SUDAN STUDIES

RESEARCH CONFERENCE

NAPLES EDITION

04 MAY 05 MAY















SCHEDULE OF TALKS

UTC + 2HOURS

DAY ONE THURSDAY 04 MAY 2023

08:30 - 09:00 Registration

09:00 – 09:30 Welcome and Conference Opening

09:30 - 10:00

Keynote Talk: Dr. Mahmoud Suliman Mohammed Bashir: Recent Archaeological Research in the Royal and Non Royal Cemeteries in The Middle Nile Region – Sudan

SESSION 1 Chair: Elena D'Itria

10:30 – 10:45 Cornelia Kleinitz, Alfatih Mohamed Ali Saeed, Hassan Ebeid-Allah: *Archaeologies of pastoralism at Musawwarat es-Sufra, Sudan.*

10:45 - 11:00 Wafa Hussein:

The archaeological survey of West Labab and Goz mari Villages.

11:00 – 11:15 Chloe Ward:

Between legacy and innovation – Studying Bronze Age settlements in Northern Sudan.

11:15 – 11:30 Emanuele M. Ciampini, Silvia Callegher, Martino Gottardo, Francesca Iannarilli, Federica Pancin:

Season 2022 of the Italian Mission at Jebel Barkal: discovering a new palace.

11:30 - 11:45 Questions

11.45 - 12:15 COFFEE BREAK

SESSION 2 Chair: Giusy Capasso

12:15 - 12:30 Mariusz Dzewiecki

Spatial organisation of Soba East after multidisciplinary research 2019 – 2022.

12:30 – 12:45 Mohammed Nsreldein and Simone Riehl:

Archaeobotanical evidence of stored crops from post mediaeval Nubia.

12:45 – 13:00 A. Battimelli, M. Delle Donne:

Tree vegetation and woody plant exploitation in Eastern Sudan during the early 2nd millennium BC: anthracological pilot study for Kassala.

13:00 – 13:15 Mariasole Pepa and Andrea Pase:

Geographies and metamorphosis of Sudanese mega-irrigations projects.

13:15 – 13:30 Giusy Capasso, Emanuela Cristiani and Andrea Manzo:

Plant consumption in Neolithic Eastern Sudan: new evidence from dental calculus analysis.

13:30 – 13:45 Abdelhadi Abdellatif Salih:

Teeth mutilation as a dental print in Sudan: case reports.

13:45 - 14:00 Questions

15:00 - 16:00

Keynote Talk: Dr. Donatella Usai : Riverine life and environment in the Early-Middle Holocene: The site of al-Khiday on the White Nile, Sudan.

SESSION 3_Chair: Francesco Michele Rega

16:00 - 16:15 Mohammad Alfatih Hayati:

The prehistory of the Gezira reach (central Sudan) cultural characteristics and relative date.

16:15 – 16:30 Annissa Malvoisin:

Reflections on the democratisation of Shari'ah in the Republic of Sudan.

16:30 - 17:00 COFFEE BREAK

17:00 – 17:15 Enrico Giancristofaro:

The Butana Group in the Eastern Sudan (IV – Early III Millennia BC): Some remarks and preliminary results.

17:15 - 17:30 Miroslaw Masojc:

Early hominin activity from Eastern Desert, Sudan.

17:30 - 17:45 Questions

17:45 END OF DAY ONE

DAY TWO FRIDAY 05 MAY 2023

09:30 – 09:50 Registration 09:50 – 10:00 Welcome Back 10:00 - 11:00

Keynote Talk: Dr. Johannes Auenmüller: Metals and Metalworking at Amara West (Sudan): The remains of a metallurgical workshop in context

SESSION 1 Chair: Marco Baldi

11:00 – 11:15 Juliet Spedding: *To see a world in a grain of sand.*

11:15 - 11:30 Mahmoud Emam:

Ethnoarchaeological Observations and Historical interpretations: a processual approach in studying amulets in Ancient Suda.

11:30 - 12:15 COFFEE BREAK

12:15 – 12:30 Rennan Lemos, Caterina Zaggia & Kate Fulcher:

Diversity in the colony: Multi-analytical explorations of 18th Dynasty kohl samples from Lower Nubia.

12:30 – 12:45 Abdelrhman Fahmy, Anna Gołąbiewska, Wiktoria Wojnicz, Alicja Stanisławska, Jakub Kowalski, Justyna Łuczak, Adriana Zaleska-Medynska, Salvador Domínguez-Bella, Javier Martínez-López and Eduardo Molina-Piernas:

Nanotechnology in the preservation of archaeological construction material.

