflections on the integration of heterogeneous heritage data: a case study from southern Africa in the context of the MAEASaM project</p> <p><i>Tshekiso Kgosietsile et al.</i></p> <p>11:40 – 11:50 Assessing cumulative impacts in South African developer-led archaeology: new quantitative and qualitative approaches to large digital datasets</p> <p><i>Rachel King, Giacomo Fontana, Peter Mitchell</i></p>	<p>11:30 –11:40 Marshall Rockshelter (Rossouw, Eastern Cape, South Africa): a new Middle and Later Stone Age site in the piedmont of the Drakensberg</p> <p><i>Paloma de la Peña et al.</i></p> <p>11:40- 11:50 A settlement site associated with ‘Type 3’ rock art in the Maclear District, Eastern Cape Province, South Africa</p> <p><i>David Pearce</i></p>
<p>11:50 –12:00 An Experimental Study of the Impact of Variation in Tip Geometry and Length on Lithic Projectile Performance</p> <p><i>Henry Charles, Alfonso Keyter, Yonatan Sahle</i></p>	<p>11:50 –12:00 Strathalan Cave revisited: Networks and ecology in the Stone Age, at the foot of the Drakensberg, South Africa</p> <p><i>Jerome Reynard</i></p>
<p>12:00 –12:10 Greylingstad African Forced Labour Camp, 1901-1902. Locating the Site and Recovering the Evidence</p> <p><i>Domonique-Marie Verkerk</i></p>	<p>12:00 –12:10 From Foothills to Highlands: Exploring Temporal and Spatial Dynamics of the Later Stone Age Robberg Technocomplex in the Maloti-Drakensberg Region</p> <p><i>Svenja Arlt</i></p>

<p>12:10 – 12:20 DISCUSSION</p>	<p>12:10 –12:30 Methods and techniques of stone tool production from mid-to late Holocene in the Eastern Cape: a new lithic technological analysis from Buterix 1 shelter. <i>Iris Guillemard</i></p>
	<p>12:30: 12:40 The Sister Panel: Linton’s Forgotten Rock Art <i>Sandee Oster</i></p>
	<p>13:10-13:20 Pots and marriage: an archaeometric analysis of sherds from Mgoduyanuka, a Late Iron Age site in KwaZulu-Natal <i>Dimakatso Tlhoale, Gavin Whitelaw, Jan Boeyens</i></p>
<p>12:45 –13:30 POSTER SESSION</p>	
<p>13:30 –14:30 LUNCH TIME</p>	

DAY2 **AFTERNOON SESSIONS**
25 JUNE 2024

Venue 1	Venue 2	Venue 3
<p>Investigating the Chronology of Sites in Arid Zones Session Chairs: Mailys Richard & Michael Toffolo 14:30 – 14: 40</p>	<p>Out in the open: Ongoing research at Pleistocene open-air sites in Southern Africa Session chairs: Inèz Faul, Maryke Horn & Rene Sielemann 14:30 –14:40</p>	<p>Maritime Cultural Heritage research and sustainability in Africa: Towards transformative engagement Session chairs: Cezar Mahumane, Celso Simbine, Jonathan Sharfman (8 presenters) 14:30 –14:40</p>

<p>The chronology of Baden-Baden 2, a newly discovered Middle Stone Age open-air site in the Free State, South Africa</p> <p><i>Maily's Richard, Beatrice Bin, Benoit Longet, Lloyd Rossouw, Michael B. Toffolo</i></p>	<p>A brief assessment of the large cutting tools of Wonderboom</p> <p><i>René Sielemann, Matthew V. Caruana, Matt G. Lotter</i></p>	<p>Proposed classification of the quirimbas archipelago as a unesco mixed world heritage site: benefits for the coastal community</p> <p><i>Arti Ramesse Chandra Macshaw</i></p>
<p>14:40 –14:50</p> <p>Connecting time and space: modelling chronological information across diverse African landscapes in the MAEASaM project</p> <p><i>Faye Lander et al</i></p>	<p>14:40 –14:50</p> <p>Investigating the sedimentological context of dune and pan sediments from the Kgalagadi, Botswana.</p> <p><i>Inèz Faul</i></p>	<p>14:40 –14:50</p> <p>New approaches to protect endangered Maritime and Underwater Heritage in Mozambique island</p> <p>Cézar Mahumane</p>
<p>14:50 –15:00</p> <p>Evidence for occupation patterns of Middle Iron Age sites in the Greater Mapungubwe Landscape based on stable isotope analyses of modern and archaeological freshwater mussel shells.</p> <p><i>Grant Hall et al.</i></p>	<p>14:50 –15:00</p> <p>Insights from a comparative analysis of pollen and phytoliths collected from dung from Shashe-Limpopo Confluence Area archaeological sites (South Africa), dating between 1000 and 1220 AD</p> <p><i>Tanya Hattingh, Frank H. Neumann, Sinethemba Mvelase, Alex (M.H.) Schoeman</i></p>	<p>14:50 –15:00</p> <p>Ethnoarchaeological investigation at Later Iron Age site of Sancul</p> <p><i>Celso Simbine</i></p>
<p>15:00 –15:10</p> <p>DISCUSSION</p>	<p>15:00 –15:10</p> <p>DISCUSSION</p>	<p>15:00 –15:10</p> <p>DISCUSSION</p>
<p>15:10 –15:30</p> <p>AFTERNOON BREAK</p>		
<p>15:30 –15:40</p> <p>Radiocarbon dates, oral traditions, and the origins of the Zimbabwe Culture Nambya state of North-Western Zimbabwe</p> <p><i>Gilbert Pwiti, Plan Shenjere-Nyabez</i></p>	<p>15:30 –15:40</p> <p>A comparative analysis of Later Acheulean lithic production strategies from Cave of Hearths, Canteen Kopje and Amanzi Springs, South Africa</p> <p><i>Kelita Shadrach, Sarah Wurz, Matthew Caruana, Dominic Stratford</i></p>	<p>15:30 –15:40</p> <p>An explorative study of participants' perceptions in the 'Places in Me' photovoice exhibition, in Platfontein, Northern Cape</p> <p><i>Curtis Jeaven</i></p>
<p>15:40 –15:50</p>	<p>15:40 –15:50</p>	<p>15:40 –15:50</p>

<p>The Later Stone Age of Mangasta – Sandaweland, Chemba District, Dodoma: field results</p> <p><i>Kokeli Peter Ryano, Mandela Peter Ryano, Abel D. Shikoni, Albert Samwel Mjandwa</i></p>	<p>DISCUSSION</p>	<p>Food and diet in the Southern Mozambique Coast: Developing intangible heritage in the context of the Chongoene Archaeological and Biocultural Heritage Park</p> <p><i>Énio Tembe, Solange Macamo, Sidónio Matusse, Arti Chandra</i></p>
<p>15:50 –16:00</p> <p>Renewed survey of the Modder River erosional gullies, Free State, South Africa</p> <p><i>Michael Toffolo, Felipe Cuartero Monteagudo, Maily Richard, Lloyd Rossouw</i></p>	<p>15:50 –16:00</p>	<p>15:50 –16:00</p> <p>Assessing conservation status of archaeological and heritage objects such as shipwrecks through photographic change analysis</p> <p><i>Eliot Mowa</i></p>
<p>16:00 – 16: 10</p> <p>A multiproxy palaeoecological analysis of Bovidae and Cercopithecoidea fossils from Australopithecus-bearing deposits at Sterkfontein Caves, South Africa.</p> <p><i>Recognise Sambo, Dominic Stratford, Kris Kovarovic</i></p>	<p>16:00 –16:10</p>	<p>16:00 –16:10</p> <p>South African Maritime and Underwater Cultural Heritage Management in Practice: The Miles Barton pre disturbance permit application</p> <p><i>Shawn Berry</i></p>
<p>DISCUSSION</p>		<p>16:00 –16:20</p> <p>Preserving underwater cultural heritage sites at Mozambique Island</p> <p><i>Jonathan Sharfman</i></p> <p>DISCUSSION</p>
<p>18:00-19:00</p>		

SAASS Flash session: How to Make a Rope Stretcher

What if you do not have a stretcher with you? You improvise. Join us at our stand to learn how.



DAY3

MORNING SESSIONS

26 JUNE 2024

Venue 1	Venue 2	Venue 3
<p>Cultural Heritage Management in Lesotho-The Polihali Dam Cultural Heritage Management Project</p> <p>Session Chairs: Wouter Fourie,</p> <p>9:00 –9:10 An overview of previous archaeological research in Lesotho, the physical environment of the upper Senqu drainage basin, and placing the sites surveyed and excavated during contract C6025 within this context</p> <p><i>Lyn van Schalkwyk, John Parkington, Jessica Angel, Marko Hutten, Pule Mokebe</i></p>	<p>A uniform forager rock art tradition in Southern Africa? Questioning similarities and differences through time and space</p> <p>Session chairs: David Witelson</p> <p>9:00 –9:10 Introduction</p> <p><i>David Witelson</i></p>	<p>Research trends in Southern African Farmer Archaeology</p> <p>Session chairs: Dr Kathryn Croll</p> <p>9:00 –9:10 Archaeology and Agroecology: A Study of Pre-Colonial Farming and Food Systems in Southern Africa</p> <p><i>Bright Mutyandaedza</i></p>
<p>9:10 – 9:20 Holocene occupation of the Eastern Highlands: The long sequence sites of C15, C18 and C21</p> <p><i>L. van Schalkwyk, Jessica Angel, Marko Hutten</i></p>	<p>9:10 –9:20 Preservation and conservation of LSA art of Zimbabwe: An elemental comparative analysis of pigments (ochre) from North Eastern and North Western Zimbabwe</p> <p><i>Nhunzvi J</i></p>	<p>9:10 –9:20 Archaeological sites and progression of conservation documentation technologies: A Case of Great Zimbabwe and Khami World Heritage Sites from the 19th century to the present</p> <p><i>Tatenda Manjengwa</i></p>
<p>9:20 – 9:30 Rock art in the high-altitude basalt zone of the eastern highlands of Lesotho</p> <p><i>Jeremy Hollmann</i></p>	<p>9:20 – 9:30 Contact and Cattle: Understanding Rock Art Representations of Cattle in</p>	<p>9:20 – 9:30 Cupules, sacrifices and rain: a look into ritual hints at Ratho Kroonkop, a rain-control site in the Limpopo Valley, South Africa</p>

	<p>Maclear, Maloti-Drakensberg Mountains, South Africa</p> <p><i>Frances Munro</i></p>	<p><i>K.D. Croll, S Badenhorst, J.R. Reynard, M.H. Schoeman</i></p>
<p>9:30 – 9:40 Charcoal Analyses: Reconstructing the Late Quaternary palaeoenvironment of the upper Senqu drainage basin, eastern Lesotho Highlands.</p> <p><i>B. Hlophe, M.K. Bamford, L. van Schalkwyk</i></p>	<p>9:30 – 9:40 Understanding late stone age painting technology at Pomongwe Cave, matobo, Zimbabwe: an archaeological, ethnographic and experimental approach</p> <p><i>Welcome Takunda Chigwende, Tammy Hodgskiss, Camille Bourdier</i></p>	<p>9:30 – 9:40 Redefining the Eiland ceramic facies: new data from Kirstenbos, a rainmaking hilltop site in the Waterberg, Limpopo Province</p> <p><i>Wim Biemond and Francois Coetzee</i></p>
<p>9:40 – 9:50 Pressure-flaked point variations from Stone Age shelters in the Basaltic Highlands of Lesotho.</p> <p><i>Jessica Angel, Marko Hutten</i></p>	<p>9:40 – 9:50 Diverse performances on a shared stage: rock art of the Waterberg</p> <p><i>Ghilraen Laue & Lyn Wadley</i></p>	<p>9:40 – 9:50 Survey and Analysis of Stone-Walled Structures on the Babanango Plateau, KwaZulu-Natal, South Africa</p> <p><i>Thomas Doran</i></p>
<p>9:50 – 10:20 Archaeozoology vs Contract Archaeology: What is the best practice?</p> <p><i>Louisa Hutten, Kate Croll Boitshepo Motsodisa, Marko Hutten, Jessica Angel</i></p> <p>DISCUSSIONS</p>	<p>9:50 – 10:20 Shaded polychrome, unshaded, hard-edged and ‘blocked’ images of eland in the Stormberg region</p> <p><i>David M. Witelson</i></p> <p>DISCUSSIONS</p>	<p>9:50 – 10:20 Research trends in southern African Farmer Archaeology - The Archaeology of animal diseases: is animal palaeopathology not important?</p> <p><i>Shelvin Mapiti, Ancila Nhamo, Elizabeth Gori</i></p> <p>DISCUSSIONS</p>
<p>10:20 – 10:40 TEA BREAK</p> <p>SAASS Flash session: Rope and Backpack carry</p> <p>How do you evacuate and injured person? Join us at our stand to learn how</p> 		
<p>10:50 – 11:00 Site C21 in the Polihali Dam Basin Area: A faunal interpretation</p>	<p>10:50 – 11:00 Traces of the body: a stylistic analysis of the human figure in the Erongo Region, Namibia</p>	<p>10:50 – 11:00 Diffusion of innovations amongst Contemporary Potters in South-Eastern Botswana</p>

<p><i>Amber Wilson, Louisa Hutten and Deano Stynder</i></p>	<p><i>Lourenço Pinto</i></p>	<p><i>Phenyo C. Thebe</i></p>
<p>11:00 – 11:10 Bone tools and other unique finds from the Lesotho highlands <i>Marko Hutten, Louisa Hutten</i></p>	<p>11:00 – 11:10 Investigating paintings of bags from selected sites in the Cederberg <i>Juliette Lily Rabie, Dawn Green and Judith Sealy</i></p>	<p>11:00 – 11:10 Evaluating the use of the image processing software for measuring ostrich eggshell beads <i>Michael A. Schillaci et al.</i></p>
<p>11:10 – 11:20 Site D08 – a continuous Late Holocene hunter-gatherer occupation and evidence for wide-ranging interactions with Iron Age communities. <i>L. van Schalkwyk, Jessica Angel, Marko Hutten, Nthabiseng Mokoena-Mokhali</i></p>	<p>11:10 – 11:20 Nets or not? Identifying LSA rock paintings of reticulate forms in the Kouga Mountains, Eastern Cape Province, South Africa <i>Jeremy Hollmann</i></p>	<p>11:10 – 11:20 Spinning in africa: practice, technique and technology <i>Natalie Swanepoel</i></p>
<p>11:20 – 11:30 Intangible Cultural Heritage <i>P. Nyabela, S. Gill, J. Ralimpe, M. Nkune, M. Makoro, M. Sentle, T. Makume, M. Mohape, R. Monke</i></p>	<p>11:20 – 11:30 Investigating differentiations in forager rock paintings of the Maloti-Drakensberg and Stormberg <i>Dawn Green</i></p>	<p>11:20 – 11:30 An initial assessment of zooarchaeological assemblage sizes from South Africa <i>Shaw Badenhorst</i></p>
<p>11:30 – 11:40 Polihali Research Group - Future research potentials – A summary <i>John Parkington</i></p>	<p>11:30 – 11:40 Botanical Motifs in Zimbabwean Rock Art and their Significance in Southern African Gatherer Societies <i>Stephen van den Heever</i></p>	<p>11:30 – 11:40 A spatial and ethnoarchaeological study of Dithakong archaeological site, Northern Cape, South Africa <i>Thami Tebeka</i></p>
<p>11:40 – 11:50 DISCUSSIONS</p>	<p>11:40 – 11:50 Later Stone Age rock art and cultural palaeogeography. A comparative techno-stylistic study of human depiction in Matobo (Zimbabwe) and the Daureb/Brandberg (Namibia) <i>Clémentine Bourbiaux & Camille Bourdier</i></p>	<p>11:40 – 11:50 DISCUSSIONS</p>

DISCUSSIONS

12:15 – 13:15
LUNCH TIME

DAY3

AFTERNOON SESSIONS

26 JUNE 2024

Venue 1	Venue 2	Venue 3
<p>Zulu Kingdom Archaeology Project Session chair: Kent Fowler</p> <p>13:20 –13:30 Introduction to the Zulu Kingdom Archaeology Project</p> <p><i>Kent D. Fowler</i></p>	<p>Thinking as Africans in African Heritage Management Session chairs: Dr Catherine Namono & Motsane Getrude Seabela</p> <p>13:20 –13:30 The Resettlement of the Shangani people: Its impact on intangible cultural heritage, with focus on female initiation ceremonies</p> <p><i>Loveness S. Gupure</i></p>	<p>Awakening Dead Collections Session chairs: Tessa Campbell, Rachel King & Keneiloe Molopyane</p> <p>13:20 –13:30 Re-assembling rescue excavations through South African collections</p> <p><i>Tessa Campbell, Rachel King, Keneiloe Molopyane</i></p>
<p>13:30 –13:40 ukuthunga izicoco: the craft of head-rings in 19th century Zululand and Natal</p> <p><i>Justine Wintjes & Gavin Whitelaw</i></p>	<p>13:30 –13:40 Elusive Politics in the Recognition and Management of Historic Buildings in post-independent Zimbabwe</p> <p><i>Happinos Marufu & Godfrey Nyaruwanga</i></p>	<p>13:30 –13:40 Excavating the roots of Lesotho's democracy: Forensic identification of the <i>Liphokojoe</i> of Kao, Lesotho.</p> <p><i>Lesaoana M, Chonelanga T, Letumanyane K</i></p>
<p>13:40 – 13:50 The military settlements of the Matabele and their implications for the wider northern Nguni</p> <p><i>Renier van der Merwe</i></p>	<p>13:40 – 13:50 A role of place names as indigenous knowledge in the archaeology of the Makgabeng-Bouberg area, South Africa</p> <p><i>Kgolagano Vena</i></p>	<p>13:40 – 13:50 Amateur contributions to the KwaZulu-Natal Museum's archaeological archive: the case of the Mike Moon collection</p> <p><i>Mudzunga Munzhedzi, Justine Wintjes, Gavin Whitelaw, Alex Schoeman</i></p>

<p>13:50 – 14:00 Ecology, wayfinding, and interaction networks of Zulu Royal <i>ikhanda</i></p> <p><i>Desmond Owusu-Ansah</i></p>	<p>13:50 – 14:00 Retaining Integrity Through Virtual Access to RARI Ethnographic Collections, Wits University, Johannesburg.</p> <p><i>Tshwanelo Kgosana</i></p>	<p>13:50 – 14:00 Old data, new methods: Breathing life into the Sterkfontein Caves' legacy datasets</p> <p><i>Maryke Horn, Kathleen Kuman, Ronald J. Clarke, Dominic Stratford</i></p>
<p>14:00 – 14:20 DISCUSSIONS</p>	<p>14:00 – 14:20 DISCUSSIONS</p>	<p>14:00 – 14:20 DISCUSSIONS</p>
<p>14:20 – 14:30 Archaeometallurgical study of iron production during the Zulu Kingdom period: A Preliminary results of iron sourcing research</p> <p><i>Richmond Opoku-Prempeh</i></p>	<p>14:20 – 14:30 The Politics of My Skin: An Autoethnographic Practice</p> <p><i>Desiree Dibasen !Nanuses</i></p>	<p>14:20 – 14:30 LA Café: A Coffee Shop occupying a British Settler Prison, Grahamstown, Makhanda, Eastern Cape, South Africa</p> <p><i>Celeste Booth & Anva Chiazzari</i></p>
<p>14:30 – 14:40 Low and high-cost 3D scanning methods for the laboratory, museum, and field</p> <p><i>Olajumoke Olalere</i></p>	<p>14:30 – 14:40 Of lofty ideals, bread and butter questions and usable pasts: Positioning archaeology as an 'extractive and productive industry' in the innovation and industrialisation agenda of developing countries</p> <p><i>Seke Katsamudanga</i></p>	<p>14:30 – 14:40 Unpacking Mortuary Archaeology, reburials and exhumations in Zimbabwe: A case of Zimbabwe Fallen Heroes Trust</p> <p><i>Katekwe P and Joshua Chakawa</i></p>
<p>14:40 – 14:50 The longue durée of the Zulu ceramic repertoire</p> <p><i>Alexandre Monin</i></p>	<p>14:40 – 14:50 Towards Decolonization of Tsodilo Hills World Heritage Site.</p> <p><i>Keletso Setlhabi, Sarah Mothulatshipi, Lokwalo Thabeng</i></p>	<p>14:40 – 14:50 DISCUSSIONS</p>
<p>14:50 – 15:00 The size, layout, and function of Zulu Kingdom amakhanda</p> <p><i>Kent D. Fowler, Leonard O. van Schalkwyk</i></p>	<p>14:50 – 15:00 Pandemics and Heritage: understanding the impact of the Covid-19 pandemic on Archaeotourism in South Africa</p> <p><i>Nithya Eswaran</i></p>	<p>14:50 – 15:00</p>

<p>15:00 – 15:10 Cattle bone pathology in the Zulu Kingdom: Insights into herd management and mobility</p> <p><i>Elizabeth R. Arnold, Thomas Doran, Kent D. Fowler</i></p>	<p>15:00 – 15:10 From Heritage to Spiritual Influence: Examining the Role of Music in Shaping Personal and Cultural Identity and its Impact on Moral Behavior</p> <p><i>Tinomudaishe Chiweshe</i></p>	<p>15:00- 15: 10</p>
<p>15:10 – 15:20 The history and genetics of southern African cattle: Insights from modern Nguni cattle herds</p> <p><i>Ann Horsburgh, Anna Gosling, Kent D. Fowler</i></p>	<p>15:10 – 15:20 Exploring the Oral Histories and Oral Traditions of <i>Mohlaka-oa-Tuka</i> Peatlands and Peat fires.</p> <p><i>Makabelo Kobisi</i></p>	
<p>15:20 – 15:30 The King’s potters: Pottery production at nineteenth century Zulu Royal <i>amakhanda</i></p> <p><i>Kent D. Fowler, Mostafa Fayek, Leonard O. van Schalkwyk</i></p>	<p>15:20 – 15:30 “Oh Africa, long and much-neglected Africa, to what a state of misery art thou sunk?": A study of the archival and household remains of the Wesleyan Missionary, Thomas Hodgson, AD 1823.</p> <p><i>Karyn Moshe</i></p>	
<p>15:20 – 15:30 Experimental dating methods for historically recent sites in Southern Africa: Towards the rehydroxylation (RHX) dating of fired clay objects</p> <p><i>Musah Adam</i></p>	<p>15:20 – 15:30 The Rock Cut Tombs of Saesi Tsaeda Emba and Ganta Afeshum Woredas, Eastern Tigray, Ethiopia: A Preliminary Survey</p> <p><i>Getachew Alemeneh Chane</i></p>	
<p>15:30 – 15:40 New evidence for the spatial organisation of metalworking during the nineteenth century Zulu Kingdom</p> <p><i>Kent D. Fowler, Leonard O. van Schalkwyk</i></p>	<p>15:20 – 15:30 War and Memory: Historical conflicts and colonial oppression in Zimbabwean landscapes of cultural memory- A case of liberation war internment sites</p> <p><i>Innocent Ndiya</i></p>	
<p>15:30 – 15:40 Survey and analysis of stone-walled structures on the Babanango Plateau, KwaZulu-Natal, South Africa</p> <p><i>Thomas Doran</i></p>	<p>15:30 – 15:40 Bonwa ka Kgopa project (BKP): a community-driven collaboration to conserve Northern Sotho earthen vernacular built heritage values, the Makgabeng, South Africa</p>	

DISCUSSIONS

Catherine Namono, Getrude Seabela, Dumisani Katsetse, Filix Mosebedi

DISCUSSIONS

**15:00 – 16:00
AFTERNOON BREAK**

SAASS Flash session: Lightning Safety Weather can be dangerous when you are in the field. Do you know how to deal with lightning storms? Join us at our stand to learn.



**16:00- 17:30
ROUNDTABLE DISCUSSION**

18:15-19:15

Student Blitz Presentations

5 minutes, 5 slides. We invite all students to join for the student presentations hosted by SAASS

19:15-20:15

Rapid Roundtables

Two topics, time to speak to students and some drinks. We invite all conference members to join the roundtable discussions hosted by SAASS.

DAY4

MORNING SESSIONS

27 JUNE 2024

Venue 1	Venue 2	Venue 3
<p>Hunter-gatherer archaeology [still] matters: a session in honour of Peter Mitchell Session chairs: Brian Stewart, Charles Arthur, Sam Challis, Genevieve Dewar & Patrick Roberts</p> <p>8:30 – 8:40 Twenty years on and still at risk: reflections on Peter Mitchell's renaissance and renewal, and</p>	<p>Heritage Resource Management AND The evolution of Heritage Resources Management in SADC Session chairs : Stephanie Barnardt & Natasha Higgitt</p> <p>8:30 – 8:40 Southern African Archaeology: Transcending Regional and National Borders</p>	<p>A multidisciplinary view on the process of regionalisation during Marine Isotope Stage 5 in Southern Africa Session chairs: Viola Schmid, Aurore Val & Sarah Wurz</p> <p>8:30 – 8:40 Introduction</p>

<p>why Later Stone Age archaeology still matter <i>Tim Forssman</i></p>	<p><i>Stephanie-Anne Barnardt</i></p>	<p><i>Sarah Wurz</i></p>
<p>8:40 – 8:50 The writing on the wall: identifying terminal expressions of hunter-gatherer identity in the secondary epigraphy of the Maloti-Drakensberg <i>Andrew Skinner & Sam Challis</i></p>	<p>8:40 – 8:50 Impacts of National Developments on Cultural Heritage Sites in Botswana. The Gaps in the Law <i>Tapiwa T. Matanire & Morongwa N. Mosothwane</i></p>	<p>8:40 – 8:50 SBLs Lithic Technology and its Behavioural Implications <i>Sebastian Bielderman, Sarah Wurz</i></p>
<p>8:50 – 9:00 An investigation of OES Bead size variability and the introduction of cup data and analysis <i>Nicola Wells</i></p>	<p>8:50 – 9:00 Protecting, promoting, and transmitting the African Rock Art Heritage as a meaningful trans-cultural agent <i>Marina Gallinaro</i></p>	<p>8:50 – 9:00 A comparative zooarchaeological perspective on MIS 5 coastal ecology at Klasies River Main site and Blombos Cave, South Africa <i>Alexandra Pearson, Jerome Reynard, Sarah Wurz</i></p>
<p>9:00 – 9:10 Inside tradition: remembering time and place in hunter-gatherer archaeology <i>Charles Arthur</i></p>	<p>9:00 – 9:10 An evaluation of how community-based trusts manage heritage sites to generate income in Botswana. A case of Mogonye National Monument <i>Princess Peoentle Sekgarametso-Modikwa</i></p>	<p>9:00 – 9:10 A palaeoenvironmental analysis of microfossils from MIS 5c-d in Cave 1, Klasies River main site, South Africa <i>Inèz Faul</i></p>
<p>9:10 – 9:20 DISCUSSION</p>	<p>9:10 – 9:20 DISCUSSION</p>	<p>9:10 – 9:20 Coastal foraging in the MSA: interpreting seal and bird remains from Klasies River <i>Leesha Richardson, Judith Sealy, Sarah Wurz</i></p>
<p>9:20 – 9:30 The MSA goes alpine: preliminary results of new excavations at Ha Soloja Rockshelter, Lesotho <i>Brian A. Stewart, Genevieve Dewar, Mike W. Morley, Marion Bamford, Andrew Carr, Declan Miller, Pulane Ntunya, Michael Obie, Adrian Parker, Kyra Pazan,</i></p>	<p>9:20 – 9:30 Challenges of managing cultural heritage sites in peri-urban areas: A case of Domboshava National Monument in Zimbabwe <i>Kelvin Machiwenyika & Pauline Tafadzwa Gandiwa</i></p>	<p>9:20 – 9:30 Anthropogenic deposits as human behavioural proxies in the southern African Middle Stone Age: prospects for moving from the site scale to understanding variability at the regional scale <i>Peter Morrissey, Sarah Wurz, Susan M. Mentzer</i></p>

<p><i>Joseph Ralimpe, Nthabeleng Rantso, Patrick Roberts and Michael Schillaci</i></p>		
<p>9:30 – 9:40 A hidden ochre treasure chest? Analysis of a Holocene ochre cache at Steenbokfontein, Western Cape, South Africa</p> <p><i>Tammy Hodgskiss & Antonietta Jerardino</i></p>	<p>9:30 – 9:40 SAHRIS As Your Heritage Resource Management System</p> <p><i>Ethan Cottee</i></p>	<p>9:30 – 9:40 Unprepared for Work: Worked bone from the Howiesons Poort at Klasies River Main</p> <p><i>Emma Cleminson, Jerome Reynard, Justin Bradfield, Sarah Wurz</i></p>
<p>9:40 – 9:50 Hunter-Gatherers still matter: a predictability model for Gotera open air site, Borana Zone, Ethiopia</p> <p><i>Marianna Fusco, Valentina Decembrini, Enza E. Spinapolice</i></p>	<p>9:40 – 9:50 Heritage Resources Management vs. Development: The Built Heritage (Architectural Heritage) in Kimberley</p> <p><i>Itumeleng N. Masiteng</i></p>	<p>9:40 – 9:50 Navigating Visual Clues: Assessing the Reliability of Visual Criteria in Adhesive Identification</p> <p><i>Ronè Oberholzer, Anika Lokker, Veerle Rots</i></p>
<p>9:50 – 10:00 Results from preliminary excavations at Likonong, Highland Lesotho</p> <p><i>Kyra Pazan et al.</i></p>	<p>9:50 – 10:00 Conservation of the Wonderwerk Cave paintings (Northern Cape, South Africa)</p> <p><i>Anaïs Empereur</i></p>	<p>9:50 – 10:00 DISCUSSIONS</p>
<p>10:00 – 10:10 Experimental Replication of Quartz Microlithic Products with Bipolar Technology Demonstrates Flexible Embodied Cognition in Robberg Makers</p> <p><i>Tullio Abruzzese, Gerrit L. Dusseldorp, Morgan Roussel, Viola C. Schmid</i></p> <p>DISCUSSION</p>	<p>10:00- 10:10 DISCUSSION</p>	<p>10:00 – 10:10</p>
<p>10:10 – 10:30 TEA BREAK</p>		

**SAASS Flash session: How to
Treat an Impaled Object**

Join us at our stand to learn.



