

The 13th International Conference for Nubian Studies
University of Neuchâtel, Monday 1st to Saturday 6th of September 2014

Abstracts of papers presented at The 13th International Conference for Nubian Studies

Edited by Matthieu Honegger

2014
University of Neuchâtel

We thank the International Society for Nubian Studies to give the opportunity to organize the 13th International Conference for Nubian Studies at the University of Neuchâtel, Switzerland.

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PROGRAMME OF THE CONFERENCE

MAIN SESSIONS - MORNING

Monday 1st September Aula des Jeunes Rives

2-5 pm Registration

Tuesday 2nd September Aula des Jeunes Rives

8.15-9 am Registration

9-9.30 am Official Opening of the Conference and Welcome

Main session 1: From Prehistory to the Kingdom of Kerma (*30' communication followed by 15' discussion*)

9.30-10 am Donatelle Usaï Prehistory in Central Sudan

10.15-10.45 am Maria Carmela Gatto Current Research in the Pre- and Protohistory of Lower and Upper Nubia

11-11.30 am Break

11.30-12 noon Matthieu Honegger New Data on the Origins of Kerma

12.15-12.45 pm Derek Welsby Ancient Kerma Cemeteries. Similarities and Regional Variations

1 pm Lunch (individual arrangement)

2.30-6 pm Parallel Sessions: recent fieldwork and thematic research results

6.30 pm Exhibition on Nubia. Opening Reception at the Latenium Museum

Dinner (individual arrangement)

Wednesday 3rd September Aula des Jeunes Rives

Main session 2: The End of Kerma and the Egyptian Presence (*30' communication and 15' discussion*)

9-9.30 am Neal Spencer Egyptians Settlements in Northern Sudan (Amara West)

9.45-10.15 am Charles Bonnet The Nubian Ceremonial City of Dokki Gel - Kerma and the Menenou of Thutmosis I

10.30-11am Break

11-11.30 am Stuart Tyson Smith Colonial Entanglements. Immigration, Acculturation and Hybridity in New Kingdom Nubia (Tombos)

11.45-12.15 pm Luc Gabolde Insight into the Perception of Royal and Divine Power among Kushites and Egyptians

12.30 pm Lunch (individual arrangement)

2.30-6.30 pm Parallel Sessions: recent fieldwork and thematic research results

7 pm Cocktail at the Palace Du Peyrou

Dinner (individual arrangement)

Thursday 4th September Aula des Jeunes Rives

Main session 3: The Kushite Kingdoms (Napata and Meroe) (30' communication and 15' discussion)

9-9.30 am	Dietrich Wildung	On the Autonomy of Art in Ancient Sudan
9.45-10.15 am	László Török	The Periods of Kushite History
10.30-11 am	Break	
11-11.30 am	Claude Rilly	Fragments of the Meroitic Report of the War between Rome and Meroe
11.45-12.15 pm	Irene Vincentelli	Long Distance Trade: the Evidence from Sanam
12.30 pm	Lunch (individual arrangement)	
2.30-6.30 pm	Parallel Sessions: recent fieldwork and thematic research results	
8 pm	Aula des Jeunes Rives: Lecture by Louis Chaix « Une histoire des animaux et des hommes au nord du Soudan » Dinner (individual arrangement)	

Friday 5th September Aula des Jeunes Rives

Main session 4: Medieval and Islamic Periods (30' communication and 15' discussion)

9-9.30 am	Robin Seignobos	Rereading the Oriental Sources: on some unknown or little-known Arabic texts concerning Nubia
9.45-10.15 am	Bogdan Żurawski	Nubian Fortifications of the Middle Ages <i>lecture by M. Drzewiecki</i>
10.30-11 am	Break	
11-11.30 am	Włodzimierz Godlewski	The Makurian Church and its Sacral Architecture
11.45-12.15 pm	Intisar el-Zein	Islam in the Sudan: between history and archaeology
12.30 pm	Lunch (individual arrangement)	
2.30-6.00 pm	Parallel Sessions: recent fieldwork and thematic research results	
7 pm	Reception-Cruise on the Lake of Neuchâtel	

Saturday 6th September Aula des Jeunes Rives

Main session 5: The Practice of Archaeology and its Diffusion (30' communication and 15' discussion)

9-9.30 am	Jean-Paul Demoule	Archaeological Research in the XXI st Century
9.45-10.15 am	Abdelrahman Ali Mohammed	Salvage Archaeology Related to Dams in Sudan: an overview
10.30-11.00 am	Break	
11-11.30 am	Abdulla Al-Najjar and Salah eldin Mohammed Ahmed	Qatar-Sudan Archaeological Project (QSAP)
11.45-12.15 pm	Vincent Rondot	General Meeting of the International Society for Nubian Studies
12.30 pm	End of the 13 th International Conference for Nubian Studies	



PARALLEL SESSIONS - AFTERNOON

15' communication and 5' discussion

	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6
Tuesday 2nd 2:30-6:00	Prehistory 8 papers	Protohistory 7 papers	Meroe 7 papers	Middle Ages 7 papers	Epigraphy / Linguistic <i>Egyptian & Meroitic</i> 8 papers	Survey Fieldwork 8 papers
Wednesday 3rd 2:30-6:00	Prehistory / Protohistory 7 papers	Egypt 8 papers	Meroe 9 papers	Middle Ages 8 papers	Epigraphy / Linguistic <i>Greek, Nubian & Arabic</i> 8 papers	Survey Fieldwork 9 papers
Thursday 4st 2:30-6:30	Bioanthropology 9 papers	Egypt / Napata 8 papers	Meroe 9 papers	Middle Ages 3 papers Islam 6 papers	Fortifications 9 papers	Cultural Heritage 8 papers
Friday 5st 2:30-6:00	Animal-Man 7 papers	Napata 8 papers	Meroe 7 papers	Meroitic Iconography 5 papers	Transcultural Approaches 6 papers	Cultural Heritage 6 papers

Afternoon break between 3:50 and 4:20 pm

TUESDAY 2nd SEPTEMBER

PARRALLEL SESSIONS

	Session 1	Session 2	Session 3
PM	PREHISTORY	PROTOHISTORY	MEROE
2.30	A. NASSR Acheulean Lithic Technology in the Sudan from the Jebel ElGrian Site East of the Lower Atbara River	X. DROUX, R. FRIEDMAN Gebel Sheikh Suleiman Relief Revisited	M. MAILLOT The Meroitic Palace and Royal City
2.50	M. MASOJC Palaeolithic in Bayuda Desert	H. HAFSAAS-TSAKOS Ethnicity, Competition and Warfare: establishing an ethnic boundary between A-Group and Naqada people in Lower Nubia	S. SCHELLINGER The Meroitic Palace: developing a definition from form and function
3.10	Y. TAHIR The Palaeolithic and Mesolithic Sites in the El Ga'ab Depression, Western Dongola Reach	H. DELATTRE The Pre-Kerma Site of Sedeinga	N. ALZOHARY New light on three statues from the Barkal Cemetery
3.30	L. SUKOVÁ et al. Prehistoric Research at Jebel Sabaloka (West Bank), 2011-2014	W. DAUM The Creation of Man on a Hill Emerging from the Primordial Waters: the origins of the world in Dinka Mythology	J.W. YELLIN Meroitic Chronology in the II-III Centuries AD: evidence from the royal pyramids of Meroe and Barkal
3.50	Break	Break	Break
4.20	L. VARADZIN, L. SUKOVÁ Dating and Significance of the Cemetery at the site of Sphink, Jebel Sabaloka, 6 th Nile Cataract	A. DE SOUZA The "End" of an Era: a review of the phasing system for the late C-Group and Pan Grave cultures	V. RONDOT, CLAUSTRE, D. Trémaux's Description of Soba's Ram and its Consequences on the Southern Border of the Meroitic Empire
4.40	M. CHŁODNICKI Stratigraphy of the Neolithic Cemetery at Kadero	M.-K. SCHROEDER Nubian Pottery Assemblage from the C-Group Cemetery HK27C at Hierakonpolis	M.F. ALI The Meroitic State and the Fourth Cataract environs: regional cultural interconnection
5.00	A. FEDLELMULA Preliminary Investigation of Prehistoric Potsherds from J. Kungur in the Upper Blue Nile	I. A. AHMED Kerma in Hierakonpolis	P. WESCHENFELDER Linking the Meroitic Hinterland to the Capital: an ethno-archeological study of nomad-sedentary interaction
5.20	R. HAALAND Innovation in Pottery: women's role as the innovators and nurturers. The use of ethnographic material to understand the symbolism of pots and boiled food		

TUESDAY 2nd SEPTEMBER

PARRALLEL SESSIONS

	Session 4	Session 5	Session 6
PM	MIDDLE AGES	EPIGRAPHY LINGUISTIC	SURVEY FIELDWORK
2.30	<i>Pre- and early Middle Ages</i> T. SAKAMOTO In Search of the Origins of Makuria: Meroitic cemetery 100 at Gammai and its historical background	<i>Egyptian & Meroitic</i> D. VALBELLE The Contribution of Epigraphic Data to the History of the Site of Dukki Gel/Pnubs after Twenty Years of Excavation	J. COCKITT et al. All that Remains? A virtual collection for the Archaeological Survey of Nubia
2.50	A.O. MOHAMED SALIH The Discovery of Ezana's Capital in the Heartland of Meroe	L. BONGRANI <i>Iwntyw nw T3-Sty</i> : historical documentation	J. EGER Remote Sensing in Sudan: possibilities and limitations with examples from the Western Desert and the Wadi Abu Dom
3.10	I. MUSA Iron Technology in the Fortified city of Mao (Central Darfur) in the first Millennium AD	J. COOPER The African Topographical Lists of the New Kingdom and the Historical Geography of Nubia in the Second Millennium BCE	A. LOHWASSER Wadi Abu Dom Itinerary (W.A.D.I.)
3.30	N.K. ADAMS From Cotton fields to Pastures: the transition from cotton to wool clothing in Nubia	D. MICHAUX-COLOMBOT The King of Meluḥḥa is not a King of Kush, but probably a Medjay Chieftain, once again and more about it	C. GRADEL et al. Selima Oasis and Darb el-Arbain. First results of the SOP project
3.50	Break	Break	Break
4.20	<i>Middle Ages</i> K. DANYS-LASEK 7th Century Pottery from Old Dongola in the Light of Recent Finds from Palatial Building B.I.	A. SPALINGER Piye/Pianchy: Between two Worlds	F.A. MOHAMMED Rescue Excavation East of Jebel Barkal: results of preliminary reports for seasons 2010/2011/2012
4.40	D. DZIERZBICKA 7th Century AD Mud Stoppers from Old Dongola	J. POPE The Divine Adoratrice in Aspelta's Genealogy	B.J. BAKER The Bioarchaeology of Nubia Expedition (BONE) in 2014 and Beyond
5.00	M.J. HASHIM The Rock Gongs in the SARS Concession Area of the Manasirland (Fourth Cataract)	S. BUMBAUGH Milk Libations for Osiris: Meroitic Piety at Philae	C. SEVARA, B.J. BAKER Space from Space: examining the landscape character of the Bioarchaeology of Nubia Expedition 4th Cataract concession
5.20		G. FERRANDINO A study of the meroitic inscription REM1141	N.B. EBRAHIM Ruins on the West Bank of the River Nile in Kali Village against Bajrawiya Pyramids

WEDNESDAY 3rd SEPTEMBER

PARRALLEL SESSIONS

	Session 1	Session 2	Session 3
PM	PREHISTORY - PROTOHISTORY	EGYPT	MEROE
2.30	<i>Prehistory</i> A. MASUOUD The Neolithic of Central Sudan: problems of terminology and some cultural issues	M. LEBEDEV Ancient Egyptian quarrying and mining missions to Nubia during the Old Kingdom: continuity and patterns of development	K. GRZYMSKI The Amun Temple at Meroe
2.50	B. KEDING Cultural Connections between North-East and East Africa? An assessment based on the pottery of the earliest livestock-keepers of Kenya	K. LIZKA Egyptians and Nubians at Wadi el-Hudi: Perspectives on multicultural interactions from recent archaeological survey	H.M. ADAM AHMED The Discovery of Hidden Door in the North Wall of Amun Temple, the Royal City of Meroe
3.10	A. MANZO Fieldwork in Eastern Sudan of the Expedition of the University of Naples "L'Orientale", 2010-2013: results and perspectives	P. MEYRAT Curse at the Southern Border. An Execration Ritual on the Verso of the Semna Dispatches	J.R. ANDERSON et al. Recent Discoveries at Dangeil, Nile State: exploring the Amun temple complex
3.30	A. KHABIR The Firing Index of the Prehistoric Pottery in Sudan	W.Y. ADAMS The three Faces of Isis	P. ONDERKA, V. VRTAL The Typhonium of Wad Ben Naga
3.50	Break	Break	Break
4.20	<i>Protohistory</i> E. MINOR Decolonizing Reisner: a case study of a Classic Kerma female burial for reinterpreting early Nubian archaeological collections through digital archival resources	E.S. MAHFOUZ Egypt, Nubia and Punt	M. MILLET Muweis, the Development of a Meroitic Town
4.40	H. PANER The Kerma Culture in the Bayuda Desert	V. DAVIES Travelling the Korosko Road: Egyptian inscriptions in the eastern desert	P. WOLF Urban Settlement in a Historic Landscape – Hamadab and the Meroe Region
5.00	J. WESCHENFELDER, G. REES Bronze Age Funerary Customs on Mogrart Island, Sudan: preliminary report of the first field season of the bronze age cemetery (MOG034) on Mogrart Island, Sudan	M. BINDER Upper Nubia during the New Kingdom and its aftermath – New evidence from the cemeteries of Amara West	S.WOLF, H.U. ONASH Meroë Royal Baths: recent results of the archaeological investigations
5.20		J. BUDKA The fortified Pharaonic town on Sai Island: New results from current fieldwork (2013-2014)	C. NAESER Excavating the Lion's Den: recent fieldwork at Musawwarat es Sufra
5.40			E. KORMYSHEVA The Temple Complex at Abu Erteila

WEDNESDAY 3rd SEPTEMBER

PARRALLEL SESSIONS

	Session 4	Session 5	Session 6
PM	MIDDLE AGES	EPIGRAPHY LINGUISTIC	SURVEY FIELDWORK
2.30	S. FARAJI The Roots of Nubian Christianity Uncovered: a reconsideration of the Ballana tombs and the significance of the Phonen letter	<i>Greek, Nubian & Arabic</i> G. LAUCHE A Short History of Modern Bible Translation into Nile Nubian	K.A. EISA The Recent Archaeological Discoveries along the White Nile – 9th Season
2.50	N. ELNOUAHEY The Relationship Between the Byzantine Empire and the Blemmys	A. LAJTAR Greek and Latin papyri of the time of Augustus from the EES excavations at Qasr Ibrim	Y. E. ELSHEIKH Historical Events and Archaeological Evidences in The Twin Cities of Shendi and Elmatamma: an archaeological survey inside the borders of the two cities
3.10	A. OBLUSKI Recent Advances in Studies on Makurian Monasticism	O.H. HAG OMER Ayzana of Axum Invasion of the Land of the Meroites "A local commission?"	M.A. HAYATI Wad Shanaina from the Reality of the Archaeological Evidence
3.30	M. WOZNIAK The Miniature of Ms Or. Quart. 1020 (Berlin, Staatsbibliothek)	A. JAKOBI Case Markers in the Nile Nubian Languages	F. BAKHIET Burial Customs in the Blue Nile Region and Eastern Sudan: an overview
3.50	Break	Break	Break
4.20	D. ZIELIŃSKA et al. The Power of Blue – Preliminary Results of the Project concerning the Technology of Nubian wall paintings	H. BELL Exploring the Traditional Environment of Nubia via Toponymy	V. PERNA The Pottery the Late Phases of the Eastern Sudan Cultural Sequence (ca. mid-1st mill. BC-mid. 2nd mill. AD): a preliminary agenda
4.40	K.A. MICH The Symbolic Paintings in the Sanctuary in the Light of the Liturgical Space in the Nubian Church	N. A. MOHAMMED Preservation of Nubian Language Among Two Generations	G. LASSÁNYI Archaeological Cultures in the Eastern Desert During the First Millennium AD
5.00	M. ŁAPTAŚ The Idea of Salvation in the Painting Programme of Nubian Churches	S.G. ABOURAS The Attitude of Egyptian Nubian University Students towards Arabic and Nubian Languages	V. ZOPPI New Sites for the Study of Ancient Eastern Sudan: recent developments in the study of settlement patterns in Kassala Region
5.20	K. INNEMÉE, D. ZIELIŃSKA A Painting in the Throne Hall of Old Dongola	A.A. SALMAN Place names at the River Nile State and their cultural and historical connotation	E.Y. ISHAG Survey at Jebel Dajou: a new archaeological site in South Darfur region
5.40			A. AHMED Archaeological Survey in the Sodiri Region, 2011

THURSDAY 4th SEPTEMBER

PARRALLEL SESSIONS

	Session 1	Session 2	Session 3
PM	BIOANTHROPOLOGY	EGYPT - NAPATA	MEROE
2.30	I. CREVECOEUR, A.-S. BENOISTON Biological Identity of the Mesolithic and Neolithic Populations from El-Barga (Sudan)	<i>Egypt</i> T. KENDALL, E.A. MOHAMMED Excavations at Gebel Barkal: 2013-2014	V.M. FERNANDEZ The Amir Abdallah Cemetery (Abri, Sudan) and the Emergence of Meroitic Social Complexity
2.50	T. JAKOB The People of Al Khiday 2: bioarchaeological analysis of a multi-phase cemetery in Central Sudan	C. KNOBLAUCH, L. BESTOCK The Uronarti Regional Archaeological Project: Report on the First Two Seasons	M.S. BASHIR The Meroitic Cemeteries in the Region of Berber: a discussion of funerary practices and socio-cultural aspects
3.10	C. FALLET Population from the Kerma Eastern Cemetery: biological identity and funerary practices	D. PEMLER Looking for Nubians in Egypt - Taking a Look at the Iconographic Evidence from the New Kingdom	E. FANTUSATI Architectural Evidence from Abu Erteila
3.30	A. PUDLO Living Conditions of People from Old Kush		M. DÍAZ-DE-CERIO A New Meroitic Complex – Abasseya Project (Karima, Sudan)
3.50	Break	Break	Break
4.20	K.L. BOLHOFNER, B.J. BAKER Dental Ablation in Ancient Nubia	<i>Napata</i> M.R. BUZON Life and Death in Upper Nubia during the Transition to Nubian rule: third Intermediate and Napatan Period Tombs	R. HAJDUGA Meroitic Architecture at Selib II (Dongola Reach)
4.40	A. PIERI, M.S. BASHIR Archery in the Meroitic Period: new bioarchaeological evidence from WTC cemetery, Dangeil, Sudan	L.A. HEIDORN The Dating of Pottery Assemblages from Third Intermediate Period and Napatan Sites in Nubia	H.A. AHMED, I.S. ABDELRAHMAN The University of Khartoum excavation at Wadi Eddan (North Begrawiya)
5.00	M. SAAD, M. BINDER The Berber Meroitic Cemetery – Bioarchaeological Insights into living Conditions in a middle-late Meroitic Community	A.S. MOHAMMED ALI, G.A. EL HASSAN An Early Napatan Settlement in the Light of the University of Dongola Excavations at J. Barkal	S. MAILLOT Use and Function of Offering Moulds during the Meroitic Period: a reassessment
5.20	R. LOBBAN Humans Remains at Abu Erteila	V. FRANCIGNY Return to Sedeinga, a Regional Capital of the Kingdom of Kush	T. KARBERG Some Remarks on Meroitic Mason's Marks
5.40	S. HACKNER Exploring Ancient Mobility: diaphyseal shape differences in Nubian tibias	G. EMBERLING New Perspectives on Napatan Kingship: the 2014 excavations at El Kurru	M. BALDI Archaeometry and new Technologies in Kushite Nubia

THURSDAY 4th SEPTEMBER

PARRALLEL SESSIONS

	Session 4	Session 5	Session 6
PM	MIDDLE AGES - ISLAM	FORTIFICATIONS	CULTURAL HERITAGE
2.30	<i>Middle Ages</i> A. TSAKOS Progress of Work on the Corpus of Medieval Texts from SR022.A	J.A. HARREL, R. MITTELSTAEDT The El Hisnein Site: Discovery of two Middle Kingdom Forts near Aswan, Egypt	M.Z. ELSHENDIDY Prehistoric Rock Art in Lower Nubia and Upper Egypt: Study of Deterioration and Conservation
2.50	<i>Late and post- Middle Ages</i> H. ELTAYEB The Christianity Communication Bridge between The Past and The Present	P. ROSE Recent Research at Hisn al-Bab, Aswan	M. BUNDI The Spheres and Challenges of Heritage Conservation in Sudan
3.10	P. TESCH Putting the Sudanic back into Sudan: the Middle Nile as part of the wider Sahel belt	D. EIGNER <i>Lecture by Tim Karberg</i> Fortified Sites? The Buildings of Wadi Abu Dom	R. MOHAMMED The Future Role of the Documentation centre at Nubian Museum
3.30	<i>Islam</i> A. DE VOOGT Nubians in the Islamic Empire	M. UIDRIKS The Great Wall at El Kurru	M.M. SALIH The Future of New Dams in Sudan
3.50	Break	Break	Break
4.20	L. SMITH et al. Archaeology, Trade and Pilgrimage at Suakin	M. EL TOUM The Castle of ez-Zuma (4th Cataract Region)	F. AHMED The Role of Development Projects in the Discovery and Documentation of Archaeological Sites (Merowe Dam case study)
4.40	D. EDWARDS Ottomans and the Historical Archaeology of a Nubian Landscape	C. VOGEL The Nubian Fortress Commander. A Career Check Based on Middle and New Kingdom Examples	M.C. DE SIMONE Nubia and Nubians: Digging in Museums
5.00	S. BABIKER AHMED The Archaeological Islamic Remains in Sahaba Village South of Dongola Area	D. KAHN Thoughts about the Jewish Military Colony at the Fortress of Elephantine	M. JAEGER Tutankhamun was a Nubian - Dongolawi and Kenzi perceptions of their own history
5.20	F.M. MUSA The dangers facing the reused of remains of the Mahdist state in the Sudan	M. LAHITTE Gala Abu Ahmed – Beads in a Fortress	S. MERLO, C. KLEINITZ Learning from local Communities: participatory GIS in mapping ‘living heritage’ on Mograt Island, Sudan
5.40	S.M. EL BATAL Material Culture of Islam in Sudan: Tombs and Domes of the Mahas Area as a Case Study	M. DRZEWIECKI Jawgul Landscapes. Ethno-archaeological Research in Mahas Region	

FRIDAY 5th SEPTEMBER

PARRALLEL SESSIONS

	Session 1	Session 2	Session 3
PM	MAN-ANIMAL	NAPATA	MEROE
2.30	P. OSYPINSKI, M. OSYPINSKA Prehistoric Cattle Cemetery in Wadi Khashab, Eastern Desert, Egypt. First Insight into the new Evidence of Pastoral Cultures between Upper Egypt and the Red Sea	A.M. ABDALLA Division, Rivalry, Conspiracy and Reconciliation in the Ancient Sudanese Royal Family	E. DAVID Beauty and the Beast’, a Tale of Small Finds
2.50	J. DUBOSSON The Practice of Cattle Horns Deformation in Past and Present Societies: a persistent pastoral tradition in Africa	R. GOZZOLI Issues Concerning Aspelta: succession, legitimization and wars	R. DAVID An Overview of the Circulation of the Funerary Ceramics within the Meroitic Kingdom
3.10	J.G. LACEY Considering Relationships between Nubians and their Environment over Time: connecting zooarcheology to zootherapeutic practices in contemporary Nubia	E.M. CIAMPINI Italian Excavations at the Palace of Natakamani at Napata (B1500): some notes from the past seasons	D. BAGINSKA Meroitic Pottery from Temple B 560 at Jebel Barkal
3.30	C. FLUEHR-LOBBAN Honey Hunting and Managed Beekeeping in Ancient Nubia	M. BUSHARA Recent Discoveries in the Napatan Region (the Temple of Hujair – Cemetery of El-Tameer and the Inscription of Jebel Barkal)	G. BĄKOWSKA-CZERNER, A. SALVADOR Meroitic Pottery from Natakamani’s Palace in Jebel Barkal
3.50	Break	Break	Break
4.20	V. LINSEELE, N. PÖLLATH Faunal Remains from Gala Abu Ahmed, a (Pre)-Napatan Fortress in the Lower Wadi Howar	K. HOWLEY Middle Napatan Foundation Deposits as Evidence of Cultural Contact	S. MALIKH The Pottery of the South Neighbourhood of the Royal City of Meroe: technological features and new production centers
4.40	C. LACHICHE, L. CHAIX Animal Exploitation at Mouweis (Sudan) during the Meroitic: preliminary results	R.K. EL-RASHEED Personal Adornment in Kush (8th BC – 4th AD): aspects based on inventory of objects from Sudan National Museum	M. DASZKIEWICZ, M. WETENDORF The Archaeometric Study of Pottery from Musawwarat es Sufra
5.00	H.M. HAMDEEN, A.O. MOHAMMED SALAH The Role of Molluscs in Ancient Nubia and Sudan: Archaeological and Ethnoarchaeological Approaches	S. PETACCHI The Book of the Dead in the Napatan Period: the first evidence of chapter 59 on the royal offering table dating to the 5th century BCE	J. HUMPHRIS Meroe and Hamadab: one thousand years of iron production
5.20		A. POMPEI Function and Significance of the Napatan Cylindrical Sheaths	

FRIDAY 5th SEPTEMBER**PARRALLEL SESSIONS**

	Session 4	Session 5	Session 6
PM	MEROITIC ICONOGRAPHY	TRANSCULTURAL APPROACHES	CULTURAL HERITAGE
2.30	D. HEARD Venerated Elders: age as potential social construct in Meroitic Kush	E. ELMOUBARK Spiritual Motifs in the Art of Ancient and Modern Sudan	N. SALAMA Rebuilding of the Garf Hessein Temple
2.50	C. KLEINITZ Meroitic Iconography between the 'Formal' and the 'Informal': investigating the graffiti of Musawwarat es Sufra, Sudan	S. ABDO-RABO, M.K. HASSAN Feminine Ornamental Artifacts and Their Continuation in the Contemporary Nubian Cultures	R. DANN Art, Archaeology and Sensory Knowledge at El Kurru
3.10	J. KUCKERTZ Amun Temple 200 in Naga: the reconstruction of its relief decoration	A.M. BABIKER Pyramids between Life and Death in Sudan. Royalty and Popularity	F. JESSE Open Access to the Past – the African Archaeology Archive Cologne (AAArC)
3.30	A. SACKO-AUTISSIER Un objet insolite du palais de Ouad ben Naga: la plaquette en faïence Khartoum SNM 62/10/87. Essai d'interprétation	N.H. BASHIER Reflections on Hafirs in the Butana Region	S. SCHOSKE New in Munich – the Ancient Sudan
3.50	Break	Break	Break
4.20	A.K. VINOGRADOV A New Copy of the Elephant-Bearer Fresco from Meroe	J. THEN-OBLUSKA Short and Long Distance Contacts of Late Nubia: a view through a bead hole	M.H. ZACH Early Photography and the Ancient Monuments of the Sudan
4.40		L. ZABRANA Abandoned Nubian Villages in Upper Egypt – Material Culture in Social Anthropological Field Studies	S. ZURINAGA Fortuitous find of an unpublished album of the Nubia Campaign in the photographic storage of the Documentation Department at the National Archaeological Museum, Madrid
5.00			

POSTERS

Fourteen posters will be displayed in the halls next to the Conference rooms.

- G. CAVILLIER The Tiye Temple Project
- A. POKORNÁ et al. Multidisciplinary Investigation of an Early Post-Meroitic Tumulus at Jebel Sabaloka, Sixth Nile Cataract, Sudan
- B. CECH et al. The Quarry Landscape at Meroe, Northern Sudan
- C. KLEINITZ Protecting and Presenting Sudan's World Heritage: an evaluation of visitor behaviour and expectations at Musawwarat es Sufra as a prerequisite for site management planning
- M. OSYPINSKA Animals of Makurian Fortified Dwelling in Banganarti, 6th-12th centuries AD
- M. OSYPINSKA,
P. OSYPINSKI Levallois Tradition Epigones in the Middle Nile Valley:
preliminary results of the new project in Southern Dongola Reach, Sudan
- M.E. PEROSCHI et al. Jebel Uweinat: more than rock art
- Z. ŠŮVOVÁ et al. The Production and Consumption of Ostrich Eggshell Beads at the
Mesolithic Settlement of Sphinx (SBK.W-60), Jebel Sabaloka (West Bank)
- S. SALVATORI et al. The Mesolithic Sequence at Site Al Khiday 3 (Central Sudan):
preliminary data from first sounding
- A. ZERBONI et al. Neolithic Green-Stone Beads from R12 Necropolis (Central Sudan):
sourcing area and archaeological implication
- V. LINSEELE Mesolithic Fauna from Al Khiday
- P. IACUMIN,
A. DI MATTEO Carbon and Oxygen Isotope Composition of Human and Faunal Bones Apatite
from Al Khiday Archaeological Site (Central Sudan)
- G. DAL SASSO et al. Bone Diagenesis Study on Multiple Burial Phases at Al Khiday (Khartoum, Sudan)
Between the Early Holocene and the 2nd Century A.D.
- L. MARITAN et al. Archaeometry at Al Khiday: what's for?

ABSTRACTS OF MAIN PAPERS

SESSION 1 : FROM PREHISTORY TO THE KINGDOM OF KERMA

Prehistory in Central Sudan

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After Arkell's work at Khartoum Hospital and Shaheinab, the area of Central Sudan has been the focus of many archaeological projects that have highlighted its potentiality in the study of hunter-gatherers and Neolithic societies.

A number of important Mesolithic and Neolithic sites and cemeteries were explored in the years between the 1970s and the beginning of the 1990s in an important area between Atbara and Khartoum, along the Blue Nile and to the south of Khartoum on the east bank of the White Nile.

Interest in the prehistory of the region evaporated, and this was further driven by the IVth Cataract Dam salvage project. Interest has now revived as a consequence of more or less new projects along the White Nile, the VIth cataract and the Kassala area, as well as by the appearance of comprehensive publications of systematically investigated sites never previously published other than for short preliminary reports.

The data now available from the region along the White Nile and North of Khartoum are substantially modifying our perception of Mesolithic and Neolithic societies in Central Sudan. The bulk of the new data will be analysed on this occasion to highlight the present state of affairs and to identify possible new, highly promising lines of research.

Current Research in the Pre- and Protohistory of Lower and Upper Nubia

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In the last decade the archaeological research on Nubia has mainly focused on the Sudanese part of the region, mainly due of the urgency of documenting archaeologically unknown areas along the Nile which were going to be, and unfortunately will be, lost by the constructions of new dams. Pre and proto-historic evidence has been consistently found in the Fourth Cataract area, but a systematic analysis of the data has not been yet been performed. It is rather from the Kerma region that the most important data have been produced, through a systematic program of prehistoric field research and post-fieldwork analyses.

In the last decade, however, archaeological investigation has been ongoing, which has also improved in the Egyptian part of Nubia, particularly in the Aswan Region and the Western and Eastern Deserts. This new and diversified set of data has been critical for a better understanding of interregional interactions, particularly with the emerging Egyptian state and the socio-economic and political transformations. The latter data will be discussed in detail, compared with that from Upper Nubia and contextualized in the more general framework of the Holocene pre and proto-history of North-eastern Africa.

New Data on the Origins of Kerma

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Despite the numerous studies devoted to the civilization of Kerma, little is known about the process leading to the formation of this entity, which gradually became more complex, hierarchically structured and finally gave birth to a kingdom. In order to fill the gap between the Neolithic and the Kerma periods, our research has focused for several years on the identification and excavation of habitation sites. This has led us to a better

understanding of why periods such as the Pre-Kerma – which have left no monumental remains – are so little known. Since then, work has focused on the older parts of the necropolis of Kerma, revealing a few surprises for the period between 2550 and 2300 BC. The analysis of the spatial distribution of several hundred graves with associated funerary objects and the establishment of a precise chronology has helped to better understand the essential steps of the beginning of Kerma civilization.

Ancient Kerma Cemeteries – Similarities and Regional Variations

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During the last two decades considerable new data on the funerary archaeology of the earliest phase of the Kerma culture, designated by Brigitte Gratien as the *Kerma Ancien*, has become available. This data results from excavations in the Eastern Cemetery at Kerma but also over a vast territory stretching upstream through the Fourth Cataract. Coupled with that from much earlier work at Kerma and to the north, it allows at this time a re-evaluation of burial practices throughout the area of Kushite control or at least in regions influenced by the culture prevalent at Kerma. This paper will briefly explore the range of variations to be found within early cemeteries in the Kingdom of Kush along with the significance of material which in the north would be confidently ascribed to the C-Group.