12:45 - 13:00 Questions

13:00 - 14:30 LUNCH

SESSION 2 Chair: Gilda Ferrandino

14:30 – 14:45 Ezzeldin Hajjaj:

Developing sustainable tourism in Sudan.

14:45 – 15:00 El-Hassan A. Mohamed:

Re-reading; the stele of king Aspelta on the foundation of Prince Khaliut's tomb and mortuary cult.

15:00 – 15:15 Nadir Nasidi:

Reflections on the democratization of Shari'ah in the republic of Sudan.

15:15 – 15:30 Al Awad Ahmed:

Libraries and their role in highlighting Sudanese civilization: case study of the Khartoum University Library

15:45 - 16:15: COFFEE BREAK

SESSION 3 Chair: Ian Styles

15:45 – 16:00 Jalal Hashim:

The writing System of Nobin Nubian Language.

16:00 – 16:15 Mohammed Bashir:

In the footsteps of Christ: a brief account of Christian archaeology on the Island of Meroe

16:15 – 16:30 Beau Stocker:

Music Culture Translation in practice-based research: Sudanese and South Sudanese rhythmic trans

16:30 - 16:45 Questions

16:45 CLOSING REMARKS

17:00 END OF CONFERENCE

EXTRAS

FRIDAY 5 MAY 2023 20:00 CONFERENCE DINNER

SATURDAY 6 MAY 2023 - POMPEII TOUR

ABSTRACTS

DAY ONE: SESSION ONE

Archaeologies of pastoralism at Musawwarat es-Sufra, Sudan Cornelia Kleinitz, Alfatih Mohamed Ali Saeed, Hassan Ebeid-Allah

The valley of Musawwarat es-Sufra, with its numerous temples and other built structures, was one of the primary ceremonial centres of the Kingdom of Kush. It is today one of the major national heritage sites in Sudan and valorised on a global level as part of the 'Archaeological Sites of the Island of Meroe' serial entry on UNESCO's World Heritage List. While research and preservation efforts have long focused on the monumental archaeological site as part of the (Early) Meroitic state's symbolic landscape, a new project aims to complement, and counter, this narrative and logic by focusing on the pastoralist landscape and lifeworld that provides the setting for the ancient ceremonial as well as the modern (World) heritage site. Based on a research partnership with the local community – where workmen and guards for the archaeological site have long been drawn from – we explore materiality's of pastoralism in this specific ecological context between archaeology, heritage and development.

The archaeological survey of West Labab and Goz Mari villages, Northern Sudan 2016 Wafa al Hussein

This paper presents the results of an archaeological survey conducted in 2016 in the villages of West Labab and Goz Mari in Northern Sudan, as part of my academic course in Al-Neelain University. It was concerned with architectural remains from the Christian period to the early Islamic period that is between the 9th and 19th centuries. The area is located on the west bank of the Nile River, approximately 25 km south of New Dongola. The purpose of the survey was to clarify the significance of the area from an archaeological perspective. It aims to record and describe the individual archaeological sites, to conduct an analytical study of these sites and to identify the remains of the village in order to confirm the cultural continuity in the area. In addition to recording oral traditions of the region, the archaeological material was compared with material previously found at other sites from the same period. Each archaeological site was recorded and described and divided into settlements and cemeteries. The study showed that there have been a continuous occupation from the Middle Ages until today. Finally, this project highlighted the threats to the archaeological sites and made some suggestions for their protection.

Between legacy and innovation – Studying Bronze Age settlements in Northern Sudan Chloë Ward

This paper will focus on work conducted as part of the DiverseNile project in the MUAFS (Munich University Attab to Ferka Survey) concession. The main aim of the project is to refine the cultural entanglement concept in Bronze Age Nubia, moving away from elite and funerary biases towards addressing genuine cultural diversity in peripheral zones. In this paper I want to discuss some of the work accomplished by the project, focusing on the settlement areas in the concession. This includes a combination of working with existing data from André Vila's survey of the region in the 1970s, as well as survey and excavation work conducted by the LMU team in the last few years. This will include preliminary results from our 2023 season in Sudan. The main aim of this paper is to discuss how we combine these different data sources to consider broader evidence of settlement activity and cultural diversity in Sudan. This includes both theoretical underpinnings in the use of legacy data in archaeological research and practicalities in how to make effective use of this data today. The paper will conclude with considerations on how to ensure data produced today remains valuable and usable for future researchers.