<p>10:30 – 10:40 A zooarchaeological perspective on late Pleistocene/early Holocene human behaviour in the Maloti-Drakensberg region, southern Africa: the view from Ha Makotoko and Ntloana Tšoana rock-shelters, Lesotho</p> <p><i>Genevieve Dewar</i></p>	<p>10:30 – 10:40 Adopting digital technologies in heritage management: An assessment of the use of Digital technologies by the National Museums and Monuments of Zimbabwe</p> <p><i>Tariro Zhou, & Thubelihle R. Mnkandla</i></p>	<p>10:30 – 10:40 A holistic examination of technologies within the Still Bay phase at Diepkloof Rockshelter, Western Cape, South Africa</p> <p><i>Darya Presnyakova, Will Archer, Guillaume Porraz</i></p>
<p>10:40 – 10:50 Modelling Middle Stone Age Geospatial Site Relationships and Human Movement in the Lesotho Highlands: Insights into the Utility and Potential for Least Cost Paths Methodologies</p> <p><i>Michael Obie</i></p>	<p>10:40 – 10:50 A Vanishing Heritage? The case of the Dithakong Archaeological site in the Northern Cape</p> <p><i>Jesmael Mataga et al.</i></p>	<p>10:40 – 10:50 The early Howiesons Poort expressions at Diepkloof Rock Shelter (WCP, South Africa): insights into a technological novelty</p> <p><i>Pierre-Antoine Beauvais, John Parkington, Guillaume Porraz</i></p>
<p>10:50 – 11:00 Hunting for evidence to fill the hole at the centre of Middle Stone Age adaptation narratives: A perspective from the desert</p> <p><i>David S. G. Thomas</i></p>	<p>10:50 – 11:00 What does a photovoice project contribute to the analysis of heritage representations? A critical analysis of the "Places in Me" project with the Khwe and !Xun communities in Platfontein</p> <p><i>Leïla Baracchini et al.</i></p>	<p>10:50 – 11:00 Beyond Backed Tools: Exploring Technological Innovations at the End of Howiesons Poort</p> <p><i>Matembo Joseph, John Parkington, Porraz Guillaume</i></p>
<p>11:00 – 11:10 Skeletal Signatures of Hybridization in the Hominin Skeleton: A Case Study of the Hands and Feet of Chinese-Indian Hybrid Rhesus Macaques</p> <p><i>Kelly-Anne Shaw & Rebecca R. Ackermann</i></p>	<p>11:00 – 11:10 In search of an idea. What is 'community' in 'community-based management' and how to improve our understanding of it for the sake of sustainable management? !Xun, Khwe and Wildebeest Kuil rock art site</p> <p><i>Hugo Quemin, Mélanie Duval</i></p>	<p>11:00 – 11:10 Later Middle Stone Age silcrete heat-treatment - views from Diepkloof Rockshelter and Mehrtenhof</p> <p><i>Will Archer et al.</i></p>

<p>11:10- 11:20 DISCUSSION</p>	<p>11:10 – 11:20 DISCUSSIONS</p>	<p>11:10 – 11:20 Technological Organisation in the Doring River Catchment, Western Cape, South Africa during Marine Isotope Stage 5 <i>Corey A. O’Driscoll</i></p>
	<p>11:20 – 11:30 Cultural Landscapes as part of the Environmental and Heritage Impact Assessment Process <i>J. Lavin, E. Bailey, S. Winter</i></p>	<p>11:20 – 11:30 When the Toba volcano super-eruption reached southern Africa <i>Bongekile Zwane</i></p>
	<p>11:30 – 11:40 Mapping Africa’s Endangered Archaeological Sites and Monuments (MAEASaM) Project <i>Amanda Esterhuysen</i></p>	<p>11:30 – 11:40 DISCUSSIONS</p>
	<p>11:40 – 11:50 Heritage Resource Management and Academic Institutions: working together to manage South Africa’s diverse heritage <i>Dawn Green et al</i></p>	<p>11:40 – 11:50 Serrates, blades, and points – New results from the E-A layers of Sibudu Cave <i>Viola C. Schmid et al.</i></p>
	<p>11:50 – 12:00 An investigation of community involvement in archaeological heritage management at Domboshaba Hills, north eastern Botswana <i>Idah Maniki</i></p>	<p>11:50 – 12:00 Assessing technological components of the Pre-Still Bay lithic assemblage from Sibudu Cave, South Africa. <i>Rosa Moll, Lyn Wadley</i></p>
	<p>12:00 – 12:10 DISCUSSIONS</p>	<p>12:00 – 12:10 Chronological Patterning of Middle and Later Stone Age Occupations in the western Free State, South Africa <i>Britt Bousman et al.</i></p>
	<p>12:10 – 12:20 Cultural heritage entrepreneurship in Zimbabwe: a comparative analysis of Domboshaba and</p>	<p>12:10 – 12:20 Early human social transmission during Marine Isotope Stage 5: A perspective from the Kalahari Basin.</p>

	<p>Ngomakurira Rock Art sites, Chinamora communal lands Domboshava</p> <p><i>Simbarashe Makona & Pauline Chiripanhura</i></p>	<i>Precious Chiwara-Maenzanise et al.</i>
	<p>12:20 – 12:30 Ongoing and future conservation work at Matjies River Rock Shelter, Keurboomstrand</p> <p><i>Nicolas Wiltshire, Jenna Lavin, Janette Deacons</i></p>	<p>12:20 – 12:30 Bone-lithic synergy at Bushman Rock Shelter: towards a diversification of resource exploitation during Marine Isotopic Stage 5 in southern Africa</p> <p><i>Aurore Val et al.</i></p>
	<p>12:30 – 12:40 The heritage of plant use: A case of the Ndau communities of Chipinge, Southeastern Zimbabwe</p> <p><i>Portia Mlambo</i></p>	<p>12:30 – 12:40 Raw material procurement analysis at Olieboomspoort Rock Shelter and Mwulu’s Cave (Limpopo)</p> <p><i>Dineo Masia et al.</i></p>
	<p>12:40 – 12:50 Case report on two burials at Domboshaba, a satellite town of the Zimbabwe Kingdom in North Eastern Botswana</p> <p><i>Morongwa Nancy Mosothwane & Keamogetse Hluke</i></p>	<p>12:40 – 12:50 DISCUSSIONS</p>
	<p>12:50 – 13:00 Issues affecting the enrolment of Archaeology and Heritage Studies viable classes in Universities in Zimbabwe</p> <p><i>Simbarashe Shadreck Chitima</i></p>	<p>12:50 – 13:00 An assessment of whether saturated sediment ablation on stationary bone can mimic bone tool use-wear from Earlier Stone Age contexts</p> <p><i>Liteboho Senyane, Justin Bradfield, Matt Lotter</i></p>

	13:00 – 13:10 DISCUSSIONS	13:00 – 13:10 Recent research results at Umhlatuzana rockshelter: Geoarchaeology and Middle to Later Stone Age transition <i>Gerrit L. Dusseldorp, Viola Schmid, Irini Sifogeorgaki</i>
		13:10 – 13:20 The taphonomic analysis of the large mammal sequences of Boomplaas (BPA) cave during the last glacial maximum (LGM) <i>Zarah Abrahams et al.</i>
		13:20 – 13:30 DISCUSSION

13:30 – 14:30 LUNCH

DAY4 **AFTERNOON SESSIONS**
27 JUNE 2024

Venue 1
Heritage Resource Management AND The evolution of Heritage Resources Management in SADC
Session chairs : Stephanie Barnardt & Natasha Higgitt
14:40 – 14:50 The digitisation of South African Heritage Resources: Corbelled buildings and their contribution to microscale analyses of rural pastoral economies the Northern Cape <i>Jenna Foxcroft Lopes Larangeira</i>
DISCUSSIONS

16:00 – 18:00

Biennial General Meeting of the Association

19:00 till late

Conference closing dinner

CONFERENCE EXCURSIONS

Friday 28 June 2024

08:00-10:00 am- Dinosaur Footprints, horse and donkey ride

11:30am- Thaba-Bosiu Monument and Metolong Dam tour

Saturday 29 June 2024- 01 July 2024

09:00 am- Sehlabathebe National Park

ORAL ABSTRACTS

Using the Future to Know the Past: Conversations on Technology in Heritage

An Open-source Heritage Database Alternative

Renier van der Merwe, Mahmoud
Abdelrazek, D.I. Redhouse and Stefania
Merlo

Abstract

The Arches platform is designed to be used as a database for cultural heritage organization. Originally designed to record historical data, it has evolved into a database that can be utilised in historical sciences and historical environments. In this paper, we present on the development and use of the Arches database in the Mapping Africa's Endangered Archaeological Sites and Monuments (MAEASaM) project. Two key strengths are highlighted, the first being that the database is open source and free-to-use and the second is that it is customisable to meet the needs of multiple stakeholders. These features assist in the removal of many of the financial and developmental constraints that often hamper the creation and adoption of heritage databases in Africa. However, these advantages come with a significant increase in the amount of time

required to create a usable database as well as its related modifications.

The incorporation of the International Council of Museums' Conceptual References Framework (CIDOC-CRM) into the structure of the MAEASaM Arches database provides for a uniform data structure that helps bridge the conceptual gap between the heritage and programming industries by providing a heritage data structure that can be converted into a format compatible with programming language structures. Central to the design of the Arches database is its extensive customisation and when combined with the CIDOC-CRM framework, allows for the integration of Arches with other heritage databases to facilitate further integration. With the release of the latest version (7.5), several improvements have been made that further enhance the versatility and accessibility of the database. As we illustrate with reference to MAEASaM data, these enhancements have the potential to strengthen the interactions between the public and government bodies, which in turn, help to promote and protect heritage sites.

Key words: Arches, Heritage Database, Opensource

Reflections on the integration of heterogeneous heritage data: a case study from southern Africa in the context of the MAEASaM project.

Tshekiso Kgosietsile, Stefania Merlo, Godhi Bvocho, Nyararai Ellen Mundopa, Moses Mkenala, Kundishora T. Chipunza, Ezekia Mtetwa, Phillip Segadika, Powell Motsumi and Popo Tselaeesele

Abstract

Digitisation of cultural heritage sites and documents is a crucial tool in today's efforts towards the protection, conservation, study and promotion of cultural resources. With a few exceptions, the available documentation on archaeological sites and monuments in Africa is not available in a digital format, with paper records being the default. In this paper we report our experience in integrating different methodologies to capture and verify the diverse information available and required for a complete documentation of heritage and archaeological sites records. Our case study focuses on the digitisation exercise being done by the Mapping Africa's Endangered Archaeological Sites and Monuments (MAEASaM) project in partnership with the Department of National Museum and Monuments (DNMM), Botswana and the National Museums and Monuments of Zimbabwe (NMMZ). Both institutions house extensive collections of legacy records (archival documents, photographs, published papers, reports, and surveys), which have been systematically gathered from as early as the 1920s. The collections are unique and rich but do

not allow easy access to information for the creation, amongst other, of distribution maps and spatial analysis. Where present, spatial data derived from the collections has not always been verified on the ground for accuracy. A digitisation workflow was developed with the aim of allowing safe preservation but also re-usability of data that are central for everyday decision making about heritage. As such useful data standards and common recording methodologies in line with FAIR principles have been developed and careful desk and field based verification protocols have been put in place. The digitisation pipeline will feed into a database with different levels of access (as stipulated by the National Authorities) potentially offering a platform for sites and monuments analysis beyond national boundaries.

An Experimental Study of the Impact of Variation in Tip Geometry and Length on Lithic Projectile Performance

Henry Charles, Alfonso Keyter, Yonatan Sahle

Abstract

Accurately identifying prehistoric projectile weapon systems and understanding their adaptive advantages and technological constraints remains an ongoing challenge. Tip cross-sectional

geometries of lithic points have been widely applied as a method of assessing the development and use of projectiles in the archaeological record. Point length, and its relation to tip performance by increasing mass, is currently not well studied. Mass,

which has important implications for the momentum of a projectile point, is not captured by tip cross-sectional metrics. In addition to length, existing claims regarding the role of tip mass, Tip Cross-sectional Area (TCSA) and Tip Cross-sectional Perimeter (TCSP) were re-examined. This study, therefore, sought to improve the existing body of knowledge on factors that contribute to ideal projectile performance. The study incorporated experimental techniques to assess the impact of differential length on projectile penetrative ability using experimental arrowheads propelled from a calibrated bow mounted on a shooting machine at ballistic gelatine targets. We measured the impact of point length, width, thickness, mass and kinetic energy, and the distal tip properties on projectile penetration depth. Our results show that the oft-quoted relationship between tip cross-sectional attributes and penetration depth was not supported by statistically significant correlations. We suggest that subsequent studies on projectile performance of lithic points should use larger variations in the tip dimensions of experimental points to see clearer relationships between tip attributes and penetration depth. Furthermore, studies looking at the maximal dimensions of points should take caution to keep distal tip properties constant, as these can influence the association between penetration depth and tip geometries.

Key Words: lithic projectiles; tip Cross-Sectional Geometry

South African medicine horns from 500 years ago until the 20th century

Justin Bradfield & Ian Dubery

Abstract

The chance discovery of a 500-year-old cattle-horn container in a painted rock shelter in the Eastern Cape Province of South Africa has shed new light on the antiquity of traditional medicines in the region. We present the micro-residue and GC-MS results of the solidified substance found inside the horn container. Several plant-based medicinal compounds were tentatively identified, of which mono-methyl inositol and lupeol are the most prevalent. Based on pharmacobotanical studies, we suggest the most probable ailments the medicine would have been used to treat and propose the most likely plants from which the ingredients were sourced. To the best of our knowledge this is the oldest evidence from southern Africa of a bespoke container that has been used to store multiple combined ingredients of medicinal application. The findings are contextualised within the framework of what we already know of people's knowledge of plant-based medicines from 200 000 year ago. We also briefly look at preliminary results from an ongoing project to characterise medicines from 20th century contexts and how these medicines were situated within the cultural and spiritual domains.

Keywords: Ethnopharmacology; Traditional knowledge; chemical analysis

Greylingstad African forced labour camp, 1901-1902. Locating the site and recovering the evidence

Dr Domonique-Marie Verkerk

The South African War (1899-1902) – a conflict between the former British empire and the two Boer republics of the Transvaal and Orange Free State may be one of the most widely written wars about South Africa. Yet, new areas of research continue to emerge, more so since the centenary, such as on the African internment camps in which Africans were interned to prevent them from assisting the Boer commandos. These African camps led to thousands of deaths due to infectious illnesses, unhygienic conditions, malnutrition, lack of shelter and fuel, and contaminated water. It is estimated that at least 20 000 Africans died in these camps.

One of these African camps is found in Greylingstad, Mpumalanga. Little is known about the camp, except that it opened in 1901 and closed in 1902, and that it housed approximately 1 910 African internees. The camp's location is unknown, but the farm Bakkiesfontein 568 IR has pointers that the camp was situated there, namely two African burial sites, fertile soil, its proximity to the railway line and station, and a dry stream.

This study can be considered a model for other scholars who want to find African camps. This is because the model uses two methods, namely archival sources and archaeological evidence to help locate and recover evidence of the camp in Greylingstad. Combining the archaeological methods and archival sources enabled the researcher to prove that the farm

Bakkiesfontein 568 IR was the location of this camp. This model or a similar model can be used as to help future scholars to fill in the gaps on African camps.

This presentation is based on a joint article titled: *Greylingstad African forced labour camp, 1901-1902. Locating the site and recovering the evidence* (co written by Dr Garth Benneyworth, lecturer at Sol Plaatje University, Kimberly).

Key words: The South African War, African camps, Greylingstad African camp, Bakkiesfontein 568 IR.

Archaeology of the Maloti Drakenberg-Foothills

A settlement site associated with 'Type 3' rock art in the Maclear District, Eastern Cape Province, South Africa

David Pearce

Abstract

The Maclear District, Eastern Cape Province, South Africa, is well-known for its finely detailed hunter-gatherer art. The area also has other, less-finely painted, art variously called 'Type 2' and 'Type 3'. Whether these form two distinct traditions is contested. Based on subjects depicted, some of this art has been argued to date to between 1860 and 1900. Despite this narrow timeframe, a number of groups of people have been suggested as possible authors. This paper describes a hidden rock shelter containing several structures as well as Type 3 paintings. The relationships amongst



the art, structure and possible authors is discussed.

Key words: Type 2, Type 3, rock art, settlement site

Strathalan Cave revisited: Networks and ecology in the Stone Age, at the foot of the Drakensberg, South Africa

Jerome Reynard

Abstract

High altitude sites allow us to explore human adaptation in more extreme climatic and environmental conditions, especially during glacial or cooler periods. The Drakensberg is an important region in understanding population dynamics and adaptation in the Late Pleistocene and Holocene of southern Africa. In this talk, I discuss the re-excavation of Strathalan Cave in the northeastern Cape of South Africa. Strathalan Cave sits at the foothills of the uKhahlamba-Drakensberg Mountains at the edge of the Great Escarpment of southern Africa. Well known for its organic preservation, the site is likely key in understanding the archaeology of the region. People have occupied Strathalan intermittently from c. 29,000 to c. 500 years ago so exploring occupational patterns at sites such as these is a valuable means of understanding Stone Age mobility over the Last Glacial Maximum (Marine Isotope Stage 2) and the Holocene. In this paper, I describe Strathalan Cave, its environmental and sedimentary context, and review previous studies conducted on the site. I also introduce the goals of the re-excavation project and present data from the recent test excavations of the site. Given the

remarkable preservation of organic materials at Strathalan Cave, this site may provide an important and rare source of archaeological and palaeoenvironmental data for this time period.

Key words: Middle Stone Age; Later Stone Age; Last Glacial Maximum; Holocene; Eastern Cape; Test-pit excavation

Reviving Stone Age research in the eastern Free State with spotlight on Rose Cottage Cave

Viola C. Schmid, Michael Brandl, Pulane Nthunya, Len van Schalkwyk, Mario Börner, Saskia Pail, Mareike C. Stahlschmidt, Chantal Tribolo, David Witelson and Will Archer

Abstract

Rose Cottage Cave represents an exceptional behavioural and paleoenvironmental archive in the eastern Free State, a still under researched region, that is characterized by a beneficial setting and unique sedimentary conditions. The site encompasses a long, well-stratified chrono-cultural sequence, including Middle and Later Stone Age deposits. After van Riet Lowe recognised the archaeological potential of the site in the early 1920s, Malan in the 1940s and Beaumont in the 1960s undertook the first field campaigns. Lyn Wadley's work from 1987 to 1997, however, brought the sites archaeological significance into focus within the scientific community, and explored different avenues concerning the geochronology, diachronic changes in human behaviour and paleoenvironmental

context of occupation. We recently launched the research project “Time of essential changes in human history” - funded by the Austrian Research Fund - and initiated new excavations at Rose Cottage Cave, in addition to raw material surveys in the broader region. The primary goal of the project concerns investigating the basal layers that comprise the so-called pre-Howiesons Poort (pre-HP) assemblages, dating to Marine Isotope Stage 5. This new fieldwork aims to tackle diverse research issues in multidisciplinary ways, aligned with flourishing scientific interest in the archaeology of the eastern Free State. Here, we share the first insights from the field campaign in 2023, as well as provide preliminary results on the lithic technology and techno-economy of the pre-HP. Finally, we introduce future research directions that will enable us to enhance the understanding of behavioural change at Rose Cottage Cave in high-resolution and refine the chrono-cultural Stone Age framework of the eastern Free State.

Key words: Free State, Grassland Biome, chrono-cultural reference sequence, lithic technology, land use and rock art

Marshall Rockshelter (Rossouw, Eastern Cape, South Africa): a new Middle and Later Stone Age site in the piedmont of the Drakensberg

Paloma de la Peña, Mari Carmen Arriaza, Joseph Ralimpe, Molopi Matela, Teaghan Jon Stoop, Alberto Dorado Alejos, Iris Guillemard, Faye Lander, Guilhem Mauran, Jerome

Reynard⁹, Mike Morley, Len van Schalkwyk and Fernando Colino Polo

Abstract

Marshall rock shelter is a recently documented archaeological site situated in Stormberg in the piedmont of the Drakensberg mountains of South Africa. Since 2020, three excavation campaigns have documented a long chrono-stratigraphic sequence including the Middle and Later Stone Ages, and the more recent historical past with a rich assemblage of lithics, bone, ostrich egg-shell beads, botanical remains, wooden fragments and ceramics.

The excavation at this site falls within a broader research project with the aim to understand mobility patterns and social networks during the Middle, Later Stone Age and historical times. Moreover, the project seeks to understand the link between the rock art found at the site and the excavated record, with a special emphasis placed on the use of pigments.

In this paper, we present the stratigraphic sequence and first radiocarbon dates obtained from three test trenches opened at the site. Preliminary results from the analyses of ceramic, faunal, ostrich egg-shell beads and lithic assemblages from the Later Stone Age uppermost layers will be discussed.

Key words: Middle and Later Stone Age, Technology, Stratigraphy, Eastern Cape

The Sister Panel: Linton’s Forgotten Rock Art

Sandee Oster

Abstract

Unlike its famous counterpart, the Linton panel, the Sister panel has sat in relative obscurity for almost 100 years. Despite having been on display at the Iziko South Africa Museum since 2003, most people do not know of its existence, even after having viewed it. This talk will centre around the Sister panel, a brief history of its origins and fall into obscurity and, more importantly, an analysis of the images. Dominated by eland, the panel's images relay messages about trance potency and serve as a warning and way sign to the San. The Sister panel's original position within the Linton shelter is just as, if not more important, than the meaning behind the painted images. It is essential to understand where various rock art panels come from when trying to understand their meaning. With this analysis of the art, the images may be better understood, and the forgotten rock art given the attention it deserves alongside its famous counterpart.

Key words: rock art, Linton, sister panel, eland

Methods and techniques of stone tool production from mid- to late Holocene in the Eastern Cape: a new lithic technological analysis from Buterix 1 shelter

Iris Guillemard

Abstract

This paper presents a new lithic technological analysis for the Later Stone Age (LSA) site of Buterix 1 shelter located in the Maclear area

(Eastern Cape). The site is dated from mid- to late Holocene and comports a rich stone tool assemblage never studied before. The knapping methods and techniques are discussed and compared with other local and non-local lithic assemblages. This new analysis reveals interesting results speaking to the diversity of stone tool production and 'traditions' during the Wilton and Final Later Stone Age in South Africa.

Key words: Later Stone Age, Lithics, Wilton, hunter-gatherers

From Foothills to Highlands: Exploring Temporal and Spatial Dynamics of the Later Stone Age Robberg Technocomplex in the Maloti-Drakensberg Region

Svenja Art

Abstract

The Maloti-Drakensberg region houses one of the few larger concentrations of sites associated with the Later Stone Age Robberg technocomplex. Dating from c. 25–12 ka BP and identified across much of southern Africa, the Robberg is often portrayed as a uniform phenomenon across time and space with its emphasis on bipolar and laminar reduction systems.

Nestled in the foothills of the Maloti-Drakensberg, the Caledon River Valley is situated within a montane zone of the larger Grassland Biome of southern Africa. The Caledon, a major tributary of the Orange River, forms the present-day border between Lesotho and South Africa's Free State province, and spatially separates Ntloana Tšoana and Ha Makotoko

from Rose Cottage Cave on the South African side of the valley. These sites are contrasted here with Sehonghong in the elevated landscape of the Lesotho highlands.

By analysing the lithic assemblages from three sites in the Caledon River Valley (Ntloana Tšoana, Ha Makotoko, and Rose Cottage Cave) and contextualising them within the archaeological record of the wider Maloti-Drakensberg region (Sehonghong), this paper identifies variability in the Robberg assemblages. It challenges its conventional technocomplex paradigm by providing younger termination dates than previously reported and exploring temporal and spatial patterns, ultimately contributing to a nuanced understanding of how hunter-gatherer groups coped with climatic variability during the Pleistocene-Holocene transition. The Caledon River Valley may have been a refugium for the Robberg-producing hunter-gatherer groups, while other regions of southern Africa had already adopted the stone-working traditions of the Oakhurst technocomplex.

Key words: Robberg technocomplex, southern Africa, Later Stone Age, bladelets, bipolar reduction

Pots and marriage: an archaeometric analysis of sherds from Mgoduyanuka, a Late Iron Age site in KwaZulu-Natal.

Dimakatso Tlhoale, Gavin Whitelaw and Jan Boeyens

Abstract

Mgoduyanuka is a Late Iron Age site in the upper Thukela Basin of KwaZulu-Natal, dating to around the 18th century. About 30% of the potsherds retrieved during excavation in 1975 are decorated with red pigment. Less than 3% are coloured black. The remaining sherds are without colour. To test a hypothesis that red-coloured vessels were brought into the settlement via marriage alliances, three archaeometric techniques were employed to examine sherds of each colour category: portable XRF, conventional XRF and XRD. The conventional XRF and XRD results showed no differences in the clay fabrics of sherds of the three colour categories. However, the portable XRF results separate the fabrics of the red-coloured and uncoloured sherds. Fabrics of the black-coloured sherds spread across the red-coloured and uncoloured clusters. The uncoloured and some black-coloured vessels were most probably made with local, dolerite-derived clays. The red-coloured and some black-coloured vessels were made with other clays. The portable XRF results are thus broadly consistent with the marriage hypothesis.

Key words: Late Iron Age, Mgoduyanuka, coloured pots, marriage alliances, archaeometric techniques, clay sources.

Investigating the Chronology of Sites in Arid Zones

Connecting time and space: modelling chronological information across diverse African landscapes in the MAESaM project.

Faye Lander et al

Abstract

The Mapping Africa's Endangered Archaeological Sites and Monuments Chronology Resource Model is a collection of linked African archaeological chronology terms based on publications and other sources covering several diverse climatic regions across West, Eastern and Southern Africa. These terms which are stored and managed on the publicly accessible MAEASaM Arches database contain both descriptive chronometric and non-chronometric information as well as geo-spatial attributes which can be linked and compared, where possible, to other periods of interest across the continent. The spatial-temporal data is modelled using the cultural heritage ontology of CIDOC-CRM in order to make the data standardised and interoperable with other similar web-based archaeological period platforms such as PeriodO. An important consideration made in the design of the model is that it had to be flexible enough to allow for multiple instances of similar chronology related terms but which cover different geographic zones. In this paper, we present on the modelling of this comparative space-time dataset and offer some reflections on the opportunities and challenges of digitising heterogeneous temporal markers in the context of African archaeology.

Keywords: Africa, comparative chronology, data modelling, space-time concepts, online database, MAEASaM

Evidence for occupation patterns of Middle Iron Age sites in the Greater Mapungubwe Landscape based on stable isotope analyses of modern and archaeological freshwater mussel shells.

Grant Hall, Chantalle Kruger, Stephan Woodborne and Alexander Antonites

Abstract

Prior to AD 850 archaeological evidence suggests that the Middle Limpopo Valley was almost exclusively occupied by mobile forager groups. Between AD 900-1250, new groups of Iron Age farmers, associated with Zhizo ceramics moved in to the area. Later settlements suggest that climatic and environmental conditions in the Limpopo Valley could sustain permanent agricultural settlements and support trade networks which developed into a distinctive and highly complex society during the Middle Iron Age. The expansion of Mapungubwe gave opportunity for groups to move in and away from the central Mapungubwe region to specialise in hunting, mining and agricultural activities at smaller sites in the hinterland. Environmental fluctuations, both spatial and temporal have an influence on potential grazing and food abundance, affecting the distribution of livestock, agricultural practises and movement patterns of populations over seasonal cycles.

We present new environmental evidence for establishing seasonal movement/occupation patterns within the greater Mapungubwe area from several larger central (Schroda, K2, Pontdrift) and smaller hinterland (Maremani and Evelyn) sites from stable carbon and oxygen isotope

analyses of archaeological freshwater mussel shells. The validity of the technique was established through the collection, preparation and isotopic analyses of modern freshwater mussel shells collected from the Nzhelele River at three monthly intervals over a year. The carbon and oxygen ratios from the shells were compared with modern weather data for the region to generate an age and seasonal response model to calibrate the archaeological isotope data. The calibrated archaeological data allowed us to determine the time of the year when mussels were harvested at each site, providing proxy evidence for when sites were occupied and thereby allowing us to reconstruct past human mobility and seasonality patterns for the region.

Key words: Middle Iron Age, Mapungubwe landscape, occupation patterns, stable isotope analysis, freshwater mussel shell

A multiproxy palaeoecological analysis of Bovidae and Cercopithecoidea fossils from Australopithecus-bearing deposits at Sterkfontein Caves, South Africa.

Recognise Sambo, Dominic Stratford and Kris Kovarovic

Abstract

Plio-Pleistocene cave deposits at the Sterkfontein Caves have yielded rich *Australopithecus* assemblages, including abundant specimens in Member 4 (3.6 Ma), and StW 573, a near-complete *Australopithecus prometheus* skeleton (StW 573) from Member 2 (3.4 Ma). Significant morphological and variability has been

identified within the rich *Australopithecus* fossil assemblage, and discussions relating to this variability remain central to understanding early hominin palaeobiology and behaviour. One of the most crucial questions in the study of hominin and mammalian palaeobiology is ascertaining the correlation between ecology and evolution to understand the selective pressures, morphological and behavioral complexes, and evolutionary pathways. Sterkfontein Caves is significant to understanding the lifeways of some of the earliest hominins in southern Africa and the wealth of hominin fossils at Sterkfontein warrants dedicated focus of palaeoecological reconstructions. The proposed research will build on previous efforts by conducting the first comprehensive multiproxy palaeoecological analysis of fossil Bovidae and Cercopithecoidea from the two *Australopithecus*-bearing deposits, Member 2 and Member 4 at Sterkfontein Caves. This research aims to utilize different lines of evidence, including ecomorphology, mesowear, hypsodonty index, and carbon isotopes. Each of these proxies will reconstruct different aspects of the ecology in which South Africa's early *Australopithecus* lived and will be integrated into an enhanced, multifaceted perspective of Plio-Pleistocene palaeoecology in the Cradle of Humankind.

Key words: Bovidae, Cercopithecoid, Paleoeecology, Plio-Pleistocene, Human evolution

Radiocarbon dates, oral traditions, and the origins of the Zimbabwe Culture Nambya state of North-Western Zimbabwe

Gilbert Pwiti and Plan Shenjere-Nyabezi

Abstract

Heritage is that which we have inherited from our past that we feel is important to pass on to future generations. This includes both tangible and intangible heritage to encompass physical archaeological sites as well as the intangible values, oral narratives and stories told about them. Like any other things inherited, oral narratives passed on from one generation to another form an important part of the heritage of a people. It is in this sense that the Great Zimbabwe narrative for the origins of the pre-colonial Nambya state of North-Western Zimbabwe represents an integral part of Nambya heritage and identity today. It forms an integral part of the Nambya sense of reality of themselves as a socio-political and cultural group in the present and an important part of being Nambya is derived from a direct association with, and an ancestry from one of the most glorious pre-colonial socio-cultural and political achievements in southern Africa, the monumental ancient city of Great Zimbabwe. Nambya oral traditions emphasise that the appearance of the Nambya people and the Nambya state in north-western Zimbabwe, as physically signified by the presence of the three major Zimbabwe Culture stone buildings of Shangano, Bumbusi and Matowa as capitals of the state, was a result of two related migration

events directly from Great Zimbabwe dated to early part of the 18th century AD. However, recent archaeological research at two of the capital sites of the Nambya state place the occupation of the sites between the 14th and the 19th Centuries AD, suggesting that the origins and development of the Nambya state cannot be directly connected with Great Zimbabwe via a migration that took place during the 18th Century AD. Using the multivocal approach, this paper examines and discusses the ways in which the different lines of evidence can be reconciled to fit into how communities construct, understand and use their heritage.

Key words: Radiocarbon dates, oral traditions, Zimbabwe Culture, Nambya, heritage, communities

The Later Stone Age of Mangasta – Sandaweland, Chemba District, Dodoma: field results

Kokeli Peter Ryano, Mandela Peter Ryano, Abel D. Shikoni and Albert Samwel Mjandwa

Abstract

In the late 2023 we conducted an archaeological reconnaissance targeting the interface between the early and late Iron Age settlements in central Tanzania, particularly focusing on Dodoma region. During this work, we encountered several rock shelters some of which were found with recognizable lithic artefacts and prehistoric rock paintings. This paper focuses on analysis results of lithics from Mangasta-Gongaa rock shelter site located in the Sandawe land, Mangasta Village, Sanzawa Ward in

Chemba district, Dodoma region, central Tanzania.

Preliminary analysis of the artefacts indicates a Later Stone Age lithic technology mainly using glassy quartz raw material in the production of artefacts such as small flakes and blades. A unidirectional flaking technique seems to have been favoured in the production. Flakes and blades were produced from pyramidal with double or single platforms and bipolar cores. However, analysis is still ongoing and at the ASAPA 2024 Lesotho conference we intend to present detailed results of this Mangasta Later Stone Age lithic technology and how it compares with other Later Stone Age technological occurrences in Dodoma.

Key words: Later Stone Age, Mangasta, quartz raw material, unidirectional flaking

Renewed survey of the Modder River erosional gullies, Free State, South Africa

Michael B. Toffolo, Felipe Cuartero Monteagudo, Maily Richard, Lloyd Rossouw

The Modder River in the western Free State, South Africa, has been the focus of Quaternary research since the 19th century. Its catchment has produced several archaeological and fossil localities that span the period from the late Middle Pleistocene to the late Holocene, especially within erosional gullies ('dongas') in the river terraces, although many of them remain unexplored and undated. In an effort to compile an archaeological database of the Modder terraces, we undertook

a survey program in June-August 2023 aimed at documenting new archaeological and fossil localities, as well as deep sedimentary sequences that can potentially provide additional chronological pegs for the evolution of the alluvial landscape and its paleoenvironments. Here we present the results of the survey, which help framing the allostratigraphic sequence of the Modder and populate the map of human occupation along its banks.

Key words: Geoarchaeology; Middle Stone Age; South Africa; Modder

Out in the open: Ongoing research at Pleistocene open-air sites in Southern Africa

A brief assessment of the large cutting tools of Wonderboom

René Sielemann, Matthew V. Caruana and Matt G. Lotter

Abstract

Wonderboom is an open-air Stone Age site located in Tshwane Municipality (Gauteng Province) that is nestled in a shallow, quartzitic valley within the Magaliesberg, near the Apies River (Lombard et al., 2021; Lotter et al., 2022; Mason, 1957). According to Mason (1957, 1958, 1969), the site was most likely a result of potential hunting and/or butcher opportunities afforded by to the 'Wonderboompoort' ('poort', erosional gap in Afrikaans), which would have bottlenecked migrating animal herds, allowing potential hunting or meat-harvesting opportunities (Lombard et al., 2021). Tentatively, Wonderboom has been assigned to the 'Later' Acheulean

(Caruana et al., 2023; Lotter et al., 2022; Lombard et al., 2021; Mason 1957), a technological period that is generally characterized by standardized size and shape of Large Cutting Tool (LCT) forms of handaxes, cleavers and knives. The abundance of technological trends of tool types and more specifically of the Wonderboom assemblage could be a result of subsistence strategies i.e., the meat-harvesting opportunities created due to the potential chokepoint by the nearby Wonderboompoort (Caruana, 2022; Lombard et al., 2022). If this were the case, it would infer that there exists some degree of social transmission and complex knowledge among the Wonderboom knappers.

Key words: Open-air, lithics, Earlier Stone Age, Acheulean

Investigating the sedimentological context of dune and pan sediments from the Kgalagadi, Botswana.

Inèz Faul, Taylor Grandfield, Stefan Dreibrodt, Sarah Mothulatshipi, Phillip Segadika, Christopher Green, Marine Frouin and Michaela Ecker

Abstract

The Kalahari is a semi-arid region in the southern African interior that was historically considered devoid of archaeological evidence. During the 20th century, it was assumed that the climate was too inhospitable for early human groups. However, recent research from the Kalahari, in South Africa, challenges this notion, suggesting that the Pleistocene was potentially wetter than the present. Surveys and excavations conducted in 2022 and 2023 in the Kgalagadi District

near the town of Tsabong (Botswana) have revealed a plethora of archaeological evidence spanning multiple periods.

Despite its predominantly flat terrain, the region features distinctive geomorphological features, including pans (seasonal waterbodies), lunette dunes, and quartzite hills. The primary focus of this research is on the pans and their associated lunette dunes, aiming to unravel the relationship between these features and understand the mechanisms that contributed to sediment deposition. Calcrete formations are prominent inside the pans and are associated with moisture deficits. Previous research suggests that dunes are likely deflated pan sediment, which likely formed as drying intensified. Geoarchaeological methodology including loss-on-ignition (LOI), particle size by laser diffraction (Mastersizer 2000), portable energy dispersive X-ray fluorescence (p-ed XRF), X-ray powder diffraction (XRD), and microfossil analysis were applied to 45 sediment samples. Optically Stimulated Luminescence (OSL) analysis, conducted on select samples, suggests that the deposition of sediment from below the modern pan floor at Maralaleng Pan dates to MIS 5. Ostracod and diatom taxa are indicative of a water body that was brackish to saline. XRD and XRF confirm the presence of quartz as a dominant component in the samples. XRD indicates that calcite is an abundant mineral, especially in calcrete profiles. Particle sizes of pan sediments reveal a combination of aeolian, runoff and bioturbation processes. This research contributes to

the understanding of sedimentary contexts of archaeological sites in the under-researched interior.

Key words: Kalahari, Kgalagadi, Semi-arid, Geoarchaeology

Insights from a comparative analysis of pollen and phytoliths collected from dung from Shashe-Limpopo Confluence Area archaeological sites (South Africa), dating between 1000 and 1220 AD.