SESSION 2 : THE END OF KERMA AND THE EGYPTIAN PRESENCE

Egyptian settlements in Northern Sudan

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The last decade is notable for renewed research upon the pharaonic settlements of Upper Nubia, particularly with the instigation of projects at the urban sites of Sesebi, Sai, Amara West and Uronarti, alongside ongoing work at Dokki Gel. This paper will consider some implications of this research, including the impact of climate change on the settlements, their interaction with the desert hinterlands and evidence for production and trade. The changing nature of these towns, their sustainability (or otherwise) and the role of individual/household agency are becoming more evident. While the Upper Nubian settlements of the New Kingdom, particularly Amara West, will be a focus of the paper, evidence from Lower Nubia, including sites active during earlier phases of pharaonic control, will also be considered.

The Nubian Ceremonial City of Dokki Gel - Kerma and the Menenou of Thutmosis I

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We have established that the ceremonial centre of Dokki Gel, prior to the arrival of the Egyptians, was protected by two enclosures. The second strong enclosure wall was surrounded by numerous palaces situated between the two fortification systems. Places of worship are also attested in the city by three temples, a chapel and other palaces. The northern gates are monumental, each one with two towers some nine meters in diameter.

The large fortress built by Thutmosis I levelled the Nubian settlement. The monumental north entrance marks the limits of an extraordinary hypostyle hall uninterrupted until it reaches the door of the central temple. The menenou is organized with two other temples, two great palaces, a complex of silos and an enclosure for cattle.

Colonial Entanglements. Immigration, Acculturation and Hybridity in New Kingdom Nubia (Tombos)

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Studies of empire often neglect the central role that everyday interactions of individual agents, colonial and native, play in determining outcomes of colonial encounters. Understanding the cultural dynamics of Egypt's New Kingdom Empire in Nubia requires a nuanced approach that avoids simple explanations based upon large scale patterning in favor of a focus on subtle shifts in cultural interactions at the local level. Michael Dietler's consumption based model of cultural entanglement provides a robust theoretical framework that can be used to understand the multifaceted cultural, economic, social and political linkages that intercultural interaction produced, sometimes unintentionally. Entanglement takes into consideration the agency of both indigenous and intrusive groups, in spite of the often unequal relationship between the two that characterize violent conquest and occupation. This paper focuses on new evidence from the ongoing UCSB excavations at Tombos, placing it in the larger context of the results of projects in Upper Lower Nubia. The impacts of the colonial encounter varied both within and between sites and diachronically over the course of the Egyptian occupation. By the Ramesside Period at Tombos, we find not just a stronger revival of Nubian traditions in the creation of a tumulus cemetery next to the Egyptian necropolis, but also the emergence of a multicultural milieu that transformed both Nubian and colonial culture that continued into the Third Intermediate Period.

Insight into the perception of royal and divine power among Kushites and Egyptians

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The strength and power of Egypt's southern neighbours (the Kushites), traced back to the 4th millennium, have been progressively revealed. First shown through the excavations of the royal cemetery at Qustul, it was also demonstrated by the prominent role played by Yam in the expedition of Harkhouf and by the recent evidence from Elkab of the presence of Kush in Upper Egypt during the XVIIth dynasty; without forgetting the triumphal expedition of Piankhy, which resulted in the foundation of the XXVth "kushite" dynasty in Egypt.

We however see an imbalance in the protagonists' perception of each other, since we have mainly Egyptian sources whilst, for the first millennium BC, Kushite texts were written in the Egyptian language and followed a general Egyptian pattern. Nevertheless, a critical examination of the texts and representations shows that - once rid of royal propaganda filters - the two entities happened to explore compatible views of the spiritual and temporal power.

Egyptians considered it possible - or at least feigned to believe - that a mythical origin of some of their major divine entities could be located in this far remote south, at the Gebel Barkal. This is what is suggested by the statement of Thutmose III on the Barkal Stela, when it was discovered that the name of the Kushite's sacred local mountain sounded like the 'a' component of the Egyptian Amun's title "(lord of the) Thrones of the Two Lands" *nesut-tawy*.

On the other hand, it is obvious that the Kushite elite adopted Egyptian religious beliefs, especially funerary ones, through what appears to have been a genuine religious conversion. These beliefs are quite explicit in the tomb of Heqa Nefer prince of Miam at Tochka or in those of princes Djehutyhotep and Amenemhet at Tehkhet and, later on, at the royal necropolises of Nuri, Kurru, Meroe etc.

This mutual exchange of abstract concepts required some specific means of communication. Addressing populations with conservative pastoral traditions, who (except rare occurrences) could not read the hieroglyphic texts, the Egyptians, for example, enhanced dramatically the animal aspect of the Egyptian royal or divine power when addressing the Kushites, as seen in the Kurgus representations : Falcon Horus of the *serekh* or lion for the king instead of human figurations, ram headed deity or very much enlarged bull representation of the Kamutef for the god Amun. These messages were obviously addressed to a people who considering herds, cattle, and more widely animal forces as potential embodiments of divine entities.

Additionally, Egyptian theologians tended to consider some divine entities of the Kushite religious beliefs as potentially genuine forms of their own deities. Thus the ram would embody nothing less than the Egyptian

dynastic god Amun into a criocephalic figure from the reign of Thutmose I onwards. Following a similar pattern, specific deities like the figure of “Horus the Bull Lord of Nubia (*Hr k3 nb t3-sti*)” at Sai may apparently have been elaborated there.

SESSION 3: THE KUSHITE KINGDOMS (NAPATA AND MEROE)

On the autonomy of Art in Ancient Sudan

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The formula ‘Egypt in Africa’ generally used to describe the relations between Egypt and its southern neighbours is based on the evident omnipresence of the Pharaonic remains in Nubia and the Sudan. The reversal of this perspective into ‘Africa in Egypt’ opens the perspective on the substantial evidence of southern influence in Ancient Egypt throughout the millennia. This ‘African presence’ testifies to the power of the Middle Nile civilisations, which resisted the pharaonic influence. The art of Ancient Sudan clearly demonstrates this autonomy. The Mesolithic and Neolithic pottery, and the Kadrouka figurines are only the beginning of this primacy of the South over the North in the Nile valley. The ‘African’ faces represented in the sculptures from the beginning of the Old Empire until the so-called ‘Ethiopian’ Period are supported by the presence of an autonomous ethnic population which mixed with the Egyptians.

The Meroitic art in the typology of the architecture supplies clear evidence of this, as it does in the iconographic style of the reliefs and sculptures and finally in the pottery. The results from the current excavations at Naga will serve to illustrate this cultural and artistic autonomy.

The Periods of Kushite History

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The traditional sequence of the periods of Kushite history - Pre-Dynasty 25, Dynasty 25, Early Napatan Period, Late Napatan Period, Early Meroitic Period, Middle Meroitic Period, Late Meroitic Period - is based on documentary and culture historical evidence which has been reinterpreted and significantly enriched in the past decades. In this paper an attempt is made at the establishment of a periodisation that corresponds better to the present state of research.

Long Distance Trade: the Evidence from Sanam

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Long distance trade has been studied in Egypt and in the Ancient Near East through written documents that record with many details the procedures of trade, the roads and even the prices of goods involved. It is also possible to study international trade by means of archaeology through the materials whose places of origin can be identified. But when the trade concerns an exchange between items which survive well, such as metal or stone, and items such as food and textiles, which are rarely found in excavation, the study could appear biased.

This is the case with Kush, whose wealth was due to the control of the caravan routes that went south towards Somalia, Eritrea and Kenia and penetrated into the Eastern Desert. Through these routes, which were monopolized by Kushite traders, came all the luxury goods, gold, ivory, ebony, gemstones which the rich societies of the ancient world sought and considered indispensable. In exchange Kush required foodstuffs, mostly grains and oils.

In recent years researches on trade routes, such as those passing through Wadi Abu Dom and Wadi Muqaddam, threw new lights on such routes that were in use since prehistoric times. Furthermore the discovery at Sanam Abu Dom of large buildings set up for the storage and manufacturing of those items at the base of long distance trade witnesses terms and dimensions of the exchanges.

The site of Sanam, in fact, was situated at the confluence of the Wadi Abu Dom with the Nile and was the terminal of the roads coming from south and east. Furthermore, from here the river, downstream of the fourth cataract, is navigable again and by the river it was possible to ship items toward the north of the country and further north to Egypt.

In the so-called Treasury and in SA.K 300 and 400 precious materials, such as gold, ivory, ebony, gemstones, and the items that Kush received in exchange, were stored together. A great number of amphorae coming from Egypt and Palestine testify the imports of grains and oils. Seal imprints, found in quantity, not only shows the names of the Napatan kings, but also their use to seal doors and containers and to keep them for accounting and administration.

It seems that all the three buildings currently excavated were all in use simultaneously and that they were all destroyed at the same time. The time span involved is from the reign of Taharqa to that of Aspelta, after who we find no trace of activity in the storehouses and workshops of Sanam.

SESSION 4: MEDIEVAL AND ISLAMIC

Rereading the Oriental Sources: on some Unknown or Little-known Arabic Texts Concerning Nubia

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Current historiography of Medieval Nubia still relies heavily on Arabic sources. The main reference on these sources for almost every scholar in the field of Nubian Studies remains the corpus of Oriental Sources Concerning Nubia. It was published by the late Fr. Vantini almost forty years ago. However, this publication was initially intended as a provisional draft and has never been properly edited. Therefore, a revised and updated version of the Corpus was from an early date on a *desideratum*. Strangely, this never happened, although texts that for various reason Vantini never used have become known to us. These texts will be my own starting point for revisiting the Oriental Sources *in toto*. In the meantime, and in the context of the 13th International Conference of Nubian Studies, I will discuss a selection of texts throwing light on different periods and aspects of Medieval Nubian history.

Nubian fortifications in the Middle Ages

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Marcin WIEWIÓRA, Mariusz DRZEWIECKI

The years since the last congress witnessed a significant progress in the research on the medieval Middle Nile defenses. New data were brought into discussion through the research in Hisn al-Bab, Marakul, Shofein, Old Dongola, Banganarti, Selib, Bakhit, Abkur, Deiga, Umm Ruweim 1, Umm Ruweim 2, Umm Quweib, Umm Khafur, Kurgus, Tarfaya, Wadi Dam et-Tor, Gandeisi, Abu Sideir, Abu Mereikh B and C, Jebel Nakhara, Hosh esh-Sheitan, Wad Mukhtar, Rum, Jebel Irau, Hosh el-Kab, Umm Marrahi 2. Never the less, despite the significant increase in interest the reasons which made the Nubian rulers to raise the chain of defenses on both banks of the Nile remain mostly unknown although some proposals will be put forward in this paper.

Since there is only one document found on site that gives the date and reasons of constructing the Nubian fortifications (at Ikhmindi) the study of the subject are mainly based on radiochronology, ceramic evaluation, architectural analysis and context analysis.

Apart from the stout river bound forts, fortified settlements and defended towns there were also the lighter protected sites and the *skopeloi* (watchtowers). Many of them were raised in the formative period of a new

political and religious entities. The fate of the Fourth Cataract strongholds that accordingly to the ceramic evidence has been abandoned within a century after their construction was not shared by the fortresses downriver and upriver. Many have been inhabited until the Late Christian period or even longer.

A sheer comparison of the formidable walls of Tungul/Dongola with feeble demarcation, if any, of the capital of the Kingdom of Alwa invites a supposition that the defense model in the South differed from that followed in the North. Does it mean that Alwa was a stronger state that managed to guarantee the safety within its borders through other means than the power of walls? Adoption of the different ways of protecting the capitals goes hand in hand with implementation of a different scheme in hinterland defense and trade routes protection. In Alwa it was effected by a chain of standardized forts that were located mainly on the left bank of the Nile. Field research suggests that Alwan fortifications, more uniform in spatial layout than their downriver counterparts, are also generally older. Could it be that the process of coalescence of the smaller units into a centralized monarchy in the fifth/seventh century Alwa was more advanced than in contemporary Makuria or maybe this chain of unified fortifications was a work of last meroitic rulers trying to make a last stand?

As demonstrated above the study of the Nubian defenses is recently gaining momentum. The holistic, contextual research into the medieval Middle Nile fortifications, research that would address a wide range of issues and invite various comparisons between South and North seems to be a most urgent task in rapidly developing Sudan.

The Makurian Church and its Sacral Architecture

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In the published studies, the sacral architecture has been investigated mostly in its formal framework, its architectural features (plan, construction, materials used) and less in understanding its functional space (narthex, naos, sanctuary, prothesis and diaconicon). The originality of Makurian church architecture is also important, its roots and external influences. The local native development of Makurian sacral architecture has been generally neglected. We therefore have a complete absence of studies connecting the sacral architecture with society and with the role and position of the Makurian Church within the state organization. To fill this gap, I would like to analyse the role of the Church in Makurian society, the relationship of bishops with the royal administration and connecting the different forms of sacral architecture with the Church organization (bishoprics), its functional diversity, the role of founders and “owners” of the churches in the historical development of the kingdom, from Early Makuria to Dotawo time. It seems that the territorial division of Nubia and the social background also play a role in the development of sacral architecture, and this is more clear on Nobadia territory than in the south of Nubia in Alwa territory; this subject is strongly linked to the intensity of archaeological investigations.

Islam in the Sudan: between history and archaeology

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SESSION 5: THE PRACTICE OF ARCHAEOLOGY AND ITS DIFFUSION

Archaeological Research in the XXIst Century

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Salvage Archaeology Related to Dams in Sudan - An Overview

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Since the beginning of last century a series of development projects such as dams, roads, agricultural, housing extensions and other land modifications have been undertaken in the Sudan to respond to the socio-economic development of the country. Unfortunately, most of these projects were planned without any systematic archaeological investigation or salvage operations, which has resulted in the loss of important sites and valuable data. To minimize the loss and damage to antiquities, the National Corporation for Antiquities and Museums, within the framework of the international collaboration in the field of archaeology, has cooperated with UNESCO. The International and the National institutions dealing with archaeological research as well as museums and the International Society for the Nubian Studies have planned a series of salvage campaigns to safeguard the tangible cultural heritage of the country.

The first large scale salvage campaign was successfully tested and applied to safeguarding the endangered antiquities and monuments of Nubia threatened by the construction of the Aswan High Dam (1959-65), which inundated 180 km along the Nile in the Sudan. The discovery of the new cultural horizons and the establishment of their chronologies as well as intact monuments are the main achievement which marked the campaign.

The Nubian Campaign was followed by a small scale salvage campaign related with the construction of Khashim El Girb Dam (1962-1965) on the River Atbara, constructed to irrigate the resettlement areas assigned for relocation of the Nubian inhabitants from the region of Wadi Halfa. The work of the joint prehistoric expedition led to the discovery of Pleistocene and Holocene sites with their stratified geological deposits, which enriched the Palaeolithic archaeology of the area.

Twenty years later, the Merowe Dam Archaeological Salvage project (1991-2007) came into effect at the fourth cataract of the Nile (an archaeologically poorly known area), inundating an area of 170 km along the River Nile. This campaign was characterized by the small quantity of monumental architecture to be displaced, which was essentially limited to the base of the granite pyramid found in Sudan, dated to the Napatan period, which was discovered by SARS, and which was stored temporarily at the Merowe Museum. Amongst the remarkable discoveries of the campaign was the widespread presence of Kerma Period remains around the area of Abu Hamed; Their discovery clearly confirmed that the Fourth Cataract Region formed part of the Kingdom of Kush from the second millennium BC.

Since 2008 the Dams Implementation Unit of the Ministry of Electricity and Water Resources has planned a number of dams to be built along the River Nile as part of a major project for the provision of energy and water for the country. The Rosieres Dam Heightening Archaeological Salvage project (2009-2012), resulted in the discovery of 55 sites dated from the prehistoric periods to the Turco-Egyptian period. Most of the sites were located on the remnant terrace of the Blue Nile and characterised by an alternating succession of settlements and burial areas. It is worth mentioning that the heightening of the Rosieres Dam reinitiated archaeological research along the Blue Nile, an area rich in prehistoric archaeology and suitable for the discovery of the southern frontier of the Meroitic Empire. Moreover, the salvage operations associated with Setiet and Upper Atbara Dam revealed a series of prehistoric sites which were situated on the terraces of the Blue Nile and the Kerp area, which are expected to enrich our knowledge of the prehistory of the region.

Overall, the outcome of these salvage campaigns has resulted in the discovery of a large number of important sites, as well as the recovery of valuable information and data which has greatly contributed to the better understanding of archaeology and ancient history of the Sudan. It is worth mentioning as well that the salvage campaigns have contributed towards upgrading the capacities of our national staff, which has become acquainted with the application of different interdisciplinary approaches in archaeology.

Qatar-Sudan Archaeological Project (QSAP)

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The Qatar-Sudan Archaeological Project (QSAP) is a Qatari initiative with the objective of promoting the rich archaeological heritage in the Republic of the Sudan. It comes in fulfillment to the will of the political leadership in the two countries.

The last years have witnessed extensive preparations and contacts between the authorities of the two countries. This is in addition to visits of Sudanese officials to Doha as well as visits of Qatari to Khartoum.

Workshops have been organized in Khartoum and Doha. These workshops have been attended by close to 30 international experts in the archaeology of the Nile Valley.

The 5 years project is being managed by a High Mixed Committee under the patronage of HE Sheikha Al-Mayassa Bint Hamad Al-Thani (Vice-president of Qatar Museums Authority) and the presidency of HE Sheikh Hassan bin Mohamed bin Ali Al Thani (Vice-president of Qatar Museums Authority).

The project, registered in the Sudan under the name “THE NUBIAN ARCHAEOLOGICAL DEVELOPMENT ORGANIZATION” represents a unique example for the promotion of an international cooperation aimed at the preservation of the archaeological remains of the Middle Nile Region. It covers several fields:

1. Funding of the work of 28 archaeological Missions

- 26 of these missions are working on archaeological sites in the Northern and River Nile States of the Republic of the Sudan.

- 1 mission for the detailed mapping of monumental sites; an essential step towards a scientific management of the archaeological heritage of the country.

- 1 group working on the study of texts written in the Meroitic Language.

- 11 more archaeological missions will be funded starting with the 2014-2015 season.

2. Museums

Two museum projects will be funded:

- The Sudan National Museum: This is one of the oldest museums in Africa. The first exhibition dates back to the beginning of the 20th Century. The present building, located near the confluence of the Blue and White Niles, was inaugurated in 1971. It hosts over 100.000 archaeological objects. The building itself needs maintenance and repair and the exhibition displays need to be modernised. This rehabilitation project aims to bring the Sudan National Museum up to modern international standards.

- The construction of a new museum at Naga, which is one of the most spectacular sites of the Meroitic Civilization (4th Century BC – 4th Century AD).

3. Pyramids

Under the Presidency of Sheikh Hassan Bin Mohamed Bin Ali Al Thani, the Qatari Mission for the pyramids of the Sudan (QMPS) will be constituted for:

- The conservation and presentation of the pyramids of Brgraweya (Ancient Meroe), Gebel Barkal, Nuri and El-Kurru.

- Investigations in the 4 pyramidal fields for the discovery of new tombs.

- Solving of the problem of sand erosion and accumulation at the pyramids of Begraweya.

4. Camps

Two camps will be built and ready for use for the 2014-2015 season at Begraweya and Gebel Barkal, whose purpose will be to serve as accommodation and working stations for the missions.

ABSTRACTS OF PAPERS PRESENTED IN THE PARALLEL SESSIONS

SESSION 1 : PREHISTORY

Acheulean Lithic Technology in the Sudan from the Jebel El-Grian Site East of the Lower Atbara River

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The Sudan prehistoric archaeology began in the early forties of the last century, active at times and less so at others. While many Palaeolithic sites have been discovered, little is known about the Acheulean sites in the central and northern Sudan.

Most of the recovered Acheulean sites show homogenous and heterogeneous traits in lithic technology. Heterogeneity in lithic technologies is attested in African archaeology even if attributed to regional variations. These situations necessitated taxonomic items (Chellean, Developed Oldwan, Early Acheulean, Sangouan, Tumbian, Lupemban and Nubian Levallois).

From a general point of view, previous studies have resulted in a substantial body of relevant knowledge about the Acheulean lithic tools. While some of these studies focused on specific problems like technological transitions, others concerned on tool descriptions. Some problems are still unresolved.

This study aims at:

- Shedding light on the conclusions of the previous studies about the general attributes of Acheulean lithic technology.
- Examining those elements on the base of the archaeological survey and test pit excavation carried out by the researcher in October 2013 on the right bank of the Atbara River.
- Classifying lithic tools.

A number of Acheulean sites have been discovered, the most important of these sites is Jebel ElGrian, which is distinguished by its size and the Acheulean tools discovered as surface scatters.

The study is based on the samples collected from the surface and test pits, with the general observations of the site landscape and available raw materials.

The classification of the lithic tools has been based on a step-by-step approach as follows:

- Sorting the tools according to their technological features.
- Sorting the tools based on typology with sub-types.
- A descriptive analysis by subtype (size – weight – shape – platform – butt – edges – scars and the sharp and retouched axis).
- Finally complete a comparative study with Acheulean tools from other sites in Northern Sudan (Arkin and Sai) and Central Sudan (Khor Abu Anga), identifying similarities and differences with the material discovered in the desert of the Upper Nile Basin.

The objective is to obtain a better understanding of the general traits of Acheulean lithic tools in the Sudan.

Palaeolithic in Bayuda Desert

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The Bayuda Desert, situated north of Khartoum, occupies an area of about forty thousand square kilometres within a great bend of the Nile, stretching as far as Wadi El-Melik in the south. The predominating element of the desert's geological structure is volcanic, especially in its northern part formed from Mesozoic basaltic rocks of volcanic origin. The southern part of the Bayuda is formed from Cretaceous Nubian Sandstone Formations with numerous volcanic cones still visible in the landscape.

The Bayuda Desert Project is the subject of an interdisciplinary research program intended to recognize the settlement history in the desert from the earliest periods of prehistory to modern times, including its geological structure in the context of palaeogeography. A team from the Gdańsk Archaeological Museum (MAG) and the Heritage Protection Fund, under the direction of Henryk Paner, is carrying out this programme. Under a

concession granted by the Director General of the National Corporation for Antiquities and Museums (NCAM) of the Sudan Republic, the research work in the Bayuda was initiated in 2009.

Most Palaeolithic sites in the Bayuda are situated either on the top of mounds of volcanic origin or at their base. The majority are eroded, and lack stratigraphy, which results in the co-occurrence of older stone artefacts together with the artefacts from subsequent periods, including modern ones. Amongst the Palaeolithic sites, the vast majority date from the Middle Stone Age (MSA). There are however a few older sites which contain Oldowan and Acheulean cultural elements.

The most interesting discovery from the Palaeolithic in the Bayuda is the site BP 177 (known locally as Jebel el Az, i.e. Mountain of the Goat). Unlike the other sites, the Palaeolithic material has been preserved *in situ*, in the original stratigraphic position in a relatively small, enclosed space. Goat Mountain is situated in the south-western part of the desert, within the Nubian sandstone formation, with dozens of volcanic cones visible in the landscape. It is located *ca.* 40 kilometres east of the Nile Valley. The mountain is a small, isolated volcanic cone *ca.* 200 m in diameter.

The site's exceptional character lies in that originally in the middle of the mountain's flat summit there was originally a depression, a basin 15 x 8 m in size. The depression was undoubtedly of natural origin, being the consequence of the way in which the cone of an extinct volcano formed. The fill of the depression is rock rubble and fine-grained material of Aeolian origin. Within the depression a horizon with Stone Age material was recorded under a 15–20 cm layer of neutral very fine deposits. A detailed discussion of the results of the analysis of the lithic material as well as the results of optical dating (TL, OSL) will be presented.

The Palaeolithic and Mesolithic Sites in the El Ga'ab Depression, Western Dongola Reach

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El Ga'ab is a depression in the desert of western Dongola Reach. During four seasons of archaeological surveys, many sites belonging to different periods were recorded. Among them a large number of Palaeolithic and Mesolithic sites. The paper will discuss the sites locations, their distribution, material collected, continuity and the relationships of El Ga'ab sites with those on the Nile and in the Western Desert.

Prehistoric Research at Jebel Sabaloka (West Bank), 2011-2014

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Since A. J. Arkell's "discovery" of the Mesolithic and the Neolithic in Central Sudan, several teams have been devoting their efforts to the filling in the blank spaces on the archaeological map of the Sudan's prehistory and to the building and extending of our understanding of these early periods of the Sudan's past. In the autumn of 2011, new evidence and data began to be discovered and analysed by the mission of the Czech Institute of Egyptology (Faculty of Arts, Charles University in Prague) in the western part of Jebel Sabaloka, a small volcanic mountain located between two well-explored prehistoric regions, but never itself explored in detail before 2009 (see Suková – Varadzin 2012). In this paper, field data acquired during two field campaigns (2011, 2012), interim results of the ongoing analyses, and fresh 14C dates from this region's two main prehistoric settlements – Fox Hill (SBK.W-20/B) and Sphink (SBK.W-60) – will be pooled together to provide an updated overview of the research to date and to incorporate the findings into the well-established, yet still emerging scope of our understanding of the prehistory of the Middle Nile Region.

Suková, L. & L. Varadzin, 2012. Preliminary report on the exploration of Jebel Sabaloka (West Bank), 2009–2012. *Sudan & Nubia* 16: 118–131.

Dating and Significance of the Cemetery at the site of Sphink, Jebel Sabaloka, 6th Nile Cataract

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In the southern part of the Mesolithic core settlement of Sphink (SBK.W-60) at Jebel Sabaloka (West Bank), 24 burials were uncovered in a trench of 20 m². The skeletons, mostly in contracted positions and with east-west orientation, were found in up to triple superposition. Various indications suggest that they were part of a more extensive burial ground that may have comprised no less than 400–450 burials. Shortly after their discovery, the burials were dated using the supports available at that time tentatively to the Mesolithic period (see Suková – Varadzin 2012). In this paper, we will present the context, artefacts, and especially the new chronological findings from this site (14C dates) that constitute a solid basis for evaluation of the cemetery and discussion of its significance.

Suková, L. & L. Varadzin, 2012. Preliminary report on the exploration of Jebel Sabaloka (West Bank), 2009–2012. *Sudan & Nubia* 16: 118–131.

Stratigraphy of the Neolithic Cemetery at Kadero

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Kadero is one of the most important Neolithic sites in central Sudan. The cemetery, numbering around 200 graves, reflect the complexity of society in the 5th millennium BC. Lech Krzyżaniak, who excavated this site, drew attention to a group of richly furnished, elite burials. Most of the graves were rather badly equipped or did not contain grave goods. Some of the burials were discovered on the surface, whereas others were at the depth of 1.5 m. In the main trench, on top of the Kadero mound, we can also observe that some of the graves overlap older ones. The furnishing of the graves shows us some chronological differences between various parts of the cemetery. On the basis of the available data we are trying to reconstruct a chronological sequence of at least some of the graves discovered.

Preliminary Investigation of Prehistoric Potsherds from J. Kungur in the Upper Blue Nile

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In March-May 2012, three archaeological teams from NCAM (National Board for Antiquities and Museums) conducted rescue excavations in the upper Blue Nile area, within the framework of the project: *Roseris Dam Heightening Archaeological Salvage Project (ROSDASP) 2012*. One of these excavated sites is a Prehistoric site located in the upper Blue Nile region, 20km south of the town of Ad-Demazin, close to the left bank of the Nile. The site is situated on the surface of a small quartzite hill, 1.5 km west of the Nile and surrounded by alluvial plain, the shape of this outcrop is nearly circular with a diameter of 350 m. A great number of potsherds are collected from the surface together with grinders, microliths and beads.

A grid was set up and three trenches were excavated, two of them, 10 x 10 m, at the centre of the hill, where the archaeological material was most dense, and the third on the southern slope of the hill. The cultural material average thickness was 35 cm of a non stratified nature. The excavation of the trenches yielded thousands of decorated and plain potsherds, in addition to microliths, animal bones and the shells of molluscs.

A part of these potsherds have been studied, including the manufacturing techniques (i.e. forms, decoration techniques, motifs, surface treatment, fabric), to which was added the analysis of the chemical composition to determine the probable region of production. The rocker impression technique with different motifs was found to be the dominant technique, together with incision; thus the assemblage goes from very few dotted wavy lines in the deeper levels up to late Neolithic assemblage in the upper level. The aim of the study is to establish a chronology for the Upper Blue Nile area relative to data obtained from the prehistoric sites which have been studied in central Sudan.

Innovation in Pottery: women's role as the innovators and nurturers. The use of ethnographic material to understand the symbolism of pots and boiled food.

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I will focus in this paper on the invention of pottery and argue that it occurred in connection with exploitation of aquatic resources and plant utilization long before it become part of the integrated Neolithic syndrome. Sudan played a key role in this innovation, pottery having been dated as early as 10th millennium BCE, more than 2000 years before it occurred in the Levant. It would have been a seminal change when people started to transform raw food into boiled food. I will argue that pots were associated with women as the producers and users and these activities which were centred round the hearth. When pottery making takes place in a female dominated hearth-centred domain, women became the source for the provision of food, which had important consequences for people's early life experiences. The metaphoric association between the body of women and her nurturing roles such as breast feeding and cooking are closely related. If one looks at the body as a container in the same way as a pot, we are close to a metaphoric association between the body and pots.

My ethnographic work among the Fur people brought my attention to the use of bodily terms for classifying pots; mouth, lip, neck, body, paunch etc. My work in widely different cultural areas has shown the same bodily terms used in the local vocabulary. I am currently collecting the names of these terms within different language groups, to investigate the universal use of these terms.

The Neolithic of Central Sudan: problems of terminology and some cultural issues

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This paper is meant to highlight some of the problematic issues in the interpretation of the Neolithic culture in Central Sudan. The main issues which will be raised here can be divided into three categories. The first is what is called terminological issues, such as the use of the term Mesolithic and Neolithic in the archaeology of

Central Sudan, the criteria proposed for defining the Mesolithic and Neolithic and its validity with regards to Central Sudan. The problem arising when Europe criteria are applied on the basis of the data recovered from archaeological sites in Europe on the Late Prehistoric archaeology of Africa in general and of Central Sudan in particular.

The second category includes what may conventionally be called cultural issues, as they may have been defined, such as the origin of the Neolithic in the area, the cultural link between Early Khartoum and Shahienab, in the availability of evidence for post-Neolithic, pre-Meroitic periods and the cultural continuity and discontinuity as regards the period prior to and after the Neolithic in Central Sudan.

Then the paper discusses problems related to the origins of food production and the transition to a food producing economy (animal and plant domestication).

The geographical area chosen is Central Sudan between latitudes 12°N and 18°N and longitudes 32°E and 36° E. The main physical feature in this area is the Nile, the Atbara River in the northern and central parts and the White Nile in the Southern part of the area.

In the available literature related to this area, we can observe that intensive archaeological research has taken place, but very little attention has been given to these issues. Although this paper does not promise to provide answers for any of these issues, it will at least contribute by stressing the need to study them.

Cultural Connections between North-East and East Africa? An assessment based on the pottery of the earliest livestock-keepers of Kenya

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The origins of pastoralism in East Africa and the processes of its adoption are still unclear. The earliest data on the subsistence shift from hunting-gathering-fishing to livestock keeping is found in northern Kenya, at Lake Turkana in Koobi Fora, where a combination of hunting, gathering and fishing was the dominant subsistence strategy of pottery-producing societies around 9000 BP. By 4000 BP domesticated livestock appeared. Linked with the earliest advent of livestock-keeping are two new pottery groups: Dongodien and Ileret. Ever since the analysis of these discoveries by John Barthelme in the 1970/80s, it has been hypothesized that pastoralism, together with the attendant pottery, spread from Northeast Africa/Sudan to East Africa by diffusion, gradual dispersal or a migration of people triggered by climate change in the north. Pottery is a key proxy in testing this hypothesis. Consequently, the pottery of the Koobi Fora region was re-analyzed in detail. Its technological features, vessel forms and decorations were compared and contrasted with each other and with various pottery sequences in the Sudan (e.g. Central und Nubian Nile Valley) and the Eastern Sahara. In this paper I will present and discuss the results. Based on the features of pottery sequences in Northeast Africa, the ceramics of the Koobi Fora region can be considered as typical Late Neolithic assemblages. They indicate relationships with prehistoric Nubian pottery in the Nile valley as well as with several types found in some regions of the Eastern Sahara. However, a large number of the typical features of both Ileret and Dongodien ceramics are unknown in the Northeast-African assemblages and suggest local developments in northern Kenya. These results will be used to throw light on former cultural connections between Northeast Africa and the Turkana basin in East Africa.