Season 2022 of the Italian Mission at Jebel Barkal: discovering a new palace?

E. M. Ciampini, S. Callegher, M. Gottardo, F. Iannarilli, F. Pancin

During Season 2022 at Jebel Barkal, various activities have been carried out, focusing not only on the archaeological investigation but also on the conservation aimed at a better fruition of the site. Regarding the latter issues, a major restoration work was realised on the ceremonial sector of the Palace of Natakamani, marking the start of a broader project for the consolidation of exposed structures and musealisation of the entire archaeological area. In the meantime, a partial renovation in the display of Jebel Barkal Museum in Karima took place, thanks to an exhibition opened in March 2022 and the addition of new panels in November of the same year. Nevertheless, the greatest effort of the last season has undoubtedly involved the opening of a new area of investigation in the Italian concession, the one designated as B3500, which seems to define an edifice of great size and architectural richness, able to compete with the major royal buildings excavated at Jebel Barkal so far. This paper therefore aims to introduce the major results of the latest campaign, by discussing the material culture and by showing the documentation obtained by drone and 3D photogrammetry.

DAY ONE: SESSION TWO

Spatial organisation of Soba East after multidisciplinary research in 2019-2022 Mariusz Drzewiecki

Between 2019-2022, two extensive seasons of fieldwork had been carried out in Soba East to understand the spatial organisation of the capital of the Kingdom of Alwa (5/6-15/16 century CE). A large-scale geophysical survey in tandem with archaeological excavations to verify various types of magnetic anomalies or radar readings has covered the entire available land for research at the site (approx. 50ha). As result, new data on the spatial organisation of the Alwan metropolis has come to light such as the identification of unknown districts of the city, a network of streets, cemeteries and traces of gardens within the city. Small finds and samples obtained during excavations provided unique data and open new paths of scientific enquiry. Ethnological interviews and consultations with the local community have been initiated to understand various approaches to archaeological heritage and initiate discussion on the future of the site in the context of the rapidly developing suburb of Khartoum. Extensive training programs tailored to the early-stage researchers (one-month field schools) as well as experienced researchers (one-week workshops) have been implemented to expand ongoing capacity-building actions and invite researchers based in Sudanese institutions to cooperate.

Archaeobotanical Evidence of Stored Crops from Post-Medieval Nubia (16th-19th Centuries AD): Insights from Old Dongola, Northern Sudan

Mohammed Nasreldein and Simone Riehl

The archaeobotanical investigations in Sudanese Nubia have been described as underdeveloped. Recently, the investigations are increasing across several sites in Sudan, which will lead to the establishment of a database for the ancient diet and agricultural production. Nonetheless, the archaeobotanical evidence of stored crops, either short-term or long-term crop storage, is not found. The excavations have shown several examples of storage containers known as *Gussiba;* which were remarkably known till recent times in today's Nubia. Archaeologically, none of these containers were found to contain a stored crop. This paper presents newly discovered assemblages of short-term stored crops from Old Dongola, the Northern province's capital of the Funj Kingdom (AD 1504-1821). Burnt seeds were found in the courtyard room of house U192, indicating they were preserved by charring due to a fire accident happened in 16th century, as confirmed by radiocarbon results. Charred seeds of Barley (*Hordeum vulgare L.*), Wheat (*Triticum aestivum L.*), Sorghum (*Sorghum bicolor L.*), Radish (*Raphanus sativus L.*), Grass pea (*Lathyrus sativus L.*), Cowpea (*Vigna unguiculata L.*) were stored in vessels and baskets. This discovery is the only evidence for the hypothesis that short-term crop storage was practiced at a household level in Sudanese Nubia. It also represents an essential set of crops that were part of the Nubian diet.