Tanya Hattingh, Frank H. Neumann, Sinethemba Mvelase and Alex (M.H.) Schoeman

Abstract

Cattle dung is in ample supply at archaeological sites in southern Africa that date to the last two thousand years. These include open air sites such as Broederstroom, Ndondonwane, Schroda, K2, Pont Drift, Den Staat, and Bosutswe, and shelters such as Historic cave, and Little Muck. This abundant resource has the potential to aid understanding of the resource management strategies employed by precolonial farmers because micro-botanical remains, including pollen, phytoliths and dung spherulites, from animal dung is useful in environmental reconstruction, as well as research on settlement layout, animal diet/health, and building construction at archaeological sites.

Our study expands on this research by investigating the phytoliths and pollen extracted from cattle dung from ten archaeological sites in the semi-arid Shashe-Limpopo Confluence Area (SLCA; dated between AD 1000 and

1220) to gain a better understanding of the animals' diets and the local/regional vegetation. Our data shows that during the sites' occupation cattle mainly grazed on C4 grasses. This differs from the pollen signature, which has a stronger signature of the vegetation immediately surrounding the sites. The grazing capacity in the SLCA is limited, but there is little evidence that the cattle ate tree foliage. *Tribulus* and Cyperaceae pollen, however, were common in samples from three of the sites, which could indicate utilization of additional grazing resources.

Key words: Phytoliths, Pollen, Shashe-Limpopo Confluence Area, Cattle dung

Later Stone Age rock art and cultural palaeogeography. A comparative techno-stylistic study of human depiction in Matobo (Zimbabwe) and the Daureb/Brandberg (Namibia)

Clémentine Bourbiaux & Camille Bourdier

Abstract

The Matobo massif (Zimbabwe) and the Daureb/Brandberg massif (Namibia) are major centres of Later Stone Age hunter-gatherer rock art in southern Africa, classified and listed by UNESCO respectively. The traditional accepted chronology for pictorial activity is 13 000 – 2 000 BP for the Matobo Hills and 6 000 - 2 000 BP for the Daured/Brandberg. Situated at the northern edge of this area, they are 1450 km apart and separated by the particularly arid Kalahari Desert.

Since the 1980's, they've been defined as belonging to different stylistic regions (Lewis-Williams, 1983). However, multiple thematic, technical and formal similarities have also been stated since the beginning of the 20th century (Breuil, 1948 ; 1966 ; Willcox, 1984). The iconographic connections between the two massifs make up the core of a starting PhD research whose objective is to better characterised, qualified and quantified continuities and discontinuities in the human depiction. Beyond, the ambition is to make a broader contribution to the issue of the cultural geography of LSA hunter-gatherer populations in Southern Africa and its spatial dynamics. To approach this question, a comparative techno-stylistic analysis of the human figures of these two regions will be carried out using a specifically developed analytical grid.

Key words: rock art, Later Stone Age, Matoba, Daureb/Brandberg, cultural palaeogeography, stylistic analysis

A comparative analysis of Later Acheulean lithic production strategies from Cave of Hearths, Canteen Kopje and Amanzi Springs, South Africa

Kelita Shadrach, Sarah Wurz, Matthew Caruana and Dominic Stratford

Abstract

The end of the Earlier Stone Age (ESA) signifies a precursor of specific adaptations that characterise the Middle Stone Age. Investigating the end of the Acheulean provides insight into the nature and timing of cultural changes at the end of the ESA – linking to the roots of modern human origins. Three different regions, and

thus three different assemblages, are evaluated. These pertain to the north, central interior, and south regions of South Africa. A comparative study of reduction intensities and strategies through diacritical lithic analyses was applied to Later Acheulean assemblages from the near-coastal site of Amanzi Springs in the Eastern Cape Province, and the inland sites of Cave of Hearths, Limpopo Province, and Canteen Kopje, Northern Cape Province. Furthermore, a comparison with established inland Acheulean studies is conducted as a means of better understanding regional Acheulean technological practices on the broader palaeo-landscape.

Currently trends in manufacturing practices at Cave of Hearths show that large cutting tools (LCTs) are shaped primarily using multi-directional strategies. There is a predominance of cleavers, that are made on large flakes specifically. The edges of LCTs are managed through a combination of alternating and continuous bifacial shaping. Overall, the LCT shaping, and manufacture of stone tools suggest there is an intensive LCT production, with a focus on large flake production as blanks for cleavers. The core component includes chopper cores, discoid/discoidal, single platform, polyhedron and irregular polyhedron cores. Whilst there are other raw material types that make up the remaining assemblage, quartzite was the most preferred and well-preserved raw material, sourced from the landscape. Amanzi Spring lithic and Canteen Kopje analysis is currently being completed. Comparisons between these collections have the potential to provide insight into local

manufacturing techniques that might be adapted to specific raw materials, environmental pressures, cultural transmission – to name a few examples. This can provide an understanding of the existence of regional social traditions of toolmaking, suggesting that perhaps the Later Acheulean in South Africa is more sophisticated in behaviour than previously considered.

Key words: Modern Human Origins; Acheulean; Coastal Platform; lithic reduction intensity; lithic reduction strategy; Amanzi Springs; Cave of Hearths.

Maritime Cultural Heritage research and sustainability in Africa: Towards transformative engagement

Proposed classification of the Quirimbas archipelago as a UNESCO mixed world heritage site: benefits for the coastal community

Arti Ramesse Chandra Macshaw

Abstract

The renown of the Quirimbas Archipelago, located in the north of Mozambique, in the Province of Cabo Delgado, as a cultural and natural heritage forms the basis of this study. This archipelago adequately incorporates tangible and intangible attributes. To extract the Outstanding Universal Value (OUV) of the Quirimbas archipelago, the general and complementary criteria are discussed in this work. The verification of these criteria allows for the formulation of a proposal aimed at the classification of the archipelago as a UNESCO mixed world heritage site. In

this sense, the basis of comparison used from the VUE is Ibiza, which is part of Biodiversity and Culture, from Spain and the Old Town of Lamu, from Kenya, as they are both World Heritage Properties. The study also discusses the potential connection with the Rising from the Depths Network, funded by the UK Arts and Humanities Council, which aims to utilise the marine heritage of Mozambique, Tanzania, Kenya and Madagascar for the benefit of communities living on the coast.

Key words: Classification, Outstanding Universal Value, Mixed Heritage, UNESCO, Coastal community.

New approaches to protect endangered maritime and underwater heritage in Mozambique Island

César Mahumane

Abstract

The end of commercially oriented activity towards Maritime and Underwater Cultural Heritage in Mozambique Island opened the opportunity to fully assess what can still be researched and plan strategies to effectively protect this heritage following the UNESCO best practices proposed on the 2001 Convention and its Annex. Over the last ten years, some steps forward have been given regarding the research, protection strategies, mitigation measures to stabilize endangered sites. This paper highlights some of the major activities developed in Mozambique Island over the last ten years in terms of strategies to effectively protect the Maritime and Underwater Cultural Heritage,

community engagement, sustainability, and professionalisation of the discipline. These activities have been undertaken by the Department of Archaeology and Anthropology, the Center of Archaeology, Research and Resources of Mozambique Island in collaboration with local communities and international partners.

Key words: MUCH, protection, sustainability, community engagement, institutions.

Ethnoarchaeological investigation at Later Iron Age site of Sancul

Celso Simbine

Abstract

This paper aims to present and discuss the preliminary results of ethnographic research and archaeological excavation carried out at the Sancul site between 2023 and 2024, as part of my ongoing PhD Programme. Sancul is a coastal site in the Indian Ocean, located in the southwest area of Mozambique Island on the mainland. The investigation of Sancul is focused on revealing cultural sequences and material culture of the past and present-day Swahili community in the area. The excavation recovered local ceramic and exotic goods that showed an occupation sequence between circa A.D. 1500 and A.D. 1900. The analysis of stratigraphic features, local ceramic, exotic goods, historical sources, and ethnographic data was a determinate key to understanding continuity and discontinuity in maritime culture and land use history of Sancul. Preliminary results suggest a strong local cultural

continuity with low import of exotic goods.

Key words: Sancul, Mozambique Island, Local ceramic, Swahili culture, Land use history

An explorative study of participants' perceptions in the 'Places in Me' photovoice exhibition, in Platfontein, Northern Cape

Curtis Jeven

Abstract

Photovoice is a method in which people utilise video and/or photography to document important environmental and social concerns to foster social change, develop a mindset of critical consciousness, and reach policy makers. This research explored the experiences of nine !Xun and Khwe participants that were involved in the 2023 'Places in me' photovoice exhibition displayed in Platfontein, Northern Cape. In 2022, Cosmo-Art partnered with two local NGOs, Southern African San Development Organisation and SAN Community Development, providing a platform for the youth of Platfontein to identify and reflect on issues through photography and citations that they perceive as important and different. The project aimed to make visible the perspectives of Platfontein's youth by means of participants identifying issues of beauty, aspirations, suffering, disappointments and shifting identities. This dissertation adopted the concept of participatory action research using qualitative semi-structured interviews to attempt to document the personal perceptions and viewpoints of the

participants. The analysis and findings from this thesis show that photovoice is an intriguing approach to challenge conventional research, more specifically to document and represent marginalised communities such as the !Xun and Khwe of Platfontein. This is evidenced by the responses from participants in view of the themes discovered by interpreting thematic content analysis.

Key words: Photovoice, Participatory Action Research, !Xun and Khwe, Platfontein, Cosmo-Art, Southern African San Development Organisation, San community development, conventional research

Food and diet in the Southern Mozambique Coast: Developing intangible heritage in the context of the Chongoene Archaeological and Biocultural Heritage Park

Énio Tembe, Solange Macamo, Sidónio Matusse and Arti Chandra

Centred on the Rising from the Depths goals, this paper presents the rich variety of food and diet from the Southern Mozambique Coast, as a category of the Marine Cultural Heritage which is associated with the intangible values. It is argued that this heritage is at risk of disappearing due to rapid development in the area, particularly in Chongoene and Xai-Xai. If properly preserved and valued it can contribute to the business development among the local communities through cultural industries. Therefore, different elements of food and diet developed at local level can also contribute to

creating harmony and social cohesion among people. To demonstrate this, the paper first identifies the main food of the area, through interviews with the local community in Chongoene and Xai-Xai. This approach is aimed at safeguarding the threatened intangible heritage, using food and diet in Chongoene and Xai-Xai, within the overall context of the Southern Mozambique Coast. The result of this study is to encourage an academic discussion around local food through cultural industries connected to the Chongoene Archaeological and Biocultural Heritage Park

Key words: food, dietary, Chongoene and Xai-Xai, cultural industries, business, intangible heritage, Southern Mozambique Coast, cultural industries

Assessing conservation status of archaeological and heritage objects such as shipwrecks through photographic change analysis.

Eliot Mowa

Abstract

Namibia is rich in maritime and underwater cultural heritage that historically, has not been fully comprehended and studied fully, the result is neglect of some of the famous and popular shipwrecks along the Namib Desert coast. This paper investigates the conservation status of some of these shipwrecks along the Namibian coast, especially onshore shipwrecks that are exposed to weather elements and human elements. What is their conservation status, through innovative ways using photographic analysis a cheaper and



sustainable methods, I demonstrate how it can become an effective tool in analysing difficult to access archaeological sites and object; This study thus uses the Eduard Bohlen shipwreck to demonstrate how such a method can and is not only cheaper but effective in determining physical decay.

South African Maritime and Underwater Cultural Heritage Management in Practice: The Miles Barton pre disturbance permit application.

Shawn Berry

Abstract

In March 2022 an application for a pre-disturbance permit to locate and identify the wreck of the Miles Barton that foundered in 1861 was made to the Maritime and Underwater Cultural Heritage (MUCH) unit of the South African Heritage Resource Agency (SAHRA) in accordance with the provisions of section 35 of the National Heritage Resources Act, 1999 (NHRA). The application was declined and subsequently resulted in the first appeal of its kind to the Minister of the Department of Sport Art and Culture (DSAC). The appeals that followed brought into focus the real-world application of South Africa’s heritage legislation when applied to MUCH. The permit application and subsequent appeals are presented in the form of a case study that focusses on the various role players who are tasked with managing and protecting South Africa’s National estate and their application of the NHRA and the

UNESCO Convention on the protection of Underwater Cultural Heritage.

Key words: Heritage Management. Maritime and Underwater Cultural Heritage. National Estate. Heritage legislation

Hunter-gatherer archaeology [still] matters: a session in honour of Peter Mitchell

Twenty years on and still at risk: reflections on Peter Mitchell’s renaissance and renewal, and why Later Stone Age archaeology still matters

Tim Forssman

Abstract

Nearly twenty years ago Peter Mitchell provided a compelling call to archaeologists studying hunter-gatherers and the Later Stone Age in his ‘personal perspective on renaissance and renewal’. He was worried about the position of Later Stone Age studies within the broader discipline and saw the field standing at a crossroads where it needed to make the correct strides to ensure it was not marginalised. It was important to avoid this due to the field’s global significance and its connection between past forager societies and their many descendants alive today. Mitchell provided a series of poignant insights into the Later Stone Age, and more specifically regarding the direction it might profitably head. He identified three key themes: expanding ethnographic studies, securing the relationship between

social relations and excavated evidence, and relating rock art to excavated sequences and chronologies. How have we fared over the last two decades? In this paper I use Mitchell's thoughtful examination of hunter-gatherer archaeology and his insights into future trends as a starting point, and I track Later Stone Age research as it met and navigated the crossroads that he identified in 2005. From this vantage I ask if we are addressing his key themes productively and engagingly, and what others might we consider as we move forward. To conclude, I argue from my own viewpoint that Later Stone Age research might not yet have fully escaped marginalisation, and still needs the invigoration Mitchell pled for.

The writing on the wall: identifying terminal expressions of hunter-gatherer identity in the secondary epigraphy of the Maloti-Drakensberg

Andrew Skinner and Sam Challis

Abstract

Recent genetic, linguistic and ethnoarchaeological investigations challenge essentialised notions of 'Bushman' identity, particularly as it came to be expressed in historical contexts. This research suggests that rather than destruction or expulsion, the later histories of the Maloti San are characterised by social adaptation, admixture, and transition into the ancestry of contemporary communities who may not identify as such. While image making practice may appear to have reached the same

hiatus that San identities have, we describe a continuation in the secondary epigraphy – the 'graffiti' – that otherwise appears to be idle defacement of valuable artefacts. Not excluding that vandalism does threaten the broader corpus, we argue that it is possible to recognise expressions of (re)connection, continuity, and commentary in a parallel tradition that largely rests atop what is typically recognised as more authentic practices. In this, we believe rock art research is presented with a valuable opportunity for inclusive practice; communities with significant San inheritance are indicating their understanding of the images they amend, and their actions can be rendered intelligible. They deploy a specific visual literacy, reproducing and reconfiguring existing motifs, often in simple pigments or superficial engravings, notably amending older symbols of influence and power, such as eland, into others more pertinent to their moments, such as horses and snakes. By examining and typologizing these latter-day contributions to the imagistic archive, and integrating contemporary ethnographic materials, we identify the terminal expressions of the same identities responsible for the bulk of regional rock art, and allow the images to speak on their own terms, as commentaries on art which is the subject of our common interest.

An investigation of OES Bead size variability and the introduction of cup data and analysis

Nicola Wells

Abstract

Ostrich Eggshell (OES) beads have long been a part of the archaeological record in southern Africa, dating back to roughly 40,000 years ago. Research into OES beads and in particular analysis of their size variability dates back to 1982 (Plug) at Bushman Rock Shelter. This was followed by the work of Jacobson (1987) who argued hunter-gatherers and herders could be tied to sites based on the size of beads found there, ie. Small beads were linked to hunter-gatherers and larger beads to herders. This argument was then used by Smith et al (1991, 2001) and Sadr et al (2003) with regards to sites in the Western and Northern Cape. Smith et al (1991, 2001) made note of the size barrier ($\pm 5\text{mm}$) which would indicate that beads smaller than this were to be associated with hunter-gatherers and larger than this were associated with herders.

There has been critique of this argument (Wilmsen, 2015) and the idea then emerged that one could not necessarily use OES bead size as a single point of evidence for hunter-gatherer or herder occupation as in some instances small beads could be found amongst larger beads and it might not be as definitive as previously imagined. Researchers have since moved away from OES bead size analysis in favour of other means of analysis such as strontium isotopes (Stewart et al, 2020) and pigments and residues (Dayet et al, 2017 & Collins et al, 2020). However, most still include bead measurements in this research as well but not as the main focus.

My research has looked at an analysis of bead size variability across the Western Cape over time to determine if there are patterns of size which

emerge at certain sites. In addition to this I have introduced a new measurement based on the work of

Werner & Miller (2018) which focuses on the analysis of bead “cups” and their variability which could be tied to different manufacture processes and wear. I believe there is still value to OES bead measurements as there could be greater variability in size than previously thought which has already been indicated by Collins et al (2020) in the Eastern Cape. Additionally, cup data could reveal new insights into understanding the manufacture process of beads as well as how use-wear could affect them.

Key words: Ostrich Eggshell Beads, Hunter-gatherer and herder, Western Cape, Bead manufacture and Size variability

Inside tradition: remembering time and place in hunter-gatherer archaeology
Charles Arthur

Abstract

This paper argues that hunter-gatherer archaeology matters because of the unparalleled opportunity it provides for exploring connections between radically different time scales of human action in single locations, allowing archaeologists a window into the past that no other discipline has. Being able to study long term traditions in specific times and places, we can begin to understand how they worked and think about the social role they may have played. Using the early Holocene of western Lesotho as a starting point, but also drawing on the concepts of respect and remembrance

practices within southern African and global ethnographies, it is proposed that at times persistent places such as rockshelters became strongly associated with certain kinds of practices and that the material residues of past action were a key part of this. In this way place and tradition became one and acted as a stabilising force within otherwise fluid socio-material worlds.

Key words: hunter-gatherers, Lesotho, time, place, practice

A hidden ochre treasure chest? Analysis of a Holocene ochre cache at Steenbokfontein, Western Cape, South Africa

Tammy Hodgskiss and Antonietta Jerardino

Abstract

Steenbokfontein Cave is located between Lambert's Bay and Eland's Bay on the Western Cape coast of South Africa. Archaeological research at the cave has contributed to the understanding of dietary, subsistence and settlement changes of hunting and gathering groups during the Holocene, showing intensified occupation and marked subsistence shifts between 3000 and 2000 BP. Steenbokfontein was visited regularly, and the lithic assemblage, faunal remains, ostrich eggshell beads, ochre and hearth densities are evidence that the cave was frequently used as a home base and likely as an aggregation site in the third millennium BP. The site is rich in ochre nodules, of various geological types, as well as grindstones with ochre residues. The study of the ochre and

other pigments of this site is the first of its kind among Holocene coastal sites from the central west coast.

An ochre cache was uncovered at the back of the cave in layers dated between 3990 and 4620 BP. The cache consists of ~200 pieces of ochre laid among plant fibers. Differences in raw material, colour and use-traces between the ochre in the cache and the ochre in the occupational layers can inform us on the possible function of the cache. Whether the pieces were collected to be used later but then forgotten, or the cache formed part of a ritual behavior, are considered in our interpretations. Characterizing the ochre and other pigments found in the various layers would also expand interpretations of site use patterns over time. This includes social interactions, increased/decreased social gatherings as well as ritual activities. The results of this analysis are then placed into the context of our understanding of ochre use patterns, and the Holocene socio-economic and settlement changes of the Western Cape coast.

Key words: ochre; Holocene; use-wear; hunter-gatherer; settlement patterns; ritual

Hunter-Gatherers still matter: a predictability model for Gotera open air site, Borana Zone, Ethiopia

Marianna Fusco, Valentina Decembrini
and Enza E. Spinapolice

Abstract

Hunter-gatherers represent an exceedingly valuable model for

understanding the behavioural dynamics of the deep past. However, since the 1990s, there has been a gradual decline in studies on this topic, and the models have progressively become sparser and more linear, or less associated with precise archaeological data. Here, we aim to present a novel model based on hunter-gatherers, particularly focusing on the correlation between stone tool production and seasonal variations, in terms of the difference between maximum winter and summer temperatures. This model, based on real data processed through statistical techniques, reflects the adaptability of hunter-gatherers to seasonal variations and, potentially, their response to the predictability of resources in contexts of micro-climatic variations.

In addition, we will test this model on the Upper Pleistocene occupation of the Gotera area in the Borana Zone of Ethiopia. Gotera is a densely populated site associated with a fluvio-lacustrine environment, featuring repeated, brief, and intense occupations across an area of over two square kilometres. Here, a stratigraphic sequence has been dated to the MIS3, a period particularly characterised by climatic oscillations between arid and wet periods, prompting

distinct human responses to environmental shifts. These responses are evident in the archaeological record through significant technological changes across the entire Horn of Africa region."

Key words: Pleistocene, MSA, Hunter-Gatherers, Africa; Palaeolithic

Results from preliminary excavations at Likonong, Highland Lesotho

Kyra Pazan, Kristin Cimmerer, Joseph Ralimpe, Molopi Matela, Brian A. Stewart, and Andrew S. Carr

Abstract

The Likonong locality preserves a rich Middle Stone Age (MSA) archaeological sequence and is likely the oldest-known site in the southern African highlands. The site's open-air sequence is exposed on the steep slope of a narrow drainage terminating in a shallow shelter. Preliminary excavations began in June and July 2023 with the goals of (1) establishing a chronology, (2) obtaining samples for paleoenvironmental reconstruction, and (3) assessing the suitability of the site for continued excavation. To achieve these goals, we took advantage of the site's unique layout and excavated a vertical transect 50 cm in width through the top two thirds of the sequence. The bottom third was cleaned and sampled, but logistical difficulties required excavations to be postponed to a later field season. The test excavations revealed rich, unmodified lithic assemblages on dolerite (diabase) and hornfels and good bone preservation, particularly in the site's lowest layers. Preliminary results suggest that Likonong was a desirable locale not for its protection against the elements – the adjacent shelter is highly exposed to wind in particular – but perhaps partly for its proximity to high-quality lithic raw

materials. It thus sits in contrast to other MSA rockshelter sites in the Lesotho highlands, which have been treated as residential base camps, and provides insight on the landscape use patterns of the first early modern humans to leave significant archaeological traces in seasonal, montane environment.

Key words: Middle Stone Age, Lesotho highlands

Modelling Middle Stone Age Geospatial Site Relationships and Human Movement in the Lesotho Highlands: Insights into the Utility and Potential for Least Cost Paths Methodologies

Michael Obie

Abstract

Inquiries into human land use within the Lesotho highlands during the Middle Stone Age, represent a means of understanding the earliest human adaptations to high altitudes environments and the development of cultural processes which would later

facilitate human dispersal out of Africa. An understanding of the practicality of human movement throughout the region and the pathways which may have linked major sites (within Lesotho and to the country's surrounding lowlands), will assist greatly in the investigation of local human-environment interaction. This paper represents an initial phase in understanding these spatial relationships through the application of least cost modelling techniques demonstrating the practicality of

moving throughout and out of the unique landscapes of Lesotho. This work should act as a valuable tool in judging the significance of the Lesotho highlands in connecting peoples and resources bases throughout the region, while also producing insight regarding early human adaptations to high altitude, mountain landscapes.

Key words: Middle Stone Age, GIS, Landscape Archaeology

A zooarchaeological perspective on late Pleistocene/early Holocene human behaviour in the Maloti-Drakensberg region, southern Africa: the view from Ha Makotoko and Ntloana Tšoana rock-shelters, Lesotho

Genevieve Dewar, Julia Zastrow, Charles Arthur, and Peter Mitchell

Re-excavation of Ha Makotoko and Ntloana Tšoana rock-shelters in western Lesotho, produced abundant faunal remains from people using the Robberg technocomplex during the late Pleistocene and early Holocene. This faunal material allows us to identify the subsistence strategies they employed, using the unbiased Simpson's evenness index, and Shannon's evenness index to track diet breadth. Detailed analyses of the sites' microfauna indicates that eagle owls and/or small carnivores, not humans were responsible for introducing them into the deposits. A chi-squared test comparing diet breadth across the sites identifies hunting strategy, focused on size 2 and 3 migratory ungulates, supplemented with size 1 and 4 bovinds. Comparing the evenness values from Ha Makotoko and Ntloana

Tšoana to published data from other Robberg-associated sites in the wider Maloti-Drakensberg region (Sehonghong, Rose Cottage Cave and Tloutle) allows variability in subsistence strategies to be addressed. A chi-squared test comparing ungulate size classes, small mammals and fish with the evenness index reveals two important statistical differences: the warm period occupation at Rose Cottage Cave presents a narrow diet heavily focused on size 3 ungulates (with a lack of fish). At the other end of the climate spectrum, cold conditions at Sehonghong immediately before the Last Glacial Maximum were associated with a narrow diet focused on intensive fishing, with lower-than-expected numbers of size 3 ungulates. The deposits at Ntloana Tšoana, Ha Makotoko, and Tloutle, along with the Younger Dryas-associated assemblage from Sehonghong, on the other hand, present broad diets. Fish and small mammals make more of a contribution to the expanding diet in the highlands. Our approach demonstrates the flexibility that makers of Robberg tools displayed in adapting to the changing climatic and ecological conditions of this high-elevation region in the interior of southern Africa during Marine Isotope Stage 2 and across the Pleistocene/Holocene transition.

Key words: Robberg technocomplex, faunal analysis, Later Stone Age, Late Pleistocene, early Holocene, Maloti-Drakensberg region, southern Africa

Rock art and the mattering of matter

Larissa Snow

Abstract

The year is 2008 and I am a hopeful undergrad applicant at a university open day listening to Peter Mitchell give an introductory lecture on the rock art of southern Africa's indigenous hunter-gatherers. I am hooked instantly. The weaving together of ethnography and visual imagery is like deciphering an ancient text; strands of evidence are pieced together until enough amass to get the picture about the picture. Aha! We have arrived at a meaning! And moreover, we know what it meant to the people that made it! But, what if art is not primarily a matter of meaning at all, but a mattering of matter. Hunter-gatherer studies from diverse corners of the world have shown it is wrong to differentiate prematurely between organic and non-organic life; between nature and culture; subject and object; human, non-human and thing. Objects and their constituent materials are far from inert and form part of the more-than-human assemblages that comprise peoples' social world. As we continue to supplant analysis of hunter-gatherer cosmology with ontological enquiries, notions of the visual semantics of rock art is replaced with ideas of action, agency, substance, transformation and personhood. Through examining material substances and processes involved in the creation of rock art, it becomes clear the paintings not only affirm the status of non-human persons, but are social beings themselves. And, provided people

acted with appropriate niceties, rock art may have democratised interventions and access to beings usually encountered by the transcendent shaman.

David S. G. Thomas

Abstract

Despite pointers to the contrary from excavations and archaeo-anthropological investigations at #Gi, northern Botswana, in the 1980s¹, southern African MSA research has been dominated by what might crudely be termed avoidance theory: an assumption that the interior was avoided after ~130ka due to regional dryness, underpinned by a common avoidance of systematic research in the region to test that assumption. Yet we know, from sites through Africa, the Levant, Arabia and beyond, that the climatically- and environmentally-dynamic late Quaternary saw an intensity of apparently complex behaviours and adaptations to a plethora of environmental contexts.

Here it is argued that the Kalahari, at the heart of southern Africa, was not necessarily on the edge of opportunity or desirability, even when dry. This is based on a body of emerging multidisciplinary data², with 230+ new open-air stone age sites mapped in the Middle Kalahari, over 150 of which are

Hunting for evidence to fill the hole at the centre of Middle Stone Age adaptation narratives: A perspective from the desert

Key words: Rock art, ontology, materiality, personhood

MSA. Importantly, almost 100 of these are not from riparian contexts, but from the surface of the Makgadikgadi salt pans, the majority many km from the basin edge, preserved and revealed by geomorphological changes. Excavation of 5 MSA pan-floor sites, with high spatial integrity and robust chronometric control, reveals systematic mobility in the landscape and purposeful use of the basin (preferential carrying of lithic raw materials over 50 km from selected sources, with on-site tool manufacture at single-use sites), during hydrologically dry conditions between ~84-60 ka. Furthermore, many (thousands?) of sites are yet to be recorded and investigated.

The emerging picture argues for well-adapted and repeated use of the dry Kalahari interior during at least part of the MSA. Tentatively, this points towards strategic dryland/dry season hunting on the basin floor, involving planned, resourced, movements over extensive areas. This was not an area avoided by MSA people, but a landscape engaged with

Skeletal Signatures of Hybridization in the Hominin Skeleton: A Case Study of the Hands and Feet of Chinese-Indian Hybrid Rhesus Macaques

Kelly-Anne Shaw and Rebecca R. Ackermann

Abstract

Recent genomic evidence has shown that there was significant admixture between hominin lineages, the most extensively documented case being that of *Homo sapiens* and Neanderthals. There remains a need to quantify the effects that hybridization may have on the skeleton because there are numerous hominin taxa for which we have no genetic material, limiting our ability to detect hybridization between them. This study examines the effect of hybridization between Indian and Chinese rhesus macaques (*Macaca mulatta*) by comparing the finger and toe length of ten 50:50 hybrid individuals to that of 38 purebreds. Measurements were taken on 3D renders of computed tomography (CT) scans and data analysis was done in RStudio. Male hybrids showed transgressive morphology in that their finger and toe lengths were larger than both purebred groups, while hybrid female finger and toe length tended to be between that of the purebred groups. Mann-Whitney U-tests showed that there was a significant difference between the fifth toe of male hybrids and midpoint between the two purebred groups. The small size of the male hybrid sample affected the significance of the Mann-Whitney U-tests. Kruskal-Wallis tests showed that both female and male hybrids tended to be more like Chinese individuals. The coefficients of variation for toe length in the hybrid sample tended to be mosaic (i.e., varying between fingers and between toes) and there is no indication that hybrid finger and toe length is more or less variable than that of either

purebred group. The results of this study suggest that while female hybrid hominins would likely be close to the midpoint between their parent taxa for finger and toe length, male hybrid hominins are likely to be the most detectable because they may exhibit finger and toe lengths larger than that of their parent taxa.

Key words: Hybridization; Hybrid phenotype; Heterosis; Human evolution; Skeletal morphology; Primate; *Macaca mulatta*

A uniform forager rock art tradition in Southern Africa? Questioning similarities and differences through time and space

Shaded polychrome, unshaded, hard-edged and 'blocked' images of eland in the Stormberg region

David M. Witelson

Abstract

Images of eland antelope are some of the most abundant in the rock paintings of the southeastern mountains of South Africa. Recent research in the Stormberg mountains, which lie to the south-western end of the Drakensberg, shows variation in eland paintings over some 2,500 years within a relatively small geographical area. The variations through time in the way eland are depicted — shaded polychrome, unshaded, hard-edged and 'blocked' — are representative of wider changes visible in the rock art generally. The changes concern differences in painting technique, paint recipes, colour symbolism and the social circumstances in which the images were produced. Attention to

these elements of the eland images reveals subtle variations within some of the broader categories oft-used to describe them.

Key words: rock art, eland, paint, hunter-gatherers, Stormberg

Preservation and conservation of LSA art of Zimbabwe: An elemental comparative analysis of pigments (ochre) from North Eastern and North Western Zimbabwe.

Jonathan Nhunzvi

Abstract

Iron oxides and ochre have long been utilized both historically and contemporarily, with evidence of their usage found in archaeological and ethnographic contexts across Zimbabwe. Despite this widespread use, there remains a lack of

understanding regarding the variability in colour, texture, motifs, and the significance of ochre exploitation, particularly within the Late Stone Age (LSA) sites of Zimbabwe. This study focuses on Late Stone Age sites in North-eastern and Western Zimbabwe as ideal locations to explore the elemental composition and sourcing of ochre or pigments within the region. By examining variability in colour, texture, motifs, and execution techniques, we aim to determine if similar variability exists in the elemental components of the pigments used. Understanding such variability is crucial for implementing effective preservation and conservation techniques tailored to sites with differing elemental

compositions. Methodologically, this research will employ field surveys and site documentation, including photography and site recording forms to record newly discovered rock art sites in the regions under study. Additionally, macroscopic and microscopic analyses, including X-ray Fluorescence (XRF) and portable X-ray Fluorescence (pXRF), will be utilized to identify elemental components within pigment samples, sampled during surveys.

Key words: Preservation, Conservation, Late Stone Age, pigments.

Contact and Cattle: Understanding Rock Art Representations of Cattle in Maclear, Maloti-Drakensberg Mountains, South Africa.

Frances Munro

The Maloti-Drakensberg region is of unique importance to rock art research and interpretation, containing a high density of domestic faunal representations. Within the Maloti-Drakensberg study area lies a large region known as 'Nomansland' (by the former colonial administration) and has evidence of hunter-gatherer occupation from at least 22 000 years ago (Opperman & Heydenrych 1990). The Maclear District, as a smaller study area in 'Nomansland', has some 300 recorded sites and is considered a major centre for interpretative rock art research (Bonneau *et al.* 2017). The majority of research coming-out of the area focuses on the mid-to-late first millennium AD and nineteenth century hunter-gatherers (King *et al.* 2018). Recent research has highlighted the

importance of rock art representations in the second millennium AD with particular interest in the role of domestic animals in changing San lifeways during contact in the Later Stone Age (Bonneau *et al.* 2017; King *et al.* 2018). The objective of this study is to focus research on cattle depictions in the Maclear District of the Maloti-Drakensberg region to potentially engage with changing social identities. Consequently, the project has attempted to identify and record all known sites of cattle depictions within the Maclear District. Building on recent research (Challis 2012; King *et al.* 2018), our concern lies with examining how hunter-gatherer and early agripastoralist contact is expressed through representations of cattle. These representations provide a potential glimpse into the hunter-gatherer lifeways and the forging of new identities at the time of the Little Ice Age (c. 1500-1800) (Blundell 2004; Mallen 2008; Challis 2012, 2014, 2016; King *et al.* 2018).