Fieldwork in Eastern Sudan of the Expedition of the University of Naples “L’Orientale”, 2010-2013: results and perspectives

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The results of the fieldwork conducted in 2010-2013 by the expedition to the Eastern Sudan of the University of Naples “L’Orientale” will be outlined in this contribution. The fieldwork took place in the framework of a

research project aimed at investigating the relationships between Eastern Sudan on one hand and Upper Nubia, the Eastern Desert and the Red Sea on the other.

When the Expedition resumed fieldwork in 2010 after a gap of 15 years, we were also involved in the rescue archaeology campaigns related to the implementation of the Upper Atbara Agricultural Irrigation Scheme. The systematic survey conducted by the National Corporation for Antiquities and Museum in the endangered area covered that part of the region which was not surveyed in the 1980s and this gave us the opportunity to integrate the new data in the study of the ancient settlement pattern conducted at that time. Moreover, the rescue archaeology campaign was considered by us an opportunity for investigating not only the sites which could be relevant for the research project, but also some still obscure phases of the cultural sequence of the region. Archaeological investigations were conducted at sites UA 53, 14, and 26. Additionally, some parts of the site of Mahal Teglinos (K 1) near Kassala, extensively excavated from 1980 to 1995, were also investigated, because they had recently become endangered by erosion.

The results greatly increased our knowledge of the economies of the Jebel Mokram Group (early 2nd-early 1st millennia BC), Gash Group (late 3rd-early 2nd millennia BC), and Butana Group (4th-mid-3rd millennia BC), added some interesting elements for reconstructing the Palaeoenvironmental setting of the region, and threw new light on the relationships between Eastern Sudan, Upper Nubia, the Eastern Desert and Egypt. Finally, our plans for the next field seasons will be outlined.

The Firing Index of the Prehistoric Pottery in Sudan

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The present study sets out the results of the physical - scientific analyses carried out by various researchers on a series of prehistoric pottery (Mesolithic and Neolithic periods) from archaeological sites in different parts of Central Sudan (Khartoum Province, white Nile and Western Butane regions) and Northern Sudan (Second Cataract, Dongola Reach and Khashmel Girba).

The objectives were to determine the firing index (firing temperature, firing atmosphere and duration of firing) of these pottery groups. The results of X-ray diffraction (XRD) and thermal expansion (TEM) methods on the samples examined indicate that the firing index of the prehistoric pottery in Sudan is suggestive of similar techniques employed over the period of time considered. An assessment of the firing index attained and experimental methods used will be presented in this paper.

SESSION 1 : PROTOHISTORY

Decolonizing Reisner: a case study of a Classic Kerma female burial for reinterpreting early Nubian archaeological collections through digital archival resources

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Readdressing G.A. Reisner's extensive historical excavation archive with modern digital research resources opens this previously excavated material to new interpretations and understandings. As is often acknowledged, Reisner's early work in Sudan was heavily influenced by both modern Western and ancient Egyptian colonialist models. His detailed archaeological recording system, however, still holds significant information that can be synthesized through updated digital archival models. Reisner's biased interpretations can be carefully disentangled from his data through a comparison of related excavation documentation. New methods for increased access to this foundational Nubian archaeological evidence can greatly inform current discussions, as historically collected data can be integrated with newly discovered material.

The case study of an elite Classic Kerma female burial (K1053) demonstrates the potential information held in the Reisner excavation archive of the Museum of Fine Arts, Boston. This woman was described by Reisner as a sacrificial Nubian wife, and she was dismissed as an 'ignorant' traditionalist who self-propagated the

practice of human sacrifice. Instead, the archaeological evidence suggests that this highly adorned Kerma woman held key religious and economic roles in the community. Documentation including glass plate negatives, field registers, tomb cards and updated object records can be compared through a digital archival database, providing a detailed reconstruction of her burial assemblage. Her decorated funerary bed includes hyenas and Taweret hippopotami, which may be imagery shared by other elite females at Kerma. Her set of personal adornment of silver, gold and glazed quartzite jewelry and pleated leather skirt is also found in representations of women in Classic Kerma wall paintings (funerary chapel KX). She held an imported Egyptian scarab in or near her right hand, perhaps due to participation in using seals to control the movement of goods in the community. Finally, in situ photographs show she wore a silver headdress more similar to later Nubian ram crowns, rather than Egyptian vulture crowns as previously suggested.

This example illustrates how the reinterpretation of other early Nubian archaeological collections can be facilitated through the use of digital archival methodologies. The first steps are to identify assumptions and potential biases in Reisner's excavation records, and then to fully assess available archival resources. Then object and contextual information can be integrated in a relational database. The resulting resource can be used to explore finds in their full cultural context, increase access to data for other scholars, and to share updated interpretations.

The Kerma Culture in the Bayuda Desert

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The Bayuda Desert occupies an area between Khartoum and the great bend of the Nile, south of the Nubian Desert, flanking the eastern edge of the Sahara. Its landscape is dominated by three huge wadis: the Wadi Abu Dom, inhabited by Hassaniya tribes, the Wadi Muqaddam and the Wadi el-Malik, home to the Hawwawir and Kababish tribes, who led a nomadic existence between these two locations. One of the most striking features of the Bayuda Desert is a volcanic field which covers nearly 520 km². It lies to the south of Abu Hamed, around 300 km north the Khartoum, and features over 90 eruptive centres. The largest volcanic crater, named Hosh ed Dalam, has a diameter of 1.3 km and is about 500 m deep. Mineral deposits present at the bottom of the craters are used in folk medicine, for cooking, and as natural salt licks for animals. Although H. N. Chittick and P.L. Shinnie made an exploratory journey through Bayuda in 1951, a complete assessment of the Bayuda Desert's archaeological heritage has not been carried out. In 1997, a team of British archaeologist, led by Michael Mallinson, conducted a survey along the planned road route from Khartoum to Ed Debba. In recent years, much has been said about the discovery made by Tim Kendall, of the Meroitic town at El-Meragh. Between 1976 and 1978, an expedition led by the German geologist Klaus-Dieter Meinhold conducted a geological survey of the northern part of Bayuda while simultaneously documenting archaeological finds that were encountered.

In 2007, the Gdańsk Archaeological Museum and Heritage Protection Fund applied for a concession to carry out archaeological investigations in the Bayuda Desert. The aim of this project's first phase is to conduct an initial reconnaissance of the region in order to gain a general picture of its settlement history.

The Kerma Horizon sites, mostly cemeteries, were noted up to *ca.* 120 km south of the Nile. All of the graves lie on hilltops, as was the case at the Fourth Cataract.

One site was excavated, i.e. site BP 164 – Middle Kerma Cemetery, situated at Jebel Sadat, where nine graves were excavated. Although most had been robbed and destroyed, several vessels and beads were found. Skeletal remains were recovered from a number of the excavated graves. All of the human bones from the graves in question were examined and recorded on-site by the team's anthropologist. Furthermore, bone samples for C14 and DNA analyses were taken.

Up to 2013, almost 1000 sites had been discovered in the Bayuda Desert. Amongst them, a significant number of locations were occupation sites culturally associated with the Kerma Horizon.

Bronze Age Funerary Customs on Mograt Island, Sudan: preliminary report of the first field season of the bronze age cemetery (MOG034) on Mograt Island, Sudan

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Since the extensive archaeological fieldwork at the 4th Cataract, in response to the construction of the Merowe Dam, knowledge about the Kerma or Old Kush period in this region has increased rapidly. Recent fieldwork, as part of the Mograt Island Archaeological Mission (MIAMi), under the auspices of the Qatar-Sudan Archaeological project (QSAP), aimed to broaden the current understanding of the burial customs of this period, upstream of the Nile beyond Kerma. The first season of investigations as part of the MIAMi project on Mograt Island took place in the spring of 2014 and consisted of field-survey and digital modeling of the eastern part of the cemetery, thought to date to the Bronze Age. Over one hundred features were identified in a study area measuring 15.5ha which included both separated and clustered features on a ridge rising to a height of *ca.* 20m above the level of the river to the south-east of the Island.

Digital terrain modeling of the tombs, the ridge, and its surroundings enabled a detailed comparison of landscape settings between features as well as recording the current state of preservation of the cemetery.

Of the nine features excavated, five were tumuli of different types at the south of the ridge, measuring from 3m to 12m in diameter. As well as broad similarities with previously documented Kerma-type burials, each of the superstructures contained a distinct variation in the method of construction. All of the excavated features in the southern part of the cemetery had been disturbed. However the structural remains of the super- and substructures, the human skeletal remains and the finds recovered show a first view of the different structural characteristics of the burials in this cemetery.

A significant discovery during this season was a separated cemetery within the funeral landscape on the ridge. An area, only differentiated by a small amount of loosely scattered quartz pebbles from the surrounding surface, revealed 17 burials, two of which were deliberately buried sheep/goats. Covered by a layer of scattered pottery, children and adults as well as sheep/goats were buried, apparently undisturbed by looting, in closely related pits carved into the natural rock. The well preserved bodies were generally laid down in anatomical order but a few exceptions like re-internment of a body in a disarticulated state were also present. Some of the deceased were richly equipped with beads of shell, stone and faience as well as organic material, metal and stone artefacts. A pottery scatter over the top of the burials contained well-made decorated Nile silt vessels as well as an imported marl clay jar. These mainly well-preserved, associated burials of children and adults represent an extraordinary find in the archaeological landscape of the Middle Nile Region.

SESSION 1: BIOANTHROPOLOGY

Biological Identity of the Mesolithic and Neolithic Populations from El-Barga (Sudan)

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The Early Holocene site of El-Barga, in the Kerma region, was discovered in 2001 by the Swiss Archaeological mission in Sudan and has been excavated the last decade. Two occupations were identified based on archaeological and radiometric grounds, a Mesolithic assemblage (~ 9.8-8.9 Ky) and an Early Neolithic cemetery (~ 8-7.5 Ky). This location is of uppermost importance in the Nubian Nile valley since it is the only one that documents with a substantial number of well-preserved individuals (44 Mesolithic and 105 Neolithic skeletons) the transitional period leading to the onset of the Neolithic. Separated by just a

millennium, the study of these two populations has the potential to enrich our understanding of the population processes in the Nile Valley during this period of cultural transition.

The comparative morphometrical analyses of the cranial and dental remains show strong biological affinities between the Mesolithic sample from El-Barga and the Nubian Epipalaeolithic populations from Jebel Sahaba and Wadi Halfa. These characteristics significantly differentiate the Mesolithic and Early Neolithic samples at El-Barga. These phenotypic data were supplemented by the study, through microtomographic acquisitions (μ -CT), of the dental tissue proportions of a sample of incisors and molars from both assemblages. The results highlight variations in size and conformation of these inner structures that support the hypothesis of a biological differentiation between the two El-Barga populations, since these differences could hardly be related to dietary changes on such a short timescale, and while at the onset of pastoralism.

Without excluding the possibility of a certain level of continuity, the anthropological study of the El-Barga assemblage suggests a complex history of population processes in the Nile Valley during this crucial period, although poorly documented, of the beginning of the Holocene.

The People of Al Khiday 2: bioarchaeological analysis of a multi-phase cemetery in Central Sudan

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The aim of this presentation is to analyse and contrast the results of the bioarchaeology study of the human remains excavated at Al Khiday 2 in Central Sudan. Since 2005, ongoing excavations directed by Dr Donatella Usai have revealed almost 200 individuals dating to at least three chronological periods: the majority of individuals predates the Mesolithic period and these display a unique mode of burial in a prone and extended position, while a number of flexed inhumations date to the Neolithic period. In addition, more than forty individuals belong to the Meroitic period and unlike the two prehistoric groups this population contains a large proportion of new-born infants and children.

Differences in the demographic structure of these three burial populations may allow us to understand differences in their respective living conditions, diet and exposure to chronic disease and trauma. Further insights can be gained from the physical appearance of these individuals as well as the differences in adult stature between the population groups. A decrease in stature in the Meroitic population may reflect malnutrition and childhood disease, while the pre-Mesolithic and Neolithic individuals appear to have experienced fewer health problems during childhood.

The main focus of this presentation will centre on the differences in dental disease, trauma and cultural modification of teeth using a macroscopic and radiographic approach. Dental diseases such as caries, calculus, periapical lesions and ante-mortem tooth loss allow us to make inferences about people's diet and dental hygiene. At Al Khiday 2 a high proportion of pre-Mesolithic and Neolithic individuals experienced dental caries, a disease generally associated with crop domestication and the consumption of carbohydrates. In contrast, Meroitic individuals had the lowest caries prevalence of the three groups. Trauma was rarely observed in any of the populations and it is largely restricted to healed fractures of the ribs as well as hand and foot bones; these injuries are compatible with everyday accidents. However, individuals from the Meroitic period may have experienced intentional violence with at least one male individual displaying healed blunt force trauma to the skull. Further differences were observed between the pre-Mesolithic and Neolithic individuals with regards to tooth evulsion practices, while this form of tooth modification was absent in the Meroitic period at Al Khiday 2.

Population from the Kerma Eastern Cemetery: biological identity and funerary practices

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The Kerma necropolis is the main cemetery from the Kerma civilisation with approximately 40'000 burials. It was used during all the Kerma periods from 2500 to 1500 BC. The Swiss archaeological Mission at Kerma has studied the funerary practices and its population since 1977. In 2004 a new research program was initiated by Prof. M. Honegger to increase our understanding of the formation process of the kingdom. To that purpose new excavations on the oldest part of the cemetery (ca. 2500-2300 BC) are on going since winter 2008-2009. These extensive excavations have led to new data on the funerary practices, the cultural aspects and on the biology of the population.

Our research focuses on the biological aspects. The osteological collection contains almost 600 individuals. Around 300 individuals from the oldest sectors are stored at Kerma and the "old collection", stored at the University of Geneva, comes from several sectors dating from the Middle to the Classical Kerma. The preserved individuals have been studied by the author. Sex, age at death, metrical data and dental discrete traits have been collected through actual standards. This large collection allows a research on the population. The aim of our communication is to expose the first results of the anthropological study. We will assess the funerary practices in the oldest sectors through the biological data. We will also discuss the problematic of the composition of the population in the Kerma Ancient period and the evolution of the diversity through the whole Kerma period, as previous studies suggest that Kerma population was cosmopolite.

Living Conditions of People from Old Kush

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The Old Kush period is very important in general history of Nubia because during this period the first state in the south of Egypt was formed. Traces of the state and its culture have been discovered in significant distance from its capital in Kerma.

The anthropological analyses presented here are based on current research of Old Kush inhabitants who lived near the 4th cataract and in the Bayuda Desert. The aim of this research is to present the biological structure, and the lifestyle and health condition of Nubian Old Kush residents based on a paleodemographical approach, and the study of morphological characteristics and physiological stress indicators.

The human bones originate from excavations led by Gdańsk Archaeological Museum Expedition. The human material includes 146 skeletons. The condition of the skeletal remains is poor; nonetheless they are very helpful in showing living conditions during this time period in Nubia.

Dental Ablation in Ancient Nubia

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Dental ablation, the intentional removal of one or more teeth, has been documented in ethnographic and archaeological reports from diverse temporal and geographic contexts around the globe. Here, we present evidence for, and contextual interpretations of, the practice of ablation in ancient Nubian populations.

For this study, 96 late Meroitic (ca. 350 BC-AD 350) through Christian (ca. AD 550-1400) period individuals from the Fourth Cataract Ginefab School site, and 409 Meroitic individuals from the Second Cataract Semna South site were examined for evidence of ablation. A differential diagnosis of dental ablation was carried out through the exclusion of tooth agenesis; antemortem loss due to trauma, disease, or aging; and postmortem loss. From Semna South, 30 (7.3%) individuals, 17 of 164 (10.3%) males and 13 of 168 (7.7%) females, show dental ablation. Of these, 18 of 30 (60%) show ablation of one to four mandibular incisors and 14 of 30 (40%) show a pattern involving both mandibular and maxillary incisors. From Ginefab, nine (9.4%), five of 41

(12.2%) males and four of 30 (13.3%) females, show varying patterns of ablation of mandibular incisors. Chi-Squared Tests of Independence confirmed that there is no statistically significant sex bias in regard to instance or pattern of ablation in either sample.

The intentional removal of anterior teeth may signify the implementation of a medicinal practice or the expression of social or group identity. Dental ablation has a documented history in Sudan, yet its associated significance appears to change through time. In Neolithic Sudan and in modern ethnographic and clinical literature, ablation is portrayed as a male rite of passage; however, this pattern is not found in Meroitic to Christian period samples. This study demonstrates that shifts in socio-political climates may alter the meaning of cultural practices, while not altering the practice itself. Bioarchaeologists working in this region should be aware of the possibility of dental ablation occurring in Nubian individuals, as well as the need for nuanced interpretation of this practice.

The Ginefab School site skeletal collection derives from fieldwork directed by Baker under licenses granted to Arizona State University by the US Department of Treasury, Office of Foreign Assets Control (Nos. SU-1897 & SU-2122), with support for fieldwork and lab processing provided by the Packard Humanities Institute (Award Nos. 07-1391, 07-1424, & 08-1472 [OFAC license No. SU-2071]), The Regents of the University of California and by the National Science Foundation (BCS-0647055).

Archery in the Meroitic Period: new bioarchaeological evidence from WTC cemetery, Dangeil, Sudan

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Nubia and archery have always been strongly associated. Nubians were very well known for their skills in archery and one of the names of this area was in fact “ Land of the bows”. In funerary contexts, bows, arrows and thumb- rings have been often found inside Middle Nubian and later graves, allowing the individual to be identified as an archer.

Recently, two new graves have been excavated in the Meroitic cemetery of Dangeil, Sudan, under the direction of Julie Anderson and Mahmoud Suliman Bashir. These graves were intact and in both cases the presence of thumb-rings suggests that the individuals were archers. The observation of the bones and analyses of the pathological condition including the articular modifications of the skeletal remains of these two individuals, allowed us to determine the markers of occupational stress that characterize archery and provided new important information on how this activity could influence the skeletal morphology.

The Berber Meroitic Cemetery – Bioarchaeological Insights into living Conditions in a middle-late Meroitic Community

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This paper will present the results of the bioarchaeological analysis of human remains excavated by the National Corporation of Antiquities and Museum of Sudan (NCAM) in the Meroitic cemetery at Berber (2nd-3rd century AD), Central Sudan. The site, located on the east bank of the Nile, was investigated prior to construction works near Berber city during several seasons between 2009 and 2013. Up until now, 39 well-preserved skeletal remains of adults and children buried in single and multiple graves could be documented. Funerary customs employed in the cemetery included both extended and contracted burials and potentially indicates cultural changes occurring in the area. Applying a biocultural approach, we report demographic and palaeopathological results in combination with contextual archaeological data in order to provide an insight into living conditions in this region during the middle and later Meroitic period. Low mean statures, high

frequencies of dental pathologies and evidence for chronic infections suggest a high degree of environmental pressures affecting the population living at Berber.

This innovative research project represents the first output of recent efforts to establish bioarchaeological training and research in Sudan brought about by an increasing demand of specialists due to large scale salvage excavations. All analyses were carried out in the newly created research facilities of NCAM at the National Museum in Khartoum, Sudan.

Humans Remains at Abu Erteila

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After five seasons of excavation at the site of Abu Erteila in the Butana region of ancient Meroe, our joint Italian, Russian and American team has unearthed a number of architectural finds of an ancient Meroitic solar temple, and food preparation and storage areas as well as post-Meroitic (“Christian”?) finds of recycled architectonic features, cooking facilities and human burials. Aside from various objects and ceramics that will be reported by others, this paper will describe and summarize the human remain finds that have accumulated at this site over these years. At this point we have unearthed, studied, and reburied more than a dozen human remains, five adult males, two adult females, a child and five infants. We have also found butchered animal bones of sheep, goats, and cattle and cooking jars and grinding stones in the Meroitic strata as well as more cooking jars and some small remains of donkeys in post-Meroitic times. This paper will focus on the human remains. These remains are small in number but represent the universe of what has been found. Carbon 14 dates to now are mostly for the 12th century AD. We have no Meroitic burials.

Exploring Ancient Mobility: diaphyseal shape differences in Nubian tibias

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This paper examines differences in tibial diaphyseal shape between assemblages of ancient Nubians curated in museums across the UK, including Jebel Moya and assemblages rescued by SARS excavations. Modern athletics research in biomechanics demonstrates that the tibia responds to activity-related strain by increasing or decreasing periosteal bone, leading to differing diaphyseal shapes. In previous years, this has been described as platycnemia or mesocnemia, but the differences are actually more substantial than a single ratio: amount of posterior buttressing, height of the interosseous crest, and curvature of the anterior crest are additional locales of difference ignored in most studies. Examining differences in shape over time for one area can help identify local, regional, or pan-cultural activity-based social organization over the prehistory of the Upper Nile region, including shifts in subsistence strategy and changes brought about by contact with Egypt and the Sahel. It is commonly assumed that larger urban cultures such as Kerma were primarily agricultural, but the abundance of cattle in the elite burials implies that at least part of the population was pastoralists, similar to other trans-Saharan cattle cultures. This may indicate a division of labor that can only be evidenced in leg shape, as the additional long-distance walking of cattle-herders would alter the bone shape more than more static farming activities; additionally, the author previously noted a divergence of tibial shape between males and females, indicating changing labour patterns, between Kerma and Meroitic assemblages. The project utilizes 3D laser scanning to assess bone shape and obtain biomechanical data in order to compare skeletons, thus gaging the activity level and possible “career” of each individual Nubian. From this we can evaluate the proportion of “professions” per assemblage and track changes in Nubian subsistence strategy across time. Future goals include comparing archaeological data to that of athletes to form a better picture of how ancient versus modern activity affects tibial shape and strength.

SESSION 1: MAN-ANIMAL

Prehistoric Cattle Cemetery in Wadi Khashab, Eastern Desert, Egypt. First Insight into the new Evidence of Pastoral Cultures between Upper Egypt and the Red Sea

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Initial exploration of a ceremonial site in the mountains of the Eastern Desert on the Red Sea coast of Egypt has brought information on previously unstudied pastoral cultures of the region dated provisionally to between 2500 and 1500 BC. The site consists of a cemetery of cattle and humans, surrounded by a stone enclosure measuring 18 m in diameter. Stone steles forming installations of a megalithic nature originally, and stone pavements were recorded outside the enclosure.

The project aims at providing data on the rate and nature of environmental change taking place in the said-period in the Eastern Desert, the behavior and migrations of pastoral cultures in this region and the functioning of megalithic installations at the close of prehistory among sub-Saharan cultures.

The project is financed by the Polish National Center of Science grant UMO-2012/07/N/HS3/04056.

Osteometric data on the excavated cattle skeletons, and objects of material culture recorded during the first season of excavations are the main issues of the presentation. Comparisons with the Nubian pastoralist cultures of the period in question are also important.

The Practice of Cattle Horns Deformation in Past and Present Societies: a persistent pastoral tradition in Africa

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The practice of cattle horns deformation in prehistoric times was first suggested by Charles G. Seligman in the 1930's. According to him, its origin is to be found in Ancient Egypt. Later, it follows a route along the White Nile to reach Black Africa. His interpretation relies on a formal analogy between the horns depicted on Ancient Egyptian bas-reliefs, dated around the middle of the third millennium BC, and the horns artificially deformed observed among the cattle of contemporary Nilotes of South Sudan.

However, the artificial deformation of cattle horns in Ancient Egypt has never been subsequently confirmed. Indeed, only Nubian sites testify with certainty of its antiquity. It has been observed on cattle skulls at Faras in Lower Nubia and at Kerma in Upper Nubia. Thus, it has been associated with the C-Group and the Kerma cultures, both dated around 2500-1500 BC.

The practice of cattle horns deformation has persisted in the Nile River Basin over a period of at least 4500 years, but it may well go back much further both in time and in space. Indeed, the rock art in Nubia, and especially in the Sahara, provide cattle representations which show strong similarities with the cattle of present-day East African herders. Thus, such a persistent and extended practice raises questions about its functions and meanings. The ethnographic material presented here, which provide clues about the technical and social aspects of cattle horns deformation, will help to understand how and why it has become a living tradition in numerous African pastoral societies.

Considering Relationships between Nubians and their Environment over Time: connecting zooarcheology to zootherapeutic practices in contemporary Nubia

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This study describes traditional knowledge and contemporary perceptions of nine animal species by people living between the first and sixth cataracts of the Nile River in northern Sudan. This initial field survey was conducted in November 2011 in a semi-structured ethnographic verbal questionnaire format with the assistance of an interpreter. Twenty selected respondents described nine animal genera and their products and by-products in terms of ethnomedicinal application and perceived animal characteristics and behaviors. The project sought to elucidate both zootherapeutic practices in the area and underlying perceptions that demarcate fauna as edible, medicinal, disease-carrying, dangerous or benign. The interviews recorded the perceived zootherapeutic function of hedgehogs, badgers, warthogs, lizards, crocodiles, fishes, ducks, frogs, and bats. Zootherapeutic practices are used to treat several conditions, including asthma, respiratory distress, blurred vision, snakebite, upset stomach, rheumatism, and wound care. This paper looks at connections between zooarcheological findings in Nubia and contemporary ethnographic data in order to create a preliminary chronology of human-animal interactions by people living in the Nubian Nile basin.

Honey Hunting and Managed Beekeeping in Ancient Nubia

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Apiculture in Ancient Egypt is documented from Dynasty 1 and likely developed from wild honey hunting and expanded with the domestication of plants in the Nile valley, as it did in Mesopotamia (Crane, 1999). As a North American beekeeper and anthropologist of the Nile Valley, especially Sudan, I am attracted to the subject of early beekeeping in Nubia. Cylindrical hives, both ceramic and woven from reeds and stacked horizontally, have been documented archaeologically in Mesopotamia, Israel, and Egypt from the 7th to the 4th centuries BCE. Honey as divine offerings are cited in early papyri texts and images. The medicinal use of honey is likewise well-attested as is the use of beeswax for sealing (e.g. inside wine amphorae), for writing tablets, in boat and shipbuilding, for making jewellery, waxed wigs, in mummification, and for wax figures used in execration rituals as they are easily destroyed by fire.

Rock art from the Upper Palaeolithic attests to honey hunting in Northern and Southern Africa from at least 20,000 BCE. In Libya, where bees nested in rock fissures in the steep sides of wadis, wild honey and bee larvae were foraged for glucose and protein food sources (Saad, 1989). Arabia and Saba were renowned for their honey, and Ethiopia was an ancient centre of honey production and fermented honey (“taj”), and today Ethiopia is Africa’s largest producer of honey with an estimated 10 million hives in production. The bee was a symbol of both Ethiopian and Egyptian royalty. King Gebre Mesqel (1181-1221 CE) was called Lalibela, meaning “the bees recognise his sovereignty” as according to myth he was surrounded by a swarm of bees at birth that did not sting him, seeing this as a sign of future royalty.

It is highly likely that Ancient Nubia had both a honey hunting and perhaps a managed beekeeping history that can be intuited indirectly from the multiple sources of evidence from these and other regional cultures. During the Old Kingdom reign of Pepi II, the priest Mekhu died in Nubia and his son Sebni went to retrieve his father’s body “with 100 asses bearing ointment, honey, clothing, oil... to “these countries of the Negroes” (Sebhi inscription, Breasted, 1906). Pliny (VI.32.161) described Southern Arabia as having “the most wealthy people [for their] production of honey and wax,” while Erostrathes (XVI.4.2; 276-196BCE) cites that Arabia “abounds with places for making honey.” In contemporary times in Southern Sudan the Ndogo are documented (Brown, 1984) as skilled honey hunters, staying away for 3-4 days travelling 8-10 kilometres to collect an average of 50 kilograms per hunter.

Honey hunting and apiculture existed in great and small ways in all areas surrounding Ancient Nubia, and is widely practiced in Nubia today. A case for honey hunting and managed beekeeping can at least be hypothesized, and await further discussion and debate.

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Faunal Remains from Gala Abu Ahmed, a (Pre)-Napatan Fortress in the Lower Wadi Howar

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Almost 90,000 faunal remains from recent excavations at the pre-Napatan and Napatan fortress Gala Abu Ahmed (1st millennium BC), about 110 km west of the Nile in the lower Wadi Howar, have been analysed. This has resulted in the first large archaeozoological dataset for the period and region. Although suffering from poor preservation and admixture with recent remains, the faunal assemblages yield indications regarding the function of the fort, its occupants and the natural environment around it.

Animal Exploitation at Mouweis (Sudan) during the Meroitic: preliminary results

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The site of Mouweis is situated on the east bank of the Nile, around 170 km north of Khartoum and 50 km south of Meroe, the capital of the Empire.

The excavations by the Louvre Museum, since 2007, have revealed a large city, with various buildings and wards: one big temple in the centre, some minor temples, a palace, and various habitation and industrial zones with different ovens.

In this paper, we will present the preliminary results of the fauna discovered in the domestic area Ka, with a large kiln and some houses.

The Meroitic levels show the dominance of cattle (62%) and caprines (36.8%). Horse and pig are attested. The wild fauna is very rare.

During the Post-Meroitic period, cattle is still dominant (59.8%) but caprines are more numerous and other domestic animals are present, such as donkey, dromedary and chicken. Hunting is almost absent.

Some other aspects, such as age-distribution and skeletal parts will be also presented.

Finally, a comparison with other complexes from the town, namely the main temple (M) and a settlement (B) will be presented, highlighting the main differences between religious buildings, habitations and industrial areas.

The Role of Molluscs in Ancient Nubia and Sudan: Archaeological and Ethnoarchaeological Approaches

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Molluscs have a major role in the cultures of the North-East Africa in general and Sudan in particular, and had multiple roles in these cultures: as a source of food; their shells were used as a tool in the decoration of pottery especially during the Mesolithic and Neolithic; as bait to catch fish (*fish hooks*); as ornaments (*woman's accessories*), and in addition played religious role (*Divination*). In the local language, this last is called *Rami Al wada*, which means 'throw shells', which is a habit still practiced by Sudanese women.

In addition to this, the study of molluscs from Ancient Sudan, that were present at the time in different parts of the Nile Valley its ancient palaeochannels, contributes to our knowledge of the palaeoenvironment (*Pleistocene and Holocene*), how humans interacted with their environment, and the implications of this interaction on other aspects of life since prehistoric times to the present.

This paper focuses on the study molluscs found in Ancient Sudan archaeological sites. The types are explained and classified, and through their distribution, their contribution to the knowledge of the palaeoenvironment and other cultural aspects of the Sudan.

SESSION 2 : PROTOHISTORY

Gebel Sheikh Suleiman Relief Revisited

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The famous rock cut relief of Gebel Sheikh Suleiman was removed from its original location near Buhen at the Second Cataract and is now on display in the garden of the Khartoum National Museum. Despite the large amount of discussion the Early Dynastic victory scene of prisoners and vanquished has engendered, to date, the published record includes only the fine photographs of A.J. Arkell in JEA 36 (1950) and from them drawings of only selected elements of this highly inscribed rock. Through the kindness of the Sudanese National Corporation for Antiquities and Museums, the authors were recently allowed to copy the rock as preserved in its entirety using epigraphic methods and scrutinize the several layers and periods of usage that are visible. This close study has generated new insights into the composition of the famous scene in its original and subsequent forms and a number of modifications to the published drawings.

Ethnicity, Competition and Warfare: establishing an ethnic boundary between A-Group and Naqada people in Lower Nubia

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Archaeologists have not explored how the long-lasting ethnic boundary between Egyptians and Nubians at the First Cataract was established. Furthermore, there is no consensus about the ethnic identity of the people inhabiting the Nile Valley from Metardul in Lower Nubia to Gebel es-Silsila in Upper Egypt during the latter half of the 4th millennium BCE. On the one hand, Egyptologists generally suggest an expansion of Naqada settlements or colonies into northern Lower Nubia. On the other hand, Nubiologists usually consider Kubaniya and all sites south of the First Cataract (or Gebel es-Silsila) to belong to the A-Group people. This paper will first clarify the ethnic identity of the inhabitants of northern Lower Nubia during the 4th millennium BCE by investigating how far north the A-Group people roamed and if there was a Naqada expansion into Lower Nubia. Then, the nature of the contact between the two groups will be explored. Finally, evidence of violence will be examined. The paper will conclude that warfare on the frontier between A-Group and Naqada peoples contributed to the establishment of an ethnic boundary that was fixed at the First Cataract at the beginning of the First Dynasty.

The Pre-Kerma Site of Sedeinga

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The NW site was discovered in 2011 during a prehistoric survey carried out on the Sedeinga concession (Upper Nubia), so far known for its historical remains.

Two short missions have unearthed a whole series of storage pits related to an occupation dating from about 3000 BC. The archaeological material, mainly pottery sherds, corresponds to the typical assemblage of Middle Pre-Kerma, although the northern position of the site induces some regional differences, such as the presence of Egyptian jars.