Tree vegetation and woody plant exploitation in Eastern Sudan during the early 2nd millennium BC: anthracological pilot study for Kassala

A. Battimelli, M. Delle Donne

In Eastern Sudan, archaeobotanical studies have mainly focused on the analysis of charred and desiccated macro-plant remains and plant impressions which have recently provided the basis for a new overview of the process of sorghum domestication. Conversely, the study of charcoals has received less attention even though a large number of charcoal samples have been retrieved from excavations carried out in the region in the past, such as during the Italian archaeological expeditions carried out by the former Istituto Universitario Orientale between 1980 and 1995. In the framework of research activities of the Italian Archaeological Expedition to Eastern Sudan of L'Orientale and ISMEO, a new line of investigation has been undertaken to reconstruct past vegetation and woody plant use and exploitation through charcoal analysis. A pilot study has been carried out on representative samples picked out by hand during excavations in K1 (Kassala) covering a period from 2000 to 1800 BC (Late Gash Group). Charcoal fragments over 2.0mm were examined using a high-power metallurgical microscope (x100-x400) and identified mainly using the usual reference works. Preliminary results provided evidence for an acacia semi-desert scrub in the area during the early 2nd millennium BC.

Geographies and metamorphosis of Sudanese mega-irrigations projectsMariasole Pepa and Andrea Pase

This paper investigates the spatiotemporal evolution of mega-irrigation projects in Sudan and their recent evolution to question future trajectories. 'Thin spaces' like the Gezira and Kenana and 'ultra-thin-spaces' in the case of pivot irrigations systems in the River Nile State are explored to illuminate the relation between state, nature, and capital (Bertoncin et al., 2019). The contributions aim to reflect on the fieldwork conducted in February and March 2023 in Sudan and discuss recent evolution such as the diversification of production, the use of digital and renewable technologies in agriculture as well as new expansion in pivot areas (Bertoncin et al., 2022). The University of Padua has conducted research in Sudan for over 30 years and this allowed a long term analysis and a comparison with the most recent visit. Finally, the photo exhibition "Never ending (always transforming) irrigation spaces" currently displayed at CEDEJ-Khartoum will be presented as an alternative way to share research outcomes and discuss research progress.

Plant consumption in Neolithic Eastern Sudan: new evidence from dental calculus analysis Capasso Giusy, Neves Dulce, Cristiani Emanuela, Manzo Andrea

The domestication of plant species in sub-Saharan Africa is crucial for reconstructing the different aspects of the transition to food production in human history. Indeed, palaeobotanical and genetic evidence highlight the pivotal role of Eastern Sudan in the domestication of cereals such as sorghum and pearl millet. However, little is known about legume consumption due to the scanty macro-botanical record available so far. We performed a dental calculus analysis on 37 individuals from sites UA50, UA53, and K1, located in the Gash delta, to diachronically investigate the consumption of plant species in the region during the Neolithic. Starches, phytoliths, fibers, wood/charcoal debris, and plant tissues were identified. Among the starches, we recorded Poaceae-type and Fabaceae-type granules, supporting the role of cereals and legumes in the Neolithic diet. Interestingly, both wild and domesticated cereal species were recorded throughout the period considered, following the paleobotanical evidence showing that the cereals' pre-domestication process, which started from the 4th millennium BCE, carried on in the 2nd millennium BCE. In absence of C and N isotopic analysis, due to the bad collagen preservation in all prehistoric Eastern Sudan osteological samples, the analysis of dental calculus offers a unique insight into plant consumption in the region.

Teeth mutilation as a dental print in Sudan: case reports

Abdelhadi Abdellatif Salih:

Historically human kind proved a tendency to excellence and uniqueness either from different races or various ethnic groups, which was reflected in their culture, one of these cultures are teeth mutilation. Sudan has a multi-diverse ethnic background among these ethnic groups are the denka and nuier which are originated from southern Sudan. However, by extracting their upper maxillary and lower mandibular anterior teeth two to six teeth and sometimes the canines, as an initiation of the adulthood ceremony they are enhancing their tribal identity, beauty and linguistic. Furthermore medically it was linked with the tetanus as locked jaws inhibit the fluid ingestion which is critical in such a medical conditions. Forensically an unidentified deceased body poses a dilemma in forensic investigation as the major critical question is who is the deceased. Dentitions, medical devices, DNA, finger print are considered as primary methods for human identification. However secondary methods include personal description of clothes, tattoos, jewellery and teeth. From a Forensic prospective teeth mutilation might assist in ethnicity determination in Sudan especially in the absence of medical or dental records of the deceased individuals.