Key Words: Rock Art, Contact, Domestic, Cattle, Maclear, Maloti-Drakensberg, Hunter-gatherer, Changing Lifeways, Agripastoralist

Understanding Late Stone Age painting technology at Pomongwe Cave, Matobo, Zimbabwe: an archaeological, ethnographic and experimental approach

Welcome Takunda Chigwende, Tammy Hodgskiss and Camille Bourdier

The rock art of Southern Africa has been a subject of extensive research since the early 20th century, with a

focus on chronology, meaning, and ritual contexts. The region benefits from a rich ethnographic record of hunter-gatherer populations, which has revealed connections between past societies and the archaeological material culture. The iconography of rock art has been linked to the spiritual and ritual practices of the San hunter-gatherers through similarities in myths, stories, and motifs. The technology of rock paintings is partially identified, mainly through the composition of pigments and the techniques used to process them. We still do not have a full understanding of the paint recipes and application processes (tools and technical gestures) employed to create the art. Despite the challenges of preservation and identification in the archaeological record, Southern Africa's rock art provides a valuable research field due to its extensive ethnographic and ethno-historical documentation. This presentation will discuss the multidisciplinary methodological approach employed to study the rock painting technology at Pomongwe Cave in Zimbabwe, within the framework of the MATOBART program. The rock paintings and the painted spalls found in the archaeological layers exhibit visual diversity in paint colour, thickness and texture, suggesting variations in paint recipes and application techniques - showing variations in painting technology development. In addition to the physico-chemical characterization of the rock paintings and painted spalls, painting-related archaeological material excavated from the site by C. Cooke (1960-1961) and N. Walker (1980) will be examined. This includes tools with

coloured residues, such as grinding stones and palettes, and the large quantity of ochre pieces found throughout the archaeosequence. This interdisciplinary approach combines art history, archaeology, ethnography, chemistry and experimentation to address these research questions, with a focus on integrating data from rock paintings, archaeological finds, and regional ethnography in the development of an experimental protocol.

Key-words: paint technology, prehistory, hunter-gatherers, ethnography and Zimbabwe

Diverse performances on a shared stage: rock art of the Waterberg.

Ghilraen Laue and Lyn Wadley

Abstract

The rock art of the Waterberg is largely unstudied and unpublished. The excavated evidence suggests that Later Stone Age hunter-gatherers only began to occupy the Waterberg Plateau regularly in the last 1000 years, and their arrival coincided with that of Iron Age farmers. The long period of interaction between the two groups, neither of whom qualified as 'First People', may have resulted in mutual understanding of cultural mores and belief systems. To some extent, each group may have influenced the rituals of the other. Distinctive fine-line imagery made by the ancestors of the Bushman, and finger-painted white images linked to initiation in Iron Age farmer communities, are sometimes found side-by-side in rock shelters close to water. The fine-line Waterberg rock art

lacks the distinctive depictions of healing rituals seen in the Maloti-Drakensberg and surrounding areas, yet the painted performances are clearly based on altered states of consciousness. In this paper we draw on data- from over 100 sites that we studied, together with Kalahari Bushman ethnography. We conclude that Bushman art in the Waterberg deals with a broad spectrum of Bushman ritual activity that includes initiation and working with rain.

Key words: Waterberg, Bushman, rock art, Iron Age farmers, altered states of consciousness, ethnography

Elephants in the hunter-gatherer rock art of Mpumalanga and eSwatini

Mduduzi I. Maseko

Abstract

Hunter-gatherer rock art in South Africa's Mpumalanga Province and in eSwatini receives little attention than do most areas in southern Africa. In this presentation, we report on recent fieldwork in these areas. Particular focus is on images of elephants and elephant-like creatures from several sites which we discuss. Our discussion rests on five themes which are depicted in the rock paintings at these sites: (i) disproportionately large elephants; (ii) elephants and people; (iii) elephant behaviour/elephants as people; (iv) elephants and therianthropes; and (v) elephant-like creatures. We suggest that thinking of the images from within these evident themes allows insight into the meaning of the images to the people who made and viewed them.



Key words: hunter-gatherer rock art; elephants; Mpumalanga; eSwatini.

Key words: Style, Rock art, Namibia, Regionality, praxis

Traces of the body: a stylistic analysis of the human figure in the Erongo Region, Namibia.

Investigating paintings of bags from selected sites in the Cederberg

Dr Lourenço Pinto

Juliette Lily Rabie

Abstract

Researchers of southern African rock art have argued for the importance of style in producing visual histories or histories of image-making. For many, style has been inferred inaccurately by reference to subject matter or iconographic features, which to a large extent have excluded consideration of artistic praxis (ways of doing). This paper reviews past approaches to style and discusses past problems with the use and applicability of style in understanding forager rock art in southern Africa, with a focus on Namibia. By using regionality as a methodology, it is possible to discern cultural and geographic variability of a stylistic convention by identifying patterns and meaning particular to a given area using methods, such as superimpositioning and contextual analyses, to establish temporal and cultural diversity, regionalisation and boundedness of past communities. From a preliminary analysis of several painted rock art sites in the Erongo Region, specific images of the human figure were identified, where it was observed that specific conventions in the ways of depicting the stylised human body (e.g., tracing the body outline with deliberate repeated straight and curved lines) could be linked to different regions and stylistic conventions across time and space.

Although paintings of bags are prominent in South African rock art, they are largely under researched. The little research that has been undertaken shows that bags not only play an important role in the everyday life of San hunter gatherers, but also have symbolic and spiritual associations. To address the gap, I recorded and analysed paintings of bags in a selection of rock art sites from the Cederberg region of the south Western Cape of South Africa. I also recorded the anthropologically collected bags housed at the Iziko Southern African Museum, which aided in the identification of bag shapes and types depicted in the paintings. I documented standardised styles of bags depicted in the paintings, which I have categorised as fig-shaped, rounded, triangular and indeterminate. A thorough analysis of the written literature about San bags with the Iziko collection of bags helped to establish the categories in the shapes, uses and gendering of bags. Equally important for my study was the foundational interpretations of bags in the paintings established by other researchers. Significantly, paintings of bags are predominantly associated with men. The rounded bags are sometimes associated with women. This emphasis on male identity may highlight hunters and their close relationships with antelope, and in women, their important

contribution through gathering plant food. Paintings of stand-alone bags are associated with both men and women which may emphasise their unity in bag production and their entangled relations with antelope. Bags are closely associated with the potency of the antelope from which they are made in the leather and the scent of the bag. Potency is used in transformation and transition rituals linking the human, bag and antelope. In addition, bags are an important part of gathering which brings focus to plants. These links between humans, antelope and plants in their natural environment emphasise San relational ontologies with the bag acting as a connection of these beliefs. These findings have important implications for further research which can test the associations of bags and related patterning in sites in the Western Cape, and compare them with those further afield.

Key words: Bags – Potency – Leather – Relational ontologies – Gender – Ethnographic record – San rock paintings – Cederberg – Western Cape – South Africa

Nets or not? Identifying LSA rock paintings of reticulate forms in the Kouga Mountains, Eastern Cape Province, South Africa

Jeremy Hollmann

Abstract

The corpus of southern African LSA rock art (or San/Bushman/hunter-gatherer art) follows broad conventions across the subcontinent. San/Bushman ethnography is used to identify

recurrent themes and metaphors, such as hunting, dance, powerful animals, death and transformation. In certain cases, however, painted subjects receive scant mention in the ethnography. Is it possible to identify these without misunderstanding their implicit meanings? Paintings of reticulate forms in the Kouga Mountains of the Eastern Cape reawaken this debate in southern African rock art research. Although it is less secure to infer practices and items of material culture based almost entirely on their depiction in rock art, it is argued here that some inferences are safer than others. The reticulate forms and their overall painted context comprise a narrative based on hunting practices that involve the use of nets in which to capture animals. However, the paintings are not illustrations of hunting techniques: they are informed by the same tropes and concerns that have been detected in southern African LSA rock art more generally. It is to be expected that depictions of other subjects and practices not mentioned in any ethnographic records will likewise incorporate both real and metaphorical elements.

Key words: traps, eland, hartebeest, lions, spider webs, hunting nets, San/Bushman ethnography.

Investigating differentiations in forager rock paintings of the Maloti-Drakensberg and Stormberg

Dawn Green

Abstract

Uniformity and diversity are interesting issues in forager rock art because of the insights these studies can provide about shared and singular notions of identity and personhood in spacetime. It is important to define what uniformity and diversity are, in painted subject matter, technique and context, and whether these types of distinctions or binaries are useful. Research has shown that forager personhood is relational and dependent on the intra-actions of human and more-than-human persons. Thus, the specific painted contexts of human and more-than-human persons must be investigated to ascertain the patterning in specific areas, and how this patterning may differ in adjacent areas. If differences are identified, these variances may be evidence for image makers marking identities differently from other image makers in adjacent areas, whether concurrent or over time – a type of discontinuous-continuous. In addition, a specific landscape marking where identities are relationally entangled inside-outside. I grapple with these subjects in my research on forager paintings in the central and southern Maloti-Drakensberg and adjacent northeastern Stormberg. In doing so, I use qualitative and quantitative methods and am inspired by the diffractive methodologies used in feminist performative materialisms where separability is not a given. I report on some of the results from these comparative analyses which show variances in depictions of human and more-than-human persons and their painted contexts. I hope to inspire more similar research that uses quantitative methods to enable a

deeper appreciation of how forager personhood is depicted. I also hope to encourage more collaboration between archaeologists working in southern African rock art archaeology because of the potential for how our joint expertise with our varied results can further our understanding of the purpose and multiplexity of forager rock paintings.

Key words: feminist performative materialisms; forager rock art; relational ontology; discontinuous-continuous; personhood; identity and landscape marking; intra-active differentiation

Botanical Motifs in Zimbabwean Rock Art and their Significance in Southern African Gatherer Societies.

[Stephen van den Heever](#)

Abstract

This paper investigates the botanical motifs in hunter-gatherer rock art found in Zimbabwe, analysing regional variations in subject matter and context. Despite the absence of ethnographic material specific to Zimbabwe, various independent sources of ethnography from southern Africa reveal significant parallels with Zimbabwean rock art, thereby enriching our comprehension of its cultural significance. The research particularly focuses on plants, which, I argue, are depicted as symbols facilitating spiritual journeys within the three-tiered cosmos and as intermediaries in interactions between humans and animals associated with rainfall. Analysis of these motifs, informed by ethnographic evidence, the paper offers a nuanced

interpretation of Zimbabwean rock art motifs, highlighting their role in conveying complex belief systems and cultural practices. By synthesising multiple sources of ethnography, the research presents a broader interpretive framework for understanding the botanical motifs in Zimbabwean rock art, thereby contributing to a deeper understanding of the diverse ways in which plants were perceived and utilised within hunter-gatherer societies. This research thus enriches the broader conversation surrounding hunter-gatherer ontologies in southern Africa.

Key words: Zimbabwe, rock art, hunter-gatherer, plants, botany

Research trends in Southern African Farmer Archaeology

Archaeology and Agroecology: A Study of Pre-Colonial Farming and Food Systems in Southern Africa

Bright Mutyandaedza

Abstract

The effects of human impact on the environment as evidenced in biodiversity loss and climate change calls for the reimagining of agroecology as a science, discipline and a movement in a bid to reconceptualise human-environment relations. This work addresses issues to do with sustainable futures, salient among them being climate change mitigation, food security, sustainable livelihoods, disaster preparedness and reaction. The project brings the much needed integrative approach between archaeology, agroecology, sociology

and indigenous knowledge systems to unpack agricultural systems represented by the terraces and cultivated ridges. The research aims to provide a new framework towards global sustainable food and environmental systems at the intersection of agroecology, archaeology, sociology, environmental and ecological/agricultural studies, by focusing on two case studies: Nyanga in Eastern Zimbabwe and Bokoni in Mpumalanga South Africa.

Archaeological sites and progression of conservation documentation technologies: A Case of Great Zimbabwe and Khami World Heritage Sites from the 19th century to the present.

Tatenda Manjengwa

Abstract

As improvements in documentation technologies continue to change archaeological practice, it is important to consider their impact on the study and conservation of archaeological sites. This research paper renders a comprehensive examination of the evolution of conservation documentation technologies that have so far been applied at Great Zimbabwe and Khami world heritage sites respectively. The study traces the different conservation documentation technologies that have been employed at Great Zimbabwe and Khami archaeological world heritage sites from 19th century to the present, including a critical review of the relative successes and failures of the different conservation documentation technologies. The study outlines the

different technologies and their contribution to the conservation of Great Zimbabwe and Khami world heritage sites individually. The research employs qualitative methodology and emphasizes the need for partnership between different stakeholders to guarantee the responsible and sustainable application of these technologies. Findings from this research might also be important in embracing evolving conservation documentation tools and assessing their effectiveness in conserving Great Zimbabwe and Khami archaeological sites.

Key Words: Archaeological sites, conservation documentation, technologies, progression

Cupules, sacrifices and rain: a look into ritual hints at Ratho Kroonkop, a rain-control site in the Limpopo Valley, South Africa

Croll, K.D., Badenhorst, S., Reynard, J.R. & Schoeman, M.H.

Abstract

A constellation of hilltop sites situated to the west of Mapungubwe Hill in the Limpopo Valley were used by ritual specialists, likely on a seasonal basis during the Leopard's Kopje period. All of these sites have rock tanks, cupules and cultural material which points to their use as ritual spaces. Ratho Kroonkop has been identified as one of these ritual sites. Excavations at the site, however, has produced data suggesting a longer period of use, which raises the possibility of site use changing over time. We reflect on this possibility by reporting on a segment

of the in-depth taphonomic analysis of the large faunal assemblage from Ratho Kroonkop. We detail the spatial aspects of the faunal assemblage as a whole before delving into those specific aspects that provide further evidence of the ritual use of the site based on skeletal element representation and the taphonomy on those elements. This evidence, combined with the cultural material and surrounding context, supports the suggestion that Ratho Kroonkop was part of the rain-control cycle of rituals performed in the Limpopo Valley.

Key words: Zooarchaeology, ritual, rain-control, sacrifice, Leopard's Kopje

Redefining the Eland ceramic facies: new data from Kirstenbos, a rainmaking hilltop site in the Waterberg, Limpopo Province

Wim Biemond and Francois Coetzee

Abstract

In this paper we present new data on a Middle Iron Age hilltop site on the farm Kirstenbos, near Marken in the Waterberg Mountains of Limpopo Province. Kirstenbos displays all the characteristics of a rainmaking site. Middens containing a range of cultural objects, such as ceramics, OES and glass beads, as well as faunal remains, accumulated on the terraces of a steep hillslope. Grindstones and burnt clay pieces, possibly from grain bins and/or dwellings, are found on the summit. Small shelters, which also yielded archaeological deposits, contain cupules and San rock paintings. The site's location and its associated cultural remains, together

with a series of radiocarbon dates, are suggestive of extensive rainmaking events towards the end of the 13th century CE, a period which marked the demise of the Mapungubwe state complex further north. We discuss the site layout and the remarkably rich collection of Eiland facies ceramics that was recovered from the surface and from test excavations conducted mainly during UNISA field schools. A stylistic analysis of 750 Eiland facies vessels sheds new light on this poorly defined ceramic expression. The ceramic data are evaluated and compared to other Eiland pottery assemblages (e.g. Moritsane Hill near Gaborone, Botswana), enabling us to critically examine and advance our current understanding of the Eiland ceramic style.

Key words: Middle Iron Age, rainmaking, Eiland facies ceramics, stylistic analysis

Survey and Analysis of Stone-Walled Structures on the Babanango Plateau, KwaZulu-Natal, South Africa

Thomas Doran

Abstract

Stone-walled structures are a regular architectural component of settlements built by multiple linguistic and cultural groups after 1300 CE across much of southern Africa. Aerial survey methods have long featured as an important means of identifying

these sites. One limitation of these methods is that smaller structures may not be identifiable. In some areas, however, such as the Babanango Plateau in northern KwaZulu-Natal, no small or large structures are easily discernible using optical or satellite imagery. This study focuses on the identification, classification, and spatial analysis of sites in the Babanango Plateau area. Site identification and classification are based on a combination of aerial survey via satellite imagery and ground truthing in the field. Field surveys were used to confirm classifications, generate more detailed site plans, collect representative artefacts present at each site, and assess whether wall preservation can be used to develop a relative chronology of sites that form clusters. Using these new data, and considering the early study by Martin Hall, the relationship between sites and the environment will be examined using Geographic Information System (GIS) software to understand two components of stone walled site distributions: (1) what factors are important for locating settlements, such as elevation, ecological zonation, natural resources (e.g., clay, stone, timber, natural springs), the relative positioning of other stone-walled structures, and the nature of view-sheds; and (2) whether there are discrete groupings of stone-walled settlements that could demarcate pre-nineteenth century polities in the area and possible 'buffer zones' between their territories.

Key words: Late Farming Societies, Stone-Walled Structures, Pedestrian survey, Satellite Imagery, GIS

Optically stimulated luminescence dating on Kalundu and Urewe tradition ceramics

Rachel Haupt, Mary Evans, and Alex Schoeman

Abstract

Optical Stimulated Luminescence (OSL) dating of ceramics assisted in the disentanglement of the chronological intricacies of the Lydenburg Heads multi-component farming community site. The site has played a pivotal role in archaeological understandings of the beginning of the farming sequence within the Mpumalanga Province. The Lydenburg Heads Site was originally excavated and analysed by Evers (1982) in the 1970s, with a reanalysis of the ceramic assemblage by Whitelaw (1996) and organic residue analysis on the ceramics by Becher (2021). Twelve ceramic shards associated with the Urewe and Kalundu traditions were directly dated using two different OSL techniques: The minimal destruction technique (MET) (Hood, 2022) and a slightly altered standard technique. The results suggest a significant overlap between the Urewe and Kalundu occupations. The ages of the Urewe ceramics were determined to be from the 6th to mid-8th century. While the assumed later Kalundu tradition ceramics was determined to be from the 7th to the 10th century. These results form a foundation for reflection on the nature of the contemporaneity and associated interaction that had led to the Doornkop facies.

Key words: Early farming communities, OSL dating, Lydenburg Heads Site

Diffusion of innovations amongst Contemporary Potters in South-Eastern Botswana

Phenyo C. Thebe

Abstract

The presumed link between pottery style and linguistic identity has played a key role in the archaeological interpretation of the peopling of southern Africa. An ethnoarchaeological study of clay sourcing strategies in south-eastern Botswana today demonstrates that the choice in the selection of potting clay is principally dictated by distance to the source. In contrast, in the forming and shaping of pots, boundaries are influenced more by teacher-learner networks than ethnic group and geographic location. Decoration styles also show strong association to learning networks. Thus “community of practice” and mobility of potters present significant stylistic and technological boundaries. Geographic location is more influential in determining techniques of firing pots. Beyond this study, the idea is to research on information networks among the 41 potters to understand if they tell us anything beyond the learning systems. Following on Rogers (2014) idea on diffusion of innovations, the approach is to conduct a “roster study,” in which each respondent is presented with a list of all the other members of the system and asked whether he or she talks with each of them and how often. The

roster technique has the advantage of measuring “weak” as well as “strong” links” amongst potters in contemporary south-eastern Botswana. The study will assess if the strengths or weakness from different language group, locations, ethnic groups and schools of learning has a bearing on pottery style and technology among pots made different potters.

Key words: pottery style pottery, technology ethnoarchaeology, social boundaries, learning networks, diffusion of innovations, roaster study, Botswana.

Evaluating the use of the image processing software for measuring ostrich eggshell beads

Michael A. Schillaci, Courtney Hopper, Peter Mitchell, Brian A. Stewart and Genevieve Dewar

Abstract

Image processing software allows for measurements to be taken from photographs when a scale is included in the image. Although image processing software has been used in recent research on ostrich eggshell (OES) bead diameters in Africa, its accuracy relative to more traditional caliper measurements has not been reported. Here, we compare OES bead maximum diameter and maximum aperture diameter measurements taken with the image processing software ImageJ with the same measurements taken from the same beads using standard sliding calipers. We found that ImageJ measurements of maximum bead diameter were consistently smaller than caliper

measurements, with a mean difference of 0.0571 mm, and on average about 1.23% smaller. While a paired t-test indicated that the difference between the two methods was greater than zero ($p < 0.001$), a two-sample t-test indicated that there was not a significant difference in the mean values of the two methods ($p = 0.556$) when treated as independent samples. The distributions of caliper and ImageJ maximum diameters were similar and highly correlated ($r^2 = 0.995$). Combined, these results suggest that the choice of method for measuring maximum bead diameter is unlikely to affect sample statistics. A greater difference, however, between ImageJ and caliper measurements was detected for maximum aperture diameter, with ImageJ measurements on average about 6.9% larger than caliper measurements. The distributions of caliper and ImageJ measurements for aperture diameter differ significantly, though they were highly correlated ($r^2 = 0.952$). T-test comparisons of aperture measurements found a significant difference between the two methods ($p = 0.015$) when treated as independent samples. Our evaluation therefore indicated that ImageJ measurements were consistently smaller for maximum bead diameter, while being consistently larger for aperture diameter, and that although the differences between the two methods of measurement for maximum bead diameter are minimal, the differences for aperture diameter are significant.

Key words: beads, OES, measurement, accuracy, methodology, Image

Abstract

Despite its ephemeral archaeological footprint, comprised primarily of spindle whorls, cotton spinning was an important craft underpinning cloth production in different regions within the African continent during the second millennium AD, if not before. While these regions are usually studied in isolation, this paper seeks to provide an overview of the chronology of cotton spinning in different areas (when it may have been introduced), as well as the genealogies of practice that shaped participation in the craft, how it was practiced and the types of tools commonly employed. Drawing on the archaeological, documentary and ethnographic record from southern, western, eastern and northern Africa, this paper will contextualise practice in individual regions against the broader history of long-distance trade that entangled the continent in far-flung networks.

Key words: Cotton; Craft; Textiles; Comparative studies; Spindle whorls

An initial assessment of zooarchaeological assemblage sizes from South Africa

Shaw Badenhorst

Abstract

Large faunal assemblages remain a concern in zooarchaeology. Without sufficiently large assemblages, interpretations about the past are less secure. In South Africa, no attempt has been made to determine what constitutes a sufficiently representative assemblage size, yet

animal remains are frequently utilised to infer aspects of human behaviour during the past. I use faunal assemblages analysed using a standardised method, and plotted the number of taxa against the number of identified specimens (NISP). This way, I was able to determine the asymptote point of a faunal assemblage. This initial study suggest that for subsamples, specifically those containing only large mammal remains, the asymptote is reached nearing 1000 NISP, whereas for those assemblages containing a full range of vertebrates and invertebrates, the asymptote is reached when the NISP nears 2000.

Key words: zooarchaeology, assemblage size, number of identified specimens, species accumulation curve

Experimental Replication of Quartz Microlithic Products with Bipolar Technology Demonstrates Flexible Embodied Cognition in Robberg Makers

Tullio Abruzzese, Gerrit L. Dusseldorp, Morgan Roussel and Viola C. Schmid

Abstract

The Robberg technocomplex is characterised by standardised bladelet production. At Umhlatuzana Rock Shelter, raw material selection concentrated predominantly on quartz

of variable knapping qualities during the Robberg. Knappers preferred quartz with its specific knapping suitability over other more homogeneous materials, such as hornfels. Our analysis suggests that bladelets and small elongated flakes at Umhlatuzana were produced through freehand, bipolar, or anvil percussion. Although the employment of anvils in the Robberg reduction strategies has long been known, the extent of its use, the potential output of products, and the expression of diagnostic stigmata derived from the utilisation of anvil-assisted cores and bipolar on-anvil technique, still need more in-depth research.

We ran a series of knapping experiments devoted to understanding and differentiating the production of quartz microlithic end-products in reduction sequences involving freehand, bipolar, anvil percussion, or combinations of techniques. We aimed to elaborate on the importance of anvil-mediated reductions in the technical system of Umhlatuzana and the Robberg in general and to expand our comprehension of the diversity of bipolar technology.

Our experiments demonstrate that anvil flaking can be a complex and sophisticated solution to produce predefined blanks. To cope with unforeseen events and the difficulties associated with quartz knapping, and to adjust movement, gesture, and force “on the fly”, a very flexible behaviour is needed, especially if specific predefined blanks are targeted. Indeed, we show that a flexible mindset is essential to obtain the best results, which seems to apply to the makers of the Robberg.

Key words: anvil/bipolar percussion, bladelet production, quartz, knapping experiments, embodied cognition, early Later Stone Age

A spatial and ethnoarchaeological study of Dithakong archaeological site, Northern Cape, South Africa.

Thami Tebeka

Abstract

This study focuses on how space was used and organised at Dithakong archaeological site. The study used cognitive, symbolic and settlement theories as the guiding lens to understand this phenomenon. The study adopted a mixed method research design. It used ethnoarchaeology which involved the community in interpreting the artefacts, features and structures found at the site. Semi-structured interviews were conducted to interpret the spatial context and the meaning and use of space from the community. This study also used Geographic Information Systems (GIS) to understand the relationship of the features and artefacts and how they were distributed on the site. Dithakong is a place that is organised along social, political hierarchy, class, and gender lines. The hills where the stone walls are located have been used in various ways such as hiding places during the war between *Kgosi* Luka Jantjie and the Boers in the nineteenth century and keeping cattle. According to oral history from village elders, the stone structures and site at Dithakong were constructed by Batswana ancestors (*Badimo*).



Key words: ethnoarchaeology, use of space, social and political hierarchy, GIS, artefacts, features.

Key words: political economy, economic archaeology, historical archaeology, research design

SESSION 9: Zulu Kingdom Archaeology Project

Ukuthunga izicoco: the craft of head-rings in 19th century Zululand and Natal

Introduction to the Zulu Kingdom Archaeology Project

Justine Wintjes and Gavin Whitelaw

Kent D. Fowler

Abstract

Abstract

This brief introduction to the session surveys the purpose of this project: to better understand the variety of economic practices that shape inequalities and political power by closing the gap between the historical and archaeological understanding of past African states. A concern with historical processes surrounding how social inequalities or centralisation develop in a particular time and place is particularly problematic for economic archaeology. There remains a poor understanding of economic variability in state societies because different evidence and methodologies have been used to study them. With sweeping changes in the disciplinary silos that once characterised the social sciences and humanities, the time has passed for historians and anthropologists to ignore archaeological evidence and for archaeologists to privilege written and ethnographic sources in the study of individual cases. The papers in this session move towards this objective by examining a range of issues related to understanding the political economy of the Zulu Kingdom era from the site to regional scales.

In isiZulu-speaking communities of the 19th century, men wore head-rings known as izicoco (sing. isicoco) as a symbol of manhood and male status. Izicoco were made of a highly polished black wax-like material and were woven into the hair, emphasizing the crown and verticality of the head. They are known for their representation of male authority in public performance and politics, while their removal was associated with humiliation and defeat or a rejection of past ways of being in the world. The collections of the KwaZulu-Natal Museum include izicoco in various stages of manufacture, lumps of an insect wax used to form the rings and a polishing stone found at uMgungundlovu, iNkosi Dingane kaSenzangakhona's capital from 1829 to 1838. These items encourage an analysis of the intimate process of making izicoco—the production of the head-ring itself as something that was stitched into the hair—that reveals a temporality and spatiality of extraordinary power.

Key words: isiZulu; izicoco (head-rings); male status; temporal and spatial consequences; uMgungundlovu.

The military settlements of the Matabele and their implications for the wider northern Nguni.

Renier van der Merwe

Abstract

The centralisation of political power and the subsequent expansion of the northern Nguni had a significant impact on sub-equatorial Africa. Historically, this process has been regarded as a response to the rise of the Zulu Kingdom during the early 19th century. It is now recognised that the development of the Zulu Kingdom was itself a result of these centralisation processes. This significant re-interpretation of the Zulu Kingdom and its role within the wider historical process of the late 18th and early 19th century has highlighted the significant shortcomings in our understanding of the northern Nguni. These shortcomings are in part due to the over-reliance on historical sources with limited to no comparative archaeological material with which to test the accuracy of these sources. Consequently, many historical assumptions, have remained present within current academic discourse. The key driver of this lack of archaeological research is the difficulty in locating sites that can be associated with the northern Nguni as well as the absence of detailed settlement models for them.

The primary reason for the lack of settlement models for the northern Nguni has been the traditional assumption that the northern Nguni followed the Zulu settlement pattern and social-political system. Documented variations have historically been viewed as variations

on a theme within the discipline. The best-known example of this is the Matabele led by Mzilikazi. Historically regarded as being a copy of the Zulu system, new research has shown this to be incorrect. The similarities and critical differences between the Matabele and Zulu will be presented, along with a newly created settlement model for both groups. The presence of these critical differences indicates that much of what is currently thought about the northern Nguni and their inter-group interactions needs to be re-assessed.

Ecology, wayfinding, and interaction networks of Zulu Royal *ikhanda*

Desmond Owusu-Ansah

Abstract

From the early to late nineteenth century, a succession of Zulu kings established their centres of power at different localities across the kingdom. These Royal amakhanda were situated in four distinct environmental and geographic zones. This research project addresses how these landscapes supported the operations of these centres and whether each was provisioned in the same ways. How was the natural landscape of the kingdom exploited for clay, iron, ivory, grazing land, farmland, etc., to sustain the kingdom? How did people obtain raw materials, produce, and distribute goods across southeastern Africa? How did people move across the landscape to engage in socio-economic and politico-militaristic activities? What influenced the various kings to establish their capitals in different

localities such as the emaKhosini Basin, Mhlabathini Plain, Eshowe-Empangeni Highlands, and the Dolphin Coast? This paper introduces how multiple historical, archaeological, and geophysical datasets are being analysed within the framework of landscape affordances, capability equivalence, and mobility potentials using GIS tools to investigate the operation of Royal amakhanda and the connectedness of resources, settlements, and people across the kingdom.

Key words: landscape archaeology, political-economy, provisioning, resource use, mobility, GIS, Zulu Kingdom

Archaeometallurgical study of iron production during the Zulu Kingdom period: A Preliminary results of iron sourcing research.

Richmond Opoku-Prempeh

Abstract

Iron metallurgy was important in the spread and development of farming communities across sub-Saharan Africa. Zulu Kingdom thrived on iron production, and this was evident as iron workers formed an integral part of the kingdom's expansion. In Southern Africa, iron metallurgy is underexplored as research on the symbolic and social aspects of metallurgy have outpaced both new field research identifying metal production locations and archeometallurgical studies. Iron objects and by-products of manufacture have not been subject to scientific analysis that can provide information about ore quality and

geological origins. Though previous research has revealed that Zulu ironworkers sourced raw materials locally including ore, this has not been demonstrated using geochemical analyses. For this study, multiple techniques form the base of the methodology, including Scanning Electron Microscopy-Energy Dispersive Spectroscopy (SEM-EDS) for imaging and spot analysis,

Electron Microprobe (EMPA) for major elements, and X-ray Fluorescence (XRF) and Inductively Coupled Plasma Mass Spectrometry (ICP-MS) for trace element analyses. Additionally, Thermal Ionization Mass Spectrometry (TIMS) will be used for osmium isotope analysis. The above techniques allow the comparison of the chemical composition of ore, slag, bloom, and iron artifacts to investigate whether the objects can be associated with potential local and distant ore sources known through oral history, archaeological investigations, and geological prospecting.

Key words: metallurgy, Zulu Kingdom, archaeometallurgy, South Africa, Scanning Electron Microscopy-Energy Dispersive Spectroscopy (SEM-EDS), Electron Microprobe (EMPA), X-ray Fluorescence (XRF), Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Thermal Ionization Mass Spectrometry (TIMS)

Low and high-cost 3D scanning methods for the laboratory, museum, and field

Olajumoke Olalere

Abstract

Archaeological repositories often operated by universities and museums grapple with space constraints and preservation challenges for materials excavated from archaeological sites. The conventional use of 2D visualization methods, such as photography and illustration, face limitations in capturing the full three-dimensional essence of artifacts. This has stimulated the application of 3D modelling technology in archaeological research.

The study evaluates 3D solutions for digital imaging, aiming to enhance accessibility for conservation, research, education, and public engagement. The research assesses the feasibility of integrating 3D technology into regular documentation practices in the laboratory, museums, and the field.

The objectives are met by exploring the application of 3D imaging technology for documenting and archiving archaeological objects associated with the nineteenth-century Zulu Kingdom in South Africa. Photogrammetry and 3D scanning, such as Scaniverse and Metascan, were employed to model the archaeological materials. The materials were sourced from previous excavations at uMgungundlovu archived at the Five Hundred Year Archive, and from artifacts and features identified during the 2022 field investigations in South Africa.

Through the creation of a digital data management plan and a thorough analysis of various 3D technologies and their applications, 3D models that could improve interactions with archaeological objects were

generated. This research proposes methods that can be applied to 3D documentation of materials under curation, in the laboratory, and during fieldwork. In particular, the results advance the development of solutions for museums and institutions with low budgets.

The longue durée of the Zulu ceramic repertoire

Alexandre Monin

Abstract

The belief that changes in technologies and material culture repertoires reflect broader societal changes is fundamental to current anthropological and archaeological research. Rarely, however, are archaeologists able to examine the relationship between social and technological change during periods where the social forces of change are well understood and documented. The Zulu Kingdom Period (c. 1816-1879) presents a unique opportunity to examine these linkages as the period is well understood historically. To date, ceramic stylistic and functional typologies have been created for modern Zulu pottery assemblages, whereas work on 17th to 19th century assemblages has been limited. Thus, in-depth knowledge about Zulu pottery production and use is restricted to the 20th century. This project investigates the relationship between social and technological change through a comparison of the Zulu pottery repertoire and production practices from the 19th to the 20th centuries, a period of profound change in Zulu society. The project uses simple

and accessible methods for the reconstruction of pottery vessel shape, size and volume. These reconstructions are used to better understand functional aspects of ceramic assemblages dating to the Zulu Kingdom period in order to compare them to those from the 20th century. In so doing, we can monitor the relationship between technological variation in the ceramic repertoire and societal changes experienced from the Zulu Kingdom period to the present-day.