These silos were used for storing plant and grain. They are of two types, probably amounting to two systems of food storage, short and long term. This settlement is not habitation – the density of pits is such that the setting up of huts is impossible – but an area devoted to production and processing, including crafts: ostrich eggshell beads were made near the storage pits.

In keeping with the tradition of Kerma and Sai Pre-Kerma sites, the NW site of Sedeinga confirms how domestic communities from the turn of the 4th and 3rd millennia BC took significant steps in the evolution of economic and social structures.

The Creation of Man on a Hill Emerging from the Primordial Waters: the origins of the world in Dinka Mythology

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Dinka mythology is the least well known among the major African systems of belief. What has been recorded by missionaries and ethnographers are only fragments. Through trusted contacts with Dinka leaders, I was able, over several years, to be introduced to those very few from amongst the Dinka priest-chiefs who still knew the full corpus of their traditional beliefs, religion, and indeed, their intellectual world. Over a period of several years, I was thus able to record the entire edifice of Dinka mythology. The fragments recorded by earlier researchers fit neatly into this complex and highly developed structure.

The parallels of Dinka religion with earliest Egypt (divine essence of the Pharaoh, ritual killing of the semi-divine priest-ruler, or indeed the creation story) are striking. They have been noticed early in the 20th century by scholars like Wallis Budge, and others - but this line of research has been abandoned later as being too much fraught with speculation. My material will remove the accusation of "speculation", and confirm the validity of such earlier research.

A connection would thus seem to be established between (the origins of) Egypt, and (living traditions in) Southern Sudan, with Nubia lying in between - not only geographically, but also intellectually. The implications of my approach for the study of the origins of the Pharaonic civilisation are enormous. The study of the observable Dinka culture would shed new light on a number of aspects of Pharaonic Egypt, and explain such concepts as the divine/human nature of Pharaoh, his eternal life, the need for burial, the Sed celebration and others, but also offer plausible explanations for the question in which geographical region (and in which period) both the Pharaonic and the Nilotic civilisations emerged.

The “End” of an Era: a review of the phasing system for the late C- Group and Pan Grave cultures

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The phasing system for the C-Group culture, devised by Manfred Bietak in the late 1960s, has remained largely unchanged since that time. On the whole this system seems to work, however the final phase, Phase III, has presented some problems of definition and identification. When contexts dated to Phase III have been identified, they are often adjacent to Egyptian graves of the early New Kingdom and display characteristics of either the Pan Grave or Kerma cultures. This has been taken as evidence of external influences imposed upon the C-Group people, which led to a disintegration of their cultural identity and eventual disappearance.

The current study has identified three major problems with the internal phasing for the C-Group as it currently stands. First, many large cemetery sites in Lower Nubia show evidence of all phases up to Phase IIB but not later, and sites with Phase III characteristics are often small and isolated or at the fringes of larger cemeteries. Second, finds made after the development of Bietak's phasing did not fit well with his definition of Phase III and resulted in some minor amendments. Finally, many of the criteria used by Bietak to define Phase III are unique finds, come from very disturbed contexts or are characteristics shared with other phases and cultures, and the meaning of these commonalities between cultures or phases is open to interpretation.

This paper presents some preliminary results from an ongoing PhD project that re-examines and revises existing theories of the social processes taking place in Lower Nubia at the end of the Middle Nubian period. The intention is not to prove the old theories wrong, but rather to revisit and reinterpret the ideas in view of more recent data. Until now, the decline and disappearance of the C-Group was thought to have been the result of Egyptianisation of the culture. Instead, it will be suggested that Egyptianisation played far less of a role in

the loss of C-Group identity and that other factors and processes should be considered. In some cases, it will be proposed that sites identified as Phase III are in fact Pan Grave, which would have potential implications for our understanding of the Pan Grave culture, their origins, geographic distribution and their activity in the Second Cataract region.

Nubian Pottery Assemblage from the C-Group Cemetery HK27C at Hierakonpolis

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The Nubian cemetery HK27C at Hierakonpolis is the northernmost cemetery of the distinctive Lower Nubian C-Group culture and the only one that is still accessible in Egypt. Although plundered, the recent excavation of the cemetery by the Hierakonpolis Expedition has revealed typical grave structures, inhumations and offerings. A multidisciplinary approach under the direction of Dr. Renée Friedman has been applied to the investigation of HK27C, which for the first time in the history of research on the C-Group has produced a wealth of data of an unprecedented scientific standard. According to the chronology of the Egyptian pottery (studied by Marie Millet), the site was occupied from the early 11th to the late 12th Dynasty with continuing activity in the 2nd Intermediate Period. In the spring of 2014, the study of the Nubian pottery assemblage of the C-Group cemetery was completed. About 90 individual pots have been analysed, most of them could be attributed to the tombs they originally belonged to. As a typical feature for the C-Group culture, the pottery was placed outside the tumulus, often upside-down beneath or in between rocks and in many cases the vessels have been ritually killed with an impact from the outside of the vessel. Also known from the C-Group in Lower Nubia are offerings places and even small chapels, in which Nubian pottery was placed. Altogether, 64 high-quality black-topped vessels, eight individual black incised bowls and about ten decorated bowls and jars have been documented. The aim of this presentation is to report the preliminary results of the analysis and interpretation of this corpus. Comparisons will be made with the C-Group cemetery at Wadi Kubanieh, the only other known C-Group cemetery from Egypt, and with cemeteries from Lower Nubia.

Kerma in Hierakonpolis

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Three Objects from Hierakonpolis Found at Kerma

During the later Second Intermediate Period, the powerful Kingdom of Kush launched raids into Egypt, carrying off booty that included statues, steles and other fine objects from various temples and shrines. These objects were trophies destined to be buried in the great tumulus-tombs of the Kushite kings at their capital Kerma. That the Hierakonpolis (Nekhen)-Elkab (Nekheb) area in Upper Egypt was the focus of some of these raids is known from an inscription recently uncovered in the tomb of Sobeknakht, the governor of Elkab (Davies 2003). Other evidence for these Nubian raids is in the booty itself.

One small grano-diorite statue now in the Sudan National Museum (no. 1132) was discovered by George Reisner in Kerma tumulus KXV. The only unbroken figure he found at the site, it is inscribed for the ‘elder of the portal’ Mentjuhotep and invokes Horus of Nekhen (Hierakonpolis). On the basis of its type and distinctive style it can be dated to the Thirteenth Dynasty. Mentjuhotep originally placed his statuette in the temple of Horus to help secure eternal life through the intervention of the god.

Two other objects originally belonging to people from Nekhen were also discovered in the Kerma tumuli. One is an alabaster jar, now also in the Sudan National Museum (inv. 1087), which bears an inscription mentioning perfumed oil for the ka of the mayor of Nekhen, Sobeknakht. It was recovered from Tumulus K111.

The third object is another alabaster jar now in Boston, which was found in grave K323. It includes an inscription invoking Horus of Nekhen and Osiris who dwells in Nekhen for the scribe of the temple Hor-

Heriat. The way both vessels have been carved to exploit the decorative pattern in the stones suggests they came from the same workshop.

It is possible that these Nubian raids, or fear of them, may have been the reason for burying the famous golden falcon statue of Horus and the other precious or portable objects at the temple at Nekhen, which were discovered by J.E. Quibell in 1897-8. Similar anxieties may be the reason for the buried deposits found at other temple sites throughout Egypt.

SESSION 2: EGYPT

Ancient Egyptian quarrying and mining missions to Nubia during the Old Kingdom: continuity and patterns of development

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From the very beginning of its history, the Ancient Egyptian centralized state had developed two principal forms of interaction with alien areas beyond the Nile Valley: military raids (later – campaigns) and peaceful or paramilitary trade and quarrying/mining missions. The aim of my paper is to discuss traditions and patterns of development of ancient Egyptian quarrying and mining activity in Nubia during the Old Kingdom. Particular considerations are given to political, economic, and environmental factors that influenced the Egyptian expeditionary infrastructure in the region during the late Old Kingdom.

The abandonment of Buhen and quarries at Gebel al-Asr with the arrival of the Early C-Group people as well as environmental changes induced the Egyptian court to pass from territorial domination over Lower Nubia to intensive trade interactions with new chiefdoms secured by sporadic military campaigns. New political and ethnical realities stimulated the development of a more effective expeditionary infrastructure. At the end of the 5th Dynasty, Elephantine became the residence for virtually new elites which probably faced regular rotations and benefited from expedition activity of the residence. By the time of Pepy II, however, Elephantine elites managed to develop a rather stable community interested in the memory of their leaders. Similar contemporary processes, including the development of cult activities for some governors, progressed in the Oasis of Dakhla which had the same frontier position.

Despite the fact that the time of the late Old Kingdom was a period of gradual development of provincial self-consciousness backed by the increasing regionalization of the country, expedition leaders of the 1st Upper Egyptian nome maintained close relations with the royal court. A small Elephantine community knitted by kinship and mentality began to provide experienced expedition leaders for all kind of royal missions beyond the Nile Valley: military campaigns in Nubia, trade ventures to the Western Desert, Byblos and Punt, mining expeditions to the Eastern Desert, and rescue missions to the Red Sea coast. As Diego Espinel stresses, the high level of mobility demonstrated by the late Old Kingdom elites of some strategic provinces appears to reveal the backbone of the new system of royal authority over the country and the areas beyond the Nile Valley.

Egyptians and Nubians at Wadi el-Hudi: Perspectives on multicultural interactions from recent archaeological survey

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Wadi el-Hudi is typically referred to as an Egyptian mining settlement of the Middle Kingdom. Yet, lying 35km east of Aswan in Egypt's Eastern Desert, its location puts it on the political and cultural frontier between Egypt and Nubia. This was likely a place where Egyptians and Nubians interacted. In fact, Middle Kingdom inscriptions discovered at Wadi el-Hudi associate it with Nubians as much as with Egyptians. For instance, one of the earliest inscriptions, WH4, dating to the reign of Montuhotep IV (Dynasty 11), describes what may be the first expedition to Wadi el-Hudi specifically in order to establish the amethyst mines there. Interestingly, WH4 specifies that the founding expedition brought all the people of Wawat and Ta-Seti (Nubia)

from both the northern and southern regions to establish the site. This passage, as well as other references to Nubians in the inscriptions, raises a question about the footprint of Nubians at the amethyst mining areas at Wadi el-Hudi throughout the Egyptian Middle Kingdom.

This talk will approach this question from an archaeological perspective based on recent survey work from Princeton University's first expedition to Wadi el-Hudi. It is likely that the earliest habitation site at Wadi el-Hudi is Site 5. Notably, this settlement takes the shape of a fortified C-Group settlement along the lines of Wadi es-Sebua, and yet it is full of Egyptian material remains. Did the Nubians who came along with the Egyptian expedition have any agency in designing this settlement at the very start of the work? Similarly, Site 9 at Wadi el-Hudi is an Egyptian style fortress whose shape is similar to those in Lower Nubia, but it has remains of Pangrave and possibly other Middle Nubian objects. Were Nubians living in these Egyptian quarters? And which desert peoples were they protecting themselves from with such a fortification? Wadi el-Hudi's archaeology demonstrates it as a place of multicultural interaction, practice, and identity.

Curse at the Southern Border. An Execration Ritual on the Verso of the Semna Dispatches

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Among the very fragile Middle Kingdom papyri found in a wooden box by James E. Quibell at the Ramesseum in 1896, pRam. C (British Museum EA 10752) displays a compilation of detailed military reports from several second cataract forts known as the *Semna dispatches*, dating back to the time of Amenemhat III and recording contacts with Nubian populations notably engaged in the activity of bartering with the Egyptians. The verso of this papyrus, which was so far considered as a later reuse of the document in Thebes, presents a unique execration ritual which is certainly also related to the protection of the southern border, this time not by military, but by magical means. From the Egyptian point of view, the long curse described in the Ramesseum papyrus, consisting mainly in a series of accusations of all kinds of wrongdoings and blasphemies, was seen as a powerful spell cast to protect Egypt from all evil forces, with which the Nubians raiding or trespassing the frontier area were identified. This ritual is very reminiscent of, and must be quite similar to, the one performed outside the fortress of Mirgissa, where a ritual deposit was discovered in 1962, including a beheaded skeleton and its skull, a silex blade, figurines made of limestone and silt, as well as thousands of sherds from ritually broken red pottery vessels previously inscribed with execration texts.

The three Faces of Isis

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Isis, the consort of Osiris and mother of Horus, was an important but not a dominant deity throughout the pharaonic era. Though often depicted in temple and tomb reliefs, she was not then the dedicatee of any major temple, or the tutelary of any nome. In practical life her principal importance was in mortuary religion. A markedly different figure is the Isis of Ptolemaic and Merotic times, worshipped at Philae and throughout Nubia. Transformed from a mortuary deity into the quintessential earth mother, she now towered far above all other deities, and was the acknowledged tutelary of both Ptolemaic/Roman and Meroitic Nubia. Her cult did not simply evolve from the religion of pharaonic times; it was deliberately fabricated at the order of Ptolemy I, to combine Egyptian deities with Greek theological notions.

Different again was the Isis mystery cult found in the late Roman Empire. Its origin is unknown, but can most probably be attributed to Roman soldiers stationed in Egypt. Far from being the officially sanctioned, exoteric cult centered on Philae, this was an esoteric salvationist religion which promised salvation only to the initiated few. In this manifestation Isis had become above all a savior. Though her cult flourished primarily outside Egypt and Nubia, Isis mystery shrines have been identified at Qasr Ibrim and at Meroe.

This paper will discuss the differences between the three Isis cults on the basis of evidence from Nubia, and more especially from Qasr Ibrim. It will be illustrated with pictures of the Isis finds from Ibrim.

Egypt, Nubia and Punt

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The geographic situation of Punt and its itinerary has occupied a great part of the scientific literature in Egyptology since the discovery of the bas-relief of Deir el-Bahari at the end of the 19th century. The discussion concerned its location, and several hypothesis were proposed which extended sometimes to Somalia, to Arabia, on the Nile River or one of its tributaries or close to the Sudan-Eritrean borders. The means of attaining Punt also had its place in these assumptions, whether it was via the Nile or across the Red Sea.

Major studies, such as that of R. Herzog published in 1968, not only enriched this scientific debate but also changed the prevailing theories of scholars; there are also more recent discoveries of archaeological evidences on the Red Sea Shore which date from the seventies of the last century and the last ten years, and there is also the article by D. Meeks which appeared in 2003.

This communication will deal with this problem in the light of the geo-political changes in Egypt and Nubia in exposing the principal sources of information about Punt from the Old Kingdom, through Middle Kingdom and ending by the Late Period.

The political situation in Nubia and its relationship with Egypt were a major factor in directing the relationship between Egypt and Nubia, and the Egyptian way of dealing with exotic and important land.

Travelling the Korosko Road: Egyptian inscriptions in the eastern desert

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In November 2013 a joint British Museum/Sudan Archaeological Research Society team conducted a survey of Egyptian inscriptions known to be present at sites in Sudan's eastern desert along the so-called Korosko Road and other routes. The project proved to be very productive. A large number of inscriptions was documented, the majority probably connected with Egyptian gold-mining activity during the New Kingdom. The paper will give an overview of the project and an initial interpretation of the results.

Upper Nubia during the New Kingdom and its aftermath – New evidence from the cemeteries of Amara West

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This paper will present the results of recent fieldwork (2009-2014) in the two cemeteries associated with the New Kingdom settlement of Amara West, the administrative capital of Upper Nubia between the 13th and 11th century BC. For the New Kingdom period, eight tombs of elite and non-elite background were documented up until now. The analysis of grave architecture, treatment and positioning of the deceased, assemblage and distribution of associated artefacts within the tombs suggest a highly complex mix of Egyptian and Nubian cultural elements. These reflect the socio-cultural processes and interactions characterising life in ancient Nubia during the time of New Kingdom occupation of Nubia. Despite the strong Egyptian character of the cemeteries, the use of tumuli and burial beds in combination with Egyptian-style elements of funerary ritual attests to the continued survival of traditional Nubian elements. In addition, the absence of elements central to Egyptian funerary tradition raises questions about the overall degree and depth of Egyptianisation even though this has to be viewed with caution in light of burial disturbance. Spatial distribution of tombs and the observed variability in choice of cultural elements further suggest a certain degree of individuality perhaps related to parameters such as status or kinship group.

The cemeteries draw further significance from the fact that there is sound evidence of continued use of the cemeteries throughout the 10th and 9th centuries BC. The dating obtained from pottery has recently also been supported by radiocarbon-dating of human bones. Even though Egyptian-style funerary traditions continue to dominate, there is also a marked increase in Nubian cultural marker during this later period. The tomb

architecture undergoes a shift from underground chamber tombs, in use from the New Kingdom well into 10th and 9th century to smaller shaft tombs with lateral burial niches. The underlying reasons accounting for this transition as well as the chronological relationship between those different types are not yet fully understood and will require further field work. Nevertheless, these tombs allow for an important insight into the time period between the end of Egyptian occupation and beginning of the Napatan kingdom. In combination with bioarchaeological results of the analysis of human remains and contextual data from the town and surrounding landscape, the cemeteries offer important new insights into life and death in Nubia under New Kingdom control and during the centuries leading up to the Napatan period.

The fortified Pharaonic town on Sai Island: New results from current fieldwork (2013-2014)

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Sai Island, as one of the most important New Kingdom sites in Upper Nubia, is the focus of a new project, hosted by the Austrian Academy of Sciences. The ERC project AcrossBorders, conducted with the approval of the Sai Island Archaeological Mission (SIAM) of Charles-de-Gaulle – Lille 3 University, aims to provide new insights on the life style and the living conditions of New Kingdom Nubia, thanks to new fieldwork and a multi-layered research on Sai Island.

Since 2013, AcrossBorders investigates the New Kingdom fortified town of Sai in the field. Two new excavation areas within the town, labelled as SAV1 East and SAV1 West, were opened, and added important knowledge concerning the general layout of the town, its evolution and changing character.

The present paper summarizes results of the fieldwork conducted both at SAV1 East and at SAV1 West. At SAV1 East, a large building complex of possible administrative character datable to the mid-18th Dynasty was exposed. Excavations at SAV1 West resulted in the confirmation of the outline of the town enclosure wall, providing significant chronological data to understand the development of Sai as a fortified Egyptian town.

Aspects of the material culture of SAV1 East and SAV1 West are key elements of AcrossBorders' research. Pottery, small finds, tools and various devices will be presented in relation to their associated finds, architecture and past human actions.

To conclude, current fieldwork has added important information about the history of the Pharaonic town of Sai Island. The period of the mid-18th Dynasty (Thutmose III and Amenhotep II) especially, marked a major remodelling of the site. The architecture and material remains illustrate a prosperous heyday of Sai as the main administrative centre of Upper Nubia.

Excavations at Gebel Barkal: 2013-2014

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The NCAM Mission at Jebel Barkal, co-directed by myself and El-Hassan Ahmed Mohamed, was four months in the field between October 2013 and March 2014, thanks to funding from the Nubian Archaeological Development Organization, a cooperative project between Qatar and Sudan. The long field season combined with generous funding has resulted in major new finds. New excavations in B 500, for example, have substantially increased our understanding of the New Kingdom development of the site. We also fully re-excavated and recorded three little-known kiosks excavated by Reisner but never fully published: B 502 (Tanwetamani), B 501 (Natakamani and Amanitore) and B 551 (Amanishakheto), the latter two of which preserve very interesting reliefs. Our major find of the season, however, was a new temple, discovered through magnetometry. This is probably a third Amun temple, which was fronted by a very fine kiosk within a kiosk built by Amanikhareqerem. This season we were able to completely excavate the kiosk complex; excavation of the temple will begin next season.

The Uronarti Regional Archaeological Project: Report on the First Two Seasons

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It was long believed that the Middle Kingdom fortress on Uronarti had disappeared below the waters of Lake Nubia, as had other numerous archaeological sites in Lower Nubia and the region of the *Batn el-Hagar*. It was only relatively recently, in 2004, that DEREK WELSBY related the news in the *Journal Sudan and Nubia*, that both the fortresses at Uronarti and Shalfak had in fact survived the deluge and were sitting mostly unscathed above the then height of the reservoir. This surprising discovery was obviously very welcome news, for the wholesale destruction of the Egyptian Middle Kingdom fortresses was mourned as one of the major losses to Nubian archaeology, and indeed world heritage, caused by the construction of the *Sadd el-Ali*. The sense of loss was compounded by the knowledge that although most of the fortresses had been investigated to some degree, this had occurred either early in the history of Egyptian archaeology (i.e. Uronarti and Shalfak, which were excavated by a joint mission of the Boston Museum of Fine Arts and Harvard University) when methods and aims were rudimentary, or in great haste by rescue missions ahead of the advancing waters. As a result, it is commonly acknowledged that the documentation for these sites is incomplete and at times inadequate for modern scientific purposes. The survival of the two fortresses at Uronarti and Shalfak is therefore an unlooked for reprieve and a second chance to redress at least some of the deficiencies in our record of these impressive monuments, and to generate new data and pose new questions.

To this end, the University of Vienna and Brown University have instigated a project of survey and excavation in cooperation with the National Corporation of Antiquities and Museums of North Sudan (NCAM) with the goal of determining the potential and priorities of new archaeological work at the fortresses and in their vicinities. The first season took place in 2012 and the second season is planned for late 2013 and early 2014. The paper will introduce the results of these two campaigns and discuss the future aims and research methodologies of the project. These focus on understanding the site as a localised context of ancient colonialism formed by the interplay between intended structures and local agency, as exercised by both local colonial society and local indigenous populations. As such, it is a multi-scalar project that will investigate the nature of the global colonial structures on the one hand, and on the other hand, the negotiation and transformation of these structures through the daily life of the site's inhabitants.

Looking for Nubians in Egypt - Taking a Look at the Iconographic Evidence from the New Kingdom

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On the basis of my work regarding the Iconography of Nubians in Egypt down to the Middle Kingdom, I will now look at the New Kingdom evidence, asking how and why it changes, whilst also looking at and searching for unbroken lines of tradition.

SESSION 2: NAPATA

Life and Death in Upper Nubia during the Transition to Nubian rule: third Intermediate and Napatan Period Tombos

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Often referred to as the Dark Ages of Nubia, the Third Intermediate Period and subsequent Napatan Period are represented by few excavated archaeological sites and even fewer documented skeletal collections. This presentation provides a synthesis of the excavations and analysis of burial features, artifacts, and human remains dating to these periods from the site of Tombos, one of the few sites that documents the transition from New Kingdom Egyptian imperialism to Nubian rule. Located at the Third Cataract, the Third Intermediate/Napatan cemetery at Tombos was primarily excavated in 2005, 2010, and 2011. Two areas with different types of structures were uncovered. One section consists of tumuli that usually contained one or two individuals. Additional pyramid and chamber tombs with multiple individuals were built in an area that contained earlier New Kingdom tombs; some of the New Kingdom tombs were also reused during these later periods. The varying burial types, artifacts, and positions reveal funerary structures that reflect both the Egyptian colonial past as well as a local Nubian identity established during earlier periods.

A minimum of 87 individuals are represented by the excavated burials: 24 from the tumuli and 63 from the pyramid and chamber tombs. Few remains of children were uncovered; of the adult remains, 29 females and 23 males could be identified. Looting and disturbance resulted in commingling of material in the pyramid/chamber tombs. Osteological analyses have revealed many interesting features about the people living at Tombos during this time. Analysis of biological identity (craniometric and non-metric dental traits) demonstrates continuity with a mixed Egyptian and Nubian population that occupied the New Kingdom component. Strontium isotope analysis of geographical identity indicates that these individuals were likely local, rather than immigrants. Morphological and paleopathological observations suggest that the Third Intermediate/Napatan community at Tombos was comprised of individuals who were relatively healthy, demonstrating survival through physiological stress and larger than the previous New Kingdom sample. In addition, signs of physical workload indicating more intense physical labor were found suggesting that lifeways may have shifted over time at Tombos from imperial administrative and artisan activities to robust tasks such as agriculture and quarrying. Rather than abandonment after the collapse of the Egyptian empire, it is clear that Tombos survived the transition and continued to thrive.

The Dating of Pottery Assemblages from Third Intermediate Period and Napatan Sites in Nubia

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The study of Third Intermediate Period and Late Period pottery in Egypt has advanced significantly in the last two decades with the publication of well excavated ceramics from Elephantine spanning most of the first millennium, and the publication of pottery from other Egyptian or Nubian sites with relevant pottery assemblages. There is no independent dating evidence for most of the published materials I present. Stratigraphic relationships assist in establishing relative dating but not absolute position in relation to historical events. A handful of objects or architectural inscriptions carry names that can be associated with kings or dynasties of the earlier first millennium B.C., and these provide *terminus post quem* dating. A few published C-14 samples further refine it. Chronological or regional variances in manufacturing techniques and stylistic trends can be expected to add complexity as well. For example, the pottery deposits in sixth and fifth century B.C. tombs from the Royal Cemeteries of Kush include copies of forms found in earlier royal tombs. These vessels can only be distinguished from their prototypes by careful scrutiny of differences in clay fabric, manufacturing technique, and surface decoration. Pilgrimage activity at some of the ancestral tombs also may have mixed in later pottery types with the original ceramic assemblages. This talk will focus on a few pottery types found in Lower and Upper Nubia in an effort to explore how we might make refinements.

An Early Napatan Settlement in the Light of the University of Dongola Excavations at J. Barkal

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The centre of the earlier phase of the Kushite state (Napata) has been a matter of dispute among the scholars concerned for the last century. The sites discovered by the Boston – Harvard Expedition 1916-1919 at J. Barkal, Kurru, Nuri and Sanam were either burial grounds or temples of the royal Kushite family, widely known as 25th dynasty of Egypt. No settlement equivalent to the glamour of this state or parallel to its activities was recovered. Suggestions by Reisner, Dunham, Kendall and Hakem alternated between Barkal, Kurru, Sanam and Meroe.

Recent investigations by the Department of Archaeology of the University of Dongola have revealed remains of a settlement east of J. Barkal with more than one architectural level and a variety of artefacts and eco-factual remains.

In the light of these discoveries, this paper aims to discuss the hypotheses and the possibilities of a Napatan centre at J. Barkal.

Return to Sedeinga, a Regional Capital of the Kingdom of Kush

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After a hiatus of 7 years, archaeological investigations on the site of the Napatan-Meroitic regional capital of Sedeinga have been resumed in 2009. Focusing on the Sector II of the large necropolis, the new team has unearthed a cluster of graves with a high concentration of funerary monuments marked by several chronological phases.

Shedding light on the transition between early and late Kushite funerary customs, ongoing excavations provide new information on pyramidal architecture, funerals and ritual deposits that accompany the deceased in his journey to the afterlife.

The new program of research also explores the margins of the burial area, mapping all the historical remains and conducting test excavations when necessary. Among the latest discoveries is a unique grave of royal proportions built during the 2nd century BC at the border of the desert.

New Perspectives on Napatan Kingship: the 2014 excavations at El Kurru

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El Kurru in northern Sudan is well known as the burial place of most of the Nubian kings who ruled Egypt as its 25th Dynasty, ca. 715-653 BCE. From the Nubian perspective, these kings were part of the Dynasty of Napata, and their reign is the focus of a great deal of new fieldwork.

A new project at El Kurru aims to more fully investigate the cemetery, including possible non-royal burials, and to begin excavations of a settlement around the cemetery, first identified by George Reisner in 1918-19 but never extensively excavated or published. Two elements of the settlement identified by Reisner - a city wall more than 200 meters in length with double monumental gateway and a likely mortuary temple - were identified in 2013 and new excavations will be presented here.

In addition, a new excavation of the burial chambers of the largest pyramid on the site (Ku. 1), which Reisner was forced to abandon because of a large rockfall and potential structural instabilities, will be presented.

We hope that these investigations, still in their pilot stage, will eventually allow us to understand the complex set of political and cultural changes, including adoption of many Egyptian practices, that led to the rise of the dynasty of Napata and its rule, ca. 900-300 BCE.

Division, Rivalry, Conspiracy and Reconciliation in the Ancient Sudanese Royal Family

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When one examines the inscriptions on the stelae of Taarqo (Taharqa) from Kawa and Aspilto from Napata, as well as the the co-called 'Excommunication Stela', also known as the 'Bannishment Stela' carefully, one suspects a severe division in the ancient Sudanese royal family. Such division seems to have been between two major branches; one from *Ta-Sety* and another from either *Ta-Nehsy* or the Jabal Barkal area.

The former, *Ta-Sety*, branch was represented by Taarqo and his descendants down to his last definite descendant, Armatelqo (Amtalqa). Its attribution to *Ta-Sety* is based on the fact that Abar, Taarqo's mother and ancestor of his descendants, in the opinion of the writer, was originally an inhabitant of *Ta-Sety*, and resided there after the death of her husband Piye, father of Shebitko and Taarqo. Her children must also have resided there, amongst whom Shebitko would be included if he was her son as well as a full brother of Taarqo. The other, *Ta-Nehsy* or Jabal Barkal branch, was from Khaliut.

Rivalry between the two branches would have started with Shebitko's 'so-called' invitation of Taarqo to join him in Egypt and the eventual succession of the latter to the throne. Shebitko's act, if correct, would have been pre-emptive, to prevent his (half-brother?) Khaliut from succeeding him as king. Naturally, this is classifiable as a conspiracy, violating the Sudanese well-known convention regarding succession.

As a result, as the author sees it, such a violation would have led to resentment by Khaliut that continued with his descendants down to the reign of Aspilto (593-568 B.C.), the ninth king from Piye (Pi'ankhy) and fifth from Taarqo. Every reigning king after Shebitko, would have been viewed as a 'usurper' by Khaliut and his descendants down to Aspilto.

Resentment by Khaliut, and his descendants later on, as viewed by the author, would have led to plots by his descendants to redress what they would have considered to have been an injustice done to them. One of their means would have been to assassinate incumbent kings and take the throne. Such, in the opinion of the author, was the successful assassination attempt on Amani-Yanal (An-alamani), and the abortive attempt to assassinate Aspilto. The first attempt may be seen in the sudden death of Amani-Yanal during the absence of the *entire army* with Aspilto, possibly as leader, at the 'Pure Mountain (Jabal Barkal)'. The second attempt may be the one recorded on the co-called 'Excommunication Stela', also known as the 'Bannishment Stela', of the second year of a king who would have been Aspilto. He, too, appears to have been the target of the abortive assassination attempt in the Temple of Amenre' of Jabal Barkal.

Tension between the two royal branches, and plots by Khaliut's branch against kings of Taarqo's branch, having reached their climax at the beginning of the reign of Aspilto, the latter king obviously thought it wise to end them by a reconciliatory act. It was a settlement, recorded on Aspilto's 'Khaliut Stela', whereby Prince Khaliut was rehabilitated by King Aspilto and Khaliut retrospectively recognized Aspilto as king and his descendants as heirs of his throne. Rehabilitation involved Aspilto's building of a pyramid, apparently the first ever, with rich provisions for Khaliut. Recognition was expressed in prayers by Khaliut, in retrospect, that Aspilto be given in life all the years Khaliut spent in death, and that Aspilto's *heir succeed him to his throne*. The latter part bound Khaliut's descendants then and thereafter, and ought to have created a smooth royal succession, in any case so far as Khaliut's branch was concerned.

Issues Concerning Aspelta: succession, legitimization and wars

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The figure of king Aspelta has been subject of a few studies, mostly devoted to the problems related to the female genealogy, as given in his Election Stele. In it, a list of female ancestors, including his mother Nasalsa, who figures so prominently in the stela lunette, are used as a vehicle of legitimization of the newly crowned Nubian king.

The presence of the royal sisters, as well the motif of the choice of Aspelta among other royal brothers are elements that also appear in the Kawa IV and VI steles of Taharqa. Those earlier texts once again highlight the importance of the original pact first issued by Alaro with the god Amun. Such legitimisation through the royal sisters however raises more than one issue relative to how Nubian royal succession really occurred. After

Piankhy and up to Aspelta, the succession was never linear from father to son, but through brothers of the ruling king. While the term brother may leave space for discussion, the royal brothers are those that will be elected to be the next Nubian ruler.

The scope of this paper is aimed to twofold. The first is an analysis of the possible coronation criteria in Nubian kingship during the Twenty-Fifth Dynasty beyond that revealed from the Egyptian hieroglyphic documents. Thus, anomalies as present for Taharqo himself, such as the excessive attention to the rain, a novelty in the Egyptian conception of divine manifestation, as well as the fact that a new burial site was created at Nuri, will be taken into consideration.

Apart from the succession aspect, Aspelta has been studied in the context of a forthcoming book about Psammetichus II, as well his Nubian expedition. Many statues of Aspelta were damaged in different parts of Nubia, as well as statues belonging to other Nubian rulers. Hieroglyphic steles were damaged as well.