DAY ONE: SESSION THREE

The prehistory of the Gezira reach (central Sudan) cultural characteristics and relative date Mohammed Alfatih Hayati

Within the framework of many seasons of archaeological work of the mid-Gezira reach in central Sudan, and between the White Nile and the Blue Nile, many of late prehistoric sites discovered among the center of Gezira Agricultural Project and westward. The concern in this study is to talk about the cultural identity of the prehistoric sites unearthed recently in the Gezira Reach - south of Khartoum. It will cover some parts of the areas south of Khartoum that have not previously been a focus of research. Therefore, this paper sheds a light on Archaeological sites belonging to the Mesolithic and Neolithic periods. Some of these sites were discovered in the second half of the twentieth century by the English diplomat Balfour-Poul, and the others have been discovered recently within the framework of the archaeological, heritage and environmental research project of the central Gezira reach, furthermore, our postgraduate studies in the same region. The prehistoric existence in the Gezira reach has to be discussed within the cultural framework of central Sudan, in addition to special cultural characteristics of the late prehistory, because there are cultural features related to the stone implements, as well as adornment tools need to be in studied focally. Actually, these sites are contemporaneous to Early Khartoum, Khartoum Neolithic and Jebel Moya. Finally, it is necessary to draw attention to and study this region specifically, because the population movement and the agricultural scheme endanger some of the sites.

Between the Nile and the Niger: Trans-Saharan Decoration from Meroitic Nubia Annissa Malvoisin

The African Iron Age was a period of vast commerce which spanned regions and continents. During this period, the African continent and its surrounding continental regions entered the First Commercial Revolution (ca. 1000 BCE – 300 CE) (Ehret, 2016) where Nubia during its Meroitic period (ca. 343 BCE – 450 CE) was surrounded by a great means of travel, both by land and sea. The material culture of this period reflects iconographical convergence that disrupts the view of the Sahara as a barrier, demonstrates material networks, and suggests a more liberal movement of people, ideas, and things. This paper will ask questions of connection based on ceramic typologies and decorations dominant in Meroitic Nubia that parallel typologies being produced during the same period in Mali, Nigeria, and Libya (African Iron Age, ca. 200 BCE – 1000 CE). The presentation will investigate ideas, tastes, trends, and social context in order to create analyses based on particular decorative styles.

The Butana Group in the Eastern Sudan (IV – Early III Millennia BC): Some remarks and preliminary results

Enrico Giancristofaro

Since the 80s of the last century, archaeological investigations were conducted in Eastern Sudan and lead scholars to outline a broad local chronological and cultural sequence, spanning from the 6th millennium BC to the 18th century AD. In this period, the region was settled by several human groups identified by a variety of ceramic productions. Among these, the one associated with the Butana Group is quite relevant and dates between the 4th and the early 3rd millennium BC on the basis of comparisons and carbon 14 analysis. However, the studies conducted up until now are very limited: the largest and most noteworthy is certainly "The Butana Group Ceramics" by Frank Winchell. Nonetheless, as time goes by, due to an increase in studies of the region, some criticalities emerged in this work, such as periodization of ceramic production as well as the dating of some sites. For this reason, some preliminary results emerging from the re-examination of the ceramic materials from KG23/UA14 site will be presented here, as well as from the UA53 site, where the archaeological investigations conducted by the Italian Archaeological Expedition to Eastern Sudan have brought to light a stratigraphic sequence partly datable to what appear to be the initial stages of the Butana Group.

Chronological aspects concerning the Middle and Late Pleistocene hominin presence in Sudanese Nubia, NE Africa

Mirosław Masojć

The existing evidence supports the long presence of hominins in the Eastern Sahara, from possibly even the Early Pleistocene (MIS >13-11) to the end of the Middle Pleistocene (MIS 7a/6), as well as the early appearance of Homo sapiens (MIS 9<), which showed the long coexistence of these two human species in a relatively small area of the deserts of today's Sudan. It is no less important to show the Eastern Sahara as an area that cyclically played an important role in the dispersion through the green corridors of hominins and thus human culture in the Pleistocene. The presentation will show the evidence for the Middle and Late Pleistocene Eastern Saharan hominin activity based on the research results from the Sudanese areas referred to as the Eastern Desert Atbara River (EDAR) and Bayuda Desert. The results of chronological and archaeological analyses bring several aspects for hominin presence in this part of the Africa, which will be discussed as listed: 1. Earliest traces of Middle (or Early?) Pleistocene hominins activity (oldest Acheulean), 2. The presence of the latest Middle Pleistocene hominins (the youngest Acheulean), 3. The oldest traces of the presence of Homo sapiens (the oldest traces of Middle Stone Age).