Key words: pottery, function, technological change, social change

The size, layout, and function of Zulu Kingdom amakhanda

Kent D. Fowler and Leonard O. van Schalkwyk

Abstract

Settlement during the Zulu Kingdom period (c. 1816–1879) has been directly linked to the kingdom's political system. Political organisation during the kingdom's lifespan saw a blending of an existing chiefdom structure with new tiers of a political élite. The king (amakosi) ruled with his council (ibandla) comprised of chiefs (izinduna) from prominent old chiefdoms and individuals of high hereditary rank (izilomo) to whom less powerful chiefs, a bureaucracy (commanders, regimental officers, traders and collectors, attendants, etc.) and homestead heads (abanumzana) were all subject. Based upon historical records and limited survey data, van der Merwe (van der Merwe and Pikirayi, 2019; 2014) proposed that this political structure

was characterised by a five-tier settlement system involving three tiers (Royal, Divisional, and Regimental) of state-operated settlements (amakhanda), chief's homesteads and multi-generational family homesteads. Each type of settlement can generally be characterised by differences in their size, layout and activities. However, no second- or third-tier amakhanda (or homesteads) in this settlement system have been identified and described archaeologically. In this contribution, we present new survey data that clarifies the size, layout and range of activities that occurred at Regimental amakhanda. These findings support the crucial position of these places as nodes in the regional power structure, for this is where trusted senior women of the royal house and at least one induna were responsible for implementing the king's decrees, operating the ikhanda as a training, mustering and provisioning point for amabutho and, depending upon its location, maintaining order amongst chieftaincies in their area.

Key words: political economy, settlement pattern, settlement organisation, chemical composition

Cattle bone pathology in the Zulu Kingdom: Insights into herd management and mobility

Elizabeth R. Arnold, Thomas Doran and Kent D. Fowler

Abstract

As part of the larger project *Between kings and commoners: An integrated approach to the political economy of the 19th C. Zulu Kingdom* previously analyzed animal bone collections are

being re-evaluated with new research questions and scientific approaches. During examination of faunal assemblages from the eMakosini, notable, hitherto undescribed alterations of the articular surface of the bones of the tarsals and metapodials have been observed. Further, recent survey in the region allowed the observation of modern cattle skeletons that also show this pathology. Unlikely to be the result of degenerative diseases such as arthritis that impact the entire articular surface, these localized, depressions are hypothesized to be the result of free-ranging patterns of herd management. Pathologic profiling yields the potential for reconstructing herd management and mobility of animals within the region.

Key words: cattle; pastoralism; herding practices; mobility; skeletal pathology; Zulu Kingdom

The history and genetics of southern African cattle: Insights from modern Nguni cattle herds

K. Ann Horsburgh, Anna Gosling and Kent D. Fowler

Abstract

Animal domestication is one of the key transitions in human history. It stimulated a transformation of economic and social relations in human societies and changed how people thought about and utilized landscapes. However, the process of animal domestication and social transformation was not uniform. In this project, we have developed an interdisciplinary program of genetic and archaeological research to

contribute towards each of these issues. This study characterizes the complete mitochondrial genomes of nearly 300 cattle from modern Nguni cattle herds in southeastern Africa. These new data impact current theories of wild cattle domestication in Asia, Europe and Africa, by isolating variants of haplogroup T1 in southern African cattle breeds. More specifically, this study will impact theories of the spread and adaptations by wild cattle within eastern African savannah and savannah-woodland biomes by providing a clearer understanding of eastern African cattle founder populations by testing whether southern cattle populations subhaplogroup T1b variants represent isolation by distance, or if other environmental and/or historical factors account for the breeding isolation of founding cattle populations as they spread from north to south.

Key words: cattle, domestication, pastoralism, Nguni cattle, mitochondrial DNA

The King's potters: Pottery production at nineteenth century Zulu Royal amakhanda

Kent D. Fowler, Mostafa Fayek and Leonard O. van Schalkwyk

Abstract

The identity of artisans presents a persistent lacuna in our understanding of production arrangements in past societies. This contribution demonstrates how multi-disciplinary research into all the components of

production – the means of production, organizational structures and principles, objects, distribution, and consumers, can yield insights into the social identity of artisans. Oral history of the 19th century Zulu Kingdom describes how a range of domestic equipment (spoons, gourds, baskets, pottery), grain and other food was brought by members of regiments (amabutho) while they served at a king’s capital, a Royal ikhanda. The same oral history also records, at least since the 1840s, that the umdlunkulu girls living in the royal section of an ikhanda – the isigodlo – made pottery. Focusing on the geochemical composition of durable pottery containers from three king’s capitals (kwaBulawayo 2, uMgungundlovu, and oNdini), we test that hypothesis that men in regiments used pottery made by their families residing in allied chiefdoms from across the kingdom. The results suggest that most pottery vessels were made locally at each king’s ikhanda: pottery manufacture was concentrated at king’s capitals, production arrangements were tethered to the seats of power in the kingdom, and the inhabitants of the capital would have been the labour force for producing domestic pottery wares. There are, then, few candidates for who would have been the “king’s potters.”

Key words: economics, provisioning, pottery, chemical composition

Experimental dating methods for historically recent sites in Southern Africa: Towards the rehydroxylation (RHX) dating of fired clay objects

Musah Adam

Abstract

Most methods used for archaeological dating rely on naturally occurring radioisotopes. However, obtaining reliable chronometric dates for archaeological materials from the past 500 years is a universal issue. Radiocarbon and luminescence dating of younger materials can vary widely in accuracy and precision. Rehydroxylation (RHX) dating is an under-explored technique for dating clay-based materials suspected to be less than 500 years in age. The method measures the accumulation of water in fired. It measures the re-acquisition of OH in ceramics, such as pottery, bricks and tiles, since they were fired during manufacturing. Some archaeologists argue that RHX is simple, cheap, and relatively efficient in dating ceramic artifacts. Others have demonstrated a number of challenges using RXH. In this paper, I outline RXH dating and describe a project that tests the method on historically recent pottery and building clays (daga) dating to the 19th century Zulu Kingdom in South Africa. Due to their young age, they cannot be dated using conventional techniques. These experiments may help provide dates for materials from sites believed to be contemporary in age during the kingdom period, as well as those from sites that predate the emergence of the kingdom that have little to no botanical and faunal material is available for dating.

Key words: Rehydroxylation (RHX), Dating Methods, Zulu Kingdom, Fired Clay

New evidence for the spatial organisation of metalworking during the nineteenth century Zulu Kingdom

Kent D. Fowler and Len O. van Schalkwyk

Abstract

For over five decades, considerable effort has gone into understanding both the technical and sociocultural dimensions of precolonial metalworking through a combination of archaeological, ethnographic, and archaeometallurgy research. While smelters and smiths of iron, copper, bronze, brass, tin, and gold are considered specialists, research on precolonial metallurgy has documented significant variation in technologies, processes, bloom quality, products, ritual practices, and the observance of prohibitions and taboos. In Southern Africa, these findings have fostered debate about the organisation of production in terms scale, labour organisation, the concentration of producers across space, and controls exerted by elites over the manufacture, distribution, and consumption of goods. In this contribution we examine metalworking in the Zulu Kingdom in southeastern Africa during the nineteenth century. We present new evidence for iron- and brass working in the emaKhosini, the heart of the kingdom. When these new data are viewed alongside previous archaeological research, and a rich archive of oral, documentary, ethnographic, visual, and ethnological records, they suggest a new perspective on where production activities occurred, the scale of

production, and the nature of specialisation.

Key words: metallurgy, iron metallurgy, brass working, spatial organisation, prohibitions

Thinking as Africans in African Heritage Management

The Resettlement of the Shangani people: Its impact on intangible cultural heritage, with focus on female initiation ceremonies.

Loveness S. Gupure

Abstract

This research explored the resettlement of the Shangani people in Zimbabwe from the South-eastern Lowveld of the country to Zaka district and its implications on their intangible cultural heritage with special reference to female initiation ceremonies (*khomba*). The need to safeguard intangible cultural heritage against all possible threats has become an issue of concern around the globe. Previous research on the Shangani has focused on their political and economic life. Less has been explored on their social history after colonial relocations. The assumption was that resettlements cause cultural decay. The theory of dominant culture was used to put the research in context. The approaches which were used to find the answers were qualitative and quantitative. Focus group discussions and interviews with key informants as well as documentary analysis were used for data collection. The main research findings were that the relocation changed the Shangani people/s

cultural practices as they had to adopt the culture of the host communities. Colonial land policies impacted negatively on cultural practices, the hosting communities dominated the cultural practices of the relocated people. This has an implication that relocated people may in the end lose their language. It was also revealed that the *khomba* initiation ceremony has numerous benefits to the Shangani people, especially to the Shangani women. The main recommendations were that government should consult people before relocating them to ensure that their tangible and intangible heritage is preserved. In addition, the government should champion reforms on some practices which are still enshrined in the laws as they originated from colonial mind set.

Key words: intangible, heritage, initiation, ceremony, relocation,

Elusive Politics in the Recognition and Management of Historic Buildings in post-independent Zimbabwe

Happinos Marufu and Godfrey Nyaruwanga

Abstract

Historic buildings are the physical landmarks of our past trajectory; they are not only remnants from the past but material correlates of our historical narratives. In Zimbabwe, and perhaps the rest of African continent, these historic buildings are mostly distributed in areas which once served European interests. These include urbanite environments which functioned as administrative centres, areas where missionary work was

carried out, and places of economic interests such as farms and mines, among others. Although historic buildings are protected by law at both national and international levels, the provisions of these legal instruments have some subtle, political undertones which derail what they purport to stand for. The concept of cut-off dates in the definition of historic buildings in the country implies absence of 'history' in Zimbabwe before the European invasion. Further to this, separation of heritage managers and owners of historic buildings has made it challenging to have a uniform implementation strategy of conservation measures. The paper uses a combination of decoloniality and heritage theories to address issues of colonial hegemony in the recognition of historic buildings and professional ethics in cultural heritage management. Methodologically, the information presented in this paper is largely drawn from personal experience of dealing with historic buildings as heritage managers, but shall be complemented by interviewing critical stakeholders in the management of historic buildings in Zimbabwe.

Key words: historic building, decoloniality, heritage management, conservation

Unpacking the decolonization of archaeology and heritage: interrogating curation practices.

Kgolagano Vena

Abstract

In the archives of institutions artifacts tell stories of former civilizations, their

presence conveys a significant message about the complex legacy of colonialism. As stewards of heritage, we are confronted with the challenge of decolonizing our practices to ensure a more equitable and inclusive representation of the past. This paper delves into the heart of curation, interrogating whether true decolonization is achievable and, if so, how can indigenous approaches to African heritage be introduced in institutions that carry the legacies of inequitable collecting. Through critical analysis, we confront the uncomfortable truths of discovery, conquest, and appropriation, unpacking the power dynamics inherent in these processes. Against this backdrop, we advocate for a paradigm shift towards a more inclusive approach to preservation and conservation. By elevating African structures such as chiefdoms and communities to the forefront of our discourse. This paper proposes a multifaceted approach to inclusive curation by interrogating the legacy of collection through examining the motivations behind collecting practices and their ramifications on indigenous communities and confront the uncomfortable truths embedded within archives. And further explore how conservation practices can either perpetuate or challenge colonial frameworks. In the pursuit for decolonization, we seek transformative pathways that reexamine the role of curators as custodians of heritage and interrogate alternative models of curation that prioritize inclusivity, restitution, and cultural sovereignty by dismantling colonial frameworks.

Retaining Integrity Through Virtual Access to RARI Ethnographic Collections, Wits University, Johannesburg.

Tshwanelo Kgosana

Abstract

Archives may house or provide storage to a particular collection or objects, in this instance, ethnographic collections, but they are not well represented to the public and object deterioration is highly possible. This is a limiting factor to the encouragement of a collective understanding of the objects by means of incorporating diverse ideas or perspectives. The non-availability of archived objects to the public, researchers and curators is also a limiting factor to the contextualisation of the objects leading to the non-attainment of information that provides background or gives the objects its originality. Archives face a challenge of providing storage space and the objects stored remain in their appropriated rooms for a longer period without any research being conducted. The variety of objects in the archives have a sociocultural context that needs to be extensively provided as these objects have had a closely linked relationship with specific people from specific regions, and the withheld indigenous knowledge which needs to be exposed, extracted, and used to provide context. For this research I will digitise the Rock Art Research Institute (RARI) ethnographic archive situated at the Origins Centre Museum to encourage interaction and accessibility of the collections to a wider audience while alternatively

establishing a way of protecting and maintaining the state of the objects to avoid rapid deterioration as continuous physical contact leads to its stimulus.

Key words: ethnographic archive, digitization, awareness, access, representation, contextualisation.

The Politics of My Skin: An Autoethnographic Practice

Desiree Dibasen !Nanuses

Abstract

Although decolonial thought from Africa is a multifaceted field of research and sociopolitical praxis, it is often interpreted monolithically. To refuse this tendency, I argue that it is imperative to trace decolonial theory's intellectual genealogies and engage in transgressive decolonial hermeneutics to re-interpret texts (theories) according to their living socio-historical and geopolitical contexts. Following Stuart Hall's lead, I first sketch out the geopolitical and sociocultural exigencies that allow for theoretical movements to unfold, paying more attention to the geopolitical implications of thinking "from" African contexts. Second, I address the ethical imperative of thinking "with" to seriously engage in inter-epistemic dialogues to advance an ecology of decolonial knowledges and pedagogical practices. Ultimately, this research situates decolonial discourses and practices according to the conditions that enable their praxis-oriented intellectual expression.

The premise to pursue my doctoral degree stems from being taught

western ways of making and producing and the lack of our valuable stories that were not being shared in any way with the rest of the world. Therefore my academic practice is entirely devoted to connecting the intangible oral histories and indigenous knowledge to the tangible objects, art and architecture through postcolonial thought, practice and pedagogy. One of the outcomes from my doctoral degree research thus far comprise a curriculum in decolonial practice, applicable to all disciplines for systemic and institutional emancipation, thus correcting the imperialistic wrongs of the past. The curriculum is rooted in co-collaboration and accessibility due to shared histories to preserve the indigenous knowledge whilst reclaiming ownership of the knowledge, Africans becoming custodians of the knowledge dissemination and authors of their history.

Key words: Curatorial practice, decolonial practice, decolonization, design, art, craft, customary contemporary art, representation, interpretation, museums, galleries, co-collaboration, accessibility, strategic plans, policies, addendum, commitments, diversity, inclusion, multiple narratives, accessibility, representation, institutionalism, ownership, indigenous knowledge, culture, reclaiming, identity, nationalism.

Of lofty ideals, bread and butter questions and usable pasts: Positioning archaeology as an 'extractive and productive industry' in

the innovation and industrialisation agenda of developing countries.

Seke Katsamudanga

Abstract

The study of archaeology in developing countries has often been identified with nationhood ideals. This has been especially so for former colonies where the colonial scholarship had a penchant to stereotype Africans as lacking history. Archaeology has provided nations with armour to fend off such negative portrayal of Africans. However, of late, the discipline of archaeology has been put in an invidious position of justifying itself to the taxpayers. Against rising levels of unemployment and increasing costs of higher education, the discipline has become the target of attacks of being one of several perceived useless ones where critical resources are being wasted, especially as graduates find themselves with nothing to do after completing their studies. This paper examines the problem and argues that archaeology can see itself as an extractive and productive industry and contribute to the economic development of nations.

Key words: employment creation, economic development, extractive and productive industry

Towards Decolonization of Tsodilo Hills World Heritage Site

Keletso Setlhabi, Sarah Mothulatshipi, and Lokwalo Thabeng

Abstract

A guided talk at Tsodilo Hills World Heritage Site (Tsodilo Hills) might be celebrated from a distance as it portrays decolonization in practice, that is, locals interpreting their own past. It is only when the guide is audible enough that an emphasis on the tangible rock art paintings as the major phenomena of the Site is echoed. Our study's main argument is that the two-tier information flow between interpreters and consumers at the World Heritage Site pays less attention to the known community's value of the Hills, their embedded sacredness. What is instead magnified is the aesthetics of the tangible rock art at the expense of their value, a continuation of colonial epistemologies. Even with review of the initial 1994 Site Plan which excluded the management of its intangible cultural heritage, the Site's interpretation continues to be rock art-oriented. While acknowledging existing decolonization theoretical debates, the authors propose interventions that can practically decolonize Tsodilo Hills. The positive development of community engagement in Archaeology has struggled to address the power relations between the professionals and communities resulting in contestations of site ownership and privilege. In its attempt to contextualize the argument, the authors will assess their academic discourse to show how the colonial narrative is also embedded in the archaeology curricular at the University of Botswana. They posit that decolonizing Tsodilo Hills should also be in the classrooms with its heritage values surpassing the popular aesthetics. A holistic approach to

decolonization includes an introspect into how its communities can be empowered through archaeological heritage and graduate to lead decisions about their heritage. This can in turn decolonize literature into community value- based approaches, the presentation of the Mountain of the Gods from a sacred space

rather than a National Monument and a World Heritage Site. In conclusion, the authors recommend decolonizing Tsodilo Hills World Heritage through practical socioeconomic empowerment of its communities which will become a turning point for its heritage preservation and interpretation.

Pandemics and Heritage: understanding the impact of the Covid-19 pandemic on Archaeotourism in South Africa

Nithya Eswaran

Abstract

This research investigated the impact of the Covid-19 pandemic on archaeotourism in South Africa, focusing on three public visitation sites: Origins Centre Museum, Giants Castle Game Reserve, and Sterkfontein Caves. The study employed a comparative analysis with qualitative data from Kruger National Park, utilizing SANParks Annual reports to understand the pandemic's effects on nature-based sites. The objectives included presenting pre- and during-Covid-19 archaeotourism contexts, describing risk preparedness frameworks, assessing visitor

numbers/profiles, analysing coping strategies during lockdowns, comparing impacts on culture and nature sectors, and proposing disaster preparedness improvements.

Results revealed both positive and negative impacts on archaeological sites and their communities. The pandemic led to a notable growth in local tourism, with domestic visitors surpassing pre-pandemic levels. However, the decline in international tourists, a major revenue source, poses long-term challenges. Game reserves adapting to virtual tourism experienced relatively less negative impact, suggesting its underexploited potential in South Africa's cultural tourism sector.

Limitations included the absence of accurate visitor statistics, relying on less precise sources like visitor books. The study lacked data for Sterkfontein, and access issues hindered interviews with private concessions in Kruger National Park. Existing literature was Asia-focused, emphasizing the reliance on primary data from the study sites.

Despite challenges, the study identifies an emerging trend of increased local tourism, indicating potential resilience in the post-pandemic period. The decline in international visits and the impact on tour companies emphasize the need for long-term strategies. The study recommends expanding the dataset for a comprehensive analysis, capturing more accurate visitor numbers and income data.

In conclusion, this research contributes valuable insights into the complex dynamics of archaeotourism in South Africa during the Covid-19

pandemic. It sheds light on the sector's adaptability, challenges, and the untapped potential of virtual tourism, offering a foundation for further exploration and strategic planning in disaster preparedness and recovery for cultural heritage sites.

Key words: Covid-19, Heritage management, Archaeotourism, South Africa

From Heritage to Spiritual Influence: Examining the Role of Music in Shaping Personal and Cultural Identity and its Impact on Moral Behavior

Tinomudaishe Chiweshe

Abstract

This paper explores the profound influence of music on personal and cultural identity, as well as its effect on moral behavior. Music is not only considered a form of heritage that transmits expressions from one generation to another but also serves as a vital tool for reflecting one's culture. It is through songs, chants, and instruments that deep memories of belief systems, festivals, intangible culture, and religion are engraved for visualization, making music an integral part of folklore and folktales. Spirituality, as a recognition of a feeling, sense, or belief, plays a significant role in the connection between music and human experience. Music is often seen as a creation inspired by spirituality, as it has the power to evoke desired atmospheres for spiritual occasions. It serves as a mediator between the spiritual and sensual life, effectively communicating emotions and

thoughts. Music reveals character through the various emotions it can portray, such as sorrow, satisfaction, joy, anger, piety, and love. The paper also delves into the question of whether the content of a song can influence one's actions and moral behavior. Music is a powerful form of art that exists in every society and can shape society itself. Different social groups may hold varying opinions on what constitutes art, as what may be considered slackness to one group could be seen as art to another.

Overall, this presentation aims to shed light on the intricate relationship between music, personal and cultural identity, spirituality, and moral behavior. By exploring these connections, we can gain a deeper understanding of the profound impact music has on individuals and society as a whole.

Key words: Heritage, Spirituality, Music, Culture, Identity.

Exploring the Oral Histories and Oral Traditions of Mohlaka-oo-Tuka Peatlands and Peat fires.

'Makabelo Kobisi

Abstract

Conservation and restoration of Peatlands are a topical theme in Southern Africa in the contemporary time. Peatlands store vast amount of carbon making them a critical solution for climate change mitigation as carbon reduces concentration of greenhouse gases in the atmosphere.

Conserving Peatlands would assist in protection of diverse range of plants and animals unique to this ecosystem that societies depend on. In Lesotho, a village in the Maseru district called *Mohlaka oa Tuka* which means 'burning wetlands' was built on landscape with an astonishing scenic beauty that entailed burning Peatlands. The area attained its name after shocking events of fire that emanated from the underground. The study explores how Peatlands and peat fires shaped the social and economic relationship between the community and their peculiar environment. The economy of *Mohlaka oa Tuka* community remains heavily depended on agriculture and livestock, therefore, the study examines the influence of Peatlands on sustainable production of agriculture and pastoral land. As a result of climate change, Lesotho has experienced a number of droughts and incessant soil erosion, crippling agriculture which affected the social and economic development of the community. The analysis is expanded to consider the land policies of government and aid projects in areas of wetland restoration. A collection of oral histories and oral traditions will provide a crucial African perspective on cultural practices that took place in the sacred ancestral lands and evaluate impacts of human presence on the Peatlands. This landscape holds an unusual cultural heritage which is passed down from one generation to the next. It is concluded that this study will open a new opportunity for tourism due to available rock art, in order to boost the economy of the country and lead it to development.

Key words: Peatlands and Peat fires.

“Oh Africa, long and much-neglected Africa, to what a state of misery art thou sunk?”: A study of the archival and household remains of the Wesleyan Missionary, Thomas Hodgson, AD 1823.

Karyn Moshe

The arrival of missionaries in southern Africa in the late 18th and early 19th centuries was a new experience for both the African people and the English mission representatives. While the effects of Christian missions on indigenous people are explored at length, there is a dearth of literature exploring household archaeology and lived experiences of individual missionaries at mission stations in southern Africa. This research aims to illuminate these subjective experiences by using Wesleyan missionary Thomas Hodgson as a case study.

Hodgson's Cottage, located in present day Wolmaransstad, was occupied by Hodgson and his family between May of 1823 and February of 1824 while he resided with the Seleka-Rolong during the period of the Difaqane. The site was excavated by Revil Mason in 1964 and the artefact assemblage was analyzed for the purpose of this research. In addition, this research relied heavily on documentary evidence in the form of Hodgson's journals and letters written by his wife, Ann, to explore the circumstances, difficulties, interactions, and events experienced by the Hodgson family. Moreover, the written evidence was used to identify possible uses for the

objects recovered from the site and the roles which they might have played in the daily lives of the Hodgsons. As the smallest unit of analysis, the cottage itself provides a point of departure for a study of both the missionary household as well as the greater social and political environment, providing a frame of reference for southern African politics at the time. This case study presented a unique research opportunity to study the lived experiences of a missionary family in the southern African interior during a turbulent time in history, and successfully provided a more nuanced perspective, humanising the often nameless and faceless entity which is the English missionary.

Key words: missionary archaeology, historical archaeology, household archaeology, documentary archaeology, material culture, Difaqane

The Rock Cut Tombs of Saesi Tsaeda Emba and Ganta Afeshum Woredas, Eastern Tigray, Ethiopia: A Preliminary Survey

Getachew Alemeneh Chane

Abstract

Saesi Tsaeda Emba and Ganta Afeshum woredas, located in North Ethiopia in the Tigray region, are the noticeable archaeological sites of the Pre-Aksumite (8th/7th C–4th/3rd C BC) and Aksumite (150 BC–7th/8th C AD) periods. Different stone pillars, rock-cut tombs, rock-hewn churches,

and ecclesiastical heritages are housed. This paper attempted to assess the rock-cut tombs of the woredas during the Aksumite period (150 BC–7th/8th C BC). The researcher identified varied rock-cut tomb sites in different locations of the woredas through pedestrian surveys, document analysis, and personal interviews. The identified burial tombs are cut into the underlying bedrock with twofold burial chambers and considerable architectural pretension, most probably dated during the Aksumite period. In addition to this, a few of the structures are dug from flat, rocky ground with rudimentary buildings. Absence of meticulous adornment of the rock-cut tombs and the presence of simple pits accompanied by scattered grave goods often located in the periphery from the center. Such types of rock-cut burial sites are the burial sites of non-elites. The rock-cut tombs of Hadish Hiwot and Guahagot are the most noticeable examples. Based on their architecture and associated findings like ceramics, beads and fragmented human skeletons, the targeted rock-cut tombs were mainly used for burial purposes. The rock-cut tombs of Enda Maryam and Workea'ere are very clear and simple to determine their functions and ages because of their associated symbols and findings. Some funerary graves, like Hadish Hiwot Cluster, Workea'ere, Guhagot and Mekabir Angesum, have circular and rectangular shapes with a diameter of 1x2 meters. Therefore, the tradition of cutting shaft chambers of tombs from the rock during the Aksumite period geographically stretched from the centre of the kingdom (Aksum) to the eastern part of the kingdom.

Key words: Saesi Tsaeda Emba, Ganta Afeshum, rock-cut tomb, burial chamber, Aksumite

War and Memory: Historical Conflicts and Colonial Oppression in Zimbabwean Landscapes of Cultural Memory –A Case of Liberation War Internment Sites

Innocent Ndiya

Abstract

Memorialization of war experience has emerged as one of the primary phenomena of the late 20th and 21st centuries AD. In Zimbabwe, telling the story of the liberation struggle and that of the heroes and heroines that executed it and brought the country's independence is likely going to remain a pipeline-dream if no action is taken to properly document, present and preserve it. Sites associated with the liberation struggle in Zimbabwe have not been exhaustively researched, therefore, they remain poorly explored and presented. With the National Museums and Monuments Act (Chap 25/11) of 1972, the conservation and protection of heritage sites associated with the liberation struggle in Zimbabwe is overlooked as it is limited to those sites that were established prior to European colonization of the Zimbabwean Plateau and its adjacent lowlands in 1890. As a result, researches have been largely limited to the pre-colonial past whilst subsequent periods have been ignored. Liberation struggle heritage is recognized as universal value and significance therefore this paper seeks to establish how these sites are

currently being preserved, presented and conserved. It seeks to identify ways to develop and manage of the liberation heritage sites particularly sites of internment.

Key words: Internment, War, Memorization, Heritage; Internment

Awakening Dead Collections

Excavating the roots of Lesotho's democracy: Forensic identification of the *Liphokojoe* of Kao, Lesotho.

Lesaoana M, Chonelanga T, Letumanyane K

Abstract

The unchallenged events of the 1970's massacre in the country's political history seem to have set a good foundation for many problems of today, including but not limited kidnappings and assassinations of the critics of the government. This is further exacerbated by the government's normalization of mass burial of unknown and unidentified human remains whose cause of death is usually overlooked while at the same time many families are pursuing frantic searches for the missing loved ones. Between January and April 1970 an unconfirmed number of men and women, known as *Liphokojoe* were killed by the government forces and buried unidentified in a mass grave. This seems to have played a critical role in the political history of Lesotho's democracy. However, no initiative has been taken, neither to acknowledge the alleged killings nor to identify the deceased.

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Keywords: Unsolved history, forensic anthropology and archaeology, massacre, Liphokojoe.

Amateur contributions to the KwaZulu-Natal Museum's archaeological archive: the case of the Mike Moon collection

Mudzunga Munzhedzi, Justine Wintjes, Gavin Whitelaw, Alex Schoeman

Mike Moon, an amateur archaeologist based near Durban in KwaZulu-Natal, made a significant contribution to the archaeological archive at the KwaZulu-Natal Museum, mainly in the 1980s and 1990s. As witness to so much environmental and cultural

destruction inflicted by development, he voluntarily recorded and recovered archaeological materials that have contributed to interpretations of the region's past, and which contain the potential to continue doing so. Moon's collection and records cover the full range of human endeavour in the region, from Oldowan times to the recent past. The archaeological usefulness of Moon's collection relates to its 'co-production' through his dialogue with professional archaeologists over many years. A biographical approach to the Moon collection, which involved detailed examination of its artefacts and records, personal interviews with him before his death in January 2021, and interviews with colleagues and friends, provides a single example of a wider history of contributions that amateurs made to the creation of archaeological knowledge and the discipline itself.

Keywords: amateur archaeologists, recording and collection, co-production of knowledge, biography.

Old data, new methods: Breathing life into the Sterkfontein Caves legacy datasets.

Maryke Horn, Kathleen Kuman, Ronald J. Clarke and Dominic Stratford

Abstract

The Sterkfontein Caves have produced remarkable and diverse assemblages of both hominin and contemporary non-hominin fauna that lived on the landscape over the last 3.67 million years. For over 80 years the caves have been excavated by multiple researchers, using different methods.

This long history of excavation has yielded hundreds of thousands of fossil and artefact assemblages, those captured by previous generations of research are referred to as 'legacy datasets'. The application of traditional and modern analytical techniques provides opportunities to glean from every fossil some information about the evolution of the landscape, the ecology, and morphological and cognitive adaptations of hominins from the Cradle of Humankind. With the installation of a comprehensive geospatial framework at the caves and a refined stratigraphy for Members 4 and 5, we have developed a new method to utilise the legacy datasets. The Sterkfontein Coordinate Generating System allows us to generate single point coordinate data for the large legacy collections of fossils and artefacts. The single point coordinates can now be used in conjunction with GIS to visualise large, rich datasets in both vector and raster formats, and conduct multi-variate spatial analyses. Different spatial analyses have the potential to assess the inter- and intra-dataset or variable-specific spatial organisation quantitatively and qualitatively. Generating better spatial control of these fossils and artefacts are adding significant value to our current understanding of the ecological, environmental, and biological contexts of the infills as well as the depositional and post-depositional factors that have affected the Sterkfontein Caves' deposits.

Key words: Sterkfontein Caves, Legacy datasets, Legacy Collections, GIS, Coordinate Generating System.

LA Café: A Coffee Shop occupying a British Settler Prison, Grahamstown, Makhanda, Eastern Cape, South Africa

Celeste Booth and Anva Chiazzari

Abstract

The construction of the Provost Prison, a military prison, was completed in early 1838 as part of efforts to fortify the small city of Grahamstown (recently renamed to Makhanda), in the Eastern Cape, South Africa. The structure is shaped as a quarter circle with eight cells, roughly 2m by 3m each. In 1982 and 1983 the Provost Prison underwent restoration and was taken under the care of the Albany Museum, under which it still is today. During the restoration the remains of some of the exercise area walls were discovered and restored. During this time archaeological excavations were conducted in Cell 3 which yielded and collection of leather, metal, glass and ceramic artefacts and are currently housed at Albany Museum's Archaeology Department. Today, the Provost Prison houses the coffee shop, La Café, run by a young local entrepreneur eager to tell the Prison's story.

The boxes holding these artefacts were indeed found at the back or on the bottom of a shelf in one of the storerooms during a curation process in 2016. Since then, the boxes have not made it back into the storeroom but rather are waiting in transit in the lab area for conservation intervention and a space for their story to be told.

This presentation will discuss how a 'dead collection' can be revived in

collaboration with museum's conservator in identification and recommendation on the state of the artefacts for display purposes through conservation intervention. It will also discuss how a few artefacts from Cell 3 of the Provost Prison could be interpreted for display purposes, at the LA Café, addressing the colonial past as well as the difficult history that comes along with it.

Key words: Archaeology; conservation; British settler history; prisoners, excavations, dead collections; postcolonial; transformation; neutral and luminal spaces; social/restorative justice

Cultural Heritage Management in Lesotho - The Polihali Dam Cultural Heritage Management Project
Session: Cultural Heritage Management in Lesotho - The Polihali Dam Cultural Heritage Management Project

An overview of previous archaeological research in Lesotho, the physical environment of the upper Senqu drainage basin, and placing the sites surveyed and excavated during contract C6025 within this context

Len van Schalkwyk, John Parkington, Jessica Angel and Marko Hutten

Abstract

Lesotho has a legacy of archaeological investigations. The most pertinent of these have been the rock art research of Lukas Smits and Patricia Vinnicombe in the 1970s and 1980s, and more recently RARI's surveys and interventions at the Sehlabathebe

National Park. The pioneering excavations by Patricia Vinnicombe and Pat Carter in this period too, and latterly, those of Peter Mitchell at Sehonghong Shelter and its local environs have established a well described and dated Late Pleistocene sequence within the Maloti-Drakensberg mountains. Brian Stewart and Genevieve Dewar have continued with this tradition, both at Sehonghong and further to the west at Sehlabathebe.

Dam driven development projects have also afforded numerous heritage impact assessment opportunities as reported by John Parkington, David Lewis-Williams, Jonathan Kaplan, Charles Arthur, and Rachel King. These have added substantial data and insights to our understanding of human settlement and environmental interactions, largely within the Clarens Sandstone biomes.

Key words: Senqu River, Rock art, Holocene, Lesotho Highlands

Holocene occupation of the Eastern Highlands: The long sequence sites of C15, C18 and C21

Len van Schalkwyk, Jessica Angel and Marko Hutten

At the outset of Contract C6025, the project proponents were of the opinion that the knickpoint shelters within the basalt would probably yield deposits possibly up to a depth of 500mm to bedrock. Time frames for interventions at individual sites were thus determined accordingly. An ongoing revision of these time frames was required throughout the project as site C15 only terminated at bedrock

at 1,8 - 2 m below the surface levels; and C18 and C21 terminated at 1,8m and 1,5 m respectively. Daily access was also tenuous and challenging as the respective sites were located upslope within steep and deeply incised tributary valleys of the Senqu drainage. Highlights of these excavations and the outstanding finds retrieved within these full Holocene sequences will be shared here, and the future research potentials thereof discussed.