Whilst for many years it has been assumed that all those destructions were caused by the Nubian expedition of Psammetichus II in his third year of reign, it is probable that the reality is more nuanced than that. Dynastic conflicts might have been responsible for some of those degradations to royal statuary and steles. As Aspelta struggled to gain control over his country, the Egyptian army of Psammetichus II took the opportunity to get into the country and take revenge over his hated Nubian pharaohs. As far as buildings, such as B1200 at Gebel Barkal are concerned, the destruction by fire can be dated with almost certainty to the Egyptian campaign in Nubia. The fact that the Egyptian army only took booty, without making any territorial gain, might imply that the expedition was prepared purely for revenge, and no more.

Italian Excavations at the Palace of Natakamani at Napata (B1500): some notes from the past seasons

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During the recent seasons, the excavations of the Italian Archaeological Mission in Sudan at the Palace of Natakamani at Napata, focussed on the investigation of the peripheral structure of the edifice, bringing to light other parts of the platform's outer wall.

The results of the new investigations of the structure, commencing in 2011, can be summarized as follow:

- Excavations to the west of the south entrance of the palace (season 2011): the structures were badly destroyed, but the excavations identified some interesting elements of the foundations (deep level of red bricks, architectural remains of the outer decoration).
- Excavations to the south of the west entrance (seasons 2012, 2013): the work was carried out along the western peripheral wall of the platform, in correspondence to the stairs of the west entrance; the dig identified the decoration of the façade, with a composite lesena, painted in blue, yellow and red. Just in front of the stairs, a podium was discovered; despite its typical meroitic masonry (red bricks and mud bricks), a particular feature are the stone foundations.
- Identification of the ancient floor level of the west side of the platform (seasons 2012, 2013): this level was unearthed beneath the remains of the fallen outer wall, and corresponds to the level of the white plaster over the façade. Near to the south-west corner of the platform, the floor level is lower, evidence of the careful planning of the platform, which was built on a sloping plain, in order to avoid the problems of the high floods and the rain. The foundations of the corner were built with stones from the Jebel Barkal.
- Evidence of the architectural decoration of the façade: the elements discovered confirm the eclectic style of the palace, with an interesting mix of Egyptian and Hellenistic elements.

Recent Discoveries in the Napatan Region (the Temple of Hujair – Cemetery of El-Tameer and the Inscription of Jebel Barkal)

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El hujair, meaning smaller stone, is located 42 km downstream from Jebel Barkal on the right bank of the river. The excavation on the site revealed a temple cut partially into the sandstone area and a single New

Kingdom shaped grave. It appears that the temple started as a quarry and was subsequently used as a temple as attested by some of the sandstone blocks still in place. The temple is oriented NW- SE, and on one of its blocks appears the name of King Aktsanis.

The cemetery of Eltameer is located on the left bank of the river opposite the cemetery of Hillat el Arab. The graves dug in alluvium and oriented east west consisted of hypogeums with a varying number of evenly spaced descending steps, the last one of which is squared, whilst the second to last is U-shaped connected to door jams marking the entrance to the first chamber. The graves consist of 2 or 3 chambers oriented EW with sub chambers to the north and south. The graves are comparable with those at Hillat el Arab and some of those found at Sanam cemetery.

The inscription from Jebel Barkal, discovered in 2103, is located on the eastern part of the holy mountain and apparently consists of a winged sun disk flanked by a single horizontal row of hieroglyphics.

Middle Napatan Foundation Deposits as Evidence of Cultural Contact

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The Middle Napatan royal cemetery at Nuri is well known for the ‘Egyptianizing’ features of its tombs, including pyramidal superstructures, the use of traditional Egyptian funerary equipment such as shabtis, and the employment of Egyptian religious texts. A less obvious and rarely discussed manifestation of this trend is the occurrence of Egyptian-style foundation deposits underneath the corners of the tombs. These deposits appear in the tombs of both the kings and royal women buried at Nuri, and typically include pottery, parts of sacrificed animals, small plaques of precious materials, and models of tools and equipment.

An analysis of the composition and distribution of the foundation deposits demonstrates that they should be understood as more than a symptom of Middle Napatan ‘Egyptianization’, and rather as evidence of continuing contact between Egypt and Nubia in the period following the 25th Dynasty. The use of foundation deposits implies an intimate familiarity with Egyptian building practices, since their use cannot be observed once a building has been completed. Moreover, both the composition and the funerary usage of these deposits in the Middle Napatan period resembles contemporaneous use of such deposits in 26th Dynasty Egypt far more than it does that of the preceding 25th Dynasty. This suggests that the Middle Napatan use of foundation deposits is more likely to be reflective of continuing interaction with Egyptian craftsmen than an Egyptianizing remnant of 25th Dynasty practice. While the composition of the deposits very closely resembles Egyptian ones, their use in the tombs of both kings and queens and their very restrictive use of text is unique to Nuri, further arguing against an interpretation of Egyptianization. In common with other types of material culture in the Nuri tombs, the foundation deposits demonstrate a wider royal Napatan strategy of utilizing Egyptian material culture in a distinctively non-Egyptian way.

Personal Adornment in Kush (8th BC – 4th AD): aspects based on inventory of objects from Sudan National Museum

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The study of personal adornments is gaining great importance in the field of archaeological research since it is concerned directly with the customs of the living since ancient times. The manufacture of these ornaments is an ancient craft showing human ingenuity and creativity.

This paper concerns the study of 1276 ornaments dating back to the Napatan and Merotic periods. The material represents a significant proportion of the total existing in the Sudan National Museum, to which could be added those made of stone for a more complete future study. We used several methodologies to inventory and classify the ornaments, and have put them on a computer database. In the results of this study, we have concluded that in the State of Kush ornaments were worn by all age groups, that they were manufactured using different materials and were used by all strata of society throughout Kush, and that their spread geographically reflected the greatness of the Kushites.

The Book of the Dead in the Napatan Period: the first evidence of chapter 59 on the royal offering table dating to the 5th century BCE

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Offering tables are very common in Nubia under the Napatan rulers, but at that time written samples remain an exclusive component of the tomb superstructure only for Kings and Queens. During the XXVth dynasty, the texts engraved on the royal offering tables were stereotyped *hetep di nesu* formulae and a list of offered objects addressed to the deceased. Only starting from the 5th century these common short texts were replaced by chapter 59 of the *Book of the Dead* dedicated to the vital breeze and fresh water for revitalizing the soul in the necropolis by the help of Nut'sycamore. Malowiebamani's offering table (Merowe Museum n° 22) is the first evidence of these funerary texts on this kind of support, as documents of this type appeared in Egypt only from the Ptolemaic Period, in particular at the sites of the region of Akhmim. The aim of this paper is to discuss this unpublished artefact and its original position which cannot correspond to the one in which it was found by archaeologists.

Function and Significance of the Napatan Cylindrical Sheaths

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In the course of the archaeological excavations at the royal cemetery at Nuri (1916-1918), Reisner discovered almost thirty cylindrical objects made of precious metal (gold, electrum and silver) in certain royal burials. “*They consist of two parts; (a) a cylindrical tube, closed at the base by a circular disc, and (b) a shorter cylindrical tube open at both ends, fitted with an internal sleeve which projects beyond its lower end and slides inside*” (Dunham 1955, *Nuri*, p. 43). These precious objects (measuring between 8 and 13 cm in height and about 3 cm in diameter) are dated from the seventh to fourth centuries BC and did not undergo formal changes during this period.

Some scholars believed these finds were cases of fragile objects (as papyrus rolls), although Dunham promptly deemed such hypothesis improbable, immediately. As Dunham noted, the objects seemed to be open at the upper end and it therefore seemed more likely to suppose they were cylindrical handles.

As to the measurements and size, they are almost invariable and constant over time and so, it is most probable that they kept the same use and significance over time.

As to the decoration, the earliest examples of the cylinders (seventh century BC) were decorated by kneeling Heh figures and king's cartouches and inscriptions. Later, the decoration began more varied and complex with the addition of winged goddess figures (Mut, Hathor, Isis), double rows of gods, royal symbolic friezes (uraei, ram's heads, flowers), royal cartouches and hieroglyphic inscriptions. In contrast, the latest examples (fifth century BC) are characterized by plain surfaces without decoration and inscriptions. A unique Nabatasen attempt at the revival of decoration has been found dating from the fourth century BC.

After analysing the inscriptions and iconographies of these cylinders, the Author aims at identifying what the Napatan cylinders sheathed. Searching any possible similar examples, she intends to identify their symbolic significance, deducing that their ideological function was linked to the two fundamental aspects of the Nubian kingship: on one hand, the king's divine nature, the priestly office of the royal female and the role of the queen as intermediary between the god and the king; on the other hand, the royal succession, official legitimisation and the king's enthronement.

SESSION 3: MEROE

The Meroitic Palace and Royal City

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The data currently available on Meroitic palatial structures is not exhaustive, mainly because of the state of preservation the buildings, in most cases limited to the foundation levels. The systematic retrieval of construction materials is also devastating for these impressive buildings, which become artificial quarries once abandoned. The main objective of this presentation is to consider the palatial building in itself, in order to define its function(s) but also its integration into an urban area. It is in fact impossible to define a Meroitic palace without observing both its symbolic aspect and its connections with other buildings that affect the city pattern. As such, we will focus on the analysis of their position and orientation relative to the main temple and with potential city warehouses.

To do so, one can't be restricted to the Sudanese sphere, but should also explore the Egyptian influence, without forcing the comparison. However, it is inevitable to try to identify an architectural reference model, taking into account the specificities of Meroitic buildings. In fact, in many respects, the structural design of buildings seems to have been inspired by a model coming from the Levantine sphere, which had been passed on to the Egyptian sphere (casemate foundation buildings).

The presentation will focus on the royal city of Muweis and its palatial building, connected to the city centre by a processional way. The paper will also offer the opportunity to compare the city plan with other Meroitic urban sites, to determine if similar patterns can be observed elsewhere.

The Meroitic Palace: developing a definition from form and function

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Despite long-term interest in monumental architecture, the full corpus of known Meroitic palaces has never before been synthesized into a single study aimed at creating a framework of their architectural development and, ultimately, defining what constituted a Meroitic palace. With the discovery of new palaces, along with the re-excavation of previously known ones, archaeologists have gleaned more information about the royal family and how they ruled the country. The aim of this presentation is to examine these structures with regard to their function within the Meroitic landscape.

New light on three statues from the Barkal Cemetery

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The Paper deals with studying three statues are discovered in three royal tombs in the Barkal cemetery and are mentioned in: D. Dunham, *The Royal cemeteries of Kush* 4, *Royal Tombs at Meroë and Barkal*, Boston 1957, pp.55, 62, 115, pls. XXXVIII A, B, C.

1st Statue from Bar. 7 (31)2: Sandstone standing figures of Osiris flanked by Isis and Nephthys, H. 58.8 cm.

2nd Statue from Bar. 8 (32)12: Sandstone standing figures of Osiris flanked by two goddesses wearing disc and horns, at left a female figure in profile holding the hand of the adjoining goddess, above, a winged disc, H. 48.0 cm.

3rd Statue from Bar. 10 (48): Sandstone seated figures of queen flanked by two goddesses Hathor and Isis H. 65.0 cm.

My Research deals with the art and the religion of the kingdom of Kush (Ancient Sudan). It has

a descriptive and an analytical part.

- The descriptive part carefully studies & documents the statues with all their details.
 - The analytical part goes into the symbolism & function of the statues from Barkal and the amount of ancient Egyptian religious & artistic influence on them.
 - Discussion of the local regions of Kush (Barkal, Meore) to discover the local features of artistic, religious rituals and practices.
 - Study of the original place of these statues in the tombs is fruitful, because it shows us the function of them.
 - Discussion of the owners of these three royal tombs.
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Meroitic Chronology in the II-III Centuries AD: evidence from the royal pyramids of Meroe and Barkal

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The absence of documented dates and sound attributions of royal pyramid ownership has necessitated a degree of circular reasoning in the creation of the chronology of the Meroitic Period. The examination of the continuity and change as well as the iconography in the royal pyramid chapel decorations offers a tool for sequencing pyramids that avoids iterative reasoning. The results of the visual analyses of II-III century AD chapel reliefs made in combination with objects and data from Reisner's excavations are presented.

Trémaux's Description of Soba's Ram and its Consequences on the Southern Border of the Meroitic Empire

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Daniel CLAUSTRÉ

If Sobas's ram is number REM 0001 in the Répertoire d'épigraphie méroïtique, it is because in the time of Griffith's Meroitic Inscriptions, it was the southernmost document written in Meroitic. It is still the case today, but a better look at plate 51 of Trémaux's *Parallèle des édifices anciens et modernes du continent africain* (1855), and an examination of his travel notebook brings a lot of information to the archaeological context of the ram in the middle of the 19th century. The conclusion that can be drawn is that Soba's ram is not in situ and thus must have been transported from el-Hassa to Soba.

The Meroitic State and the Fourth Cataract environs: regional cultural interconnection

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This paper highlights the political economy of the Meroitic state (300 B.C.- 350 A.D.) and provides a broader view of regional culture contact and centre-periphery interconnections. The data is collected from archaeological investigations conducted by the University of California Santa Barbara UCSB in the region, the Meroitic rural settlement 03-21, and the elite settlement on Umm Muri Island excavated by the Sudan Archaeological Research Society. Based on the Meroitic political economy and the distribution of the ritual places and palaces built by rulers, it seems that the institutions for production, consumption and distribution shaped the relationship between the Meroitic central power and its peripheries. The local resources and productivity of each periphery region also influenced the redistribution of Meroitic goods. Local populations from the region of the Fourth Cataract resisted Meroitic political ideology, facilitated by the absence of ritual places, such as temples, in the region. Meroitic mortuary activities are explored and show regional diversity at the Fourth Cataract in contrast to those cemeteries whose people had direct access to sacred places. The use of

pottery in the rural area and cemeteries together with other types of objects shows that the region flourished during the early Kushite period (8th to 5th century BC). Due to changes in the political economy the region became less important during the early formative period of the Meroitic state and flourished once again during the late Meroitic period as indicated by the Meroitic infrastructure, palaeoethnobotanical study and imported Meroitic goods found in settlement and burial contexts.

Linking the Meroitic Hinterland to the Capital: an ethno-archeological study of nomad-sedentary interaction

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The site of Hamadab holds the settlement area of the Meroitic capital. Its positioning is not only directed towards the River Nile but also to the wadis in its vicinity that link it with the Red Sea coast. On the one hand the hinterland and its nomadic groups seem to have played a vital role in the integration of the Meroitic Empire into the long distance trade. On the other hand the city could have held a strong integrative capacity for the different mobile groups in the Meroitic Kingdom. While this integrative capacity could not have been studied in detail thus far, it is still a feature of today's interaction of nomadic and settled groups in the area of Hamadab. My ethno-archaeological project studies how interaction between the settled groups of Hamadab and the nomadic groups developed during the last three hundred years. I not only relate these developments to the growth of the village and the logistical development of its hinterland but also to the settlement history of the archaeological site. My project is thus not only of socio-historical interest but will provide details for the interpretation of the Meroitic capital's relation to its hinterland and its integration into the antique international trade networks. In my paper I will address research results of the first field season.

The Amun Temple at Meroe

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In anticipation of the conservation and reconstruction work to be undertaken within the framework of the Qatar-Sudan Archaeological Project at the Amun Temple at Meroe, surface clearance of several areas of the temple was carried out in 2012. This allowed us to draw the correct plan of the core of the temple and resulted in the discovery of several graffiti and inscriptions. Additionally, a small trial trench was excavated in the northwest corner of the temple and charcoal samples associated with the foundation layer were collected. C-14 dating suggests that the building was likely constructed circa 50 BC.

The Discovery of Hidden Door in the North Wall of Amun Temple, the Royal City of Meroe

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It is more than a century since the first excavations of Amun temple took place. It would seem, however, that further investigations are required. This conclusion has been reached after the accidental discovery took place during the cleaning of Garistang's excavated soil heap in the area.

The cleaning of the debris unearthed regular sandstones blocks. A trench 20 by 3 m was excavated which exposed a door decorated with different designs. There is no doubt that this door was missed in the course of Garistang's excavations, and it is necessary to enlarge the trench to excavate all the northern area of the temple.

Recent Discoveries at Dangeil, Nile State: exploring the Amun temple complex

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Recent excavations in the late Kushite Amun temple precinct at Dangeil, Sudan, just upstream of the 5th Nile cataract, focused on the area in front of the temple, where remains of a porch and the processional way were exposed; upon the north-west corner of the temenos enclosure; and on Kom K, the mound situated behind the temple, where numerous cooking installations associated with the temple offerings and offering moulds were discovered. Fieldwork also continued in the associated Wad Toum cemetery (WTC), situated north-west of the site on the northern edge of the modern village. On both sites, knowledge of the ancient landscape was enhanced through GPR and magnetometry surveys.

The Typhonium of Wad Ben Naga

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In 2009, the Czech National Museum's Archaeological Expedition to Wad Ben Naga launched excavations at the Meroitic site of Wad Ben Naga, located some 130 km northeast of Khartoum. The first seasons focused on revisiting the excavations of structures that had been excavated by the Sudanese Antiquities expedition between 1958 and 1960.

Since 2011, the Expedition has been engaged in the exploration of the hitherto unexcavated Kom A. According to the records of the early European and American visitors to the Middle Nile region, the kom was dominated by ruins of a temple, or more precisely, by pillars decorated with depiction of the god Bes. The originally Egyptian god, then identified with the Greek mythological creature Typhon, inspired the structure's modern name. The Typhonium [WBN 200] (as well as the site of Wad Ben Naga itself) was first described in 1821/1822 by Frédéric Cailliaud, and its ruins remained in the centre of attention of both travellers and scholars visiting Wad Ben Naga until the pillars disappeared later in the 19th century.

The recent excavations revealed a multi-roomed temple with a unique architectural design, which once stood in a more extensive temple complex. It was presumably located on the northern side of the main processional avenue leading to the site's main sanctuary – the so-called Isis Temple (WBN 300). The temple is built of adobes and burnt bricks with a limited use of sandstone for special architectural features (door jambs, architraves, threshold, pillars etc.).

Based on the epigraphic evidence, supported by the radiocarbon dating, the temple proper – which most likely replaced an older structure – was built by King Natakamani, since his cartouches were found on a fragment of wall painting that once decorated the walls of the main sanctuary. This temple was most likely fronted by two towers of a pylon followed by an open courtyard in the midst of which a pair of trees might have been planted. The courtyard continued into a portico sheltering the entrance to the main sanctuary, flanked by two statues of Amun and his consort Mut. The main sanctuary was paved with sandstone flagstones. An altar in the form of a painted massive sandstone block was discovered, set into the niche in the room's back wall. A number of side rooms surrounded the main sanctuary and the courtyard.

Together with the above-mentioned pair of statues, objects indicating the original cultic affiliation of the temple were discovered, suggesting the goddess Mut as the main cultic beneficiary.

The pair of statues show traces of deliberate destruction. Other destroyed statues (including a bust of Apedemak) were discovered in a cache/offering place in the northwest corner of the main sanctuary. The

statues likely attest to an attack on the local temples. The excavation further revealed abundant evidence confirming that a large conflagration eventually destroyed the whole temple complex.

Muweis, the Development of a Meroitic Town

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At 50 km south of Meroe, considered as an important town of the Meroitic empire, Muweis is part of a network of towns established along the Nile. The Musée du Louvre is leading the excavations of the site since 2007 with two aims, the scientific research on the Meroitic period and the contextualising of the objects collection coming from Nubia and Sudan in the Egyptian department. No excavation had ever been undertaken at this site which has not attracted more travelers from the 19th century than archaeologists of the 20th century. In fact, its topography, in the absence of obvious remains, could not have foretold the many intact structures, essentially of mud brick, present on the 15 hectares of the site preserved, surrounded by farmland.

An initial work of evaluation was completed from 2007 to 2012, through mapping, a magnetometer survey completed by various trenches carried out in different areas of the site. These techniques offer us an idea of the town, its organization and its buildings: settlements, workshops, a palace, and at least one temple.... A huge range of artefacts has been discovered (pottery, seal impressions, stone tools, etc.), which helps for the dating, but could also indicate the precise function to the buildings cleared. Muweis is an ideal site offering a better understanding of the objects from the collection of the Louvre, whilst producing new data for the Meroitic period. It also gives an overview of the later periods: the post-Meroitic period, the Alodia kingdom, the Funj Sultanate and finally the modern period.

The team from the Louvre is now in a position to conduct excavations on a larger area, linked to multidisciplinary studies. With this in mind, three sectors were opened for excavation: the central zone where a huge structure has been cleared, and two areas of workshops probably associated with settlements. This approach aims at understanding the topography and the environment thanks to new studies, such as the archaeobotanical studies which will also provide new data regarding the workshops by studying the burnt materials. Crafts are very important and new research can be implemented within a framework of scientific analysis, detailing the operational sequence from raw material to the object, especially for metal work.

These studies, associated to those of archaeology and the material culture will also improve the understanding of the reasons for the establishment of this town in this area. Originally a settlement area, Muweis became a town of prime importance during the 1st century AD and was likely organized according to an urban pattern centred on large buildings and temples surrounded by housing areas and crafts. This development of urbanism at Muweis can also be linked to the choice of the places of power: what was the role of this town, almost forgotten today, in the Meroitic Empire?

Urban Settlement in a Historic Landscape – Hamadab and the Meroe Region

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100 years after John Garstang's excavation of the shrine with the steles of Amanirenas and Akinidad, the archaeological site of Hamadab, 3 km south of the royal city of Meroe, has become a substantial source of knowledge on Meroitic urban settlement. Funded by the DFG and the DAI, joint Sudanese-German fieldwork during the last decade produced a complete map of this Meroitic walled town and its suburbs. New radiocarbon dates illustrate the sequence of Hamadab's urban development from the last centuries BC until its end in the 5th/6th cent. AD. Urban features such as the town's fortification wall, its city gates and its domestic and administrative architecture have been investigated - paralleled by the study of domestic pottery and artefacts of Meroitic daily life. In addition, research by the UCL-Qatar on Meroitic iron production has further increased our understandings of technology at the site.

Thanks to the Qatar Sudan Archaeological Project, research has now been extended to investigate the surrounding region between Meroe City and the Wadi el Hawad, the central heartland of the Meroitic kingdom: a landscape archaeological approach combining archaeological reconnaissance, geophysical investigation, geomorphologic, palaeo-ecological and ethnographic studies, aims at reconstructing the region's occupational history in relation to its morphological, climatic and ecological development over the past millennia. The paper will summarize first results of this project.

Meroë Royal Baths: recent results of the archaeological investigations

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The so-called Royal Baths in the Royal City of Meroë are one of the most important and at the same time puzzling buildings in Meroitic culture. The shape of the site, with its water basin and the decoration with numerous points of contact to the Mediterranean culture, prompt questions about the water operating system and the building history, as well as the purpose and role which the Royal Baths might have had in the presence of the royal court at Meroë. The investigations of the German Archaeological Institute (DAI) in cooperation with the National Corporation for Antiquities and Museums (NCAM) began in 1999, whilst the last field season was in 2014. Following up our report on the Conference for Meroitic Studies at Vienna in 2008, the paper will give an overview on the achievements of the excavations since 2009. It will focus on our present knowledge on the water system and the stratigraphy in the area of the Royal Baths. The excavations between the water basin resp. exedra and the enclosure wall of the city of Meroë produced particularly informative observations concerning the sequence of the building construction regarding both the city wall and the Baths. Relation and interaction between the constructions lead to relative chronological links and allows us to establish a chronological sequence of the building activities in the area of the Royal Baths.

Excavating the Lion's Den: recent fieldwork at Musawwarat es Sufra

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Recent excavations at Musawwarat es Sufra, carried out under the auspices of the Berlin Cluster of Excellence TOPOI and the Qatar Sudan Archaeological Project, have produced new data on the chronology and the occupational history of the site and its main monument, the Great Enclosure. The paper discusses this evidence and its implications for reconstructing the history of the site and – in a wider perspective – the religious colonisation of the Keraba and its integration into the Kushite world.

The Temple Complex at Abu Erteila

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Various lines of evidence, related to the temple complex, were found in the course of excavations by the Italian-Russian archaeological mission co-directed by Eugenio Fantusati and Eleonora Kormysheva at Abu Erteila. Amongst them, fragments of columns, with a hieroglyphic inscription and decoration, with the image of the god Hapi, a piece with a solid base, destroyed parts of columns with traces of hieroglyphs and decoration have been discovered. Another indicative finds are three sandstone fragments decorated with the

winged sun disc surrounded by uraei, which undoubtedly belonged to the lintel of a temple complex. All of them were found on the Kom I and on the Kom II areas.

The hieroglyphic inscription on the fragment of the column presents a dedication formula *«he made this monument»*, which leaves no doubt that a temple existed at Abu Erteila. The mode of writing of several word combinations was characteristic of Ptolemaic texts and was preserved also in the titles of several Meroitic kings. The graphic variant of the king's epithet and one of the terms of a ruler have been used in the inscription of Arnekhmani at Musawwarat es Sufra. The two graphic variants of writings of the word combination designating a king are also attested in the inscriptions of Arkamani and Adikhalamani from Dakke and Debod. The assumed attribution of our monument to one of these kings is highly probable.

A fragment of the column with the torso of the god *Hapi* with his typical head-dress and *hes*-vases, pressed to his chest and surrounded by lotus garlands, represents several similar features to that from the Naqa temples as well as Egyptian temples of the Graeco-Roman period.

Two fragments of a sandstone lintel, decorated with a winged sun disc, by its style appear very similar to the samples from the Hathor mammisi at Naqa, and the decoration of this fragment is identical to the middle part of the lintel décor of Mammisi.

The findings presented permit us to assume not only the existence of a temple, but of a religious complex, including a temple and mammisi.

The traces of a water supply system were found in the Kom II area, comparable with other systems of the area, which is indicate to the importance of the construction.

Other finds from the excavated area - stands for offerings, lion statuettes and fragments of paintings indicate also an existence of a temple complex. All the artefacts have been found either reused or deposited, and at a considerable distance from each other. It must consequently be assumed that the original temple building is located not at the excavated level but lower down.

This assumption is indirectly confirmed by pottery fragments found in the excavated layer, dated to the late Meroitic period, when the dedicatory inscriptions could no longer have been composed in the Egyptian language. Peculiarities of word forms in ancient Egyptian hieroglyphic inscriptions suggest an attribution of the monument to a lower chronological boundary of the third century B.C.

The Amir Abdallah Cemetery (Abri, Sudan) and the Emergence of Meroitic Social Complexity

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The Amir Abdallah cemetery covers the chronology of the beginnings of Meroitic occupation in northern Sudan, from the 3rd to the 1st centuries BC. The complete excavation in 1978-1981 of its more than 400 graves allows us to understand the social organization of the first Meroitic groups in Upper Nubia. For about two centuries, the first phase of the cemetery shows an egalitarian, tribe-like society, with uniform grave types and goods. The last cemetery phase, on the contrary, clearly illustrates the inception of a hierarchical society, with different tomb and burial equipment classes, marked gender differences and a clan-chiefdom societal organization. The presence of imported goods, both from northern Ptolemaic Egypt and southern Meroitic centres, seems to have been crucial for that rapid social shift.

The Meroitic Cemeteries in the Region of Berber: A discussion of funerary practices and socio-cultural aspects

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The recent discovery of a large, well-preserved Meroitic cemetery at Berber, together with a similar cemetery at Dangeil, is of considerable interest, and possesses great research potential for Meroitic funerary traditions. The tombs in both cemeteries have lost their superstructures due to weathering agents such as seasonal rains and prevailing winds; therefore, it is impossible to identify these tombs by simple surface observations.

Human activities have been responsible for their chance discovery. The Meroitic cemetery at Berber was discovered when archaeological materials consisting of pottery jars, bowls and human bones were found while digging foundation trenches for a factory for plastic production, while the discovery of the Meroitic cemetery at Dangeil was the result of digging a drainage canal beside the neighbouring village of el-Fereikha. The paper will focus on presenting similarities and differences in tomb super and sub structures, grave goods and preservation, and will discuss the importance of the geographic location and the social structure of the Meroitic community in the region of Berber, located north of the Island of Meroe.

Architectural Evidence from Abu Erteila

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The six archaeological campaigns conducted to date at Abu Erteila (site located in Wadi el Hawad) starting from 2009, show intense constructive activity that can be dated from the Meroitic age to the Christian era.

The architectural remains of the site appear to be divided between domestic and temple structures.

Two buildings can be linked to the domestic structures: one located on Kom 1 and the second (surely post-Meroitic) on Kom 2, both characterized by the presence of areas devoted to storage and foods preparation.

A third edifice, brought to the light in the course of the last campaign (November-December 2013) on Kom 2, appears, instead, referable to the Meroitic times: dug in correspondence of its western limits, the structure highlights large dimensions and accurate constructive techniques.

The recourse to a constant reemployment in the post-Meroitic structure of materials referable to a Templar sphere (lintels, columns, shaped bricks) suggests as well that Abu Erteila was the location of a religious complex too.

The communication examines all these issues through the presentation of the architectonic processes and the interpretation of the available materials.

A New Meroitic Complex – Abasseya Project (Karima, Sudan)

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In 2012 Wahat Projects resumed the project started in 2000 at the site of Abasseya. The excavations have uncovered a new Meroitic cult complex certainly associated with the archaeological area of Jebel Barkal. Abasseya is a large square located in the town of Karima. It is L-shaped and comprises, so far, four sectors, labeled A, B, C and D. The center of this religious complex consists of a temple in Abasseya B, which, despite its modest proportions shows a complex plan, characterized by two monumental entrances that are not aligned on the same axis. The temple, oriented east-west, stood on a podium which was accessed by a ramp built of local sandstone. The podium of the building is constructed by combining red brick and mud brick and it was coated with white plaster. All the material found at the destruction level of the building allows us to clearly understand its shape, showing an obvious Egyptian influence, both in the form and decoration. It is worth pointing out that several pieces of column were found that have partially retained their decoration. Sector A corresponds to a small rectangular building that is oriented towards the main temple complex, however, most significantly, is the reuse of this sector as a post-Meroitic necropolis. Sector C, which also faces the temple, has been identified as a kiosk. Unlike the other buildings, it was built mostly from local sandstone.

Although the area is still under study, it has been possible to associate the temple to the other structures found in Abasseya. The relationship between the buildings and their ritual nature is reflected not only at the architectural level but also by examining the archaeological material recovered. In addition, the stratigraphic study has allowed us to estimate the historical and chronological evolution of the site.

Meroitic architecture in Selib II (Dongola Reach)

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Selib II is located in Northern Sudan between the Third and Fourth Cataracts, on the right bank of the Nile, 9 km upstream from the Christian site of Banganarti and 20 km from Old Dongola. The site was surveyed in 2008 by Dr Bogdan Żurawski, exposing remains of a large urban-type Meroitic settlement with quality ceramics at a location coded Selib II.

Selib II extends downstream of the old Nile bed, and was originally located on Tanqasi Island. Archaeological research in 2010 and 2011 established the stratigraphy and chronology of the site, which was probably founded in the first century AD.

The main architectural complex (ca. 900 sq. meters), is surrounded by a cluster of dwelling houses. Around the main trade and storage complex, a residential district is located. Only three houses have been excavated so far – two of them during the 2011 season and another one in 2012 – mostly preserved in the few lowermost brick courses. During geophysical research in 2013, a few more houses were located at the site. The houses were raised on shallow, rectangular foundations made of mud-brick, covered with a layer of mud plaster. Complicated plan of the rooms was revealed and some characteristic bicameral configurations appeared, where the access to the smaller room was through the larger one.

Research performed in the 2011 and 2012 seasons established that the buildings, previously called *houses*, were used for residential, as well as for production purposes. The amount and type of finds suggested that a workshop and probably large-scale manufacturing existed there, not only supplying of the local market, but also exporting to other regions of Nubia. The location of the buildings in the immediate vicinity of the warehouse, explored in 2010, led to the conclusion that the industrial area of large Meroitic settlement was being explored.

The University of Khartoum Excavations at Wadi Eddan (North Begrawiya)

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This paper will present the findings from the excavations in Wadi Eddan. It is one of the most important sites in the northern part of Meroe, and was carried out by a team from the Archaeology Department of the University of Khartoum, in two season between 2013 and 2014. The results are very interesting for Sudanese Archaeology.