DAY TWO: SESSION ONE

'To see a world in a grain of sand': Glass from Nubia and the Mediterranean Juliet Spedding

This talk will present the results of my PhD research using chemical analysis of Nubian glass from the Meroitic Period (c. 350BCE-350CE) and Early Nobadia (c.350-650CE). Material was examined from the sites of Faras, Qasr Ibrim, Meroe, and Gabati. The analyses highlighted the variety of vitreous materials present in Nubia at regional and site level. It also permitted the identification of glass groups as well as raising questions about possibilities of reworking of vitreous materials at site level. Additionally, comparisons to published material from around the Mediterranean and identification of chemical similarities of glass found in Turkey, Egypt, Butrint, and Nubia to indicate further trade links between these regions. The results of lead isotope analysis also enabled further potential links for the movement of raw materials to be identified while Indian-made glass found at Faras highlighted how far such material could travel and (indirect) connections between these regions. It is hoped that with more analyses of Nubian vitreous materials and examination of chemical connections from across the ancient world that Nubian glass can be placed into the wider context of making, working, and trade.

Ancient gold working and goldsmithing in the Middle Nile region: preliminary studies and new assessments Sofia Patrevita

Ancient Nubia is mostly recognized as the source of Egyptian wealth, namely gold. Until recently, a common assumption was that before the New Kingdom colonization, gold processing did not play a major role in Nubian society. Previous research focused mostly on Pharaonic sources, despite exquisite gold objects manufactured in local styles found at Kerma. Recent fieldwork and in-depth studies provide important information regarding the Nubian gold working and the key role of Kerma culture. The regional involvement of Nubians continues to be attested during the New Kingdom colonial period, for example at Sai Island and other sites. The new evidence allows us to discuss the continuity of indigenous gold mining/processing in Nubia in the long term, from the Kingdom of Kerma, through the period of the New Kingdom colonization, to the rise of Napata. Through mapping gold working sites, technological and stylistic studies, ethnoarchaeological research and experimental archaeology, it will be possible to shed further light on the complex study of the ancient gold working in the Middle Nile, still almost unknown. This paper will present the first results of a PhD undertaken within the framework of the ERC DiverseNile project.

Ethnoarchaeological Observations and Historical Interpretations: A Processual Approach in Studying Amulets in Ancient Sudan. Mahmoud A. Emam

Ethnoarchaeology offers archaeologists the opportunity to understand the present-day cultural processes and identify appropriate means to recognize and interpret meaningful variation in the archaeological record. However, the ethnoarchaeological research cannot provide clear answers about ancient societies, but it is considered as an atypical interpretative discipline and tool, that can be used to suggest actions and discover information that is otherwise difficult for the archaeologists to imagine and reconstruct. For this motive, this paper used the ethnoarchaeological approach as a tool to broaden and wide-ranging in scope the study amulets in ancient Sudan. Ethnoarchaeological survey through observations and interviews were conducted in Sudan in May 2022 with people living in Khartoum, provided information on the actions that might be correlated in believing in amulets, the choices and the purposes of amulets, in addition to the dynamic and variable attitudes concerning amulets. This paper deals with the ethnoarchaeological approach aiming to elucidate the intangible processes of *chaîne opératoire* of amulets in the archaeological context in ancient Sudan.

DAY TWO: SESSION TWO

Diversity in the colony: Multi-analytical explorations of 18th Dynasty kohl samples from Lower Nubia

Rennan Lemos, Caterina Zaggia, Kate Fulcher

This paper presents some preliminary results of a multi-analytical investigation of 18 kohl samples extracted from Egyptian-style containers from various 18th Dynasty cemeteries in Debeira, Lower Nubia. Excavations in Debeira by the Scandinavian Joint Expedition to Sudanese Nubia yielded robust data sets pertaining to all social strata. This evidence makes Debeira a microcosm of social relations, which provides a snapshot of colonial society during the 18th Dynasty. Previous macro-scale analyses of material culture from the area have pointed to alternative roles played by Egyptian-style objects. At a micro-level, analyses of kohl samples shed light on local practices associated with foreign objects in local contexts. The kohl samples were analysed using optical microscopy, ATR-FTIR, SEM-EDX and GC-MS. The results of these analyses point to greater diversity in terms of compositions, which end up revealing aspects of sociocultural practices in the Egyptian colony. Recent results obtained for Egypt also point to greater diversity. Comparing the results now obtained for Nubia with results for Egypt allows us to further demolish Egyptianisation perspectives on Nubia, which was equally complex and diverse as Egypt.