It would appear that the conventional and prevailing wisdom emanating from the latter studies considered the high-altitude eastern montane region as marginal for human habitation, and at best, a *refugia* during the late 18th and 19th centuries. LHDA Contract C6025 has provided an invaluable opportunity to undertake a detailed assessment of archaeological sites identified within the basaltic eastern Highlands above 2000 MASL. This sparsely wooded high montane grassland biome has yielded an archaeological sequence spanning the whole of the Holocene and into the historical period.

Key words: Holocene, Eastern Highlands, Senqu River

Rock art in the high-altitude basalt zone of the eastern highlands of Lesotho

Jeremy Hollmann

Abstract

The discovery of rock art sites on basalt formations in the eastern highlands of Lesotho by field teams was unexpected and surprising. It was previously thought that occupation of

the basalt regions above 1900 MASL by hunter-gatherers was sparse and transient. On this account, as well as the supposed unsuitability of basalt as a painting surface, it was believed there were no paintings in the high-altitude basalt zone, an assumption that has turned out to be incorrect. This presentation introduces and discusses a sample of the rock art of the high-altitude basalt zone of the eastern highlands of Lesotho documented as part of mitigation carried out by PGS Heritage ahead of the construction of the Polihali Dam near Mokhotlong, Lesotho. Fieldwork and analysis suggest that there are two distinctive bodies of rock art. The most numerous and widely distributed imagery may be linked with confidence to the presence of San/Bushman hunter-gatherers. The hunter-gatherer imagery, while sharing certain basic motifs with the body of Maloti-Drakensberg imagery, comprises mostly eland imagery. The second distinct category comprises paintings made by 19th century raiders, the amaTola. These paintings are less numerous, in terms of number of sites and number of images, than the hunter-gatherer imagery, and are confined to two sites along the Senqu River.

Key words: amaTola Raiders, eland paintings, Polihali Dam, Mokhotlong, Senqu River, Khubelu River

Charcoal Analyses: Reconstructing the Late Quaternary palaeoenvironment of the upper Senqu drainage basin, eastern Lesotho Highlands

B. Hlophe, M.K. Bamford, Len van Schalkwyk

Abstract

Microscopic analysis of charcoal is an important tool in understanding environmental conditions in the past. The Polihali CHMP project was conducted in the basaltic eastern Highlands of Lesotho above 2000 MASL. Several archaeological sites, due for inundation by construction of the Polihali Reservoir on the Senqu River, were excavated. The interior montane regions of southern Africa, including Lesotho, have a varied topography, vegetation and climate compared to those below the escarpments. Preliminary evidence from these archaeological sites suggests a pattern of climate change during the Late Quaternary, differing from those at lower altitudes.

One of the excavated shelters, site D08, yielded a continuous late Holocene deposit to c. 2000 BP, including substantial charcoal samples. These can provide invaluable information on the vegetation and climate of the interior montane region during the Late Quaternary. Additionally, the charcoal maybe informative on how the people living in the area used the woody plant elements that grew in the vicinity of the shelter. Hence, the research is also important for cultural heritage and an understanding of the movements and subsistence patterns of past human communities.

The preliminary data includes several species, namely *Rhamnus prinoides*, *Salix sp.*, *Cliffortia sp.*, *Leucosidea sericea*, *Scolopia sp.*, *Buddleja salviifolia*, *B. saligna*, *Passerina montana*, *Grewia flava* and *Sideroxylon inerme*. These species suggest a moist climate and a high-altitude woody grassland

environment. The identified plants have ethnographically recorded uses as fuel for fires, in artefact manufacture, as well as medicinal and magical uses. These could have also been relevant to people living in the area during the Late Quaternary.

Key words: Archaeology, charcoal, climate, vegetation, human plant uses.

Pressure-flaked point variations from Stone Age shelters in the Basaltic Highlands of Lesotho

Jessica Angel and Marko Hutten

The Polihali Dam Project was a 2nd Phase CRM operation in mitigating the total inundation of various cultural sites, including extant, historical and Stone Age sites. Nine Agro-Pastoral Community sites and twenty-seven Late Stone Age sites were earmarked for detailed survey and excavation. LSA site D08 (Rafolatsane Shelter) contained a wealth of archaeological material. What is notable at the site is the bulk of pressure-flaked points, both complete and broken pieces (12.7% of the formal tool assemblage). This could indicate that the region's leading production site for arrows/points might be at this site. The points range throughout the site's stratigraphy, with production starting slowly around 2000 ya and increasing production peaking at around 1400 ya. Production then decreases and drops off at around 500 ya. An initial study on the typology of these points using a standardised set of criteria resulted in the opportunity to not only class the points into typological categories but also the chance to witness the morphology and production

techniques of these tools. Although this is only the beginning stages of analysis, the research holds an opportunity for further research in comparative studies to establish the distribution of points across central South Africa, the potential value of such items in trade, raw material selection and social and economic organisation of southern African hunter-gatherers.

Key words: Polihali Dam, Lesotho Highlands, Late Stone Age, agro-Pastoralist, pressure-flaked points

Archaeozoology vs Contract Archaeology: What is the best practice?

Louisa Hutten, Kate Croll, Boitshepo Motsodisa, Marko Hutten and Jessica Angel

A team of archaeozoologists and postgraduate students were contracted to analyse the faunal remains from several sites but had to rethink their approach due to contract work time constraints, deadlines, and the unexpected volume of material excavated from several sites. Due to the fragmentation of the bone material, we focused on specific skeletal elements to determine the species for each site. These skeletal elements were primarily complete, abundant, and less problematic to identify up to the species level. The archaeozoological team ensured that the process was streamlined, practical and that the material was still available for future research. We had to adapt our analysis methodology to

a more efficient method without compromising accuracy. The best practice applied to this study is shown and contrasted with the "usual" archaeozoological analysis in this paper.

Key words: Polihali Dam, Mokhotlong, Senqu River, fauna remains, archaeozoology

Archaeozoological work done on fauna material from the Polihali Dam area.

Boitshepo Motsodisa, Louisa Hutten and Kate Croll

Abstract

Archaeological excavations and mitigation were required in the areas affected by the development of the Polihali Dam. Part of the scope of the Polihali Dam Project was to get a better understanding of the terrestrial and aquatic mammals found in the Lesotho highlands during the Holocene and what was utilised by the people moving in and out of the area. Here, we generally present results obtained as part of the archaeozoological work done on the fauna material from nine of the 27 sites identified in the proposed dam area. Overall, the preliminary results from the faunal analysis suggest that the Lesotho highlands played host to several highly skilled artisans and hunters who made full use of the landscape and resources available to them. The people who occupied the numerous shelters had considerable skill with hunting – as demonstrated by the species represented in the faunal assemblages. Their diet mostly comprised of bovids (e.g., grey rhebok,

mountain reedbeek, eland), supplemented by fish caught in nearby rivers. The taphonomy suggests that large carcasses were dismembered away from the shelters; predominantly, limbs were carried back to the shelters before being consumed. Smaller animals (e.g., klipspringer, steenbok, mongoose, dassie) were likely snared nearby and consumed within the shelter.

Key words: Archaeozoology, fauna remains Lesotho highlands

Site C21 in the Polihali Dam Basin Area: A faunal interpretation

Amber Wilson, Louisa Hutten and Deano Stynder

Abstract

The eastern Lesotho Highlands is characterised by its high elevation and drastic variation in topography with temperatures in mid-winter averaging below zero degrees Celsius. In contrast, the summers are considerably warmer with most of the annual rain falling during these months, making this area ideal for summer occupation. To address questions of seasonal mobility, subsistence strategies, and species present, a faunal analysis was conducted on the macro-mammal remains from Site C21 in the Polihali Dam Area. The site was occupied by hunter-gatherers in the last 2500 years with five main occupation periods evident: ~2.5ka, ~1ka, ~0.7-0.8 ka, and < ~ 0.7 ka. A substantial assemblage rich in faunal remains was recorded with a wide variety of species from hunted game to carnivores. Smaller

bovids were seen to have been preferentially hunted in the surrounding areas with grey rhebok as the dominant species throughout the site. Additionally, a significant presence of juvenile grey rheboks was observed suggesting hunting was taking place during the summer months (October to March) during which calves are typically born. Grazing animals that are typically suited to the open grasslands in the western lowlands of Lesotho such as springbok, blesbok, and eland, were identified in low quantities. Their presence, along with the substantial juvenile grey rhebok remains suggests a seasonal migration of hunter-gatherers from the western lowlands to the eastern highlands of Lesotho in summer taking advantage of the seasonal abundance of local natural resources.

Key words: Archaeozoology, C21, fauna analysis, Lesotho highlands

Bone tools and other unique finds from the Lesotho highlands

Marko Hutten and Louisa Hutten

Abstract

Preliminary results from the bone modification analysis suggest that the Lesotho highlands played host to highly skilled artisans and hunters who made full use of the landscape and resources available to them. A significant number of worked bone, ivory and shell artefacts have been excavated and retrieved during the mitigation process. Here we present an overview and examples of the interesting bone artefacts and unique

finds other than the lithics. The presence of coastal shells and associated artefacts indicate that there was movement and possible trade between the coast (Eastern Cape and KwaZulu-Natal) and the interior during the last 10,000 years. A further large number of bone and ivory tools, especially from site D08 indicate the significance of this area as a technologically advanced node. Interesting finds include so-called “woer-woers”, bone beads, bone points and shell pendants to name a few. Investigating the worked bone and bone tool technology, including possible heat treatment, will give us a better understanding of how these artefacts were produced and processed. Insight into the technology will enhance our understanding of the use of the landscape of the limited resources available.

Key words: Bone tools, shell pendants, Lesotho highlands

Site D08 – a continuous Late Holocene hunter-gatherer occupation and evidence for wide-ranging interactions with Iron Age communities.

Len van Schalkwyk, Jessica Angel, Marko Hutten

Abstract

Site D08, known to current local communities as Rafolatsane or Langalibalele Shelter is a northeast facing basalt ingress just above the flood line of the Sehonghong River, a major tributary of the upper Senqu drainage basin. The site is not to be confused with the eponymous

Sehonghong Shelter and stream described by Carter, Vinnicombe and Mitchell *et al* further west. D08 has revealed a full 2000-year sequence of hunter-gatherer utilisation of the shelter, with ceramic finds dating from as early as the Msuluzi expression of the KwaZulu-Natal EIA to 19th C Basotho pottery.

The unique collection of bifacially pressure-flaked CCS points retrieved within a defined and dated time sequence from the D08 excavations comprise almost 80% of the subcontinents currently known arrow tips that have been recorded.

These, and the other phenomenal finds will be presented and discussed in terms of their future research potentials and contributions to post graduate studies.

Key words: Rafolatsane, Langalibalele Shelter, Sehonghong, Msuluzi, Basotho pottery

Intangible Cultural Heritage

P. Nyabela, S. Gill, J. Ralimpe, M. Nkune, M. Makoro, M. Sentle, T. Makume, M. Mohape and R. Monke

Abstract

A participant observation approach was applied by a fieldwork team to conduct intangible cultural heritage studies of the Polihali reservoir catchment area during execution of the Polihali CHMP project. To this end the team audio-visually documented cultural landscapes and sites of spiritual, cultural, or historical significance, such as protective stones (*lithakhisa*), sacred pools (*likoetsa*), initiation lodges (*mephato*), battlefields; and some aspects of flora

and fauna used by communities for medicinal purposes and their habitats within Khubelu and Senqu drainage basins. The audio-visual documentation was extended to the cottage industries that comprise livelihood support systems to local communities. The Intangible Cultural Heritage study has documented and compiled the settlement histories of directly impacted Basotho villages, their layout and architecture, as well as these agro-pastoral communities' living history, practices, and traditions. This has provided valuable insights into the history of the settlement of the high mountain areas of Lesotho since the mid to late 19th C, the early history of the Makhlokoe, Batlokoa, and related clans, the impact of missions and traders in the audiovisual presentation has been proposed to enhance education, promote cultural identity, and heritage conservation. This has been favourably received by the LHDA.

Key words: Cultural Heritage, Polihali Dam, Basotho Village and LIDAR

Polihali Research Group - Future research potentials – A summary

John Parkington

Abstract

The opportunity to excavate, survey and map archaeological sites in the area to be flooded by the proposed Polihali Dam in northeastern Lesotho has been unprecedented in Lesotho and perhaps in Southern Africa since the Orange River Dams project led by Garth Sampson. We have tested more than 20 rock shelter deposits and have

Mokhotlong area, and the ethnographically recorded unique cultural practices of the Batlokoa. Villages have been recorded employing LIDAR and 3D scanning. These offer data sets of the village's layouts; and, in the future, a portal to view and reconstruct "what was previously there". Recommendations were made to the LHDA that include the spiritual relocation of sacred springs and water pools and initiation lodges; the physical relocation of sacred village stones (*lithakhisa*), in full observation of the customs and traditions of the communities concerned. An Interpretation Centre at the Polihali Village to interpret and show the collated data through an interactive

the chance to compare stratigraphies, artefact assemblages and potential palaeoenvironmental signals from these. Perhaps critically, these are the

first such excavations from the basalt zone of the highest part of Lesotho and unlock the archives of Holocene settlement for our investigations. It was clear from the initial survey that the sites were very varied, including tiny ledges in basalt nickpoints that seemed surprisingly precarious, as well as larger volume shelters down at the level of the river systems that seemed more obvious domestic targets. These prompted lively discussions among ourselves about who was occupying these sites and why? To add to this variety it emerged from the excavations and dating that the time spans covered by depositional piles were not uniform with longer Holocene records and shorter coverages that hardly

preceded the sub-continental appearance of domestic animals and farming. At the recent end of this sequence, the material remains generated interesting questions about hunter-gatherer agricultural village relations. Even more surprising is the extraordinary result at what we have called A08 where almost 80% of the subcontinents currently known bifacially pressure-flaked missile (presumed arrow) tips have been found. Despite any starting presumptions of uniformity in a strictly basalt topography, then, we have uncovered a very variable archive of human visits and hunter-gatherer activities. This has prompted us to remember the difference between a *site* and a *place*, the former a location where we might excavate, the latter a set of opportunities used in a particular way by stone tool-making people. A phenomenological approach seems attractive. Here we offer some speculations about how these Polihali locations became places of great significance.

Key words: Polihali, Lesotho highlands, Senqu River

Heritage Resource Management AND The evolution of Heritage Resources Management in SADC

Southern African Archaeology: Transcending Regional and National Borders

Stephanie-Anne Barnardt

Abstract

Africa, as a continent, holds significant historical importance in the evolution of humans, global

expansion(globalisation), and industrial progress (industrialization). In the 21st century, South Africa has undergone substantial developmental changes posing threats to numerous heritage sites, both tangible and intangible. The efficient identification, preservation, and management of these heritage resources rely on Heritage Resource Management (HRM). Archaeologists play a crucial role as the primary guardians of these resources, given their inherent involvement in identifying archaeological assets. This presentation delves into archaeology as a pivotal framework ensuring the positive impact of progress while safeguarding heritage. Focusing on examples from the Western Cape, such as the Pinnacle Point golf course, Nelson Bay caves, and accidental discoveries during local developments, it illustrates the vital role of archaeologists in preserving and mitigating negative impacts on heritage resources. Moreover, it emphasizes the necessity of public engagement and heritage inspectors in identifying, preserving, and managing these invaluable resources. Ultimately, this presentation aims to demonstrate that within the realm of archaeology, striking a balance between preservation, narrating Africa's story, and developing heritage resources for communities stands as a fundamental pursuit.

Key words: Heritage, management, Western Cape, NHRA

Impacts of National Developments on Cultural Heritage Sites in Botswana. The Gaps in the Law

Tapiwa T. Matanire and Morongwa N. Mosothwane

Abstract

As an upper-middle-income country, Botswana is currently undertaking a number of infrastructure development projects such as roads, hospitals and schools. Execution of these projects is done through tendering system which is guided by the “Information to Tender” (ITT) documents. The Monuments and Relics Act (2001) is a statutory tool used to protect archaeological heritage against many elements including damage caused by infrastructure development. While the Environmental Assessment Act on the other hand, is used to protect the overall environment which may or may not include archaeological resources. Unfortunately, there is usually lack of coherence and coordination between MRA, ITT and EA Act. This paper evaluates the current *status quo* of protecting archaeological heritage through intersection of the MRA, ITT, EIA and construction companies in Botswana. Evidently, archaeological resources are often side-lined or damaged with little to no repercussions. Factors contributing to this include among others, insignificant monetary charges for contravening the MRA, preferential appointment of environmentalists over archaeologists on projects and others.

Key words: Construction, Heritage Site, Limitations, Monuments & Relics Act of 2001.

Protecting, promoting, and transmitting the African Rock Art

Heritage as a meaningful trans-cultural agent

Marina Gallinaro

Abstract

Rock art is a fragile and threatened heritage, but it provides a unique visual archive into the social and symbolic worlds of past human societies. It can have an emotional impact on contemporary observers, effectively contributing to raising awareness on specific critical topics:

The informative value of rock art in the reconstruction of past living societies. The challenge to preserve the cultural heritage for future generations. The past and present cultural dynamics connected to climate change and the exchanges and connections between different cultural systems, including migration. Africa is home to a significant amount of rock art, which can be found throughout the continent in various styles, techniques, and ages. Currently, 12 African UNESCO World Heritage sites include rock art, with approximately 20 more on the tentative list. This number is higher than any other continent.

This paper aims to examine the various approaches taken in different African contexts to connect or reconnect rock art stakeholders with local communities, both within and outside of the continent. The balance between these stakeholders is not always equal and requires careful evaluation in terms of cultural, political, and economic backgrounds. This paper will discuss the impact of UNESCO on conservation and sustainable development in Africa, focusing on best practices to address

existing gaps in management. Relevant facts and figures will support the disc

Key words: Africa, rock art, sustainable development, management, post-colonialism, UNESCO

An evaluation of how community-based trusts manage heritage sites to generate income in Botswana. A case of Mogonye National Monument

Princess Peoentle
Sekgarametso-Modikwa

Abstract

Heritage sites that are managed by community trusts in Botswana are mostly not well kept in spite of receiving assistance from the government. Mogonye National Monument was used as a case study to investigate this phenomenon. In this study data was collected amongst four primary stakeholders that were purposefully selected to participate in the research.

Data collected was analysed according to themes/codes generated. Six themes with some having sub-themes were generated in areas of challenges with general site management, challenges with laws and policies on heritage management in Botswana, Heritage management in Botswana, income generating activities for Mogonye site, legal status of the site and general site management issues.

Results indicated that the Department of National Museums and Monuments needs to have a programme management office that will be focused towards heritage management issues and this can be

archived by reviewing the Monuments and Relics Act (2001) to cater for the management of heritage sites by community-based trusts in Botswana. District officers need to be equipped with the right project management staff and tools in order to successfully monitor heritage sites within their jurisdictions. And lastly community-based trusts also need to have site managers who are fully equipped with project management as management of sites should be value driven and a collaborative effort of all stakeholders

Challenges of managing cultural heritage sites in peri-urban areas: A case of Domboshava National Monument in Zimbabwe

Kelvin Machiwenyika and Pauline Tafadzwa Gandiwa

Abstract

Heritage Management faces fierce challenges in peri-urban areas in Zimbabwe especially in Domboshava, a national monument in Chinhamora communal lands. Zimbabwe has experienced massive rural to urban migration which resulted in great pressure on resources, accommodation and employment in the urban areas. Peri-urban areas like Domboshava are now absorbing the pressure which is exposing cultural heritage sites in the area to vandalism and destruction. This monument is significant for its natural, historic and archaeological resources under the management of National Museums and Monuments of Zimbabwe. The monument management authorities are in constant battles with illegal land

barons who illegally parcel out land, even part of the monument. Illegal stone quarry and gold mining have been recorded in the monument. The area is largely unelectrified and a large portion of the population relies on firewood for heating and cooking. The monument's security team has been fighting a losing battle against the illegal activities for instance, trees in the monument are now being used for firewood. Many villagers have sold their fields and built houses on the monument land. Vandals have defaced the rock paintings with graffiti and fires have been lit dangerously close to the rock paintings putting them at risk of damage . The NMMZ can take steps to mitigate the problems most of which involve engaging the community but some of the community members are taking part in defacing the monument, some are even legal deviants who have no respect for the law. Involved law enforcement agencies and establishing clear boundaries for the monument maybe options for reducing illegal activity. Despite the challenges, it is important to continue efforts to preserve and protect this cultural and historical site with the right resources and expertise, the monument can continue to be valuable and unique for future generations.

Key words: Monument, heritage, preservation, threats , awareness

SAHRIS As Your Heritage Resource Management System

Ethan Cottee

Abstract

This presentation advocates for the

adoption of the South African Heritage Resources Information System (SAHRIS) as the preferred Heritage Resource Management System for institutions and individuals, focusing on key aspects that make it a comprehensive and user-centric solution. SAHRIS seamlessly integrates its heritage resource management functions and compliance with the National Heritage Resources Act of 1999, positioning itself as a powerful tool for its users and legislative adherence.

This presentation delves into the evolution of SAHRIS from Version 1 to Version 2, exploring the factors that influenced these changes. Whether driven by legislative updates, user feedback, or the need for streamlined processes and increased flexibility, each modification is carefully examined to illustrate the system's responsiveness to diverse needs. The influence of ongoing inventory projects, particularly in the context of heritage objects is highlighted. A significant initiative involves onboarding all the Western Cape museums, emphasising SAHRIS's applicability in diverse settings and its role in enhancing collections management within museums.

Focusing on SAHRIS's function as a collection management tool for museums, with regards to how the system caters to heritage objects, their interlinkages, and their spatial context within museums. Addressing the migration of artefacts and emphasises the importance of advocating for legislative support at all levels, including local, provincial, and national tiers. The tagline "SAHRIS, makes compliance easy" encapsulates the

essence of the presentation, emphasising how SAHRIS serves as a user-friendly and legally compliant Heritage Resource Management System, promoting efficient and responsible heritage conservation practices.

Heritage Resources Management vs. Development: The Built Heritage (Architectural Heritage) in Kimberley.

Itumeleng N. Masiteng

Abstract

Over the years, development has been shown to be a threat to the protection and conservation of built heritage in urban spaces. Development from a socioeconomic perspective is about addressing societal needs by systematic use of natural laws and cultural knowledge. The role of placemaking will be explored to examine the nuances of a city like Kimberley because placemaking serves to articulate social and economic visions within urban spaces. However, key issues often stem from the finding of a balance with heritage protection and conservation when development goals are concerned in a city like Kimberley that can be problematic. This paper seeks to unravel how a city like Kimberley deals with development when it comes to protecting and conserving built heritage. This paper will also examine the implications of legislation, spatial planning, heritage planning, and gentrification.

Key words: Place making, heritage planning, gentrification, architectural heritage.

Conservation of the Wonderwerk Cave paintings (Northern Cape, South Africa)

Anaïs Empereur

As part of a research project bringing together French and Southern African academics and practitioners involved in heritage management (ANR COSMO-ART), this research focuses on the conservation of paintings in Wonderwerk Cave, a prominent archaeological site in South Africa. The rock art found in this site consists of painted geometrics and animal figures attributed to the Later Stone Age, which have been heavily damaged by uncontrolled anthropogenic pressure in the past decades. A comprehensive conservation study was therefore crucial to ensure the long-term durability of this rock art, as well as a prerequisite for its study. Our approach involved conducting a thorough condition assessment of the paintings, encompassing the identification and documentation of alteration forms and their correlations with the condition of the rock art. To achieve this, we surveyed the entire area with rock art, and identified the different alteration forms, using chemical analyses when necessary. In order to better comprehend the emergence and evolution of these alteration forms, we implemented a monitoring of key alteration factors, such as climatic parameters, hydrological activity, and dust deposition dynamics within the cave. Simultaneously, we conducted a detailed relevé of two representative panels within the rock art area, documenting the position of alteration forms and rock art figures. Finally we synthesised the observations collected

in the development of a risk index, which makes it possible to spatially identify areas of vulnerability in the rock art panels. This work allowed us to evaluate the conservation of Wonderwerk Cave, showing that it presents a rather favourable environment. Additionally, we proposed a new method for assessing the conservation of rock art sites, with the development of a quantified and spatialised risk index.

Key words: Conservation, Condition assessment, Alteration, Rock art, Northern Cape, GIS.

Adopting digital technologies in heritage management: An assessment of the use of Digital technologies by the National Museums and Monuments of Zimbabwe (NMMZ)

Tariro Zhou and Thubelihle R. Mnkandla

Abstract

The use of digital technologies in heritage management has increased especially in the 21st century. This has provided new methodologies and tools that are being used in the collection, conservation, interpretation and dissemination of heritage in the field of heritage management. This research seeks to assess the extent to which NMMZ has made use of digital tools in the preservation, management and presentation of heritage sites to enhance visitor experiences. This research used various methods that include surveys and interviews, observations, comparative analysis, as well as expert consultations. The results of this research sheds light on

the benefits, barriers and challenges that are being faced by NMMZ in implementing digital technologies in heritage management. Although the use of digital technologies in heritage management has been increasing globally, we show that NMMZ is still lagging behind in the use of some of these technologies. Consequently, we provide potential strategies that the institution may adopt as way of enhancing the effectiveness of the use of digital technologies in the management of the heritage in Zimbabwe.

Key words: Digital technologies, heritage, presentation, preservation

A Vanishing Heritage? The case of the Dithakong Archaeological site in the Northern Cape.

Jesmael Mataga, Joseph Chikumbirike, Thami Tebeka and Abenicia Henderson

Abstract

This paper grapples with ideas around making construction and valuing of archaeological heritage in South Africa. Taking from the Dithakong Archaeological Site in the Northern Cape, we argue that despite the immense archaeological, historical and local value of this site, its heritage is desiccated and there is decimation, and a sense of abandonment, as the local community, heritage professionals, and researchers pay even less attention to the site. Local communities do not claim or know little about the site's significance and

there is a general lack of interest amongst the older people in the communities about this archaeological heritage. Though some youths are starting to appreciate its heritage significances.

Dithakong Archaeological Site mainly exists to the scientific world or community scholars, mainly archaeologists, with its physical structure community recorded by a few archaeologists. Notwithstanding this, and the fact that Dithakong remains of the most archaeologically and historically significant site related to Tswana history and heritage, local communities remain relatively less interested in the site. Officially, though Dithakong is a Category 3 heritage, and it has local significances, there is relatively less attention from SAHRA or the local PRHA. Considering heritage of its magnitude spatially, this could have been either provincial or national heritage. Comparatively, Dithakong remains less attended to, against local archeological sites as Wonderwerk Cave. This lack of interest in this heritage as expressed by PHRA, SAHRA and researchers indicates how professionals tend to construct and deconstruct what is heritage. It also shows how local communities construct what is heritage. Though the locals in Dithakong view the physical structures as significant, for them it is not the kind of heritage that they are concerned with. Rather they tend to focus more on heritage linked to the politics of the chieftainship and living heritage *visa viz* institutionalised heritage. Nonetheless, this study reveals that some sections of the young generations are tending to realise the loss of this heritage and

would like to learn more about this heritage. It is therefore recommended in this study that the values be brought back through conducting more research to generate knowledge and information that can then be used in awareness programmes about the site. Ultimately this paper contributes to discussions on processes, and challenges related to valuing archaeological heritage, and proposes a few recommendations related to revaluing sites whose values and significance are endangered.

What does a photovoice project contribute to the analysis of heritage representations? A critical analysis of the "Places in Me" project with the Khwe and !Xun communities in Platfontein

Leïla Baracchini, Mélanie Duval, Moshe Maghundu, Jakob Makai, Stéphane Høerle, Lourenço Pinto, Beбето Zagaria. Kabinda, Karina Shiwarra, David Morris, Hugo Quemin, Abenicia Henderson and Nadia Belaidi

Abstract

In the proposed talk, we will critically assess a photovoice project co-conducted between researchers and San communities in Platfontein in 2022 and that resulted in an exhibition (opening July 2023). This project emerged from a participatory and collaborative approach involving a multidisciplinary team of researchers (ANR COSMO-ART project), South

African academics, local heritage, and cultural institutions (Sol Plaatje University, McGregor Museum), and two local NPOs, SANCD and SASDO.

The project, carried out in Platfontein (Northern Cape, South Africa), involved the Khwe and !Xun communities living near the Wildebeest Kuil rock art site. The tourism industry often emphasises the spatial proximity between these two communities and rock art sites to justify their relationship. Our work sought to investigate the state of this relationship and evaluate the extent to which the rock art sites truly represent heritage for these two San communities. To achieve this, we implemented a photovoice process. Collaborating with the local NPOs, community members were invited to participate in the project and tasked with taking photos of places they deemed significant. Individual interviews based on the photos were then conducted with each participant. Surprisingly, none of the participants took pictures of the rock art site, indicating a significant disconnect between the narratives propagated by tourism discourses and the actual state of the communities' relationship with the rock art site.

At the same time as the photovoice process was taking place, an exhibition initiative was underway, aiming to showcase what the participants defined as their heritage, from their point of view. Selected photographs and excerpts from interviews were

paired for display. The final exhibition consisted of 21 kakemonos accompanied by a booklet with texts in Xuntali, Khwedam, Afrikaans, and Setswana. In addition, a QR code

system facilitated access to audio recordings of the selected quotations in the two local languages. Two opening events were held in late June/early July 2023, the first at Platfontein and the second at the SPU premises.

Moving beyond these factual details, we seek to critically examine the process implemented and assess the effectiveness of the photovoice methodology in capturing community perspectives on heritage.

Key words: heritage perceptions, photovoice process, community based-approach, Wildebeest Kuil rock art site and Khwe and !Xun communities

In search of an idea. What is 'community' in 'community-based management' and how to improve our understanding of it for the sake of sustainable management? !Xun, Khwe and Wildebeest Kuil rock art site.

Quemin Hugo, Duval Mélanie, Morris David, Pinto Lourenço

Abstract

This communication analyses the dynamics surrounding the involvement of two San communities, the !Xun and the Khwe, in the management of the Wildebeest Kuil rock art site since 2001. Despite this initiative, the !Xun and the Khwe quickly lost interest in the site. With regard to heritage resource management issues, this paper draws on this specific case study to question the uses and abuses of the notion of 'community'. From this case

study, we will see how the !Xun and the Khwe of Platfontein are sometimes considered as one community, sometimes as two communities. This matter of understanding is examined in relation to the Wildebeest Kuil rock art site. Rather than imposing preconceived ideas about what constitutes a community, this communication proposes an exploration of the dynamics surrounding this rock art site, in order to question *where* the community is, *who* makes it exist, and *how* it takes shape. From this rock art site, we will thus inform different existing conceptions of community (legal, anthropological), before presenting a third approach (pragmatic), one which is more realistic for our research activities, providing useful theoretical insights for action in response to cultural heritage management challenges. In terms of methods, this communication mobilises qualitative data from field observations and semi-structured interviews with various stakeholders and grey literature analysis. It is based both on research carried out as part of a Master's thesis and on analyses carried out by the COSMO-ART research group (a project funded by the French research agency involving South-African, Namibian and French researchers).

Key words: community-based, heritage, rock art, postcolonial context, South Africa, archaeology.

Cultural Landscapes as part of the Environmental and Heritage Impact Assessment Process

Lavin, J., Bailey, E. and Winter, S.

Abstract

Cultural Landscape is defined as a symbiosis of human activity and environment and resides in the relationship between humans and their environment and how this has shaped the landscape over time. As defined by the World Heritage Committee, it is the "cultural properties [that] represent the combined works of nature and of man" and often encompasses various elements within an area that overlap with each other to create a unique sense of place. Cultural Landscapes include elements of palaeontological, archaeological, built environment and historical significance, places associated with indigenous knowledge systems and practices as well as elements of natural and aesthetic value. Since the advent of large-scale renewable energy projects across South Africa, the identification, conservation and management of cultural landscapes has become more important in managing the associated cumulative impacts. Recent renewable energy projects proposed for development in rural South African landscapes have highlighted various challenges in the management of impacts to significant archaeological heritage, especially in the context of archaeological landscapes that stretch into deep time such as areas of the Karoo.

Across various sectors, different methodologies are applied to attempt to manage such cumulative impact on the cultural landscape and to date no comprehensive regional dataset has been developed. In this paper, we look at existing methodologies used in

visual impact studies such as Landscape Character Analysis and how these methodologies may be applied to cultural landscape impacts. Additionally, we discuss the development of a framework for cultural landscape assessment as well as propose a set of general standards and initial indicators for application across renewable energy facility development projects which all South African heritage authorities could apply.

Key words: heritage management, cultural landscapes, impact assessment, renewable energy facilities

Title: MAEASaM - Data and Management

Mapping Africa's Endangered Archaeological Sites and Monuments (MAEASaM) Project

Amanda Esterhuysen and Paul Lane

Abstract

Beginning in September 2020, the Mapping Africa's Endangered Archaeological Sites and Monuments (MAEASaM) project has been working in collaboration with national museums and heritage authorities across eight countries in Africa. The aim of this project is to establish a secure and accessible digital geospatial repository of sites and monuments records that can be used as a tool for the management of archaeological data by heritage authorities and other stakeholders and to facilitate transnational research. Several regional collaborative

workshops were held during the course of the first phase (2020 - 2024) of the project. Discussions have predominantly centered on the critical need to recognise the value of heritage data, particularly with regards to the ways in which data can be used to identify trends, raise awareness and support sound decision making. Authorities that continually work with, and ask questions of their data are able to formulate adaptive and effective strategies for the long term preservation and promotion of cultural heritage. At the same time, heritage agencies have understandable concerns about widening data access and how this might have detrimental impacts on these heritage resources they are mandated to conserve and protect. In this paper, we reflect on this collaborative work in the MAEASaM Project and highlight the integral role of data for heritage management and on the strategies adopted around managing data access.