Use and Function of Offering Moulds during the Meroitic Period: a reassessment

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Conical offering moulds are encountered on many Napatan and Meroitic sites in Sudan, such as Dukki Gel, Tabo, Kawa, Gebel Barkal, Dangeil¹, Meroe² and Naga³. They are exclusively associated with Amun temples, consisting most often of big heaps of fragmented moulds, mixed with burnt and charred debris, situated beside and behind the religious buildings. These dumps most likely represent the rubbish resulting from offering production, and religious rituals performed before a single divinity: Amun. Based upon comparisons with Egyptian parallels, it was assumed until recently that offerings made in these moulds were only bread from emmer wheat. However, archaeobotanical analysis on offering moulds and samples from layers within the rubbish heap behind the temple in Dangeil revealed the use of *Sorghum bicolor*⁴, a domesticated crop unable to produce gluten when dough is made, and therefore not adapted for fabrication of leavened bread loaves. An ethnoarchaeological study found two traditional products possibly similar to the offerings replacing bread

loaves in Dangeil: a local sorghum porridge called *aceda* which can fit the form of a mould, and a group of fermented sorghum beverages called *merissa*⁵.

During the autumn of 2013, a new test trench was opened at Dangeil on the north-western edge of the offering moulds kom, uncovering a group of ceramic containers filled with ash, charcoal and bread mould sherds. Discussing the new data, brought to light by the recent discoveries, and finds made by other excavations, as well as religious rituals and beliefs attached to bread offerings in Egypt and in Kush, this paper will attempt to draw a global vision on the use and function of conical offering moulds throughout the Meroitic Kingdom.

¹ For bibliography about these sites, see: ANDERSON J.R. & AHMED S.M., “Bread Moulds and ‘Throne Halls’: Recent Discoveries in the Amun Temple Precinct at Dangeil”, *Sudan & Nubia* 10, 2006, pp. 95-101.

² ROBERTSON J.H. & HILL E.M., “The Meroitic Pottery Industry”, in SHINNIE P.L. & ANDERSON J.R. (ed.), *The Capital of Kush 2. Meroë Excavations 1973-1984*, Wiesbaden, 2004, p. 121, pl. IId, IIIb.

³ KROEPER K., “The End of Amun-Temple and Beginning of Temple 200 – C¹⁴ Dates from Naga”, in GRATIEN B. (ed.), *Mélanges offerts à Francis Geus, CRIPEL 26, 2006-2007*, pp. 233-234; KROEPER K., SCHOSKE S., WILDUNG D. (ed.), *Königstadt Naga. Grabungen in der Wüste des Sudan – Naga-Royal City. Excavations in the Desert of Sudan*, Munich and Berlin, 2011, pp. 106-107, fig. 134.

⁴ ANDERSON J.R., D’ANDREA A.C., LOGAN A. & AHMED S.M., “Bread Moulds from the Amun Temple at Dangeil, Nile State – an Addendum”, *Sudan & Nubia* 11, 2007, p. 90.

⁵ *Ibidem*, pp. 90-92.

Some Remarks on Meroitic Mason's Marks

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Mason's marks are a widespread pictographic system in the Kushite world – but they are still quite seldom studied in detail. The – by far – largest corpus of mason's marks within the Meroitic architecture is the one to be found in the Great Enclosure of Musawwarat es-Sufra. But also other Meroitic and Napatan buildings are equipped with these marks, but not in such large numbers that a statistical analysis would be as promising as in Musawwarat. Other corpora of comparable marks are found as far as Lower Nubia and Upper Egypt – sometimes bearing quantities of marks that make a statistical analysis and comparison with Musawwarat es-Sufra possible. The similarity of some of those corpora shows that there must have been some close relationships between the building traditions of the Meroitic heartland and Ptolemaic and Roman Egypt – similar clusters of mason's marks show that in Ptolemaic as well as in Roman times the border zone must have been open at least from time to time for the exchange of skilled craftsmen. Together with these groups, the spread of some ideas of architecture and building technology can also be followed.

Additionally, also within the single building complexes, the quantitative study of mason's marks can help us to understand the building history and the organization of large scale building projects in Meroitic times.

In general, mason's marks proved to be a pictographic system that – disregarding its non-textual character – codes a remarkable amount of information about the ancient craftsmen and their work.

Archaeometry and new Technologies in Kushite Nubia

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Archaeometry and new technologies have been offering for some years a gradually greater contribution to Nubian, and especially Meroitic studies, supporting different periods of archaeological enquiry. Several scientific disciplines can assist before, during and after excavation work, which remains a very important and often necessary phase. The direct observation by archaeologists cannot be replaced and they will therefore always retain an important role.

This paper highlights the recourse to technological instruments and archaeometrical analyses by recent and current missions in Ancient Nubian territory. It outlines their use in the different instances, commenting on

their specific role in the Sudanese archaeological contexts, and presents the results of new inquiries on the island of Meroe by the writer, in collaboration with Italian experts.

The applications are heterogeneous and underline the multidisciplinary nature of archaeology as applied in Sudan. Surveys, sat photos, data processing systems and archaeometrical analyses allow a more complete and more reliable interpretation of the evidence.

For the most recent missions in Butana it is common to start with magnetic and resistivity surveys in order to choose the best areas for the excavation and to limit its impact on sites. Sat photos, 3D images, petrographic studies and microscope observations are only the most significant contributions that will be analyzed in the paper, in addition to unpublished data especially on clay, pottery and other materials.

A broader education of archaeologists and their collaboration with scientists and other experts have enriched the archaeological projects, improved the final results and helped their dissemination. After initial attempts during the late 20th century, the combination of field and laboratory work has resulted in improved and quicker understanding of the ancient settlements. Science and technology permit more detailed analyses and clearer interpretations of the material.

“Beauty and the Beast”, a Tale of Small Finds

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Since the start of Muweis excavations in 2007, more than 700 human and animal figurines and fragments of figurines were unearthed. Made of baked or unbaked clay, most of them were found in rubbish, around workshops and settlements areas, and not even one was complete. Nevertheless, some kind of typology begins to emerge from this mass of fragments.

Interestingly, the way animal figurines are broken, if closely examined, may give reliable clues about the way they were built. As for human figurines, they belong to various or even unknown types. Some of them bear a decoration which raises questions about their significance as well as about their source of inspiration.

A careful study of such artefacts, however humble they seem, is not only rather funny: it helps considerably to reduce the number of “indeterminate” artefacts kept in Museum collections.

An Overview of the Circulation of the Funerary Ceramics within the Meroitic Kingdom

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The Meroitic economy and especially internal trade remain a *terra incognita* for the archaeologists, due to the ignorance of the production sites as well as the different patterns of the distribution of goods. Ceramics might play an important role for tackling such a topic but we are still pending publications of urban settlements and their precise statistics of the material. The funerary ceramics, which were likely selected as prestige goods and for their ritual function, form a large corpus that can be used to outline at least a part of the circulation of goods within the Meroitic territory. Documentation collected in the recent excavations on the Meroitic necropolises at Sai, Sedeinga, Berber and al Khiday provide new data that can give some clues to pioneer this barely known field of research.

Meroitic Pottery from Temple B 560 at Jebel Barkal

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Temple B560 at Jebel Barkal, newly discovered in 2014, has provided a surprising cache of Meroitic pottery, dating apparently from 1st/2nd to 4th centuries AD and represents many forms. Excavation this season exposed only the kiosk complex leading into the still-unexcavated temple, but the kiosk buildings contained one room filled with over twenty large, hand-built, wheel turned vessels, all deliberately smashed, dating from the latest phase of the buildings' use. All the pottery lay on a layer of windblown debris, some 30 to 40 cm above the original floor level, suggesting that the building by then had ceased to be used for its original purpose. The vessels obviously belong to the later Meroitic or early post-Meroitic period, whilst other vessels, found in debris along the building's lower walls are definitely earlier. Some of these vessels are fragments of "eggshell ware" with rich stamped and painted decoration. The discovery of such wide-ranging vessel forms integrally connected with the Meroitic culture at Jebel Barkal will be an important reference point for general research on Meroitic pottery in Sudan. The research on the B 560 pottery will continue next season. The project is sponsored by the Nubian Archaeological Development Organization, a collaborative effort of Sudan and Qatar.

Meroitic Pottery from Natakamani's Palace in Jebel Barkal

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The pottery sherds presented come from excavations carried out by the Italian Archaeological Mission at Jebel Barkal/Napata during the 2011, 2012 and 2013 seasons. The ceramic objects examined were discovered in the ruins of an impressive palace from the period of the reign of Natakamani, designated B1500.

The assemblage consisted mostly of wheel-made pottery sherds as well as some fragments of handmade ceramics. The pottery in question reveals a great variety of forms and decoration types. Numerous imports and imitations were also excavated. Some fragments of ceramics indicate the high quality of vessels used in the area. A large percentage of sherds from the palace are decorated. Among them the most popular are painted fragments, whilst also frequent are incised and impressed ornamentations. On the decorated ceramics religious and symbolic motifs can be distinguished, but vegetal and geometric patterns can also be recognized. The motifs preserved on the pottery refer to the Pharaonic tradition and to the Hellenistic cultural syncretism. They are also visible in the architecture of Natakamani's palace.

As regards the entire pottery assemblage revealed during the last three years of excavations, it is now necessary to analyse it and organize it in a database and in a proper typology.

The great variety of forms and decoration types represents the major challenge in building a typology, which still cannot be based on fabric samples. Nevertheless, it is possible to recognize four main groups of clay, which refer mostly to Meroitic pottery, both wheel and hand-made wares, but which also include imported vessels. Therefore, the first stage will be to undertake scientific analyses to confirm or invalidate the observations made to date. Based on this, the second stage concerns the description of the forms and the shapes, and the last stage will be the classification of the decoration.

Finally, the typology of the Jebel Barkal pottery will be entered into the mission database, where all the data concerning the excavations are collated. This study is still a work in progress, but one of the aims for the coming years is to recover and save all the data concerning not only the pottery but also all of the objects and architectural elements that have been found in the palace to date.

The Pottery of the South Neighbourhood of the Royal City of Meroe: technological features and new production centers

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Archaeological investigations to the south of the royal city of Meroe –at Abu Erteila, Hamadab and Awlib – were found large quantity of Meroitic pottery. Its comparative analysis shows a morphological similarity of ceramic types, but the material for their production wasn't always identical. It could be Nile silt clays, wadi clays and kaolin clays. If at Hamadab Nile silts wares dominate, at Abu Erteila the majority of vessels were made of wadi clay from Wadi el-Hawad. Studying of features of clay fabrics from Abu Erteila and potter's marks on large tubular jars raises the question of the existence of pottery workshop near the temple and administrative complex of Abu Erteila, using the local wadi clay for their manufacture. Thus, it is possible to assume that each capital settlement of a given area could have its own pottery workshop using local raw materials. At the same time products from others workshops, primarily luxury kaolin fine wares, were also imported to the settlements.

The Archaeometric Study of Pottery from Musawwarat es Sufra

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The ceramics from courtyard 224 of the Great Enclosure in Musawwarat have become the focus of a project under the auspices of the Berlin Cluster of Excellence TOPOI, whose aim it is to take up the unfinished analyses of the materials excavated in 1995/96 and 1997, continue investigations on the site and shed further light on pottery production and consumption in Musawwarat. A first step in this endeavour was a reconnaissance of the finds of the 1997 field season in the storerooms of the Musawwarat mission in July 2013, which resulted in the selection of a limited number of samples from this material (by Claudia Näser) and their subsequent analysis (by Malgorzata Daszkiewicz).

To establish the reference group for this corpus of pottery, several analytical methods were used, namely abridged MGR analysis (Matrix Group by Refiring), chemical analysis by WD-XRF, as well as measurement of physical ceramic properties (open porosity, water absorption and apparent density). After the completion of the MGR and the chemical analysis all analysed samples were added to a database of pottery from Sudan (SDB = Sudanese Data Bank of Malgorzata Daszkiewicz) which currently encompasses 1150 entries. Thus, the pottery from Musawwarat was grouped in keeping with a uniform system used for classifying ancient ceramics from Sudan.

From the analyses it can be concluded that all analysed fineware pottery was made from ceramic bodies prepared using a variety of recipes featuring clays coloured by iron compounds containing kaolinite, whereas all coarse ware samples of the present series were made from wadi clays tempered with varying amounts of conglomerates of quartz with a white firing matrix. The results obtained from the analysis of the sherds' chemical composition allowed the identification of eight chemical groups. The geochemical parameters indicate that all analysed samples were made of raw materials sourced from the same region.

Comparison with the existing entries in the SDB revealed that all ceramic sherds of the present sample series represent a raw material group which does not occur at any other site. This group also includes sherds from Musawwarat analysed in earlier studies. It is now possible to identify one major fabric group of coarse ware (SDB reference group Mus 4) made from wadi clays – corresponding to fabric group H in Edward's preliminary classification of the ceramics from courtyard 224 – as well as three reference groups of fineware (SDB Mus 1 - 3) which seem to represent the bulk of the local pottery production present in the dump of courtyard 224. Work on this pottery corpus is currently continued with samples deriving from new excavations in courtyard 224 (by Claudia Näser and Manja Wetendorf), which were undertaken in January and February 2014.

Meroe and Hamadab: one thousand years of iron production

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The remains of iron production at Meroe are a well-known facet of Meroitic archaeology and much has been written about the technology and its potentially broader significance to the history of iron production in Africa. However, when the UCL Qatar research was launched in 2012 with a specific focus on iron production and raw material procurement during this period, knowledge of this fundamental Meroitic industry was notably superficial.

Following four seasons of fieldwork, a number of new insights into iron production during Meroitic and post-Meroitic times can now be offered. The results of a wood species study undertaken on charcoal samples excavated from within metallurgical contexts, funded by the British Institute in Eastern Africa, will be presented alongside preliminary laboratory analysis of metallurgical debris including iron slag and technical ceramics. Initial interpretations of a recently excavated furnace workshop located on the south mound at the Royal City will also be discussed. These findings can be placed within a dating sequence running from the mid first millennium BC to the mid first millennium AD, providing an insight into the role of technology during the rise, dominance and decline of Meroe itself.

SESSION 4: MIDDLE AGES

In Search of the Origins of Makuria: Meroitic cemetery 100 at Gammai and its historical background

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By the middle of the sixth century, three Nubian kingdoms flourished in the Middle Nile region: Nobadia in the north, Makuria in the centre and Alodia in the south. With the genesis of their Nubian roots still obscure, we know through the account given by John of Ephesus that Christianity was introduced by Byzantine missionaries and that these kingdoms were eventually converted to this new religion¹. According to John, the conversion of the kingdom of Nobadia was undertaken by Julian, a priest of Constantinople; he baptized the king and his people together in the kingdom, probably between 536 and 548. As described by a Coptic inscription found in the temple of Dendur², this conversion—further completed by Theodore and Longinus—ended up with the installation of a cross on the church built in the temple, and it was this same Longinus who then visited the king of Alodia around 580, at his request, to be baptised. Curiously, however, John keeps silent about the kingdom of Makuria. So, what was the situation of this kingdom on the eve of Christianisation³?

This is the main question addressed in the presentation. With the objective of locating the genesis of the kingdom of Makuria⁴, or more precisely its Nubian roots, we first examine the Meroitic cemetery 100 at Gammai to identify the archaeological remains of a particular cultural group who possessed customs that were distinct from those of the Meroites. We then reach a provisional conclusion that could correspond to the arrival of Nubians in the Nile Valley. In addition to its historical interest, this study will provide some keys to the origin of the kingdom of Makuria, and, possibly, to the famous ‘X-Group problem’ that lies at the heart of the debate on the origin of the kingdom of Nobadia.

¹ G. Vantini, *Oriental Sources Concerning Nubia* (Heidelberg-Warsaw, 1975), p. 6-23. For the historical setting, see J. H. F. Dijkstra, *Philae and the End of Ancient Egyptian Religion. A Regional Study of Religious Transformation (298-642 CE)* (Leuven-Paris-Dudley, 2008), p. 272-304.

² *FHN* III, n° 330. For the dating, see G. Ochała, “The Date of the Dendur Foundation Inscription Reconsidered”, *Bulletin of the American Society of Papyrologists* 48 (2011), p. 217-224.

³ Cf. W. Godlewski, “A New Approach to the Christianization of Makuria. An Archaeological Note”, in C. Berger, G. Clerc and N. Grimal (eds.), *Hommages à Jean Leclant II* (Le Caire, 1994), p. 169-176 ; *id.*, “The Rise of Makuria (late 5th-8th cent.)”, in T. Kendall (ed.), *Nubian Studies 1998* (Boston, 2004), p. 52-58.

⁴ Mahmoud el-Tayeb (El-Sheikh), *Genesis of the Makurian Culture in the Light of Archaeological Sources* (Lille, 2002) ; *id.*, *Funerary Traditions in Nubian Early Makuria* (Gdansk, 2012). Cf., more recently, A. Lohwasser, “Das ‘Ende von Meroe’. Gedanken zur Regionalität von Ereignissen”, in F. Feder and A. Lohwasser (eds.), *Ägypten und sein Umfeld in der Spätantike* (Wiesbaden, 2013), p. 282-286.

The Discovery of Ezana’s Capital in the Heartland of Meroe

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In the Arabic translation of the famous Ezana inscription, by the eminent writer, ambassador, and minister, Jamal Mohamed Ahmed, we read the following:

(فأقامت عرشاً عند ملتقى النهرين, سيدا و تكازى , قبالة مدينة الحجر على هذا الخليج)

(I have established a throne at the junction of the two rivers, Sieda and Takazi in front of the masonry city on this gulf)(U. A. Elnor, 2006-523).

And we read in the same reference page 522 (and I sent after that, the army of and, and the army of and to sail on Seida to invade the Cities, all masonry cities and straw cities.)

When I was planning the Dept. of Archaeology, University of Khartoum project “The Archeology of the Northern Environs of the Royal City of Meroe, within the Archaeology of Greater Meroe research project, I asked the following general questions:

- 1- Where and how did the Royal City get established?
- 2- How can we build up the chronology of the evolution of the Empire of Meroe from a Chiefdom to a Kingdom and then to an Empire?
- 3- When and how did the rule of Meroe end?
- 4- Where did the Meroites live in the vicinity of their Royal City and where are they buried?

We have now finished the survey phase of the project and have written the final report, which I hope will be published by the date of this conference.

Amongst our most important discoveries are:

- 1- Four major Neolithic settlement mounds.
- 2- A vast Meroitic cemetery of mound burials in Wadi Adan and Wadi Aish with many Christian burials intermingled with the Meroitic mound graves.
- 3- Traces of a Meroitic town with a red brick temple at Shibailia Al-Mushra between Gadow and Gebel um Ali.
- 4- An Aksumite city at Khor Al-Daiga north of Gebel um Ali which includes at least seven major sites.

My paper to the conference will be on these Aksumite sites: their description and preliminary analysis of their nature and their functions, as well as the historical implications of these sites. I will also present our future plan for their detailed study and of more surveys in the mountain range between Gebel um Ali and the River Atbara and possibly along the River Atbara and Southern Butana.

Iron Technology in the Fortified City of Mao (Central Darfur) in the First Millennium AD

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The fortified city of Mao lies at the north-eastern end of the Tgabo Range, 130 km north east of Al Fasher, the capital of Northern Darfur State. Jebel Mao, 25 46 E - 14 34 N, is an isolated hill surrounded by scree slope dominated by a cliff near the summit. The southern ridge slopes gradually westward to the foot of the hill, where an extensive drainage system, the wadi Mao, runs westward. Beyond the wadi extends flat plain clay mixed with gravel. The whole area is surrounded on the north east and west by a chain of four hills and on the south by an enclosing wall about one and half km long, with 2.5m maximum height and 1.7m width running east. The area was surveyed in 1985 and revisited in 2009 for a short time. A three stage surveys were conducted; a general reconnaissance, followed by more intensive survey and finally test excavations were undertaken. Several structural remains were located including compound and complex houses, a platform of audience, granaries and wells. Many artifacts were found scattered over the surface including pottery, iron objects and beads and some of them were collected. An iron working industry including furnaces and a forging area were then excavated.

The excavation of the iron industrial area revealed three types of iron activities. These comprise;

- a) Iron quarrying area in the upper parts of the mountain where volcanic rock were found overlying Nubian sandstone rock.
- b) Smelting area where a group of iron furnaces were found and one of them was excavated. Iron ore and charcoal were found overlain in an alternate manner inside a circular pit furnace.
- c) The forging area exhibited several completed objects among which were an iron hoe, a reaping knife and some unfinished objects.

The material was then correlated to other types of evidence from Mao and compared with similar contemporary evidence from other sites in Central Darfur. Ethnographic material was collected and used to answer some questions about the relationship between the iron producing groups and the rest of the community settled there.

The impact of iron technology on the fortified City of Mao:

- 1) The material associate with the iron technology was scientifically analyzed and radiometrically dated to the first millennium AD. These were the first C14 dates obtain from Darfur and indeed the Sudanese area west of the Nile.

- 2) The association of iron objects in funerary contexts in Mao graves and in other sites excavated by the writer suggests that iron might have spiritual significance in pre-Islamic Central Darfur. It may also be considered as objects of prestige as suggested by ethnographic evidence.
 - 3) It seems from the layout and nature of sites and settlement units associated with iron objects that there were stratified societies with distinctive classes of occupants. Three sets of these classes might be distinguished;
 - a) The remains of complex house with enclosing walls, Granaries and platforms of audiences suggest that some sort of an elite able to organize fortification and defense had emerged in the area. They were probably resided within the elaborated sectors in the upper parts of settlements.
 - b) A majority group, whose houses were similar and occupied open spaces without demarcating walls, lived in the less well fortified areas and may be considered as the rank and file of the population.
 - c) The evidence of separate area for iron work suggests that this industry was undertaken by specialist group, and if ethnography is relevant those people could be regarded as third and lower ranking minority occupants of different single housing units.
 - 4) A mastery of iron might have given the elite the support they needed to control resources both human and natural. Hence one can see in the widespread of iron a step towards state formation and of 'Urban' life in Darfur. This could be confirmed by the evidence of Mao rock art which presents an elite with a military organization who was able to wage war and to take captives around the 10th century AD.
 - 5) Iron seems to have given its users the opportunity to exploit more fully the harsh environment, to construct enlarged settlements and to dig wells in the rocky areas of Mao. It also facilitated the development of agriculture by providing efficient tools for reaping and cultivating crops. Especially in dray farm in the sandy areas around Jebel Mao.
 - 6) Agricultural iron objects, granaries, animal bones of both domestic and wild species suggest that Mao city practiced a wide range of multi-economic system. This could be strengthened by possible trade in iron objects such as bead found associated with graves goods excavated by the writer in different sites in Central Darfur.
 - 7) The heavy fortifications both natural and man-made ones suggest that Mao and similar iron using sites in Central Darfur were facing strong enemy, or were engaged in inter regional wars among themselves. If oral tradition is to be accepted, it could be assumed that the wars continued until the rise of the Fur Keira Dynasty which unified the country under the authority of the single Sultanate around 14th century AD.
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From Cotton Fields to Pastures: the Transition from Cotton to Wool Clothing in Nubia

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When Qasr Ibrim was occupied by Meroitic people at the beginning of the first millennium AD they brought the fiber cotton with them. Their clothing styles were derived from those of pharaonic Egypt: kilts and bare chests, but instead of linen, their clothing was made entirely of cotton. Three and a half centuries later, at the beginning of the Ballana phase, their clothing was still made of cotton and clothing styles remained the same, although changes in pottery and other features of material culture were taking place.

After a time, and for unknown reasons, the weavers began experimenting with wool. At first, they were rather timid, as if they did not trust the new fiber. As their familiarity with wool grew, weavers were using more and more wool in a variety of ways. By the beginning of the Early Medieval period, the transition from cotton to wool was completed.

The pottery of the Ballana Phase has been thoroughly recorded and analyzed using techniques which have been published elsewhere by William Adams. He discovered that the pottery of the Ballana Phase evolved through five distinct periods, and I was able to trace the evolution of the change in fiber by correlating the textiles with the pottery periods.

This paper will present the various stages of the transition from cotton to wool, showing first experimental steps, growing confidence, and finally technical mastery. The innovations and distinctive imagination seen in the later Ballana textiles give us a unique look into the minds of the weavers.

7th Century Pottery from Old Dongola in the Light of Recent Finds from Palatial Building B.I.

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Excavations during the 2009-2014 seasons on the citadel in Old Dongola concentrated inside storerooms of the Palatial Building B.I. The ceramic assemblages were representative of the finest Dongolan pottery production of the 7th century. They consisted of extremely abundant table wares (bowls and plates), as well as vases, bottles, storage vessels and amphorae, in many cases reconstructed as whole forms. The potters from 7th century Old Dongola drew inspirations from Egyptian late Roman models with distinctive features of post-Meroitic tradition. Locally made wares were accompanied by sherds of imported fine table wares (bowls and plates) from Egypt and the Kingdom of Arwa. The group of amphorae represented mainly local production with the addition of imported containers as follow: Late Roman 1 (eastern part of Mediterranean), Late Roman 5 (Palestine), Late Roman 5/6 (Egypt, Mareotis region), Late Roman 7 (middle Egypt) and Elephantine K710, K715-K717 (southern Egypt, Aswan). These finds throw light on trade and distribution of goods between Egypt and the Kingdom of Makuria in the 7th century.

7th Century AD Mud Stoppers from Old Dongola

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Jar sealings made from dried mud, plaster or clay smeared over the mouths and necks of amphorae are frequent finds at archaeological sites. They have long been an underestimated category of artefacts due to their seemingly unimpressive nature and difficulties in identifying their origin. Meanwhile, mud stoppers provide evidence for traffic of amphora-borne commodities (wine, oil), since they were usually placed on the vessel on the site of manufacture and broken at the place of consumption. Stamped specimens exhibit considerable variety depending on the area in which they were made, and imprints of amphora necks make it possible, in some cases, to match them to specific vessel types and thus to particular production regions.

The author examined a group of complete and fragmentary stoppers recovered from 7th-century AD layers at Old Dongola during the 2008-2013 excavation seasons. The study included an analysis of shapes of the objects, preserved impressions of vessels they had sealed, markings on their surfaces, as well as microscopic analysis of the material from which they were made. The most numerous group proved to consist of stoppers associated with amphorae produced locally at Dongola. The assemblage also includes pieces of Egyptian origin, which contribute new data to research on the Nilotic trade network.

The Rock Gongs in the SARS Concession Area of the Manasirland (Fourth Cataract)

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This paper gives a comprehensive rock gong gazetteer in the Amri-Kurbukan area (west bank) in the Manasirland which has been flooded by the Mirwi dam (completed in July 2008). The named region constituted the concession area of the Sudan Archaeological Research Society (SARS). The collection of the data was done in the November 2002 - February 2003 season. The investigator, who was in charge of toponymy, ethnography and language, did his best to exhaustively survey the west bank, recording almost all the rock gongs known to the local people. He did this taking advantage of the vehicle that was at his disposal, but mostly on foot or riding a donkey. The local people gave crucial help based on their thorough knowledge of the area, so that the investigator succeeded in identifying the rock gongs, with some of them miles away from the river. A large number of rock gongs has been registered with GPS coordinates plus altitude. Some photos were also taken. The paper tries initially to discuss the function of the rock gongs in light of what the local people say. It will further investigate other possible functions and uses in the light of information collected about rock gongs in other areas, such as the Mahas Region (North Sudan), Ethiopia in particular, and Africa in general. The main hypothesis the paper will discuss is that rock gongs were related to the local

Nubian churches and chapels, whether as a substitute for a bell or any other purpose. In relation to this, the rock crosses will also be discussed. It was noticed that in most cases where there were rock crosses, rock gongs were also found in the vicinity. A gazetteer of the rock gongs recorded so far will be provided at the end of the paper.

The Roots of Nubian Christianity Uncovered: a Reconsideration of the Ballana Tombs and the Significance of the Phonen Letter

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Ballana royal tombs contained evidence of Christian paraphernalia alongside indigenous icons, yet the search for exclusively Christian items reveals an inattentiveness to the ways in which Silko and other Noubadian elite appropriated certain aspects of Christianity without completely obliterating their own classical Pharaonic religion and culture. Archaeological evidence excavated by Emery and Kirwan in 1931-1934 at the royal tombs of Ballana and Qustul confirm the presence of Christianity in Nubia from the middle fifth to the early sixth centuries CE. The royal tombs of Ballana confirmed Noubadian contact with Coptic Egypt and Rome before the arrival of Byzantine missions in the sixth century. Conversely the Phonen Letter, a fifth century document, provides yet another indication of the earliest Christianity in Late Antique Nubia by subtly distinguishing between the monotheistic leanings of the Noubadian elite and the plethora of “gods” venerated by the Blemmyes—revealing that at least three religious traditions coexisted in the Middle Nile Valley during the middle to late fifth century, the traditional religions of the Noubades and Blemmyes, and Christianity.

The Relationship Between the Byzantine Empire and the Blemmys

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The border between Egypt and Nubia was an obstacle to establishing political and military stability for the Byzantine authority in Egypt. Some displaced tribes that rebelled had made the border area their temporary base and they were the principal cause of the disturbances. The Blemmys, Nobades and Meroi also created severe pressure for the security of the southern provinces of Egypt. Since the end of the third century, the Egyptian historical sources had not stopped mentioning the tribal troubles and struggles to impose their authorities on all the regions of the Nile Valley in Upper Egypt and Nubia. By the time of the Byzantine period in Egypt, the southern borders were prey to the conflicts between the ferocious tribes on one hand and the greedy emperors on the other.

The strategy of the Byzantine Empire depended on the wise policy of increasing the military garrison on the border on the one hand, whilst also sending missionaries to spread Christianity as the soft power of the Empire. In spite of this strategy, the Empire was not able to impose stability and protect its borders from tribal raids. Therefore, pitting tribes against each other was another solution, and the relations between the Nubian tribes of the Blemmys, Nobades and Meroi thus became strained. The entire Nile Valley became a theatre for this conflict. This study will deal with the relationship between Byzantium and Blemmys through the Byzantine sources referring to Blemmys and through graffiti and inscriptions left by Blemmys on the monuments of this region and all over Lower Nubia during the Byzantine Period in Egypt.

Major studies have not only enriched this scientific debate but have also changed the theories of scholars such as the study of R. Herzog, published in 1968, through the discoveries of archaeological evidence on the Red Sea Shore in the 1970s and the last ten years and finally the article of D. Meeks, which appeared in 2003.

This communication will deal with this problem in the light of the geo-politic changes in Egypt and Nubia in exposing the principal sources of information about Punt from the Old Kingdom, through the Middle Kingdom and ending with the Late Period.

The political situation in Nubia and its relationship with Egypt were a major factors in directing the relationship between Egypt and Nubia and the Egyptian way of dealing with this exotic and important land.

Recent Advances in Studies on Makurian Monasticism

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This paper will sum up the development of studies on the monasticism in Nubia since two articles by Piotr Jeute's "Nubian Monasticism: An open issue" and Julie Anderson's "The mysterious monks of Makuria" published in the 1990s. The results of two projects will be presented. The first is the publication of the monastery of Qasr el-Wizz Qasr el-Wizz, in the vicinity of Pachoras (Faras), excavated by the Oriental Institute of the University of Chicago during the Nubian Campaign in the 1960s. The second is the on-going excavation of the monastery of Ghazali laying in Wadi Abu Dom.

The presentation will also include the first conclusions that can be drawn on Makurian monasticism in general: types of monasticism present in Makuria; spatial organization of the monasteries; everyday life of the monks; its role in the society; what ideas may have influenced the shape of Makurian monasticism and spiritual life of Makurian monks in particular.

The Miniature of Ms Or. Quart. 1020 (Berlin, Staatsbibliothek)

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The manuscript inventoried today as *Ms. Or. Quart. 1020* in the collections of the Staatsbibliothek zu Berlin was first published by Griffith in 1913; the miniature was briefly described as a representation of Christ, and illustrated in Pl. II by a black and white photograph. Years later, during the meeting of the ISNS at Cambridge in 1978, Bożena Rostkowska pointed out that the costume worn by the figure depicted in the miniature was that of a Nubian dignitary and thus she proposed to relate the miniature to the colophon, where the title of *songoj* – that is "eparch" – appeared. Finally, G.M. Browne published in 1983 a revision of "Griffith's Stauros Text", where the identity of the manuscript's sponsor was revealed as "*Doukas, Choiak-ikshi, Songoj and Neshsh of Atwa*". In the light of recent studies of the title of *Choiak-ikshi* by Adam Łajtar and Giovanni Ruffini, the present paper proposes to investigate the matter more closely by studying the implications of the latter identification for the miniature itself and, on a broader scale, as it relates to Nubian iconography.

The Power of Blue – Preliminary Results of the Project Concerning the Technology of Nubian Wall Paintings

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Usually wall paintings are analyzed from the iconographical point of view, although in addition to this an archaeological approach should draw attention to their material aspects, as is the case in ceramological studies. The discussed project concerns the technology of Nubian wall paintings created in the period between the 7th and the 14th centuries. Samples collected from almost all the archaeological sites where remains of painted decoration were found, present examples from monuments of various nature, different kinds of settlements and different dates.