Multi-functional monodispersed SiO2-TiO2 NPs and TEOS in the consolidation of archaeological lime mortars surfaces

Abdelrhman Fahmy, Anna Gołąbiewska, Wiktoria Wojnicz, Alicja Stanisławska, Jakub Kowalski, Justyna Łuczak, Adriana Zaleska-Medynska, Salvador Domínguez-Bella, Javier Martínez-López and Eduardo Molina-Piernas

Archaeological traditional lime mortars are susceptible to many environmental conditions such as the impact of water (rains, humidity, groundwater, etc.), variation of temperatures' degrees, winds and/or pollution. Accordingly, this research aims to provide newly assessed multifunctional nano-coating for the purpose of archaeological lime mortar protection. For this, the study combined physicochemical and mechanical characterizations in performance assessment of 3%, 5%, and 7% of the synthesized SiO2-TiO2 nano-particles (NPs) and TEOS as consolidants on the surfaces of the experimental lime mortars. A series of techniques and tests were fulfilled for the evaluation. For analysis, X-ray diffraction and UV-Vis along with scanning electron microscopy were used to identify microstructure. Furthermore, wettability, colorimetric, self-cleaning, petrophysical, nano-indentation and uniaxial compressive strength tests were performed in order to select the most suitable consolidate between 3%, 5%, and 7% SiO2-TiO2 NPs/TEOS. Durability assessments were carried out through salt weathering, thermal and UV aging tests. The results showed that 3% and 5% of SiO2-TiO2 NPs/TEOS enhanced the physical and mechanical properties of the lime mortars. On the other hand, 7% SiO2-TiO2 NPs/TEOS proved their insufficient efficacy in improving the surfaces of lime mortars for the high amount of TiO2 and its behaviour for aggregation

Developing sustainable tourism in Sudan: insights from national museum and community museum's projects in Sudan.

Ezzeldin Hajjaj

Conventions for the Safeguarding of Cultural Heritage recognize "the importance of museums as vessels of cultural diversity and as agents of It ensures sustainable development, and the 2030 Agenda for Sustainable Development is an action plan that addresses dimensions. The three economic, social and environmental - for sustainable development through the Sustainable Development Goals. The seventeen work as closely interrelated fields of action that provide information that guides pathways Development at all levels, respecting the three basic principles of human rights Equity and Sustainability Museums can contribute effectively to each of the three dimensions of development sustainable development, as well as in the demands of peace and security as basic requirements for sustainable development. Consequently The aim of this paper is to investigate the ongoing museum development projects in Sudan And their role in sustainable tourism development by focusing on two main projects: the western Sudan community Museums project and the Rehabilitation of the Sudanese national museum project.

Re-reading; the stele of king Aspelta on the foundation of Prince Khaliut's tomb and mortuary cult.

El-Hassan A. Mohamed

The paper aims to shed the light on the unusual ceremonial attention given by the Napatan king Aspelta to the diseased prince Khaliut, the unknown son of the Kushite king Piye (Piankhy). Khaliut, who had served as a regional governor, died either during the life or after death of his father; and was evidently ignored or forgotten for over a century by later Napatan kings, until the reign of Aspelta. Who, for unexplained reason, took pains to honour and memorise Khaliut by building for him a new tomb and having a eulogistic granite stela erected at the entrance of the great temple of Amon at Jebel Barkal. The stela not only introduces Khaliut but also extols Aspelta for his good deeds. The paper discusses the issues of Khaliut's life as a religious prince; the significance of building him a new tomb and reviving his funerary cult by the king Aspelta's, and the benefit of implication of this action into Aspelta's life as king. Moreover, how the stele escaped the destruction all this time? The Aspelta's stela; although it is an important document; was stolen from its original place at Jebel Barkal and disappeared for two years, and found and returned back to Sudan National Museum in 2006.

Reflections on the Democratization of *Shari'ah* in the Republic of Sudan, 1983-2015 Nadir A. Nasidi

With the growing nature of the concept of democracy in the 20th century, the *Shari'ah* which is divinely put in place to guide human character and ensure the legality or otherwise of the actions of individuals, communities and governments by according rights to its owners has suffered a great setback throughout the Muslim world. Governments therefore, made bold steps to shrewdly force the *Shari'ah* to comply with the provisions of democracy either to protect their seats, or interests. Using a purely qualitative research methodology, this paper reflects on the democratization of *Shari'ah* in the Sudan as a continuation of the colonial legacy of suppressing its proper application through the manipulation of religion to attain a political supremacy. The paper concludes that, democratization of *Shari'ah* has no doubt created serious socio-political tensions in the history of Sudan.