Key words: Heritage management, data capture, data analysis, geospatial repository

Heritage Resource Management and Academic Institutions: working together to manage South Africa's diverse heritage

Dawn Green, Ayanda Mncwabe-Mama, Karen van Ryneveld, Celeste Booth, Greg Ontong, Nonhlanhla Vilakazi, Rob Gess, Romala Govender and Silindokuhle Mavuso

Abstract

Cultural resource management is a collaborative endeavour. For optimum

heritage conservation, the collaboration of heritage resource authorities, cultural resource practitioners and academic institutions is essential. Social and economic development is rapidly increasing in South Africa which makes the expert recording and researching of our cultural heritage critically important. In response, the Eastern Cape Provincial Heritage Resources Authority's archaeology, palaeontology and meteorites committee has implemented several measures. One measure is ensuring submitted Phase 1 Heritage Impact Assessment reports are of a professional

standard that meet and exceed the minimum legislated by the South African Heritage Resources Agency. We have also mandated Phase 2 reports when the heritage resource value and significance of a site is medium to high. Further, we are developing a database of the studies that are undertaken to ensure these records are stored correctly for future reference. However, there are several heritage resources that have been identified that need further focused research which would be ideal for student and established academic post-graduate research. We provide two case-studies as example. Many of these heritage resources are not ear-marked for destruction but the proposed developments do have an impact on the sites to varying degrees. We suggest a process whereby we can alert the relevant departments in universities to the research potentials of these sites in the hope that these departments will commit some of

their resources to this important research. In doing so, and through our collaboration, we can provide a more integrated and inclusive understanding of our diverse pasts.

Key words: Cultural heritage resource management; conservation; research; professional standards; academic/CRM collaborations; archaeology; anthropology; history; palaeontology.

An investigation of community involvement in archaeological heritage management at Domboshaba hills, northeastern Botswana

Idah Maniki

Abstract

For a long time, the management of heritage in Africa has largely been defined by colonial narratives which often leave the community voiceless. The literature has however, shown that communities have an interest and want involvement in the -management of their heritage. Additionally it has been demonstrated that communities have always been involved in heritage management in as far as the local people in Africa have frequently contributed to the survival of archaeological sites through their knowledge and other custodianship systems that kept sites intact. This research sought to investigate community involvement in the management of the Zimbabwe Culture archaeological heritage dry stone-built site of Domboshaba Hills in North-Eastern, Botswana. The focus was on how the community is involved in managing their heritage, the level of involvement as well as finding out the

challenges that heritage institutions face when involving communities in heritage management. The research also examined Botswana's legislation to see how it has incorporated communities in managing archaeological heritage. The study made use of the post-colonial theory which is centred around examining the historical and cultural impact of colonialism on heritage which often neglected the local communities. Based on the qualitative research approach and using a combination of field research methods as well as the thematic analysis framework, 4 themes emerged. The results show that, the communities surrounding the site of Domboshaba Hills have cultural and historical ties with the site and have a strong wish to be involved in its management. With the exception of one specific group which has been marginally involved however, the majority of the communities feel entirely excluded by the official heritage authorities, in the management of Domboshaba site. Based on the research undertaken at Domboshaba Hills, the study makes recommendations on how the Botswana official heritage management system can incorporate local communities in archaeological heritage management.

Key words: community involvement, archaeological heritage, management, colonialism, post-colonialism

Cultural heritage entrepreneurship in Zimbabwe: a comparative analysis of Domboshava and Ngomakurira rock art sites, Chinamora communal lands Domboshava

Simbarashe Makona and Pauline Chiripanhura

Abstract

The article is a comparative analysis of Domboshava and Ngomakurira Rock Art Sites in terms of management structure in relation to Cultural Heritage Entrepreneurship. The article focuses on assessing and establishing how National Museums and Monuments of Zimbabwe (NMMZ), the national custodian for cultural heritage resources in the country has been managing Domboshava and Ngomakurira rock art sites with particular reference to cultural heritage entrepreneurship. An evaluation of cultural heritage exploitation in relation to heritage conservation was conducted. Field research methods included face to face interviews and observations. These were carried out amongst NMMZ personnel, entrepreneurs and the local people as they constituted categories that had potential to provide the required data. Results showed that there existed some entrepreneurs who were using the two sites for their entrepreneurial endeavours who were working with NMMZ towards conservation of the sites. This led to the conclusion that cultural heritage entrepreneurship in the area of cultural heritage conservation can be an option towards sustainable heritage conservation as well as help towards poverty alleviation.

Key words: Sustainable Heritage Conservation, Cultural Heritage Entrepreneurship, Domboshava, Ngomakurira.

Ongoing and future conservation work at Matjies River Rock Shelter, Keurboomstrand

Nicolas Wiltshire, Jenna Lavin and Janette Deacons

Abstract

Matjies River Rock Shelter is a declared Provincial Heritage archaeological site with Holocene deposits that were excavated in the 20th century, leaving a very large T-shaped trench that measures about 7m deep between the exposed rock face and the remaining deposits. Since excavations at this site were completed, the site has required stabilisation and conservation interventions. Phase 1 of the conservation work was completed by Janette and Hilary Deacon in the 1990s under the auspices of the National Monuments Council whereby sections were cleaned, sandbags installed on sloping deposits, the boardwalk overhauled, signage installed and a detailed plan for the second phase drawn up with the help of Melis Engineers.

In March 2022 and periodically in 2023, CTS Heritage proceeded with Phase 2 of the conservation work with funding from SAHRA and OpenHeritage. In this paper, we will discuss the methodologies employed to achieve the stabilisation of the significant deposits at this Provincial Heritage Site, as well as some of the challenges faced and lessons learned through the process.

Key words: archaeology, heritage, conservation, shell midden.

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Key words: archaeology, heritage, conservation, shell midden

The heritage of plant use: A case of the Ndau communities of Chipinge, Southeastern Zimbabwe

Portia Mlambo

Abstract

The proposed research investigates how the Ndau people perceive and use indigenous plants outside subsistence. The Ndau people are associated with rich Indigenous Knowledge Systems (IKS) on indigenous plants, which have been passed from generation to generation. This form of intangible cultural heritage has contributed to the sustainable management of biodiversity through taboos, myths and legends which governs the harvesting, processing and use of the indigenous plants. However, Ndau intangible cultural heritage is under threat of extinction due to a number of factors. The historical events that were experienced in the 19th century, for instance Mfecane, missionary activities and ultimately colonization, directly affected the Ndau communities leading to dispersal and dilution of the Ndau communities. Other factors such as climate change are also influencing the disappearance of indigenous plants, leading to loss of knowledge about their use. Urbanisation and modernization have also been cited as contributing factors to the erosion of the Ndau cultural practices. Therefore, the study will investigate the use of Ndau indigenous plants outside subsistence among the Ndau communities and propose measures that promote and preserve Ndau heritage (the use of Ndau indigenous plants) so that the information is not lost forever.

Key words: Ndau, indigenous, heritage, plants, intangible, culture.

Case report on two burials at Domboshaba, a satellite town of the Zimbabwe Kingdom in North Eastern Botswana.

Morongwa Nancy Mosothwane and Keamogetse Hluke

Abstract

The ancient kingdom of Zimbabwe is one of the well-known and well researched ancient civilisations in southern Africa. With its capital at Great Zimbabwe, the kingdom extended over an area covering parts of modern day Zimbabwe, Zambia, Botswana and South Africa. Earliest scientific research on various sites date as far back as the late nineteenth century but despite this long record of field work, no burials have been located at major sites including Great Zimbabwe herself. So far all attempts to reconstruct the paleodemographic characteristics of the kingdom have been based on various proxies except for human remains. In fact, the absence of any burials within the extensive excavation units conducted at GZ over the last 100 years has been both amazing and frustrating to archaeologists. The recent discovery of two graves at the site of Domboshaba, one of the major satellite towns of the Zimbabwe Kingdom in north eastern Botswana presents the first ever graves found on any of the large satellite towns. This paper presents a case study on the accidental discovery, burial descriptions and results of the skeletal analysis of the two individuals found buried just a few meters from the stone walls. The location of the burials in relation to the massive stone wall structures at Domboshaba is now giving us a clue of where and how the

Zimbabwe people buried their dead. Unfortunately the skeletonised remains were badly preserved and thereby limiting the extent to which analysis could be done.

Key words: Domboshaba, Human graves, Zimbabwe Kingdom

Issues affecting the enrolment of Archaeology and Heritage Studies viable classes in Universities in Zimbabwe

Simbarashe Shadreck Chitima

Abstract

Zimbabwean universities offering archaeology and heritage studies education are struggling to enrol viable undergraduate classes. For example, at Midlands State University (MSU), student enrolment for the department of Archaeology, Cultural Heritage and Museum Studies degree programme has been declining since 2004. This paper investigates the factors causing low undergraduate enrolments for the archaeology and heritage studies degree programme at Midlands State University. This study employed qualitative and case study research approaches. It is revealed that there are several interrelated factors causing low enrolments into the archaeology undergraduate degree programmes at MSU and these are: lack of archaeology information among students, parents and admission officers, parental influence and command in career decision making, misconceptions towards archaeology and heritage studies, perceived limited archaeology job opportunities in Zimbabwe, teacher influence and school grading systems,

peer influence and limited programme marketing initiatives. It is concluded that many students and parents view archaeology as the science of rubbish and grave digging hence these misconceptions have chiefly contributed to low enrolments for archaeology and heritage studies in universities. Therefore, university departments offering archaeology and heritage studies risk closure if they fail to enrol viable classes.

Key words: low enrolment, archaeology and heritage studies, viable classes, parental command, science of rubbish.

Bridging the Gap: Aligning Cultural Resources Management Education with Industry needs in South African Universities

Wouter Fourie

Abstract

The efficacy of cultural resources management (CRM) education in South African universities is under scrutiny, particularly concerning its alignment with the needs of the CRM industry. I investigate the current state of CRM teaching and the perceptions of students enrolled in CRM programs, aiming to discern whether these address the requirements of cultural resources management. Employing a mixed-methods approach involving surveys, interviews, and curriculum analysis, we assess how CRM education equips students with the necessary knowledge, skills, and competencies demanded by the CRM sector. We scrutinise South African universities' curricular content and practical experiences to ascertain their

relevance and effectiveness in preparing students for careers in heritage management. Furthermore, by engaging with industry stakeholders, we seek to identify areas of disconnect and potential strategies for enhancing the alignment between CRM education and industry needs. By bridging the gap between academic training and professional requirements in cultural resources management, we can foster a more effective and responsive educational ecosystem for future heritage stewards in South Africa.

Key words: CRM, cultural resources management, teaching, education, career

A multidisciplinary view on the process of regionalisation during Marine Isotope Stage 5 in Southern Africa

Serrates, blades, and points – New results from the E-A layers of Sibhudu Cave

Viola C. Schmid, Guillaume Porraz, Veerle Rots and Nicholas J. Conard

Abstract

The archaeological record reveals increasingly that recognisable changes in the behaviour of human societies arise in the Middle Stone Age (MSA) of Marine Isotope Stage (MIS) 5. The multiplication of new practices points to a scenario of immense developments in cultural evolution most likely associated with the appearance of regionally diversified populations distinct through

adaptations and conceptions, yet socially and biologically connected. However, more evidence and fieldwork are needed to investigate profoundly the nature and timing of these cultural processes. Sibhudu Cave (KwaZulu-Natal) located in the Indian Ocean Belt biome has a long and well-documented MSA sequence encompassing among other things deposits from MIS 5. The C-A layers yielded lithic assemblages with novel technological signatures, such as a specific laminar reduction system, the manufacture of unifacial and bifacial points, and the production of serrated pieces with the application of pressure notching. Here, we present new results from the MSA strata of MIS 5, including the preceding D to E layers. We elaborate on the status and plasticity of the blade technology and the accompanying emphasis on point production. Our data reveal nuances of technological change within the individual layers but justify grouping them together as a local technocomplex, the iLembian. With these new insights from Sibhudu Cave, we aim to fuel discussion about regional and sub-continental evolutionary trajectories within the MSA of MIS 5.

Key words: Middle Stone Age, Marine Isotope Stage 5, lithic technology, innovations and regional chrono-cultural sequence

Chronological Patterning of Middle and Later Stone Age Occupations in the western Free State, South Africa

Britt Bousman, Mark Bateman, Lloyd Rossouw, Louis Scott, Andri Van Aardt and Michael Toffolo

Abstract

Archaeological research over the last 20 years has allowed for the construction of a more complete Late Pleistocene and Holocene chronology for Middle Stone Age and Later Stone Age occupations in the western Free State. Before the recent phase of research in the western Free State, the site of Florisbad was almost the only source of chronological evidence for human occupation in the region. Now well dated sequences of alluvial terraces from Florisbad, Erfkroon, Lovedale, Damvlei, Baden-Baden and other sites provided the stratigraphic and chronological evidence to propose a tentative reconstruction of the temporal patterns of human occupation in the region. When linked with the emerging paleoenvironmental/paleoclimatic record, a model that accounts for the pattern of human habitation can be proposed.

SBLS Lithic Technology and its Behavioural Implications

Sebastian Bielderman and Sarah Wurz

Abstract

In the Middle Stone Age (MSA) of the southern Cape of South Africa, significant research has been undertaken to understand the behaviours linked to coastal adaptation as well as the exploitation of terrestrial resources, however relatively little is understood on how lithic technology relates to human behaviour during certain MSA periods in this region. The Silty Black Soils (SBLS) layer at Klasies River main site (KRM), which is older than 110 000

years ago, falls within one of these lesser understood periods and has yielded lithic material in association with both faunal and shellfish remains and other important features such as hearths. Understanding the behaviours of the SBLS is significant in broadening our understanding of the MSA I/earlier MSA technologies. Through the analyses of the *chaîne opératoire* (or production sequence), macro-fractures, and the Tip Cross-Sectional Area of the SBLS lithics, significant information on manufacturing and utilisation behaviours has been inferred. The data gained from these analyses allow for behavioural comparison between the SBLS, overlaying KRM layers, and other sites. Broadly speaking, the assemblage shares several technological signatures with the MSA I/Klasies River technology previously identified at KRM and on a technological attribute level widespread similarities are shared with several MIS 5 assemblages in South Africa; an example of this is the widespread use of locally available raw materials. There is, however, a key behavioural inference which clearly indicates that the SBLS is different to other assemblages both at KRM and in the broader MIS 5. The SBLS points and their TCSA values point towards significantly smaller points. This supports a different and varied hunting approach which is unique to KRM during this period.

Key words: lithic technology, TCSA, *Chaîne Opératoire*, MSA I, Stone points, behaviour.

Assessing technological components of the Pre-Still Bay lithic assemblage from Sibhudu Cave, South Africa.

Rosa Moll and Lyn Wadley

Sibhudu Cave in Kwa-Zulu Natal is one of the most important MSA sites in Southern Africa. There is a long record of human occupation spanning multiple technological industries. The Still Bay technocomplex dates to ~71,000 years ago, and its formal tool component is dominated by bifacial points, while the deposit below, which Wadley (2012) called the Pre-Still Bay, has a low density of bifacial points. The Pre-Still Bay industry is defined by the presence of many flakes and few bifacial points and dates to between about 74,000 and 80,000 years ago. Some archaeologists have argued that because some bifacial points are present, albeit rare, the 80-74 ka assemblages also belong to the Still Bay industry and perhaps the bifacial points were removed from the site or will appear outside the Wadley excavation trench in another part of the cave. An ongoing study aims to test this hypothesis through a technological analysis of the lithic assemblage to identify patterns of flake production and core reduction, and whether there is any evidence of bifacial tool shaping. Preliminary data, which is presented here, indicates that there was a focus on producing sharp flakes primarily through centripetal and bifacial core reduction strategies. There is little retouch, with most examples showing small denticulated edges and little evidence of bifacial tool production. Overall, there is a clear pattern of continuous and consistent core edge management and an understanding of the raw material

properties, while formal bifacial tools could have increased relatively rapidly after 74,000 years ago. Further work also needs to be done to assess whether this is a distinct feature at Sibhudu Cave, and the results provide further questions about the technological progression of the Middle Stone Age.

Key words: Middle Stone Age, South Africa, Pre-Still Bay, lithic technology

A comparative zooarchaeological perspective on MIS 5 coastal ecology at Klasies River Main site and Blombos Cave, South Africa

Alexandra Pearson, Jerome Reynard and Sarah Wurz

Abstract

Limited studies have compared palaeoenvironmental conditions, subsistence strategies and site formation processes of coastal Middle Stone Age sites during Marine Isotope Stage 5 (MIS 5) in South Africa. Two informative sites, situated along South Africa's southern Cape coast, to investigate the exploitation intensities of terrestrial and coastal resources and changes in coastal ecology during MIS 5 are Klasies River Main site (KRM) and Blombos Cave (BBC). While the MIS 5 deposits at these sites are not quite contemporaneous, they represent a continuous sequence from the start of MIS 5a to the end of MIS 5e/6. These sites have long occupational sequences, are close to the coast and have an abundance of vertebrate faunal remains. Faunal remains are a

useful means of investigating paleoenvironments and subsistence behaviour. In this regard, KRM and BBC provide a valuable faunal dataset for MIS 5.

A report on the taphonomic analyses from the vertebrate faunal assemblages from selected MIS 5 layers from the two coastal sites shows variations in regional coastal ecology and subsistence behaviour throughout MIS 5. The results indicate that humans were likely the primary accumulator at both sites during MIS 5. Fluctuations in the palaeoenvironment at both sites and show changes in subsistence patterns throughout MIS 5 occurred. The density of artefacts and faunal remains indicate that the sites were occupied by early modern humans for most of MIS 5, with only a few low occupational phases. It is hypothesised that a close relationship between the changing coastal landscape and environment and the changes seen in the subsistence behaviours and exploitation intensities occurred.

Key words: Klasies River Main site, Blombos Cave, Marine Isotope Stage 5, Middle Stone Age, coastal ecology, subsistence behaviour and site formation processes

Later Middle Stone Age silcrete heat-treatment - views from Diepkloof Rockshelter and Mehrtenhof

[Will Archer et al.](#)

Abstract

The emergence of cultural complexity in our lineage is often inferred through study of the lengths and numbers of steps in stone artefact production sequences. This approach has been applied to the heat treatment of silcrete rocks by past hominins, with ongoing debates surrounding both the lengths and numbers of steps involved in the process. Here we present the results of experiments involving multiple specimens of two structurally distinct South African silcretes which underwent systematic heating within a controlled temperature range of 110 to 750 °C. We quantified the infrared responses at each temperature change, employing a combination of multivariate statistics, differential equations, and decision trees. This approach allowed us to construct a framework for reconstructing the annealing temperatures of silcrete flakes which can be readily applied to the archaeological record. We extended our analysis to samples of flakes sourced from southern African later Middle Stone Age sites, specifically Diepkloof Rockshelter and Mehrtenhof. Subsequently, we discuss the preliminary implications of temperature estimates on archaeological flakes, exploring the implications for the heating strategies employed by later Pleistocene foragers in southern Africa.

Key words: cultural complexity · silcrete heat treatment, heating environments, controlled experiments, temperature predictions

A holistic examination of technologies within the Still Bay phase at Diepkloof

Rockshelter, Western Cape, South Africa.

Darya Presnyakovs, Will Archer and Guillaume Porraz

Abstract

The Still Bay is a phase of the southern African Middle Stone Age (MSA), documenting considerable shifts in human symbolic behavior, landscape use, diet and technology during Marine Isotope Stage 5. Bifacial points, historically viewed as the *fossil directeur* of the Still Bay, have drawn much attention, resulting in studies of point production stages, nuances of shaping, morphological variability and tool use (Villa et al., 2009; Soriano et al., 2015). However, current models of technological change within the later southern African MSA lack a holistic understanding of the role of Still Bay points within a broader technological system, despite it being well-established that Still Bay assemblages almost always have substantial other – non-point – lithic technologies.

Here we discuss stone artefact technologies from the Still Bay phases at Diepkloof Rockshelter (DRS), Western Cape, South Africa (Porraz et al., 2013). The Still Bay layers at DRS include abundant *débitage* and other tools. We explore the manufacture, maintenance, discard, and curation of the full spectrum of lithic elements within a particular Still Bay layer—layer Larry, the richest Still Bay layer at DRS. Our focus extends beyond bifacial point production to encompass the entire technological framework of the Still Bay. Specifically, we address the links between bifacial

point production and *débitage*, examining whether bifacial tools and *débitage* represent different components of a coherent technological system or if they were independent within Still Bay technological organization. Our discussion encompasses raw material selection, core reduction strategies, blank selection for points and tools, as well as point and tool design. By addressing the non-point components of the Still Bay collection from DRS, we aim to provide a nuanced contextual background for understanding the entirety of the Still Bay assemblage at DRS.

Key words: Middle Stone Age (MSA), modern human behaviours, Marine Isotope Stage 5, the Still Bay, Diepkloof Rockshelter

The early Howiesons Poort expressions at Diepkloof Rock Shelter (WCP, South Africa): insights into a technological novelty

Pierre-Antoine Beauvais, John Parkington and Guillaume Porraz

Amongst the various technical traditions that characterize the Late Pleistocene in Southern Africa, the Howiesons Poort (HP) emerges as a distinctive phenomenon. It stimulates questions on the emergence of the so-called modern behaviours and the underlying cultural processes such as regionalization. The HP is also worldwide known for the precocity of its cultural innovations but very little is known regarding the nature of its earliest archaeological expressions.

The site of Diepkloof Rock Shelter (DRS) is one of the few key sites that

offers a long Howiesons Poort record. Up to 24 stratigraphic units provided rich archaeological assemblages that have been subsequently subdivided into three technological phases. In the present paper, we focus on the so-called Early HP, a technological phase that has been dated at Diepkloof to 106 ± 10 ka by Tribolo et al. (2013), to 70.9 ± 2.3 by Jacobs et al. in 2008 and later on to 65.1 ± 2.8 ka by the same team (Jacobs et Roberts, 2015; 2017).

The Early HP at Diepkloof occurs throughout six stratigraphic units. It characterizes a lithic technology based on the selection and heat-treatment of non-local rocks that were subsequently exploited to produce small blades and bladelets. The formal tools document the presence of backed pieces, one additional hallmark of the HP. Here, we present a technological analysis of the lithic assemblage from one Early Howiesons Poort (HP) stratigraphic unit within the Diepkloof sequence (SU Kerry). Our objective is to formulate hypotheses regarding the relationship between these technical advancements and the environment, as well as their implications for subsistence strategies. Additionally, we seek to elucidate the technical disparities observed within chronologically synchronous assemblages.

When the Toba volcano super-eruption reached southern Africa

Authors: B. Zwanea, M. Bamford and L. Wadley

Abstract

Lake Toba is located ~9 000 north-east of South Africa and serves as the source of a volcano eruption that almost sent modern humans to near extinction. In the year 2018, it was revealed that the Youngest Toba Tuff (YTT) reached southern Africa and that this event affected late Pleistocene populations in this region. Since it was determined that this is the only volcano super-eruption to occur during human history, the impact of this event on the late Pleistocene human populations has been explained through the Toba Catastrophe Theory (TCT). In this paper we discuss the environmental evidence of the late Pleistocene at the MIS 5/4 transition globally that accompanied the deposition of the YTT. We discuss the environmental evidence of the same period in southern Africa, considering the influence of the different climate drivers that could determine the full impact of the conditions that were hypothesised by the TCT. This discussion is supported by the environmental setting recently interpreted from wood charcoal that was recovered from Sibudu and Border Caves. The paper is completed by a careful analysis of southern African archaeological evidence which is used to suggest if there is evidence for an environmental stress of the magnitude that was hypothesized by the TCT. We conclude that the severity of this super-eruption was mitigated by the proximity of the landscape from Lake Toba as well as cultural resilience of the human populations which was inherited from both pre-existing survival strategies. We suggest that while the Toba super eruption may have been catastrophic in some parts

of the world, there were many ecological factors that prevented it from devastating the southern African ecosystem; and while it may have affected people, its real impact might be better understood independent of the assumptions of the TCT.

Key words: human cultural evolution; adaptation; environmental stress; Toba super eruption

Past and Present: Raw material identification approaches at Umhlatuzana rockshelter, South Africa

Irini Sifogeorgaki, Bertil van Os, Viola Schmid, Viola Fratta, Hans Huisman and Gerrit Dusseldorp

Abstract

Umhlatuzana is an important archaeological site for the study of the Middle and Pleistocene Later Stone Age in South Africa with a largely continuous occupation sequence spanning ~70,000 BP to present. The main technocomplexes represented are Still Bay, Howiesons Poort, Sibudan, final MSA and Robberg. Changing selection of raw materials is an important issue in the study of the Middle-to-Later Stone Age transition that is characterised by a shift in raw material use in addition to a technological organisation. Umhlatuzana was first excavated by Jonathan Kaplan who suggested that

the lithic assemblage of the Pleistocene deposits consisted mainly of quartz (61%), hornfels (37.6%), and quartzite (1.4%). Renewed excavations aimed to clarify the site's formation processes employing micromorphological analysis and other techniques. Micromorphology thin sections allowed a petrological inspection of rock fragments embedded in the deposits. Rather unexpectedly, the Umhlatuzana thin sections yield different raw material determinations than Kaplan. While quartz and hornfels are present, they represent a much less sizable proportion than previously reported. Instead, the most prominent raw material observed is a quartz arenite sandstone. Quartzite fragments were not detected.

We initiated an in-depth mineralogical and elemental classification of the raw materials. We distinguish 6 raw material types based on the thin section analysis: sandstone, quartz, hornfels, dolerite, chert and diorite. We then determined the elemental composition of the raw material types of the micromorphology samples using p-XRF. Additionally, p-XRF analysis was conducted on specimens from the lithic collection. This allowed us to determine elemental characteristics of the raw materials used during the Pleistocene occupation of the site. Subsequently, p-XRF analysis was systematically performed on a larger sample set of lithics from the site in order to correctly determine their raw material type. This integrated approach emphasizes the significance of micromorphological and p-XRF analysis in accurately understanding lithic assemblages.

Key words: raw material, lithics, Stone Age archaeology, African archaeology, micromorphology, pXRF, archaeological sciences and South Africa

Technological Organisation in the Doring River Catchment, Western Cape, South Africa during Marine Isotope Stage 5

Corey A. O'Driscoll

Landscape modelling and mobility are absent from many studies of southern African Marine Isotope Stage (MIS) 5 lithic technological organisation, owing to the use of locally derived raw materials, indicating limited mobility, and the technologies protean nature and subtly of its spatio-temporal variability making it difficult to discern in open contexts. The subtleness of the technological change has seen the period marked as one of behavioural stasis, however, as research interest has grown so too has the recognition of variable technological and behavioural responses. The identification of regionally structured and locally adaptive technological systems requires new avenues of inquiry to understand the potential drivers (i.e., climate, environment, landscape, subsistence, societal, and demography) behind this variability. Here we present a mesoscale analysis of ~9,000 artefacts from three MIS 5 and 6 dated rockshelter sites - Klipfonteinrand 1, Mertenhof, and Putslaagte 8 - to decipher the influence of landscape and raw material availability on the technological organisation within the Doring River Catchment. We find that the lithic technological organisation

across the catchment is best characterised as a flexible and tactically responsive system designed to meet varied contingencies that is modulated in response to mobility and geared towards meeting short to medium term goals. As expected for MIS 5 assemblages, raw material exploitation is predominately locally derived, though there are clear fluctuations in the proportions of transported materials (~5-40%) and in where these materials are sourced from. Lithic technological organisation is strongly influenced by the landscape and the presence of raw materials than it is to other drivers of change. The fluctuations in technological organisation of the three sites throughout MIS 5 and 6 were the result of shifts in mobility and a technological system designed for flexibility, enabling foragers to modulate technologies and their tactical inventory to meet multiple contingencies.

Key words: Technological Organisation, Middle Stone Age, Mobility, South Africa

Recent research results at Umhlatuzana rockshelter: Geoarchaeology and Middle to Later Stone Age transition

Gerrit L. Dusseldorp, Viola Schmid And Irini Sifogeorgaki

Abstract

We report on geoarchaeological fieldwork at Umhlatuzana rockshelter in 2018 and 2019 to clarify the taphonomy of the deposits at the site.

Our work confirms many of the observations from the initial excavations in the 1980s by Jonathan Kaplan (1990). The Pleistocene sedimentary sequence at the site is homogeneous and no clear boundaries between sedimentary units are visible. Distinctions in the sedimentary sequence are defined on the basis of find density, validated by the analysis of piece-plotted materials. Previous interpretations of a sedimentary offset in the sequence were revised to reflect changes in sediment moisture content, rather than being the result of a large-scale sediment movement. Micromorphological analysis reveals that despite intensive bioturbation, in some parts of the Pleistocene sediments, the original sedimentary structure can still be observed.

With the geoarchaeological context secure, we embark on the analysis of the lithic materials. Preliminary results reveal that no gradual transition between Middle and Later Stone Age materials is present. Raw material preference and debitage production strategies shift within a narrow band across the profile. We reinterpret the sequence to represent a final Later Stone Age assemblage, followed by earlier Later Stone Age and Robberg assemblages.

Key words: KwaZulu-Natal, Geoarchaeology, Middle Stone Age, Later Stone Age, Raw materials

A palaeoenvironmental analysis of microfossils from MIS 5c-d in Cave 1, Klasies River main site, South Africa.

Inèz Faul

Klasies River main site (KRM) is a Middle Stone Age site on South Africa's southern Cape coast. Research from KRM has contributed to interpretations regarding early modern human behaviour and palaeoenvironments in South Africa, especially dating to the period between Marine Isotope Stage (MIS) 5c-d (110–93 ka). However, higher-resolution analyses are required to improve the understanding of the climate and environmental circumstances in which early human communities evolved. Palaeoenvironmental research from unexplored angles is now possible due to renewed excavations at the main site. Microscopic investigations revealed that two microfossil groups, ostracods and foraminifera, are preserved in the KRM MIS 5 sediments from four layers dating between 100 - >110 ka. Both microfossil groups are useful indicators of past environmental conditions and have been applied to southern African contexts, primarily the Holocene. However, little information regarding these two microfossil groups as tools for interpreting archaeological contexts is available for the Pleistocene in southern Africa. Four layers from the Witness Baulk at KRM, namely SMONE (MIS 5c), BOS-One (MIS 5d), BOS-Two (MIS 5d), and BOS-Three (MIS 5d), are being studied to further our knowledge of southern African foraminiferal and ostracod distributions and their applications to Pleistocene archaeology, as well as to aid in the interpretation of human behaviour at KRM during MIS 5. Ostracod abundances are higher during phases of less intensive occupation by humans (BOS-Three)

and are lower during times of more intense occupation (SMONE). The most abundant ostracod taxon in all the layers, *Gomphocythere obtusata*, occupies fresh- to slightly saline conditions. The lower abundance of ostracods in the upper layer, SMONE could imply drier conditions during its deposition, and wetter conditions during the deposition of BOS-layers. The foraminifera are near-shore to estuarine taxa, occur in lesser quantities, and have likely been transported from outside of the KRM site.

Key words: Klasies River, Palaeoenvironments, ostracods, foraminifera, MIS 5c-d

Coastal foraging in the MSA: interpreting seal and bird remains from Klasies River

Leesha Richardson, Judith Sealy and Sarah Wurz.

Abstract

Previous analyses of seal and bird remains from the important Middle Stone Age (MSA) site of Klasies River reported profiles that contrast with those from most Holocene Later Stone Age sites. An apparent lack of clear patterning in age at death of seals, and scarcity of flying birds have been used to argue that MSA hunter-gathers were less effective coastal foragers than their Later Stone Age (LSA) counterparts. These studies were based on bone assemblages excavated by Singer & Wymer in the 1960s, when excavated material was sieved through half-inch (12.7 mm) mesh, and small fragments of bone would have been lost. Preliminary work on more

complete bone assemblages derived from more recent excavations by H.J. Deacon and S. Wurz is yielding a very different picture. Seal remains from MSA III and Howiesons Poort (HP) deposits (~ 43 – 65 ka) reflect a strong preference for juveniles. Flying birds, including gannets, cormorants and albatrosses, dominate throughout the MSA III and HP sequence. During the MSA II and MSA I (~ 85 - 126 ka), when the coast was nearby, non-flying birds (penguins) and sub-adult to adult seals are also present and increase in frequency. The differences between previous findings and those reported here may be due to high faunal fragmentation, especially in the uppermost MSA III (57 ka) and Howiesons Poort (65 ka) layers, in combination with use of large mesh sieves. Fragile bones of flying birds are particularly vulnerable to breakage, and tiny flipper bones of juvenile seals may have been inadvertently discarded during the Singer & Wymer excavations.

Key words: Coastal foraging, MSA, seals, birds

Anthropogenic deposits as human behavioural proxies in the southern African Middle Stone Age: prospects for moving from the site scale to understanding variability at the regional scale

Peter Morrissey, Sarah Wurz and Susan M. Mentzer

Abstract

The microscale analysis of anthropogenic deposits at southern African Middle Stone Age sites has provided new and detailed insights

into behaviours associated with the formation and alteration of hearths, bedding, and various midden/dump deposits, and their implications for inferring occupational frequency and/or intensity. As with many behavioural proxies from the Middle Stone Age record, this evidence for the structuring and maintenance of living spaces has played a role in characterising the complexity of human behaviour and cognition over this period. There is some correlation between the intensity and/or frequency of occupation and the degree to which living space is structured and maintained. Therefore, while variation in these behaviours could reflect cultural differences, they could also be driven by demographic or environmental variation, or a mix of these and other factors, resulting in differing occupational intensities. The range of potential controls on these behaviours is a significant complicating factor for moving from site-scale interpretations to broader characterisations of regional patterns. Variable preservation of evidence, both within and between sites, adds to this problem. Unsurprisingly, given the relative infancy of microcontextual research in the region, a lack of data is currently the largest barrier to understanding these behaviours at the regional scale. There are many Middle Stone Age sites with suitable contexts which have yet to be studied at the microscale, and there is currently a very strong spatial bias towards South African sites, with extremely limited published data from other southern African countries. Furthermore, virtually all available data are from cave and rockshelter contexts, potentially limiting the kinds of

activities observed in the record. More data, including from the analysis of other archaeological materials, will make a significant difference, but there will always be complicating factors to be accounted for at individual sites and at broader scales.

Key words: Middle Stone Age; archaeological micromorphology; anthropogenic features; site formation; site maintenance; occupational intensity

Early human social transmission during Marine Isotope Stage 5: A perspective from the Kalahari Basin.