On the basis of the preliminary results of the chemical analysis, not only the original technologies used will be reconstructed, but also how much it was based on the local traditions and possible external sources of influence. The use of particular materials can help to establish what was the "standard" workshop quality, what was above and below this standard, and to estimate the potential and character of the Nubian mecenate.

Acknowledgements

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The Symbolic Paintings in the Sanctuary in the Light of the Liturgical Space in the Nubian Church

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In church architecture, the sanctuary is the space around the altar in the chancel at the liturgical east end of a traditional Christian church building. It may terminate in an apse. It is part of the church dedicated to the clergy, where they performed liturgical functions, and celebrated liturgies. The sanctuary of the temple was closed from the east side of the apse, which was semicircular room covered a semi-dome. Frequently in the sanctuary were benches for the clergy in the form of an amphitheatre, placed along the walls (*synthronon, subsellia*), with the bishop's throne in the middle (qro, noç, *cathedra*). The sanctuary was a place where there was an altar on which was celebrated the liturgy. In the East liturgies use the term *quasiastḡrion*. The sanctuary, as a place of celebration of the Eucharist "was the most important place in the church, that is crucial for the liturgy and the essence of faith," and "the painted decoration of the sanctuary reflects this symbolically".

Studies show that in the Nubian presbyteries there existed a certain iconographic programme. The iconography of the shrines was expressed in a two-zone system of paintings. Decorated shrines were placed in the apse. In the upper part of the image was *Maiestas Domini*, whilst by the 10th century, the lower part shows the Mother of God, sometimes with the apostles. Around the 10th century, paintings schemes of a theological character were replaced by schemes of official character. The image of Our Lady was converted to represent the current ruler or dignitary of the Church. In my paper, I want to address the question as to why such presentations are placed in the sanctuary, and how these relate to the liturgical function of the sanctuary.

The Idea of Salvation in the Painting Programme of Nubian Churches

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The painting program of Nubian churches performed sophisticated functions. It was related to the liturgical function of the churches and also subservient to patrons and endowers of the murals, whose portraits were presented there. This general program contained additional threads as well. Among them there was a hagiographical one. Saints and their lives were an example for the faithful, and by following the lives of the saints the worshippers knew how to live piously and honestly, so that after such a devout life they could await Salvation.

The aim of my paper is to present murals which are related to the idea of Salvation in the Nubian art, such as *Three Youths in the Fiery Furnace, Anastasis* and *Protection scenes*, taking into consideration their position in the churches' interior. After tracing such a dependence, it becomes clear that the faithful entering the churches were guided from the entrance to the apse by a promise of Salvation.

A Painting in the Throne Hall of Old Dongola

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On the highest point of the site of Old Dongola stands the only surviving building of the ancient capital. It is generally considered to have functioned as a royal throne hall before it was turned into a mosque, although new investigation in the building, especially its painted decoration, can bring new data helping in its exact identification. One of the best preserved paintings in the central hall of the upper floor is the representation of a *crux gemmata*. In this paper the authors will analyse the complex iconography of this painting in two chronological phases, showing a representation so far unknown in Nubia and quite rare in the Eastern Byzantine world. In the context of its function they will try to deal with the open question of the meaning of this painting in the context of the building.

Progress of Work on the Corpus of Medieval Texts from SR022.A

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In February 2007, the Humboldt University Nubian Expedition undertook emergency excavations on Sur Island as part of the Merowe Dam Archaeological Salvage Project and brought to light the ruins of the largest Medieval church discovered in the Fourth Cataract region, which is now submerged behind the reservoir of the Merowe Dam. The medieval church site was registered as SR022.A. In a room behind the apse, 140 manuscripts on parchment and leather were unearthed.

Among these, 41 parchment fragments preserved texts written in Greek, and these constitute the database for my doctoral thesis defended successfully at Humboldt University in February 2013. The results from my thesis will be the focus of the proposed contribution for the 13th International Conference on Nubian Studies.

In my talk, I will also give a brief report on the progress of work with the other two categories of text-related finds unearthed at SR022.A, namely manuscripts on leather written in Old Nubian, as well as other leather fragments representing what used to be the book-binding material of the codices kept in the church on Sur.

This unique find from SR022.A will continue for years to shed new light on our understanding of religious and secular literacy, as well as on cultural and political history of Christian Nubia.

The Christianity Communication Bridge between The Past and The Present

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My paper will be focused on the differences between the old Nubian church in old Dongola and Alshahideen Church, which is located in Ammarrat Street 15 in Khartoum. This church was designed and built for religious purposes for all the Coptic in Khartoum: comparing it to what we have in the polish excavation from Warsaw University, it is typically built according to the architecture, wall paintings, church sections, ornaments and materials that they used to use long ago in the Nubian church and to this day. My paper will be very crucial because it presents the Christianity era which is neglected in the history curriculum in universities and schools. As I am a Muslim, my school background was at Saint François School and Sisters' School and the late Father Vantini was my history teacher. These schools belong to the Vatican in Italy: most of my schoolmates were Coptic and we used to celebrate together in a good atmosphere and racial harmony. I then graduated from the University of Khartoum-Archaeology Department and visited this church many times. I had an idea about the similarities between this one and the old Dongola Church: the western world has to know about this era and that is why I choose this topic for my paper. My presentation will be divided into:

- Introduction about Christianity
- Brief Summary about two churches and why the Coptic built this church as a kind of identity
- Comparisons between the two in terms of building materials, architecture, decoration, etc., including pictures, maps.

When Christianity became the official religion of the Egyptian state in 542-543 A.D., during the reign of King Justinian the Roman ruler, Sudan was rapidly christianised during the 6th century. Missionaries were sent to the kings of the Nubian lands. The kings of Nobatia were the first to believe in Christianity and made it their official religion.

To begin with, they adhered to the Greek Church and in about 700 A.D., the Coptic Church became dominant. The Nubians embraced Christianity and became inclined to the priesthood life. The Monasteries continued to prosper for a long time. Some of them were eventually found by archaeologists in good condition. Churches were built with stones and red bricks and designed in the method of the Greek churches in Syria and Palestine. There were about 400 churches and monasteries in the Alawa kingdom along the banks of the Blue Nile. The prayers in the churches and monasteries were made in the Greek language, hence Greek became the official language of the Nubians for letters and arts.

Politically, the country was divided into three kingdoms:

- Nobatia: the most northern kingdom, which had its capital at Furs.

- El-Magaraa: the northern kingdom, which had its capital at Old Dungula.
- Alawa: the southern kingdom, which had its capital at Soba, south of Khartoum.

Putting the Sudanic back into Sudan: the Middle Nile as Part of the Wider Sahel Belt

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The history and archaeology of 'Nubia' and other branches of scholarship of the territory of modern Sudan (now within its borders post the 2011 secession of South Sudan) tend to be defined and understood mainly in the context of a North-South Axis covering the lands along the Nile between Egypt and Tropical Africa (aka 'Sub Saharan Africa), or the 'Middle Nile' between the 1st Cataract south of Aswan and the Tropic of Cancer, and an undefined border to the south beyond the confluence of the White and Blue Niles up to the *Sudd*, and whether the Middle Nile was a 'corridor' into Africa or not.

However, historical, archaeological and linguistic evidence shows increasingly that the links of the peoples and cultures of the Middle Nile with the wider Sahel and Sahara region to the west are as important, if not more, than the links with the peoples and cultures of the Horn of Africa to the east and Rift Valley to the south from the Neolithic to the 19th century imperial conquest, which appears to be still the traditional paradigm for the history of the Middle Nile.

After all Sudan got its modern name from being the eastern or Nilotic part of the historical *Bilad al Sudan* or 'Land of the black peoples' of the Mediaeval Arab geographers, formerly the *Aethiopia* or 'Land of the people with burnt faces' of Antiquity; a region in which its peoples and cultures shared certain characteristics stretching south of the Tropic of Cancer from the Middle Nile to the Atlantic seaboard, and which was the home of several of Africa's ancient civilisations, such as Kush and the Garamantes of Antiquity and post Antiquity of Nubia and historical Ghana, in modern southern Mauritania.

From the Neolithic the cultures and peoples of the Middle Nile received impulses, including such crops as tropical grains including sorghum, from the wider Sahara/Sahel to the west; the Wadi Howar has been regarded as a corridor to the Middle Nile, and while some historians and anthropologists regard the historical region of *Dar Fur* as historically and culturally more belonging to the central Sudanic belt than to the Nilotic Sudan, one could argue on the contrary that there is more that links these regions than what separates them

The paper in particular proposes to look at and compare developments on the Middle Nile and the Sahelian/Sudanic belt to the west post Antiquity in the period what Africanist Historians regard as the late Iron Age prior to the beginning of the African Middle Ages (commencing between 1250/1400 CE/AD according to the late Roland Oliver).

This period saw the rise, flowering and the eventual demise of the Christian Nubian kingdoms on the Middle Nile and the rise of the Sudanic kingdoms of the central and western Sudanic belt, starting life originally as Pagan kingdoms but over time becoming Muslim kingdoms, such as Ghana and Kanem; similarly formidable forms of urbanization along the Middle Niger are recorded.

Because the (high) culture in church and state of the Christian Nubian kingdoms shared traits with the cultures of the Greek speaking eastern Mediterranean and Near Eastern world of late Antiquity and early Byzantium, some scholars describe the Christian Nubian culture, societies and kingdoms as 'Mediterranean' and 'Byzantine', albeit in Africa, rather than as African or as African interpretations, adaptations and acculturations to the neglect and omission of the study and understanding of the African roots and in particular the Sudanic characteristics the Christian Nubian cultures, societies and kingdoms shared with the peoples, cultures, societies and kingdoms of the Sahelian/Sudanic belt to their west.

This paper will try to initiate the debate to reset the balance between the peculiarities of the Middle Nile cultures and peoples and what they shared with the other cultures and peoples of the Sahelian/Sudanic belt.

SESSION 4: ISLAM

Nubians in the Islamic Empire

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The Baḳṭ was arranged between the Arabs and the Nubians in the seventh century AD and consisted of a set of mutual obligations that included the delivery of African slaves to the Arab rulers of Egypt. Since then Nubians, or Africans from surrounding areas, have been systematically introduced to Islamic society. Nubian names and Arabic sources discussing any element of Nubian society were already collected and discussed by Vantini (1975). One or two Nubians who interacted with the Arabs outside of Nubia became well-known in Nubian studies, but other people with Nubian parentage who established themselves outside of Nubia and Egypt remained less known even though they occasionally entered the chronicles and biographical dictionaries of the medieval Arab historians.

This study introduces a first small set of names of men whose Nubian background is mentioned in the sources and whose accomplishments have been considerable enough to have their names recorded in the history books. Their reputations vary from one of the most esteemed experts on Islamic law in the seventh and eighth century to two of the Imāms of the Twelver Shīa at the end of the eighth and the beginning of the ninth century AD. Together, the names and accomplishments of those with Nubian ancestry in the Islamic empire, may add names and history to the otherwise anonymous descendants of slaves that crossed the border between the Nubian and Arab world.

Archaeology, Trade and Pilgrimage at Suakin

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The Suakin Project is an archaeological and conservation project on the Red Sea coast of Sudan. Suakin was the main port of Sudan from 15th to early 20th century, important both for trade and for the *Hajj*. Archaeological work is directed towards establishing the history of architecturally and historically significant buildings, and investigating evidence for the medieval town and the origins of the settlement. During nine seasons, excavations have been carried out at four house-sites, the Governor's residence and one of the two surviving mosques. The paper will present a short summary of the main archaeological results of the terrestrial excavations, but will concentrate on a reconstruction of the connections made through the trade of the port, and through pilgrimage from c. 12th to 19th century. Connections to and from the hinterland of Suakin extending into Africa, as well as those made through the Indian Ocean and East Asia trade will be considered. Links between trade/trade routes, the port and pilgrimage will be discussed. The reconstruction of contacts through trade and pilgrimage will be based both on historical evidence and archaeological evidence for the former, particularly the pottery recovered from stratified contexts, and primarily on historical evidence for the latter. This evidence is used to provide a picture of the development of the trade at Suakin over time, and indicate the main regions with which this trade was carried on, and the areas from which the pilgrims came.

Ottomans and the Historical Archaeology of a Nubian Landscape

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Outside the historically recorded garrison centres the Ottoman presence in Nubia of the 16th-18th centuries CE still remains elusive. This paper draws together a range of evidence which further illuminates the Ottoman presence in Lower and Middle Nubian landscapes, and how it may be recognised. That many archaeological traces of this presence will have been lost due to the nature of early archaeological fieldwork in the region is clear. However, building on the results of more recent fieldwork in the Third Cataract region and the

exploration of legacy data from the 1960s a number of new insights into the historical archaeology of the region may be proposed. A number of material markers likely to be associated with an (early?) Ottoman presence in Lower/Middle Nubia may also be suggested, building on suggestions made at an earlier Nubian Conference by W. Y. Adams ('Islamic Archaeology in Nubia: an introductory survey' - 1987). Some more general issues concerning the nature of the Nubian frontier society which developed in the shadow of the Ottoman presence will also be explored.

The Archaeological Islamic Remains in Sahaba Village, South of Dongola Area

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This study aims at drawing the attention of archaeologists, historians and sociologists to the area. Sahaba village is supposed to be the cradle of the Islamic faith in Sudan. The name of the village (Sahaba) refers to those men who were the pioneers in bearing Islamic faith to Sudan. Some of them were soldiers in the Arabic army which was led by Abdullah ibn Saad ibn Abi Sarh to attack Nubia.

The study also presents the location of sites including the cemetery and domed tombs in the village, their description and the chronology of the archaeological remains according to their historical sequence, as well as the ethnographical aspects and linguistic heritage of the area as follow:

- The geographical description of the area.
 - The archaeological description of the area.
 - The first military campaigns launched by the Arabs against the Nubians.
 - The Bagt Peace Treaty between the Muslim Arabs and the Nubian Kingdom in 652 AD.
 - The slow penetration of Islamic faith among the Nubian.
 - The archaeological findings in Sahaba village.
 - Mental inheritance in the area.
 - There will be photos and a slide show for more explanation.
-

The Dangers Facing the Reused of Remains of the Mahdist State in the Sudan

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The Mahdia state in the Sudan (1885-1899) had erected many buildings in the capital city of Omdurman. These buildings had been built in the Islamic style. The city was walled and had three gates: from the south, Abd al Gaum Gate; from the north Al Soor Gate and from the west Al Menfait Gate.

During the Anglo Egyptian invasion of the Sudan, the Khalifa Abd Allah had established many forts and defensive walls in Omdurman and Khartoum, as well as along the banks of the river Nile, from which to fire on the shipping. After the downfall of the Mahdia state, S. Bramble, the governor at Omdurman, was given the task of establishing the museum in the Khalifa's palace, which contains most of the important remains of the Mahdia state. The reused remains are facing many dangers, such as the shortage of housing, the effects of the weather, the general ignorance regarding their importance as historical heritage, the flood waters against the defensive walls and the general lack of maintenance.

The UNESCO archaeological committee, which visited the Sudan, is aware of these remains, since they are considered a World Heritage.

This paper tackles these items in details with a photographic record.

Material Culture of Islam in Sudan: Tombs and Domes of the Mahas Area as a Case Study

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The paper is a part of an ongoing research project on the Mahas region of Sudan. The research aims to identify, through the study of tombs and domes in the region:

- First, the nature of the material culture by studying the architectural forms, types, the various parts, the materials used for construction, the decoration and the adornment.
- Second, the social and cultural environment of the function of the parts and shapes of the structure, and their ideological significance and implications.
- Third, the historical development of these structures and their relationship to the development of social, religious and political life of the region, in addition to the influence of the natural environment on these developments.

The study derives its weight from the importance of the domed tombs and cemeteries as a vital part of the material and cultural legacy of Sudan since Antiquity. Moreover, Sudan's geographical location represents a gateway to sub-Saharan Africa, and a commercial and cultural linkage between it and the Mediterranean Islamic and Arab world to the north, and the horn of Africa to the east, as it continued to be until the middle of the last century, the main passage for trade and the pilgrimage route from West Africa to the Holy Land in the Arabian Peninsula. Accordingly, its culture is considerably enriched by varied influences from different cultural heritages and civilizations.

The study area is the Mahas region in Northern Sudan, and the time span covers the medieval periods from the first Islamic period in Sudan till modern history (since the seventh century A. D. to the sixteenth century and up to the present century).

The interdisciplinary method of research is adopted because of the nature of the study, to give a comprehensive vision and clear picture, using the descriptive analytical method, in addition to the historical and case study method. As an ethno - archaeological project, the study adopts both the archaeological and ethnographic methods and techniques in the field work.

SESSION 4: MEROITIC ICONOGRAPHY

Venerated Elders: Age as Potential Social Construct in Meroitic Kush

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The Meroitic Period is known for revealing indigenous forms of Kushite culture. The iconographic and textual remains of this period demonstrate the distinctive nature of Kushite culture in spite of the Egyptian elements through which it was expressed. I argue that in the iconographic representations at Musawwarat es-Sufra and Naqa, we can begin to distinguish a Kushite social ideology around the biological fact of advanced age.

With few exceptions, Egypt's rulers and deities were depicted as eternally young. Through rites of regeneration and youthful representations, the king, at least ideologically, was able to stave off the physical degeneration (as seen in the Amarna depictions of Amenhotep III) and mental deterioration (as described in the textual imagery of a drooling Re who was able to be tricked by Isis into revealing his name) deemed to have been associated with old age. The stylistic conventions adopted by the Napatan 25th Dynasty rulers and their successors continued this tradition of youthful representation. However, during the Meroitic period, we have at least two instances of the depiction of mature age without the suggestion of physical or mental decline. Less obvious than the mature dignity expressed through the lines of Menkaure's face in several dyad and triad statues from Giza, I argue that the "neck-lines" found on the exterior of the Lion Temple at Musawwarat and on the stela of Amanishakheto from the Amun Temple at Naqa are used as markers of age and that their depiction reflects what is potentially a social ideology venerating eldership, as seen in many traditional African societies.

Meroitic Iconography between the ‘Formal’ and the ‘Informal’: Investigating the Graffiti of Musawwarat es Sufra, Sudan

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The Great Enclosure of Musawwarat es Sufra lacks the ‘formal’ decorative programmes that characterise other monumental buildings of the Meroitic period (c. 300BC-AD350). Instead, thousands of ‘informal’ pictorial (and inscriptional) graffiti adorn on the site’s numerous sandstone walls. The still unresolved function(s) of the site and the extremely diverse nature of the incised graffiti are raising a host of questions as to authorship as well as graffiti making contexts and practices in synchronic and diachronic perspectives. In recent years, the Musawwarat graffiti corpus has been subject to an in-depth contextual study within the framework of the Musawwarat Graffiti Project. The project currently investigates ‘informal’ image making and usage in the Meroitic world as well as relationships between ‘formal’ and ‘informal’ image corpora, and it addresses questions of access to various image-based ‘literacies’ reflected in the graffiti corpus of Musawwarat es Sufra as well as the appropriation of architecturally framed space by graffiti making at the Great Enclosure. The presentation gives an overview of research results and issues arising from ongoing research, focusing on a critical discussion of the Meroitic graffiti at Musawwarat in relation to commonly (ab)used categories, such as ‘formal’ and ‘informal’, ‘official’ and ‘unofficial’, ‘elite’ and ‘folk’ art, and ‘primary’ versus ‘secondary’ image making contexts.

Amun Temple 200 in Naga: the Reconstruction of its Relief Decoration

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When the Naga-Project of the Egyptian Museum Berlin decided to excavate a small mound in the vicinity of the great Amun temple (Naga 100) no one expected to find hundreds of blocks and fragments with relief decoration. The walls of this building, now called Naga 200, collapsed in antiquity, and wind blown sand covered the heaps of blocks located outside, and to a much lesser degree inside, the temple. From 2004 to 2010 about 1760 decorated and undecorated blocks and fragments were recovered, of which about 1300 carried relief decoration or traces thereof. It was possible to virtually relocate nearly 80-85 % of the decorated blocks and fragments due to the documentation of the exact find spots, digital photographing, sketches and the scanning of the blocks with 3-D imaging (TrigonArt, www.trigonart.de). The reliefs of the outer walls can be reconstructed to a fairly high degree. The decoration of the inner rooms where the walls were preserved to a certain height is only traceable in the first and second hall, the three rooms at the back (sanctuary/ies) have lost their decoration. The pylon which has been virtually reconstructed to a height of about 7,30 metres is decorated with the traditional Egyptian theme of the king slaying captured enemies. On each half of the pylon the victorious ruler receives a sword from the hands of a god who can be identified as Amun. On the outside side walls several groups of gods (triads?) are greeted or adored by figures of the king. On the back outer wall is carved a representation of Isis suckling her son Horus in the papyrus marshes of the Delta. The inner walls show the king in front of pairs of gods either standing or sitting on a throne. Inscriptional evidence shows that the temple was built by king Amanikhareqerema who can now be dated to the end of the first century AD. Many representations of the king and gods resemble the relief decoration of the Lion temple (Naga 300) built by Natakamani and Amanitore. There are, however, enough differences to imply that temple 200 is not depending substantially on the decoration of the Lion temple.

Un objet insolite du palais de Ouad ben Naga: la plaquette en faïence Khartoum SNM 62/10/87. Essai d’interprétation

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The palace of Ouad ben Naga, excavated at the end of the 1950s produced a numerous Meroitic ceramic objects, amongst which the ceramic plaquette Khartoum SNM 62/10/87 is intriguing. It is fragmented and only the central section survives; the relief decoration portrays a royal personage (possibly a queen) in a naos

making an offering to a criocephalic God Amon sitting on a throne, accompanied by a female divinity (possibly Mout). Comparable scenes are attested on other ceramic objects dating from the Meroitic period, such as the fragment of a box found at Faras (Khartoum SNM 702) and the pectoral representing the lunar God Amon in his sanctuary (HAS 208) discovered in a votive cache at el-Hassa (HAS 208).

We have little information regarding the archaeological context of the find and we ignore the exact provenance of the Khartoum SNM 62/10/87 object. Its original shape is also in question and hypotheses range between a decorative element from a piece of furniture, a box fragment and a element of mural decoration.

In the Egyptian world there were plaquettes destined to be hung with the representation of the Goddess Isis-Thermouthis represented as an erect cobra in the facade of a chapel. The fragment of plaquette from Ouad be Naga appears to be similar to the Roman models, whilst retaining an iconography in part influenced by Pharaonic Egypt, such as the decorative elements in the form of rectangular plaquettes with pierced decoration dating from the Third Intermediary Period.

A New Copy of the Elephant-Bearer Fresco from Meroe

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In 2011, working in the Griffith Institute's Egyptological Archive, the writer got a chance to acquaint himself with some archival material of the prominent British anthropologist Ch. Seligman, presented by his widow in 1941. The dossier includes Seligman's correspondence with several renowned Egyptologists and a set of three pictures labeled "Drawings & tracing // unidentified". Two of these depict, in Egyptian style, groups of foreign prisoners (including Africans) kneeling, apparently in front of some king(s). Not unusual in composition, these representations are very informative ethnographically.

The third item appears to be of particular interest, it is a line drawing which represents a man bearing, with the help of a carrying pole, two miniature elephants. This composition is already known from the watercolour copy found in the archive of J. Garstang's expedition to Meroe and published in the catalogue of the Brooklyn Museum's 1978 exhibition of Ancient Sudanese art. The annotation by S. Wenig states that the drawing apparently reproduces one of the wall paintings reported by Garstang to have been found in the royal quarter of the site. Pointing out a possible parallel in sculpture in the temple of Qasr Ibrim, Wenig surmised that both representations probably "render a folk tale".

In 1998 the fresco with the elephant-bearer was reinterpreted by E. Fantusati who underscored its striking similarity to a scene, rather popular in Greek and Roman art, which shows the epic hero Herakles bearing two captives, bound, head downwards, to the carrying tackle on his shoulder. The presence of elephants (which seem to have never been attested in connection with this hero) complicating the matter, it might be inferred that either a local version of the myths of Herakles developed in Kush, or that he was here identified with one of the native deities.

The recent find in the Griffith Institute supplies reasons to resume discussion of the wall painting in question, for the newly recovered copy displays some differences from the version of the published watercolour. Thus, the prolonged object in the left hand of the man, interpreted by Fantusati as a club, a typical attribute of Herakles, is absent from the Oxford copy, which might weaken the possibility of the proposed identification of the elephant-bearer.

The Oxford line drawing, in turn, reproduces some details that are lacking or difficult to discern in the Liverpool watercolour. Some of these suggest that the personage, though represented as a "Caucasian" (Mediterranean or Egyptian?), was shown with some attributes of a Kushite. Curiously enough, some features of the painting, as witnessed by the Oxford version, seem to render it somewhat playful.

There being some discrepancy between the copies, it is difficult to say which of the two is more reliable, because the whereabouts of original (still *in situ*?) are not known. Intriguingly, the Oxford drawing bears a special note which identifies the fresco's location, yet at the same time it raises some questions as to when, why and by whom this copy was made.

SESSION 5: EPIGRAPHY AND LINGUISTIC

The Contribution of Epigraphic Data to the History of the Site of Dukki Gel/Pnubs after Twenty Years of Excavation

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Since 1994, the excavation of the Egyptian, Napatan and Meroitic temples at the site of Dukki Gel/Pnubs has supplied many inscribed architectural elements, stelae, statues, sealings, etc. Associated with the archaeological remains, they provide useful complements to the determination of the chronology of the successive monuments and the nature of the official and private cults celebrated in the temples. Additionally, they also reveal the identity of the authorities, soldiers, scribes and sculptors, residents in the menenu, or sent on mission there, as well as the relationship of the menenu with certain royal foundations until the end of the Ramesside Period. Even if the data discovered are less numerous for the first millennium BC, they give important information on the evolution of the administration in the country and on the links between the principal royal estates.

***Iwntyw nw T3-Sty*: historical documentation**

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In 1932, George Steindorff published a long essay about the meaning of *Iwn.wt* (as he transliterated the word that's written *Iwntyw* in the title of my paper). By relying on a large corpus of documentation, Steindorff proved that the then-current translation "Trogodytes" of the Egyptian word was incorrect. Afterwards, the term was usually translated as "Nomads". In my opinion however, both translations fail to cover either the wide range of ethnic groups that are referred to, or the different areas which do not seem to be particularly typical of nomadism. In fact, the word *Iwntyw* was followed frequently by the direct or indirect genitive of *T3-Sty* or by its nisbe *Styw*: and, although the extension of its area is until now rather unclear, it is evident that it was fully inhabited by sedentary people.

Since then, numerous archaeological excavations have brought to light new monuments and documents, particularly in the Nubian and Sudanese areas: they have given us many new elements regarding our historical knowledge for North-East Africa, and have created the necessity for re-reading the former texts and translations by earlier Egyptologists, in order to complete details or point out erroneous hypothesis. This is, in my opinion, the case for the terms to which I am referring.

An in-depth analysis of the nature and evolution of the term *Iwn/Iwntyw* has become more and more important for understanding relationships between ethnic groups and territories. Both the terms *Iwn/Iwntyw* and *T3-Sty* went through a number of changes and developments in the course of their history (from the predynastic *Sty* and protodynastic *Iwn* to the Roman period), as can be demonstrated by reviewing the voluminous documentation regarding their connections.

I would therefore like to select and show some particularly significant documents and present some conclusions I have reached, in anticipation of presenting a more detailed text at a later date.

The African Topographical Lists of the New Kingdom and the Historical Geography of Nubia in the Second Millennium BCE

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The 'Southern' or 'African' sections of the New Kingdom Topographical lists are among the most enigmatic Egyptian documents relating to Ancient Nubia. While this corpus is one of the richest sources of Nubian onomastica, the general difficulty in interpreting this list of placenames has hampered its use in discussions of the historical geography of Nubia. In appearance the list seems to be an inventory of toponyms or a 'gazetteer', and is divided into two sections; a 'Northern' list corresponding to Syria-Palestine, and a 'Southern' list which

includes over two-hundred toponyms in Africa. While the placenames of the ‘Northern lists’ can be located with relative ease due to cognates in Biblical Hebrew, Ugaritic and Akkadian texts, the names of the African list may only be compared with the precious little that we know of Meroitic toponymy and the later classical itineraries of Bion and Juba. The most difficult task for the student of these lists has been to locate these placenames on a map, and define some sort of progressional logic in the list. Subsequent questions as to the language of the toponyms or their relationship to individual Egyptian expeditions in Nubia have been generally overlooked.

Previous analyses of the list (Zyhlarz, Zibelius, Priese, O’Connor), while orientated to broadly locating some of the placenames in this gazetteer, preferred to treat each name as a single entity. This paper will attempt a holistic analysis of the entire list, properly contextualizing this document in its epigraphic, historical, geographic and linguistic context. A comprehensive analysis of the different reproductions of the list reveals that it was not a static document copied and recopied, but was open to emendations and additions based on contemporary campaigning, and also orthographic/phonetic issues. The southern list is then a mixture of antiquated and bygone Nubian toponyms, which was then overlaid with new names derived from contemporary campaigning. Furthermore in conducting a linguistic and phonological analysis of the toponyms, it is possible to discern different linguistic zones in ancient Nubia. While it is difficult to generalize from the quantitatively small data-set, the phonology/morphology of these toponyms suggests that there was a major linguistic differentiation between Upper and Lower Nubia even in the New Kingdom, while the names in the Atbai and further south (Punt and Medja) reveal a number of languages from the Cushitic, or even Ethiosemitic families. A holistic analysis of the list, from the point of view of history, geography, and linguistics, allows one to properly contextualize this corpus as ‘snapshots’ of the linguistic geography of the Middle Nile and East Africa, and allow pieces of this geographic puzzle to fall into place.

The King of Meluḥḥa is not a King of Kush, but probably a Medjay Chieftain, once again and more about it

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Meluḥḥa is one realm and Kush another. However, they remain locked together since the first Amarna Letters editors, Knudzon and Weber, posited in 1916 that Meluḥḥa *might* be a gloss for biblical familiar Kush, in *EA* 133,17. Albeit doubts expressed by Pintore 1972, Klengel 1977 and the present speaker 1990, the conjecture remains asserted as true by Oppenheim 1950, Younblood 1961, Moran 1987, 1992, Liverani 1998, amongst others, leaving Meluḥḥa insidiously eliminated from visible historical reality. The vacuum favours anchoring debates for Egyptian-Kushite dynasty XXV’s uncertain chronology, Frame 1999, Kahn 2001, Kitchen 2000. Hot contentions on Dilmun, Magan and Meluḥḥa of earlier Sumerian and Akkadian times, theorized a geo-political sequence running *eastwards* down the Gulf from Dilmun/Failaka-Bahrain, relegating a supposed original Meluḥḥa in Baluchistan or the Indus Valley. However, no supporting evidence and clear protests from Jacobsen 1960, Birot 1962, Sollberger 1968-69, Chakrabarti 1975 and others, have been of no avail. Such on-going speculations have only closed relevant doors to history, which this paper endeavours to open. Geography is the sensitive key of our threefold goal. **1:** The Meluḥḥa/Kush fiction build up is reviewed to stress how much interchange with Kush meets no serious written support. Cuneiform misreading, unwarranted restitutions, forced translations and a general ignorance that, at the time, Egypt was restricted to the Nile valley and Muṣru to Lower Egypt only, together clarify the picture. The modern Egyptian Eastern Delta and the Eastern Desert were foreign territory in Antiquity. **2:** Cuneiform reports on the one hand, Esarhaddon’s route to Memphis in 671 and Antiochus IV’s march through Meluḥḥa towns in 169 B.C. focus a local in that foreign area. Egyptian sources on the other hand document a realm for king Nehesy’s parallel dynasty XIV and NK Medjay populations in the same marginal areas. Moreover, high-ranking Medjay chieftains served Ramesses II on missions to Syria and to the Hittite court. Three Akkadian letters from the latter to Hattusili III attest to men and women from Meluḥḥa sent as prestige gifts to Hattusa and men garrisoned in Syria. No other conscripted foreigners fit the Meluḥḥa match so well as the Medjay horizon. **3 :** Thus freed from fictions, the Meluḥḥa Bedouin polity enters its own history. From ancient times, a camel route across North Arabia linked it to Mesopotamia through Bazu (KAV 92), now identified with Azraq Oasis in Eastern Jordan (Potts 1999). Esarhaddon conquered Bazu and claimed

kinship over the kings of Dilmun, Magan and Meluhḥa that reveal trade issues at stake, comparable to the Greco-Roman Gerrha-Petra-Suez caravan track running *westwards*. The link explains why Meluhḥa coalesced in the 652 Babylonian upheaval of Shamash-Shum-Ukin. To sum up, Meluhḥa-Medja appears as a buffer state to Egypt and a go-between one to the East, as a vital land bridge region.