Libraries and their role in highlighting Sudanese civilization: case study of the Khartoum University Library

Dr. Al Awad Ahmed

In the Sudan, libraries of all kinds and names play an important and effective role in disseminating culture and awareness of the importance of Sudanese civilization and in creating balanced development in the society in which it is located. They are known to peoples' universities for their roles towards society. It reflects Sudan's ancient civilizations and heritage of peoples over time, providing sources of information to graduate students and researchers of Sudan's civilization and ancient monuments (Abbas 2003: 47-48). This study aims to publicize the civilization of the Sudan and the antiquities found in a number of states of the Sudan through the library portal. The study examined the introduction of libraries and the role they play in reversing the civilization of the Sudan. The study then touched upon some Sudanese libraries that were interested in the presentation of the ancient civilization of the Sudan. To achieve those goals, the researcher prepared a questionnaire on the role that libraries play in familiarizing themselves with the ancient civilization of the Sudan and an account of its impact since ancient times. The questionnaire was given 10 questions and distributed to random students and researchers attending Sudanese libraries to meet their research needs. The study used the analytical descriptive curriculum and the case study methodology. The study produced a number of findings and recommendations that would contribute to highlighting the role of libraries in reflecting Sudanese civilization

DAY TWO: SESSION THREE

The Writing System of Nobíin Nubian Language: Insights from the Writing System of Old Nubian

M. Jalal Hashim

Nobiin Nubian language is spoken in both northern Sudan and south Egypt. It is considered the direct descendent of the Old Nubian language that was the language of the mediaeval Christian Nubian kingdom that occupied the same area where presently Nobiin is spoken. One of the greatest challenges that has been facing the Nobiin speaking people is how to write their mother tongue in order to save it from extinction. In this regard, a host of purely technical problems have been considered, mostly pertaining to the script to be used in writing the language and the writing system. The present writer makes his contribution in this by starting from the huge experience of Old Nubian in order to glean the practical solution to the outstanding problem of both the script and the writing system. The script, which is mostly drawn from Greek writing characters (70%) besides Coptic and Meroitic characters (15% for each), is taken into consideration, with some of them dropped off. The ideological directions and trends of the Nubian are taken onboard as questionnaires and structured interviews were administered. Then the writing system of Old Nubian is taken into consideration, with its suitability and efficiency tested through a series of classrooms in the span of 20 years.

In the footsteps of Christ: a brief account of Christian archaeology on the island of Meroe Mohamed Bashir

The archaeology of the Christian period (AD 400-1500) has received little attention in the intensive archaeological research on the island of Meroe. This paper is an attempt to shed light on the Christian presence as an undivided part of the archaeology of Meroe Island. In 2016, the author conducted a field study of the Christian archaeological features in the region, focusing particularly on the northern Meroe area. The field study was supplemented by available data from previous excavations and publications. This assessment draws attention to the issue of Christian archaeology in this region. The study proves the existence of an estimated number of Christian sites in the region, between settlements, burials, religious architecture and symbols - the sites were essentially concentrated around areas that provide sufficient protection.

Music Culture Translation in practice-based research: Sudanese and South Sudanese rhythmic translation

Beau Stoker

The work in this presentation is part of a larger project of practice-based research that was conducted through a series of translations employing traditions from both Sudan and South Sudan. The initial stages of these translations were informed by musical connections cultivated through three years living in Khartoum Sudan, before the countries' split in 2011. The consecutive stages as part of the methodology positioned improvised music ensembles in sessions that explored the effects of the translations, resulting in musical output case studies. This presentation will engage in discourse of those elements that occurred through and as a result of the translations of Sudanese and South Sudanese rhythmic traditions. These traditions, virtually non-existent in western improvised music influences, are integrated as improvised music structural tools for timbral exploration and general composition components. Comparison of these outputs illustrates trends in current percussion performance practice in improvised music as related to a wider artistic context. To address specific cultural interests in Sudan and South Sudan, accounts of musical experts are included as a means to interrogate this research through the source tradition lens.