Viola Schmid, Aurore Val and Sarah Wurz

Abstract

The social transmission of cultural information is widely recognized as a crucial component contributing to the survival and prosperity of our species. This paper examines lithic technological systems to assess the extent of the transmission of cultural information between different early human groups across the Kalahari Basin and adjoining regions during Marine Isotope Stage (MIS) 5 (~130-74 ka). It has been proposed that glacial periods (e.g., MIS 4) in southern Africa were characterized by coalescence, while interglacial periods (e.g., MIS 5) were characterized by population fragmentation. Therefore, this paper investigates the presence and extent of cultural transmission among hunter-gatherer populations in and around the Kalahari, assessing whether inquiry is achieved by studying lithic assemblages from multiple sites and comparing them

using a behavioral approach to cultural transmission. The samples studied are from Ga-Mohana Hill North Rockshelter, Kathu Pan 6, Erfkroon, Florisbad, #Gi, and White Paintings Rockshelter. The results of this study indicate many technological similarities across most of the studied sites, including the predominant use of local raw materials, recurrent Levallois methods, hard hammer percussion technique, manufacturing of similar products, mostly with faceted platforms, and a low frequency of formal tools. This homogeneity may reflect technological information exchange and connections between human groups at these sites. The connectivity is inferred to be closely linked to their adaptation to the drier climatic conditions that persisted in the Kalahari Basin and its environs, in contrast to coastal and other inland areas. The arid and semi-arid environments may have necessitated the formation of social ties to access scarce and potentially unpredictable resources. In contrast to some other regions that show fragmentation during interglacial periods, the Kalahari Basin and adjacent regions did not follow the same pattern.

Key words: Kalahari Basin, Marine Isotope Stage (MIS) 5, Middle Stone Age, lithic technology, social transmission.

Bone-lithic synergy at Bushman Rock Shelter: towards a diversification of resource exploitation during Marine Isotopic Stage 5 in southern Africa

Aurore Val, Viola Schmid, Marina Igreja, Pierre-Jean Texier, and Guillaume Porraz

Abstract

In striking contrast to Eurasia, bone retouchers –i.e., bones used to modify lithic artefacts - are extremely rare in the African archaeological record. The only large sample of bone retouchers on the African continent is reported from the 85 to 24.5 ka old layers of Grotte des Pigeons at Taforalt in Morocco. Here, we describe 25 bone retouchers collected from the Middle Stone Age (MSA) deposits of Bushman Rock Shelter in the interior of South Africa. MSA layers excavated at the site since 2015 represent a succession of distinct technological complexes, but the bone retouchers are strictly associated with one of them only, characterized by the presence of abundant end-scrapers. Amongst the bone retouchers, there is a marked preference for the diaphyses of large ungulate long bones. Scraping marks linked to periosteum removal and evidence of fresh breakage indicate the use of bones while still fresh and the probable intentional selection of blanks during carcass processing rather than from locally available butchery waste. Macro- and microscopic morphological characteristics of the used areas confirm that the bones were used during percussive activities, in particular lithic tool retouching and (re-)sharpening. Some retouchers seemed to have been utilized for a short period, while others were more intensively utilized. The general orientation of the bone surface modifications, always transverse or slightly oblique to the bone, points towards repeated, similar technological gestures. We propose that these bone retouchers were fully

integrated into the *chaîne opératoire* of the end-scrapers. The end-scrapers from Bushman Rock Shelter are a technological novelty in the context of Late Pleistocene MSA developments and the associated discovery of bone retouchers adds to the existing body of archaeological data pointing towards a phase of cultural innovation at the end of MIS 5.

Beyond Backed Tools: Exploring Technological Innovations at the End of Howiesons Poort

Matembo Joseph, John Parkington and Porraz Guillaume

The Howiesons Poort (HP) is a widely debated technological phase within the Late Pleistocene Middle Stone Age (MSA) in Southern Africa, disappearing from the archaeological record at the onset of the MIS 3. It exhibits extensive techno-cultural characteristics across different biomes of the region. The HP is distinguished by notable innovations, including the production of blades and bladelets technologies leading to backed and hafted tool forms. Additionally, it involves the creation of geometrically engraved ostrich eggshells, as well as worked ochre pieces, among other cultural artifacts. These anthropogenic remnants significantly contribute to our comprehension of early modern human behaviors.

This study delves into the technological trends observed in the lithic record at the end of the HP in Southern Africa, focusing on the 'George' Stratigraphic Unit from the Diepkloof Rock Shelter (DRS) in the Western Cape Province of South

Africa. This stratigraphic unit, yet unpublished, characterizes the ultimate expression of the HP DRS, preceding the establishment of new technical and functional behaviors including the manufacture of unifacial points. Besides backed pieces, notable features of the lithic assemblage from 'George' include the prevalence of flakes as prominent blank forms and the production of blanks with faceted butts, distinguishing them from earlier phases of HP technologies. To enrich our understanding, a comparative analysis with other HP sites such as Sibudu Cave, Klipdrift Shelter, Klasies River Mouth, Umhlatuzana, Klein Kliphuis, Rose Cottage Cave, etc., will be conducted.

Key words: Howiesons Poort, Middle Stone Age, lithic technology, *chaîne opératoire*.

An assessment of whether saturated sediment ablation on stationary bone can mimic bone tool use-wear from Earlier Stone Age contexts

Liteboho Senyane, Justin Bradfield, Matt Lotter

Abstract

Several taphonomic processes can alter the surface of archaeological bone in a manner that may cause them to superficially resemble bone tools used as digging implements. Under close examination, however, the resultant microwear is usually quite distinct. While many experiments have been done to document the effects of fluvial processes on bone surface alteration, there are many mass soil movement process whose microwear effects have

not yet been properly investigated and which could conceivably produce microwear similar to digging implements. One example, which pertains to the Cradle of Humankind landscape, is soil creep. We present the results of an experiment that assesses the resultant microwear on stationary bones occasioned by artificially accelerated soil creep processes. We show that the passage of saturated sediments over stationary bones produces rounding and pitting, and does not resemble microwear occasioned either by fluvial transport or experimental digging in sediments. Although there is room to test additional variables, we conclude that the purported bone tools from the Cradle of Humankind sites were not affected by soil creep processes, at least not to the extent that they caused surface alterations.

Key words: saturated sediment ablation; Early Stone Age bone tools; pseudo tools; soil creep; microwear

Raw material procurement analysis at Olieboomspoor Rock Shelter and Mwulu's Cave (Limpopo)

Dineo Masia, Dr Paloma de le Peñã, Dr Zubair Jinnah and Dr Guilhem Maurant

The Middle Stone Age (MSA) shows critical innovations for early humans in southern Africa including symbolic behaviour, the use and control of fire, interaction in social networks across regions, hafted tools, complex cognition, complex mobility patterns, and tool transport over vast distances to name a few. In the last decade several projects have focused on sourcing ochre and lithic raw materials

in southern Africa. However, the lithic studies predominantly analyse fine-grained and cryptocrystalline raw materials such as silcrete and chert found along coastal areas whereas coarser inland raw materials (quartzite, sandstone, dolerite, etc) are typically overlooked. These analyses are also rarely conducted from a raw material perspective using a multi-method approach.

A multi-method lithic raw material procurement analysis was conducted on the MSA lithics from Olieboomspoor Rock Shelter (OBP) and Mwulu's Cave (MW; Limpopo, South Africa). This analysis involved the macroscopic, petrographic, and geochemical analysis (portable X-ray Fluorescence Spectrometry and Inductively Coupled Plasma Mass Spectrometry) of lithics and geological samples collected around both sites. Comparative results between the lithics and geological samples at OBP show that raw materials occur within 5 km of the shelter but also about 20 km away. It is possible that quartzite, quartz, chert and dolerite were procured along the Riet Spruit River, while shale and sandstone were procured from outcrops near the site. At MW, quartz and quartzite may have been procured from outcrops within 5 km of the site, while shale and chert were procured from outcrops 6 to 20 km from the site. Although these preliminary results require further verification through the petrographic and geochemical analysis of more samples, they inform us about raw material selection during the MSA at these sites and shed light on the possible procurement strategies employed.

The Taphonomic Analysis of the large mammal sequences of Boomplaas (BPA) cave during the last glacial maximum (LGM): The stratigraphy and human occupation at Boomplaas cave, Western Cape.

Zarah Abrahams, Deano Stynder, Justin Parteger and Tyler Faith

Abstract

In the 1970s, H.J. Deacon conducted a stratigraphic investigation of Boomplaas Cave in the Western Cape of South Africa, revealing a stratigraphy encompassing Middle Stone Age and Later Stone Age deposits spanning over the last >65,000 years. This study focuses on a taphonomic analysis of the macrofauna from Boomplaas Cave (BPA) and compares the results with previous data collected by Faith (2013). The primary objective is to examine surface modifications to infer human versus non-human activity and occupational intensity during the last glacial maximum (LGM) at Boomplaas. By analysing data on fragment burning within the two hearth layers from member LP to member LPC in the stratigraphic sequence, insights into the activities during this period, characterized by extreme cold conditions in the upper Pleistocene, can be gained.

Key words: Upper Pleistocene, taphonomy, Last Glacial Maximum, Boomplaas, Zooarchaeology, Middle Stone Age, Later Stone Age.

Unprepared for Work: Worked bone from the Howiesons Poort at Klasies River Main

Emma Cleminson, Jerome Reynard, Justin Bradfield and Sarah Wurz

Abstract

The Howiesons Poort techno-complex is known for innovative developments in backed geometric stone tools, ochre and novel shifts in foraging behaviour, such as the earliest possible use of the bow and arrow. Bone tools and ornaments from the Howiesons Poort have only been found at three sites. Despite its rarity, worked bone has played an important role in discussions around the development of cognitive complexity in humans. Singer and Wymer found the first worked bone from the Howiesons Poort at Klasies River Mouth main site, which has been a key site in Middle Stone Age research and debates on human cognitive evolution. While this formal bone point has been analysed, there has been no investigation yet to test for the presence of expedient or *ad hoc* bone tools in the assemblage. Our study conducted a taphonomic and usewear analysis, to identify *ad hoc* tools and fragmented pieces of worked bone missed during initial excavations and sorting. Nine pieces of intentionally worked bone were identified from the Deacon collection in Cave 1A, representing manufacture wear, *ad hoc* use-wear, reflecting a range of activities, with hard and soft contacts. This is the first recognised evidence of informal bone modification at this site that may well represent part of a tradition of bone manufacture.

POSTER ABSTRACTS

Revisiting Thulamela: an ancient southern African kingdom

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Thulamela was the capital of an African Kingdom that rose to prominence in the mid-second millennium AD and lasted for several decades. It is well-cited both academically and publicly, it features in many discussions about African pasts, and is an example of Africa's intercontinental connectivity. Despite its global prominence, we know very little of the site, and research carried out in the early to mid-1990s is incomplete and under-published. As a result, our knowledge of Thulamela is largely assumed and based on published scraps of information and interest in the capital's human burials and gold remains. Making matters worse, many of the finds made at the site, including the golden items, have been stolen. As a result, we are left with only an archive of research and few physical remains. Here we present some interesting features of the Thulamela archive, which fortunately includes well-documented recordings, as an initial foray into our research of this important African Kingdom.

SAHRIS: Built for Purpose

B. Havi, J. Slingers, G. Thirion,

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Animal subsistence strategies at two 19th century Venda sites in the central Limpopo Valley.

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A. Antonites & K. Rammutloa

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The 19th century witnessed a series of events with significant socio-political and economic consequences, resulting in dramatic transformations within the cultural milieu of southern Africa. During this time, the Soutpansberg region witnessed significant conflict between the Voortrekker and Venda communities. The conflict was intensified by factors such as excessive hunting, taxation laws, cattle theft, and the subsequent outbreak of rinderpest. These events likely caused severe impacts on both domestic and wild animal populations. Animal remains recovered from two 19th century Venda settlements in the central Limpopo Valley (TSH 40 and TSH 32), were analysed to contextualise animal management and procurement strategies within the region's socio-political and geopolitical transformations. This poster presents the preliminary archaeozoological results from TSH 40 and briefly considers the ways in which this Venda community engaged with wild and domesticated animals during this time.

This poster presentation sheds light on the myriad of benefits of the South African Heritage Resources Information System

(SAHRIS) as the preferred Heritage Resource Management System. The focus is on its unique features and functionalities that make it an indispensable tool for heritage preservation and heritage professionals. SAHRIS stands out as a cost-free and modern system, providing museums with an innovative solution for the management and preservation of their collections. The system's daily backups ensure the security and integrity of valuable heritage data, fostering a reliable foundation for archival work. A key talking point is SAHRIS's role in providing easy access to museum collections and enhancing research opportunities. SAHRIS acts as a facilitator, connecting researchers and enthusiasts to heritage. Crucially, SAHRIS serves as a compliance tool, streamlining the application process

for heritage-related activities. The system simplifies and demystifies compliance with the National Heritage Resources Act of 1999 (NHRA), making it a necessity for institutions seeking to adhere to legislative mandates. SAHRIS enables users to link objects to institutions and their archaeological context. This feature enriches the understanding of heritage items by providing a comprehensive view of their origin and historical significance. SAHRIS serves as a versatile system, its role in connecting objects to their archaeological context, coupled with its compliance functionalities, positions SAHRIS as an invaluable tool for the preservation, research, and accessibility of heritage resources. Free and supported by the National Inventory Unit solidifies its status as the Heritage Resource Management System of Choice.

“To this was the wealth of such a mighty ship reduced, and here many found themselves poor and naked, who a short time before were rich and clothed”: an historical archaeological study of the Portuguese shipwreck survivor campsites of the *Santa Maria Madre de Deus* (1643) and *Nossa Senhora Atalaia do Pinheiro* (1647)

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For decades, shipwreck sites were left unmonitored and unprotected, and an immeasurable number of archaeological resources - along with their potential for revealing information about the world's maritime history - were lost. Around the mid-1900's, maritime archaeology entered the global academic mainstream and practitioners

developed sophisticated methodologies and technologies to excavate and study underwater sites as thoroughly and efficiently as terrestrial ones. Despite the global rise in maritime archaeological research and recognition, the discipline is still severely underrepresented in southern Africa. Universities offer few, if any, modules relating to maritime archaeology; the results of which are very few trained maritime archaeologists, and minimal maritime archaeological research. One particularly neglected area of South African maritime archaeology is systematic investigation of shipwreck survivor campsites. Through a careful analysis of archival material and an examination of artefacts recovered from the wrecks and survivor campsites of the *Santa Maria Madre de Deus* (1643) and *Nossa Senhora Atalaia do Pinheiro* (1647), this

research will investigate the lived experiences of shipwreck survivors and answer questions relating to themes such as authority and social structure, subsistence strategies, health and mortality, and the role of survivor campsites as cross-cultural contact sites. The value of this research lies not only in its contribution to the advancement of maritime archaeological knowledge, but also in its attempt to generate academic and public interest in maritime archaeology and in the conservation of maritime sites.

Human-bird relationships at Schroda, Limpopo Valley, South Africa

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Ditsong National Museum of Natural History, University of Pretoria & University of South Africa

The Schroda figurine cache includes several domestic and wild animals, with stylized birds making up a large number of the collection. It is evident through southern African ethnographic studies that past societies had a relationship with birds beyond non-material or economic associations. The large cache of bird figurines from Schroda shows that birds played an important role in society. However, what this role entailed and how the bird figurines related to the bird bones found at the site, remain unclear. Previous analyses of the remains had been to size level only (e.g., “medium bird”). These remains were re-analysed to determine family, genus, or species and to compare the taxonomic results with the types of bird represented in the figurine cache. Here we present

the results of the analysis of the Schroda bird bones. Most of the bones identified to species were *Gallus gallus* (chicken) and *Numida meleagris* (helmeted guineafowl). Chicken remains from the Zhizo horizon (10th century AD) may be the earliest evidence for the presence of this species in the region. Chicken and guineafowl were the most acquired and processed bird taxa with evidence of butchery marks and burning. The types of birds identified from the bones differ from what other scholars have interpreted the figurines to represent. Additionally, ethnographic references to the significance of certain bird species linked to totemic associations and rituals are not represented in the faunal assemblage. These observations reveal an interesting contrast between the birds that were consumed and the birds that were incorporated into rituals at Schroda, such as those related to the bird figurines.

A GENDERED READING OF SOUTHERN AFRICAN ROCK ART AT GIANT’S CASTLE, UKHAHLAMBA-DRAKENSBERG

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This study investigates the role of women in the San belief systems and everyday life at Giant’s Castle, UKhahlamba-Drakensberg. The roles of women are explored and interpreted through a combination of qualitative and quantitative analysis of the rock paintings found at three sites at Giant’s Castle. I analysed patterns in the rock paintings and more especially

those that depict women. My findings reveal that women played a significant role in the San community of which did not involve just gathering. This study has proven that women were involved not only in domestic activities and caregiving tasks because, in all the female figures I studied none of them were painted holding or carrying a child or with a child next to them. Instead, they are seen holding digging sticks in one of the sites. Southern African ethnographic sources were used to elucidate information about the rock paintings, guided by the feminist and gender archaeology theory I was able to deconstruct the androcentric nature of past research.

Provost Prison, Grahamstown /Makhandla, Eastern Cape Province, South Africa

C. Booth & A. Chiazzari

This poster will show how a 'dead collection' can be revived in collaboration with the museum's conservator in identification and recommendation on the state of the artefacts for display purposes through conservation intervention. The poster extends from the oral presentation on the Provost Prison artefacts and display in the LA Café coffee shop currently occupying the Provost Prison space, in showing images of more of the artefacts and the conservation interventions carried out.

The construction of the Provost Prison, a military prison, was completed in early 1838 as part of efforts to fortify the small city of Grahamstown (recently renamed to Makhandla), in the Eastern Cape, South Africa. The

structure is shaped as a quarter circle with eight cells, roughly 2m by 3m each. In 1982 and 1983 the Provost Prison underwent restoration and was taken under the care of the Albany Museum, under which it still is today. During the restoration the remains of some of the exercise area walls were discovered and restored. During this time archaeological excavations were conducted in Cell 3 which yielded and collection of leather, metal, glass and ceramic artefacts and are currently housed at Albany Museum's Archaeology Department. Today, the Provost Prison houses the coffee shop, La Café, run by a young local entrepreneur eager to tell the Prison's story.

The boxes holding these artefacts were indeed found at the back or on the bottom of a shelf in one of the storerooms during a curation process in 2016. Since then, the boxes have not made it back into the storeroom but rather are waiting in transit in the lab area for conservation intervention and a space for their story to be told.

Heritage based identification and management of diseases , Insights from Archaeology, Food science, chemistry and Public Health.

T. B Pasipanodya, Zimbabwe.

The poster presentation is going to explore the findings from a research that was conducted between 2022 - 2024 fully funded by the Research Council of Zimbabwe. The research was a multidisciplinary approach into identifying diseases from pre-colonial periods to the present day. This was on the backdrop of the COVID 19 pandemic that ravaged the world and

such the main focus of the research was to identify known diseases and how they were/ are managed in an African context. The research provided insights from archaeology, chemistry, public health and indigenous Knowledge systems. A mixed methods approach (Triangulation convergence Design), a hybrid research methodology that combines both qualitative and quantitative was used in this study. Primary sources which include first-hand information, interviews and questionnaires were used as data mining tools from purposively selected key informants. Field work was conducted using excavations, pilot tested interviews and questionnaires. The presentation is going to reflect on archaeological evidence derived from excavations conducted in two heritage sites in Zimbabwe (Dhlodhlo and Ziwa National Monuments). Furthermore ethnographical research amongst traditional leaders, communities and health practitioners will corroborate the findings. Mixed methods were used to explore the linkages between the past traditional practices and the present day practices with regards to pandemics/ epidemics through the use of archaeological evidence, indigenous knowledge systems (i.e. local philosophies on management of nature) and historical datasets

Closing the distance between people and heritage with interactive, travelling heritage displays

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Accessing heritage is often problematic, especially in

underdeveloped regions. Not everyone has the available resources to travel, or afford entry, to museums, people with disabilities are often unable to view or fully experience heritage displays, and some heritage collections are retained far from the public's eye. Archaeological material is usually stored in museums or universities far from where it was found and might not even be on display. In South Africa, this reinforces inequalities, and further disassociates people from their heritage. The Hunter-Gatherer Archaeological Research Project, which studies hunter-gatherer pasts in the Mapungubwe National Park and its surroundings, has launched a community outreach initiative based on a set of travelling, interactive heritage displays. These displays provide the opportunity for members of the public to observe archaeology, touch artefacts, and learn about the archaeological process. The aims of the heritage displays are to present a more inclusive history of the Mapungubwe landscape by presenting the prehistory of Stone Age forager groups in the middle Limpopo Valley who have been inadequately represented in research conducted in the region. The displays were presented at multiple public engagements to generate data on people's experience with this specific method of presenting heritage. An associated study was thus able to determine the efficacy of the tactile element of this display design. This poster presents the results from three specific questions in the questionnaire and interviews that were conducted with participants that pertain to the tactile element and interactivity of the

displays. These results provide insight into how the tactile element helped people to understand and learn about foragers in the middle Limpopo Valley as well as how the interactive nature of the displays shaped people's experience with the heritage.

Small mammal exploitation at Schroda

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In southern Africa, zooarchaeological studies of Iron Age communities have tended to focus on cattle, sheep, and goats. As a result, research on the role of smaller mammals have been neglected. The study of small mammals can contribute to an understanding of human-environment interactions, foodways, trade, mobility, and migration. We present the preliminary results of a zooarchaeological study of small mammal remains from the Middle Iron Age site of Schroda (c. AD 900 – 1100), Limpopo Valley, South Africa. The faunal material was excavated in the 1970s and 1980s, initially analysed at that time and subsequently re-analysed in the 2010s. Previous zooarchaeological studies focused on the remains of larger wild and domesticated animals. Small mammal remains were often identified to higher taxonomic level only (class, order and family), while many bird and reptile remains were also incorrectly identified as “small mammal”. The re-analysis of the “small mammal” remains from Schroda provides an

updated range of small taxa present at the site and has implications for understanding Middle Iron Age subsistence strategies.

Pont Drift Archaeofauna revisited

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University of Pretoria, Ditsong National Museum of Natural History and University of South Africa

Northern South Africa witnessed significant societal change during the Middle Iron Age (c. 900 to 1300 CE). While the economic, and socio-political underpinnings have been studied, how these changes were reflected in, and shaped by, human-animal relations have received less attention. Locally, subsistence strategies are used to explore topics of social inequality and political rank whereby by a diverse range of animal procurement strategies are often associated with lower status settlements. Many faunal assemblages from this period were, however, analysed several decades ago. Since then, improved species identification guides and expanded comparative skeletal collections have provided opportunities to revisit these older collections and interpretations. In addition, the characterisation of Leokwe and Transitional K2 ceramic facies have changed the overall understanding of socio-political dynamics in the region. We re-visit the faunal assemblage of the previously ascribed ‘lower status’ settlement of Pont Drift, a multi-component site in the Limpopo Valley. Preliminary results suggest that livestock herding was more important than previously

thought; the ratio of small to large stock varied through time, and mortality profiles indicate herd management decisions based on the optimization of meat production. These findings have implications for the regional interpretations of 'low status' settlements.

Public archaeology at the KwaZulu-Natal Museum

P.Madonda

KwaZulu-Natal Museum, South Africa

Public archaeology is the practice of presenting archaeological data and interpretations of that data to the public. With this practice, KwaZulu-Natal Museum engages with the public and provides information on what archaeologists do, by interpreting artefacts discovered from excavations. The museum uses pamphlets, brochures, posters, journals articles, books, etc. as tools to enhance the way archaeology is communicated to the public through outreach programmes. It is not really a new approach, but still taking its stand, and it has opened doors for multiple prospective and opportunities to many young and old members of the public within communities. The main purpose of this poster is to display archaeology artefacts ranging from Early Stone Age to historical periods that the museum uses for public archaeology, and expand on how the KwaZulu-Natal Museum has successfully made it easy for communities to understand the work of archaeologists especially in rural locations.

Formation processes of the Baden-Baden 2 Middle Stone Age site, Free State, South Africa

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Anatomically modern humans emerged in Africa in the late Middle Pleistocene. This period is currently poorly known in the interior of South Africa due to the paucity of well-dated archaeological and sedimentary contexts at open-air sites, which are the most common occurrence in the landscape of the interior plateau. This is partly due to the fact that the local geology is not conducive to cave formation and thus artifacts and fossils are usually found at the surface, without the sedimentary matrix necessary for trapped-charge dating, or else in sand dunes or erosional gullies in river terraces. The latter are subject to post-depositional processes in open sedimentary systems, such as bioturbation and water erosion, which may lead to the partial or complete obliteration of the site. Therefore, careful reconstruction of the formation processes is crucial for a correct interpretation of human occupation and to obtain accurate age determinations. At Baden-Baden 2, a

recently discovered site located on top of a large sand dune near Dealesville, in the western Free State, artefacts consistent with early Middle Stone Age technology were found eroding from the flank of the dune into a shallow depression. Using a micro-geoarchaeological approach including micromorphology of sediments and magnetic susceptibility, we were able to determine the formation and post-depositional processes of the site, which features multiple occupations and in places is affected by redeposition processes. This information will be used as a reference framework to interpret age determinations obtained using luminescence dating.

SAHRIS: Facing Forward, SAHRIS' Facelift

M. Crafford, N. Wiltshire, J. Lavin

South African Heritage Resources Information System, South Africa,

As per S.39 of the NHRA, SAHRA is required to compile and maintain an inventory of the national estate. SAHRIS, the South African Heritage Resources Information System, an integrated, digital heritage management system, was launched in 2012 and is used to manage the inventory. This system allows for objects and sites of heritage value to be recorded and assists with their management. Its four main functions are serving "as an integrated heritage management system, a national sites repository, a national collections repository and a centralised platform for reporting and tracking heritage crime.

A major upgrade of SAHRIS from Drupal 7 to Drupal 9 was completed and culminated in "SAHRIS v2.0", which was launched on 30 October 2023. The system has been moved to a new hosting platform (Amazon Web Services), with a more user- and mobile-friendly layout, standardisation and new field structures, an overhaul of the media handling, Heritage Authority-specific application forms and ease of accessing heritage cases and sites. These updates ensure that SAHRIS is compliant and adheres to standards, improves security and workflows, and incorporates appropriate GIS applications.

A comparative approach will be used to compare the differences between the old and new interfaces, specifically comparing the appearance and design, the user pathways for applications and content creation, and the site performance and stability. The poster will also include a basic introduction to the new interface, explaining basic functions and options available to users. It will conclude with an overview of the challenges that have been overcome in v2.0 that were found in v1.0.

Biographies from bone collagen using bomb curve radiocarbon as a tracer

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One of the current limitations in isotope-based dietary reconstructions is the poor resolution of signals measured in bone collagen. As a tissue that continues to form throughout life,

it is generally considered to average out the diet and behaviour over long periods of an organism's life. In this paper, we use the radiocarbon "Bomb Curve" (the anthropogenic increase and subsequent decrease in atmospheric radiocarbon from the 1950s to the present day) to determine the retention time of carbon in the bone collagen metabolic pool in multiple locations in the same skeletons, obtained from the University of Cape Town Department of Human Biology. This retention time (linked to the replacement or turnover of bone) is not the same throughout the skeleton, so that different skeletal elements (and parts thereof) record diet at different stages of life. The wide-ranging implications of this include the potential to reconstruct dietary changes over an individual's lifetime, with possible application in both archaeology and forensics. In addition, more precise modelling of the year of death for contemporary skeletal remains will be possible. For stable dietary isotopes, a study by Berg et al. (2022) claimed that if two bones had $\delta^{13}\text{C}_{\text{collagen}}$ and $\delta^{15}\text{N}_{\text{collagen}}$ values that differed by more than 0.75 ‰ and 1.05 ‰ respectively, they were probably from different individuals. This is not so simple, particularly in a southern African context. In this study, intra-femoral variation in $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ is 1.2 to 3.1 ‰. The methodology used for this study and some initial results will be presented.

Little Muck Shelter: Forager participation in, and contribution to, farmer economies in central southern Africa

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Southern African trade has primarily been examined through farmer archaeological sequences. One reason for this approach is that trade opportunities along the East African coastline, and the subsequent appearance of trade wealth in the interior, are thought to have been a factor that promoted transformative changes among farmer communities. For example, in the Mapungubwe National Park trade was one of the main factors that led to the emergence of a state-level society at Mapungubwe Hill, c. AD 1220. Foragers, who were present during this period, are generally not considered participants of, or contributors to, the socio-political and economic changes that occurred on the southern African landscape. However, research at Little Muck Shelter suggests an intense forager involvement within the larger economies of the middle Limpopo Valley. The appearance of trade wealth at the shelter, its continued growth alongside forager occupation, and its impact on forager society have not been fully considered, but recent analysis on the appearance of exotic goods, local trade goods and craft production processes indicate that forager communities were involved in farmer trade economies throughout the first millennium AD, with notable intensification around AD 900, followed by a rapid decline around AD 1000. These findings show a different use of Little Muck compared to other forager-occupied sites, and demonstrate variable access to

wealth. By challenging doctrines surrounding foragers, most notably the exclusion of foragers from farmer-based discussions and studies, a more inclusive past will be created, with a focus on the role which southern Africa's indigenous communities occupied across the larger economic landscape.

Changes in raw material selectivity through time: Contrasting Earlier and Middle Stone Age quartzite use strategies from Tswalu, southern Kalahari.

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Identifying behavioral differences between Earlier Stone Age (ESA) and Middle Stone Age (MSA) hominins is crucial for understanding the evolutionary pathways of our species. Previous research has suggested that ESA hominins primarily used coarser-grained raw materials, whereas MSA and 'transitional' assemblages exhibit evidence of an increased reliance on finer-grained raw materials. This study investigates raw material procurement strategies during the ESA and MSA periods in the Tswalu Kalahari Reserve, Northern Cape, South Africa, determining if the same patterns of increased selectivity of fine-grained materials over time are observed in the southern Kalahari region. The study focuses on two open-air archaeological sites located 8 km apart, Sonstraal (ESA) and Witberg

1 (MSA), both primarily composed of quartzite lithic assemblages. Geological research has revealed variations in the quality of quartzite raw materials, ranging from coarse-grained to fine-grained varieties. Survey work in the Tswalu Korannaberg Range has also shown that some quartzite hills near the Sonstraal and Witberg 1 archaeological sites are friable and coarse-grained, while quartzite found in hills farther from the sites is more fine-grained and more easily knapped. Therefore, by contrasting ESA and MSA quartzite lithic assemblages from Tswalu, the study tests the hypothesis that there was an increased selection of fine-grained raw material over time. The research further pinpoints the exact sources of ESA and MSA quartzite raw materials within the Tswalu Korannaberg Range using provenance analysis and systematic surveys, contributing to our understanding of hominin mobility patterns within the Kalahari Basin. Thus, Sonstraal and Witberg 1 provide valuable insights into key aspects of behavioral evolution, how hominins interacted with their environment, and the transitions that occurred from the ESA to the MSA in the Kalahari Basin.

A BRIEF ASSESSMENT OF THE LARGE CUTTING TOOLS OF WONDERBOOM

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Wonderboom is an open-air Stone Age site located in Tshwane Municipality (Gauteng Province) that is nestled in a

shallow, quartzitic valley within the Magaliesberg, near the Apies River (Lombard et al., 2021; Lotter et al., 2022; Mason, 1957). According to Mason (1957, 1958, 1969), the site was most likely a result of potential hunting and/or butcher opportunities afforded by to the 'Wonderboompoort' ('poort', erosional gap in Afrikaans), which would have bottlenecked migrating animal herds, allowing potential hunting or meat-harvesting opportunities (Lombard et al., 2021). Tentatively, Wonderboom has been assigned to the 'Later' Acheulean (Caruana et al., 2023; Lotter et al., 2022; Lombard et al., 2021; Mason 1957), a technological period that is generally characterized by standardized size and shape of Large Cutting Tool (LCT) forms of handaxes, cleavers and knives. The abundance of technological trends of tool types and more specifically of the Wonderboom assemblage could be a result of subsistence strategies i.e., the meat-harvesting opportunities created due to the potential chokepoint by the nearby Wonderboompoort (Caruana, 2022; Lombard et al., 2022). If this were the case, it would infer that there exists some degree of social transmission and complex knowledge among the Wonderboom knappers.

Sand, hearths, lithics, and a bit of bioturbation: Micromorphological investigations at Umhlatuzana rockshelter, South Africa

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Umhlatuzana rockshelter is located in KwaZulu-Natal, South Africa and demonstrates a continuous archaeological record throughout the Middle and Later Stone Age (~70,000 years BP to present). In this poster, we present multi-proxy geoarchaeological data (micromorphology, XRD, SEM-EDS) to reconstruct the depositional and post-depositional history of the site. The Stone Age deposits appear macroscopically homogenous but micromorphological analysis revealed depositional, unaltered micro-layering throughout the sequence. Sediments related to combustion activities are observed throughout the deposits although the preservation conditions appear much better in the Holocene. Post-depositional geochemical alterations resulted in the formation of phosphatic minerals that affect the site's taphonomy. One of those phosphates is vashegyite, a rare magnesium-phosphate mineral associated with acidic and moist sedimentary environments. Although bioturbation features are evident, sediment mixing does not seem to affect the vertical distribution of the

artefacts meaning that the lithics can be analysed as coherent assemblages.

Animal subsistence strategies at two 19th century Venda sites in the central Limpopo Valley.

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The 19th century witnessed a series of events with significant socio-political and economic consequences, resulting in dramatic transformations within the cultural milieu of southern Africa. During this time, the Soutpansberg region witnessed significant conflict between the Voortrekker and Venda communities. The conflict was

intensified by factors such as excessive hunting, taxation laws, cattle theft, and the subsequent outbreak of rinderpest. These events likely caused severe impacts on both domestic and wild animal populations. Animal remains recovered from two 19th century Venda settlements in the central Limpopo Valley (TSH 40 and TSH 32), were analysed to contextualise animal management and procurement strategies within the region's socio-political and geopolitical transformations. This poster presents the preliminary archaeozoological results from TSH 40 and briefly considers the ways in which this Venda community engaged with wild and domesticated animals during this time.