Piye/Pianchy: Between two Worlds

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The great victory stela of Pianchy/Piye presents itself in a script considerably different from that recorded, for example, by Taharqa at Kawa. At this location the Kushite ruler states that he had directed new construction work with workmen sent from Memphis; the artists came from Memphis and this “transported the so-called “but inaccurately applied — term “Neo-Memphite” reliefs to Nubia. The palaeography as well as grammar of Piye are to be distinguished from the Theban texts reedited by Pascal Vernus. Hence, the scribal and textual tradition in Upper Egypt influenced Piye in a considerably different fashion from those later derived from the north. This is not unexpected. After all, the cursive script, Abnormal Hieratic, remained separate from the northern Demotic writing for a long time and was only supplanted during the reign of Amasis in Dynasty XXVI. As for the art and writing of this period itself, one characterized by Barry Kemp as “eclectic,”¹ the detailed study of Peter der Manuelian enables one to perceive, more clearly, the rise of the Saite-northern style which was copied, as we know, from Old Kingdom models.

Yet we need to separate Taharqa’s Memphite-based Kawa material from other Nubian zones. The former are definitely different, if not poorer. In this light it can be remarked that Karl-Heinz Priese stressed a connection of the writing in Napatán hieroglyphic inscriptions within a temporal framework that includes Dynasties XXV as well as XXVI. He observed a connection between the monumental writing of one special sign for a grain size and its identical presence within the cursive hieratic of the same time period and early demotic. I assume the redaction to be Theban oriented.

The account should be viewed in a light quite different from that of earlier war records of the pharaohs owing to the emphasis of the direct speech segments. A forthcoming study on the narrative structure employed, one that encompasses the unpublished work of Cara Sergent on the royal Napatán inscriptions is in preparation. The basic written format of this composition is not Napatán but Egyptian. Piye’s attitudes, on the other hand — his presumed mercifulness, his situation in Namlot’s palace, as well as the overt avoidance of battle scenes (king in battle, carnage, booty lists) — seem to reflect his non-Egyptian background.

¹ “Explaining Ancient Crises,” *CAJ* 1 (1991): 241-242.

The Divine Adoratrice in Aspelta’s Genealogy

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The Enthronement Stela of Aspelta lists seven ancestresses whose names were later erased, and one of these women bore the title of “Divine Adoratrice of Amun-Re, king of the gods of Dominion.” To my knowledge, all interpretations of this text that have been published since its discovery in 1862 have posited Amenirdis II as the ancestress in question. Indeed, Robert Morkot has asserted that “there is no alternative” to this assumption, and Francis Breyer has likewise deemed it “die einzig plausible Möglichkeit.” Yet recent studies by Carola Koch (2012) and Laurent Coulon (2014) have concluded that Amenirdis II never assumed the title of “Divine Adoratrice” at any point during or after her career, and their arguments receive compelling new support from an unpublished statue in Hannover’s August Kestner Museum. As a result, the identity of Aspelta’s “Divine Adoratrice” is no longer obvious. This paper will assess the possibilities and propose a different identification of the “Divine Adoratrice” named upon that Enthronement Stela.

Milk Libations for Osiris: Meroitic Piety at Philae

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This paper will explore Meroitic pilgrimage and worship at the Temple of Isis located on Philae Island in Upper Egypt. People from the Kingdom of Meroe (present-day northern Sudan, c. 300 BC-300AD) were intimately involved in the cult of Isis and Osiris at Philae. They came as royal emissaries to Roman Egypt and as pilgrims to worship Isis; they also served as priests in her cult. While Egypt slowly became Christian, the Meroites preserved and maintained traditional worship of the great goddess Isis in her preeminent temple at Philae.

The prayers left by Meroites inscribed on the temple walls at Philae span the period from the 1st to the 3rd century of our era with a particular emphasis on the 3rd century AD. Written in three languages: Demotic, Greek, and Meroitic; they mention the festivals in which the Meroites participated as well as the rich gifts of gold brought from the king in Meroe. This paper will explore the connection between the Meroitic prayer inscriptions and the surrounding reliefs and hieroglyphic texts of the Gate of Hadrian and the Pronaos of the main temple where many of the inscriptions are found. In this paper I will focus on the importance that milk libations for Osiris had for the Meroitic priests, royal emissaries, and pilgrims and the presence of similar milk offerings for the king and queen portrayed on their funerary chapel walls and offering tables in Meroe.

Taken together, the Demotic and Meroitic inscriptions describe a way of worship that not only preserved traditional Egyptian forms of piety, but also expressed traditions of peoples further south in Africa.

A study of the meroitic inscription REM1141

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This paper presents some preliminary results of the study of the meroitic inscription REM1141, also known as Amanishakheto's stele, which I examined in the reserves of the British Museum. The stele was discovered in 1974 at Qasr Ibrim, being reused as part of the pavement of the Cathedral. The first transcription and analysis of the text was published by D. Edwards and C. Rilly in *The Meroitic temple complex at Qasr Ibrim*, edited by P. Rose.

The text of the stele is considered one of the Meroitic royal inscriptions. These form a very large group which includes all inscriptions with a royal name. In general, royal texts focus on the role of the royal personages and their deeds, such as the Napatan royal inscriptions. In the classification of this Meroitic group there are a certain number of texts that, with regards to certain aspects, cannot be described as royal, even though they incorporate royal names.

If the texts and their vocabulary are compared, it is possible to appreciate some differences between them. In particular, some elements in REM1141 might lead one to suggest that this text may be related to religious offerings. The beginning of the text, with the name of "Isis of Abaton to Meroe", and the use of some verbal roots, which are also encountered in Benediction Formulas, could support this idea.

The elements supporting the premise that the text of REM1141 may have had a religious meaning are discussed in this paper.

A Short History of Modern Bible Translation into Nile Nubian Languages

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When the three Nubian Kingdoms in the Nile Valley converted to Christianity in the 6th century A.D. a number of remarkable developments took place. They included the creation of a Nubian script. The language that was put into writing is known today as Old Nubian or Old Nobiin, the predecessor of modern Nobiin that is still spoken in various dialectal variants in the Nile Valley. To our knowledge, the earlier forms of

Dongolaawi and Kunuuzi were not written languages. Both Nubian languages belong to the Eastern Sudanic languages of the Nilo-Saharan language family. Manuscripts and fragments of Bible texts from the Old Testament and New Testament were found through excavations in Nubia. The biblical texts represented complete books, parts of books that served as lectionaries, and quotations that were used in other texts. When Islam spread in the Nile Valley, the Nubians gradually converted to Islam and Arabic replaced the Nubian script. Nevertheless, for various reasons, attempts were made to translate biblical books and passages of Scripture into Nobiin, Dongolaawi and Kunuuzi during the 19th and 20th century. To shed some light on these translation projects, we will present a short history of the various adventures in this paper. It was none less than the renowned Egyptologist K. R. Lepsius who initiated the translation of the Gospel of Mark and the Lord's Prayer into Nobiin during his Prussian expedition (1842-1846). The text of this Gospel was reprinted several times and even transliterated into Arabic script for distribution in Lower Egypt at the end of the 19th century and the beginning of the 20th century. L. Reinisch provided a collection of Old Testament verses and passages in the Kunuuzi and Dongolawi dialects in his extensive scientific publication "Die Nuba Sprache". He had collected the data during his research trip to East Africa in 1875-1876. Between 1900-1927 it was the Kunuuzi Nubian Samuel Ali Hiseen, one of the first co-workers of the Sudan Pionier Mission (SPM) in Aswan, who translated almost the whole New Testament and a good many Old Testament passages into the Kunuuzi vernacular with the support of H. Schäfer, H. Junker and D. Westermann. Some of this material has been published. The remaining texts are still preserved in the archives of the mission. In the 1930s and 1950s the missionary Gertrud von Massenbach, who had been a student of Samuel Ali Hiseen, supervised the publication of a small number of different tracts with New Testament passages that are based on her teacher's translation.

Greek and Latin papyri of the time of Augustus from the EES excavations at Qasr Ibrim

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The excavations carried out by the Mission of the Egypt Exploration Society on the site of Qasr Ibrim yielded almost 400 papyri and fragments of papyri in Greek and Latin dating from the first years of Augustus. The papyri came into existence in connection with a short-term presence of a Roman military post guarding the border between the Roman Empire and the Meroitic Kingdom. Only a small part of the papyri has been published thus far. The present speaker is working in cooperation with Tomasz Derda on the publication of the remainder. These unpublished papyri are mainly letters to the soldiers of the Roman garrison at Qasr Ibrim written by their companions garrisoning at Coptos in Upper Egypt. In addition to letters, there are lists of different kinds (lists of persons, lists of provisions, lists of expenditures), memoranda, writing exercises, and literary texts. The papyri cast light on various aspects of the Roman military occupation of Qasr Ibrim, including its date, the size of the garrison, its organization, the ethnic origin of soldiers, their cultural preferences and their daily activities.

Ayzana of Axum Invasion of the Land of the Meroites "A local commission?"

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The famous Inscription of Azana, king of Axum (325-375 A-D) gives an account of a military expedition led by himself (Azana) against the Noba; and in a later development, during the course of the war, and after crushing the Noba, he waged war against other peoples, namely, the Kasu and the Red Noba. The inscription has been studied and commented on by different scholars since it was published by Littman in 1913.

As the inscription is full of information that has raised a number of questions, the scholars, in their critical readings, have proposed different answers and conclusions.

Examples of these questions are:

1- Was Azana really the king of all the peoples and countries he counted - Himyar and Raidan and Saba and of Salhen and Siyamo and of Bega and of Kasu, the King of Kings - or was it merely a claim recorded by the scribe to glorify his king?

2- Who were the Noba, the Kasu and the Red Noba?

3- Was the land invaded in Ethiopia proper, or was it the lands of the Blue Nile, or was it the region of the middle Nile Valley in Central Sudan?

4- Was Meroe the capital of the Merotic kingdom in power at the time of the Azana invasion or had it already fallen years earlier?

Although it is not the intention of this paper to give answers to all the questions raised, the writer will nevertheless give a short summary of the history of the research to show how controversial the interpretations of the Azana inscription have been, and follow on by presenting his own interpretation and answers in the light of his reading of the ancient and medieval history of The Sudan.

Case Markers in the Nile Nubian Languages

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Case markers are commonly conceived of as nominal morphemes indicating the semanto-syntactic role of a noun phrase in a clause. In the Nile Nubian languages (comprising Old Nubian, Nobiin, Dongolawi, and Kenzi) case markers can be identified as clitic postpositions attached to the final constituent of a noun phrase. Depending on the preceding segment, a case marker may have several allomorphs, as illustrated by the Locative in Dongolawi. This postposition is realized as *-r* after a vowel, *-ro* after *r*, *-lo* after *l*, *-do* after *n*, and *-ir* after all other consonants. Nubian case markers are often morphologically complex, the Accusative or Locative serving as a base to which another morpheme is attached. Nubian case markers share a number of functional characteristics. The Accusative (*-gi* in Dongolawi and Kenzi, *-ga* in Nobiin and Old Nubian), for instance, is used to mark both the object of a transitive clause and the direct and indirect object of a ditransitive clause. By contrast, the subject is unmarked for the Nominative case.

The description of case markers in previous studies of the Nile Nubian languages is often blurred by idiosyncratic terminology and misconceptions, as reflected in the terms ‘objective’ (Bechhaus-Gerst 2011) or ‘directive’ (Browne 2002) for the Accusative. Moreover, the so-called ‘subjective’ *-l* in Old Nubian (Browne 2002) is not a case marker, but rather has a discursive function, as van Gerven Oei (2011) argues.

Adopting a standard terminology and a comparative approach, the purpose of this paper is to provide a clearer account of the Nile Nubian case markers, their phonological and morphological shape and their semanto-syntactic functions. Apart from the Nominative and Accusative, other cases in the Nile Nubian languages will be considered in this paper, such as the Genitive, the Instrumental, the Comitative, the Allative, the Locative, the Adessive, the Ablative, and the Similitive.

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Exploring the Traditional Environment of Nubia via Toponymy

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Geographical names have an important role in the study of Nubian history and also in activities for the revitalisation of the Nubian languages and culture. However, Nubian toponyms have often been recorded and

published inaccurately from the perspective of people who speak the local languages. Only occasionally have toponymic surveys recorded these names directly from the context of Nubian speech. Most often toponyms have been recorded through the medium of Arabic. There has been a widespread tendency to 'correct' and distort Nubian toponyms to fit the phonological patterns of Arabic.

The present study will focus on improved methods for recording the major Nubian toponyms in the historic region of the Nobíin Nubian language along the Nile.

Particular attention will be given to the procedures of Hermann Junker and Heinrich Schäfer.* In 1932 they published Nubian toponyms in the context of Kenzi Nubian texts. Their work provides an early model of how that job should be done.

Fieldwork methodology will aim to stimulate dialogue between speakers of Nubian. Toponyms will be preserved on audio recordings and also transcribed as they are heard within the Nubian speech of the local inhabitants. There will be an analysis of each toponym in test frames in order to identify its underlying phonological characteristics.

Bilingualism in Arabic and Nubian is widespread in the Nubian countryside. Therefore, each toponym will be elicited in the context of Arabic speech as well as Nubian. Variant pronunciations will be recorded. A sociolinguistic assessment will be made of groups of speakers who prefer one variant to another.

There will be an investigation of the meaning attributed to the toponym by the local people. In particular, they will be asked how they associate each name with their traditional environment. Fieldwork will involve some Nubians who still live in their traditional environment as well as others who were removed from their original homes.

A Geographical Information Database will be designed in collaboration with the Griffith Institute at Oxford University. Results will be brought to the Nubian people via a digitalised exhibition in Nubian languages as well as Arabic, French and English. This will be made available online to other people who, like Nubians, are seeking ways to revitalise their endangered languages and fragile environment.

Hermann Junker and Heinrich Schäfer. 1932. *Nubische Texte im Kenzi-Dialekt*. 2. Vienna & Leipzig: Hölder-Pichler-Tempsky. [Schriften der Sprachenkommission. 9. Vienna: Akademie der Wissenschaften].

Preservation of Nubian Language among Two Generations

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Language preservation is the efforts being made to protect a given language from extinction. The spoken Nubian language (kenzi Dongulawi–nubin) began to face the danger of disappearing. There are however some features of revitalization which have been taken by the younger generations. This paper aims to confirm that the younger generations are keener and more anxious to preserve their language than the older generations.

Two questionnaires were used to gather the data. One of them is for young people between 12-25 years old who are supposed to be future parents, whilst the other is for those who are already parents between 25-45 years old. Each of these questionnaires includes 10 questions. The total number of participants is 400; some of them live in Khartoum and the majority live in the Nubian areas between Dongula and Halfa. The data were collected and analyzed by comparing the answers of these two groups. The results show that the Nubian younger generation is attached to their language, has a considerable level of awareness as its importance and is keener to preserve it, than the older generation.

As a conclusion, the paper recommended some additional ways of languages preservation to assist and to encourage these young people, so that they can go ahead and achieve more success in this endeavour.

Place names at the River Nile State and their cultural and historical connotation

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This paper highlights toponymics, the study of place names as essential to a grasp of Sudanese multi-nation and multi-language. It concentrates on the place names of the towns and villages of the River Nile State and their cultural, ethnic and historical connotations. It also traces the oral culture, stories, myths and fairy tales about the mysteries round these names. The researcher as a linguist traces the different and various movements of tribes and changes in populations that inhabited these areas since ancient times, in addition, to the various languages used throughout the history of the towns and villages studied. The researcher finds that some placenames are affected by many different things such as the use of native words, personal names, tribal names or clans, some ecological names (names of trees), common words in Sudanese local languages, or languages of different African settlers and immigrants who reside for period of times in these places. The paper concludes with well known Chinese proverb, which we assume to be true (The beginning of wisdom is to call things by their right names.)

SESSION 5: FORTIFICATIONS

The El Hisnein Site: Discovery of two Middle Kingdom Forts near Aswan, Egypt

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Two previously unknown forts of Middle Kingdom age (early 2nd millennium BC) were discovered 25 km south of Aswan, Egypt. The site, now called El Hisnein ('The Two Forts' in Arabic), was originally 10 km east of the former course of the Nile River and is now only 5 km from Lake Nasser. Both forts were built to protect gold mines. The 'east fort' is the better preserved and better built of the two structures. It spans 90 m at its widest point and has a 240 m-long perimeter wall that still mostly stands at its original 2 m height. This wall is built with dry-laid courses of locally available granite cobbles and boulders, and is 0.9-1.0 wide at the base and tapers upward to 0.5-0.6 m at the top. It includes twelve circular bastions located at the wall corners as well as between the corners with two of the bastions closely flanking the fort's only gate. Firing ports ('arrow slits') pierce the wall at irregular intervals between the bastions. Within the fort there are two small buildings and, near the gate, one larger one (16 by 12 m) plus a well encircled by a wall. A gold mine is located 120 m west of the east fort and another 50 m further west is a collapsed stone tower.

The 'west fort' is 730 m west of the east fort. It is much larger with a maximum width of 160 m and a 415 m-long perimeter wall. About half of this length, however, consists of two natural wall-like rock formations (felsite dikes) with one of these further built up with stacked stone. Curiously, the perimeter wall has an original height of only 1.0-1.2 m and consists of a single line of stacked granite cobbles and boulders. Such a wall could be easily kicked down or jumped over by attackers. Along the built portion of the perimeter wall there are nine circular bastions, but these also have similarly low, thin walls. Inside the fort is a large (30 by 17 m) multi-room building that may have served as an inner fort, although it also has low, weak walls like those along the outer perimeter. A gold mining pit is located within the fort at one corner of a nearly square area of 40 by 40 m that has been cleared of all surface rubble, apparently in anticipation more extensive mining excavations that never occurred.

Both gold mines were reopened in recent years and in 2013 the west fort was badly damaged by this activity with most of the large building inside destroyed.

Recent Research at Hisn al-Bab, Aswan

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The site of Hisn al-Bab, which lies just south of Philae on the ancient Egyptian-Nubian border, has been the focus of excavations by the Österreichisches Archäologisches Institut since late 2012. This paper will give an overview of the site and its historical context, and will also present the results of the recent excavations. Historically, the site can be identified with al-Qasr, often mentioned by medieval Arabic historians in connection with the delivery of goods related to the *baqt* treaty. The standing remains at Hisn al-Bab, which show similarities with the Early Christian fortified town sites of Lower Nubia, can probably be identified with al-Qasr. These overlie earlier fortifications on the same site: a large enclosure containing housing units dated approximately to the 7th century, as suggested by the recent excavations; and a Roman fortress of the 4th-5th century.

Fortified Sites? The Buildings of Wadi Abu Dom

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It is a long-standing tradition in Nubian Studies, up to very recent publications, to identify the buildings of Wadi Abu Dom (Umm Ruweim etc.) as “fortified sites” or even as “fortresses”.

In the course of the survey project W.A.D.I., conducted by the University of Muenster (director Prof. Angelika Lohwasser), it was possible to complete a precise documentation of the presently visible architectural remains of these monuments.

A preliminary analysis of the architecture shows only rudimentary components which could hint at a “fortified” place. On the other hand a number of architectural features indicate domestic use as well as storage facilities, whilst the whole layout implies also some ritual use, at least for Umm Ruweim 1.

Only further excavation will provide more insight into the function of these buildings.

The Great Wall at El Kurru

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In 1918-1919, Prof. Dr. G.A. Reisner directed excavations at the royal Kushite cemetery near the modern village of El Kurru. In addition to the cemetery, Reisner found evidence of an early settlement around the village, including a large wall of what his field notes describe as ‘town, palace or temple’ wall. At the moment, it is unclear how the cemetery relates to these nearby traces of settlement and how these features fit in a wider regional and chronological context.

In 2013, new excavations were initiated, aimed at re-investigating the settlement remains that Reisner had described. The excavations led to the exposure of a small segment of a two meter wide ashlar wall with a rubble core, located on the perimeter of the modern village and the current palm groves. In 2014, the International Kurru Archæological Project further explored this small segment with the aims of (1) relating this discovery to Reisner’s observations and (2) understanding when the wall was in use, its function(s), and its significance. The recent discovery of an impressive gate-system connected to the wall confirmed that Reisner had observed this wall and provides new data to better contextualize this feature.

In this presentation, the excavations of the wall and its gate are presented and placed in their local and regional contexts. The evidence retrieved from the sections, trenches and landscape suggests that the wall and its gate were constructed during or before Christian times and functioned as a defense against man, animals and water, during at least four phases of intermittent use. Moreover, the Great Wall of El Kurru currently represents the first substantial evidence for Christian occupation around the Kushite cemetery and offers the potential for new insights into Christian settlement in Nubia.

The Castle of ez-Zuma (4th Cataract Region)

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The 4th Cataract region is characterized by several archaeological sites reflecting different historical periods and cultures. They date back to the Palaeolithic and include the whole range of cultures and civilizations up to the Islamic period. This paper deals with the fortresses located in the region downstream from the 4th Cataract on both banks of the Nile, focusing on some fortresses in an area extending 47 km from Merowe East to El Daiqa village. Studies have been conducted in five fortresses: Merowe East, Ed Datti (Kajabi), Ez-Zuma, El Bakheet, and El Daiqa (El Karaffab). This paper will also focus on the area Ez-Zuma as one of the largest sites in the region south of the 4th Cataract. The Ez-Zuma region contains three major sites which are that of Post-meroitic graves, the fort, and the site of Jebel Ali El-Karar. This area had been visited by Lepsius in the mid-19th century and Crawford in the fifties of the last century. The fort was at that time the property of local populations and therefore was unavailable for study by the first travellers and researchers. This paper tries however to study the functional architectures of the fort and establish the period it was in use. It was used especially in the Christian period as well as the Islamic period. This paper is also attempts to make comparisons between the sites in the area of Ez-Zuma.

The Nubian Fortress Commander

A Career Check Based on Middle and New Kingdom Examples

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Little is known about the daily life of the minor ranking military and administrative garrison members stationed in both the Middle Kingdom fortresses and the New Kingdom fortress-towns in Nubia. The situation looks more promising for the high-ranking personnel, including the commanding staff, which are mentioned more frequently in the official records. This paper seeks to shed light on those officials from whom we know, either by their titles or their tasks, that they commanded a fortress. Selected biographies like those of the famous Sopedhor (2nd Intermediate Period/under Kushite rulers) or Ahmose/Turi (under Ahmose), both in charge of the fortress at Buhen, will be discussed to show the variety and importance of the commandants' duties, their careers and their close relationship to the royal court.

In addition to their vitae those of their superiors will be discussed. It will be shown that they were thought to observe carefully every single action conducted by the fortress-commandants installed in Nubia to make sure that Egypt's economic and political as well as military interests were guaranteed. It seems obvious, that the commandants' most sensitive task, the transshipment of the Nubian gold which was temporarily stored within the forts, required special attention. However, to gain a better understanding of Egypt's specific situation at its southern border, further examples from its North-Eastern and North-Western frontiers will be tackled. With respect to the latter, it is primary the new evidence recovered by the Liverpool team at Zawiyet Umm el-Rakham for the official Neb-Re (reign of Ramesses II) which will provide valuable information about a commander's life at the edge of Egypt's empire.

Although the main focus of this paper lies in the surveillance of the commandants by their superiors and their complex control systems, some general observations will be made about the interaction of commandants and their subordinates.

Thoughts about the Jewish Military Colony at the Fortress of Elephantine

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After a kingdom was conquered, imperial forces had to control and impose sovereignty over the subdued nation. Elite open field combat forces with their chariots, cavalry and huge armies were needed in other parts

of the Empire; different military forces were needed to guard the newly established borders against outside enemies and the central routes of communications. Fortresses were built at strategic points, and along the highways.

When opposition arose which was able to free the country, the imperial forces were targeted and attacked, and if the rebellion was successful, the escaping remnants were chased out of Egypt and massacred, as is recorded in the Assyrian as well as Greek sources regarding the Persian occupation of Egypt in the fifth century B.C. In light of the treatment of foreign legions at the end of a foreign occupation in Egypt, the fate of the Jewish colony at Elephantine on the border with the Kingdom of Kush, which lasted over ca. 250 years under differing foreign and indigenous rules, appears to be exceptional and is in need of an explanation.

Gala Abu Ahmed – Beads in a Fortress

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The Gala Abu Ahmed fortress is located in Lower Wadi Howar, Northern Sudan, and was excavated between 2008 and 2011 by several missions from the University of Cologne directed by Friederike Jesse. Beads of various materials form part of the archaeological material dating from ca. 1.250 BC to 400 BC. Found in the windblown sand and in between the architectural remains, these little indicators of personal adornment were either deposited as votive offerings, simply fell into the sand due to wear and tear or were merely lost pieces.

Macroscopic analysis and archaeometrical results reveal a wide range of materials: from stone and pottery to vitreous materials and metal. The beads were always single finds, no complete string or necklace has been preserved, but the composition of the bead mix in the different trenches show specific features, helping us to identify material group occurrences.

Textiles or other clothes have not yet been found, most likely due to preservation conditions - only the beads survived as probable parts of the garments of the inhabitants. This paper aims to illustrate the excavated bead-material, to compare it with the results from other excavations, and tries to give a broader picture of the possible appearance of the occupants of the Gala Abu Ahmed fortress.

Jawgul Landscapes. Ethno-archaeological Research in Mahas Region

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Jawgul is a small, seasonal island on the Nile inhabited by Mahas Nubians. According to them, their ancestors have been residing in this area since the times of the pharaohs. Archaeological investigations conducted during *Mahas Survey* showed that the island has been permanently inhabited at least since medieval times. Nowadays, the eastern part of Jawgul is mostly abandoned and this is a place where remains of a medieval village are located. Its most visible features are: ruins of several castle-houses and of a mud brick church. The central part of the island is occupied by buildings dating back to post-medieval times, including two diffis, a mosque and quranic schools. The modern settlement, mostly households limited by enclosure walls, spread on the island and beyond, covering the left northern bank of the river.

Jawgul is a perfect place for ethno-archaeological research, in which archaeologists can analyse and compare the spatial distribution of settlements from different periods and ethnologists can talk with local people about the social context of the village layout. The presenter of this talk, in collaboration with the ethnologist (dr Piotr Maliński) began this research in 2013 under the scientific supervision of prof. Włodzimierz Rączkowski. This project is conducted thanks to financial support from the National Science Centre under decision no. DEC-2012/05/N/HS3/01164.

Fundamental questions are: do three settlement phases (medieval, post-medieval and modern) have common features? Can repetitive settlement patterns be observed? After the first season of fieldwork (January-February

2013) this can be confirmed. So next questions are: what does it mean? Did local people use those patterns consciously? If yes, then why? Answers to those questions are not yet known, they are the objectives of the second season of fieldwork which is scheduled for March-May 2014.

For more information, see: <http://sudan.archeo.edu.pl/index.php/En/survey-on-the-jawgul-island>

SESSION 5: TRANSCULTURAL APPROACHES

Spiritual Motifs in the Art of Ancient and Modern Sudan

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Looking at the modern art it is possible to identify motifs, which are quite common and have a long tradition in Sudanese art. The main aim of the paper is to explore the issue: what is the link between ancient art and modern culture? Why and in what way traditional motifs are present and used by modern artists? Where they come from?

The most common motifs relates to movement of the universe in the growth and extinction, misery and happiness, mobility and leaving. All of them force the ability to act and deal with human life. Innate human nature, fear, lives in part of his life, and s/he is in a struggle for the victory of successively living with it, so s/he can feel the peace and reassurance after that.

By looking deeply into the spirit of the creative process within an ancient society, one should apply some philosophical perspectives. Mysticism seems to be an understanding of the specific relationship between the creator and the creature, as well as the strength and the power donor. It might be a particular language, a form of communication between the virtual internal dynamic and existing external reflection. Identification of a symbolism, depth, mystery, borrowing creature's supernatural power and excellence is part of the creative process.

Artists in the past as well as in the modern world invent new ideas, concepts; they present their own views of the world. Anyway, they use (-d) existing ideas, concepts in their culture. Their ability to create something new allows them to be unique, reinterpret the surrounding world. Are there any common skills, characteristics, and power of invention linking artists from the past and modern world? One of these common powers is the ability to express and adapt the material used to create new visions. Mind and power of spirit become engines for creative practices.

Those spiritual unities might be identified within different societies living in Sudan in the past. One can identify it through analysis of the art of hunter-gatherer societies and their art (rock-art) as well as early farming societies (art and architecture). The transitions from the Neolithic to Kerma/Kush, the culture and later Napata Kingdom did not remove the most important motifs from the culture. Those motifs were adapted in creative ways and are present in later cultures: Meroe (cities, landscape, handcraft, sculptures, architectures), Christian Kingdoms (churches, monasteries, cemeteries), Islamic culture, even if they are so different. All those motifs are part of the modern life and folklore. Through those similarities present art is connected with antiquity.

Feminine Ornamental Artifacts and Their Continuation in the Contemporary Nubian Cultures

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This paper attempts to study the personal ornamental artifacts of the early Nubian woman; archeologically and anthropologically, and then employ this study in demonstrating the very African identity of the early Nubian

women. Personal feminine ornaments are widely present and displayed in all of the contexts of the Nubian archaeology from the different ages of civilizations¹.

This is a joint-paper which relies on the scientific integration between the archaeological data and the linguistic and the anthropological aspects in tracking historical ornamental tools since prehistoric times to the contemporary history. The main aim of the paper is to allocate the displayed archaeological pieces of Nubian ornaments in the living cultural heritage of the different Nubian contemporary groups in the Northern and Western Sudan. Since by applying the factor of the existing Nubian cultures, which are enriched with much folkloric cultural materials about feminine artifacts, this may lead to a proper comparative analysis between archaeological data and the contemporary folklore especially in regards to the artifacts descriptions, their existing names, and their functions.

¹ The discovery of feminine ornamental artifacts are found in numerous excavations since the early start of the archeological missions in Sudan. The National Museum of Khartoum contains several items from different periods of civilization and they are recorded in many references: Adams, William. Y. 1977, 'Nubia: Corridor to Africa', London: Allen Lane, Arkell, A.J. Y.1949, 'Early Khartoum', *Antiquity* 84: 172–81. Oxford University, Nordstrom ,H.A. Y.1962, 'Exavation and survey in Faras,Argin,and Gezira Dabarosa', *Kush*,vol.10,pp.34-61, and Reisener,G.A.1923 a, 'Excavation at Kerma' .parts 1-111, *Harvard African Studies*, Cambridge

Pyramids between Life and Death in Sudan. Royalty and Popularity

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In the Kushite period of Ancient Sudan, pyramids had been playing a spiritual role reflecting religious, social, economical and political thoughts of ancient people of Sudan. Their remains are still visible in the “Royal Cemeteries of Kush” at Kuru, Nuri, Jebel Barkal and Meroe.

In present-day societies of Modern Sudan, pyramids continue to play the same role as in antiquity, but they are now much more concerned with living habits and heritage rather than funerary tradition and they are no longer reflections of “Royalty” but rather of “the people”.

Reflections on Hafirs in the Butana Region

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The main goal of the communication is studying the role of Hafirs in the economic life of Ancient Sudan. For this purpose Hafirs of the Butana region (Musawwarat es Sufra, Naqa, Basa, and Aulib/Abu Erteila) are examined in order to analyse the methods of construction, their layout, use and role in the economy of the Ancient Sudanese civilization.

Based on the accumulated information from the native population in Sudan, the author tries to estimate the role of Hafirs on the "Meroe Island" in modern times as well and comparing the significance of Hafirs in Sudanese antiquity and modern times.

Short and Long Distance Contacts of Late Nubia: a view through a bead hole

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This paper aims to trace short and long distance contacts in Northeast Africa during the period between 300 BC and 600 AD, using an interdisciplinary analysis of the Late Nubian bead material. Past and present archaeological expeditions to Egypt and Sudan have excavated thousands of Late Nubian burials, yet little has been done with their bead assemblages. Lying in a strategic region, Nubia was the focal point for short and long distance contacts. Beads can constitute a source of evidence for direct and indirect trade exchanges in the

archaeological record. The majority of beads are local products. However, the imports originated from a broad range of sites, including the Mediterranean region and the Red Sea coast, the Western and Eastern Deserts, the Egyptian Nile Valley, as well as from many areas of the Indo-Pacific.

Romans, Africans, South Arabians, Sasanians and Indians participated in long distance trade networks. To build up a balanced picture of ancient relations, Meroitic, Nobadian, Blemmyan, and the Makurian merchants should be taken into consideration.

Abandoned Nubian Villages in Upper Egypt: material culture in social anthropological field studies

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The project presented targets a social-anthropological case study focusing on two abandoned Nubian villages in Upper Egypt dated to the turn of the last century, emphasizing the question of their significance as unique witnesses and ephemeral memorials to the first historical Nubian exodus caused by the construction of the early British Dam.

A functional and structural analysis of the villages will initially provide a knowledge base for Nubian settlement architecture which reflects the social framework and interaction of the community living there. Besides a general settlement analysis the architectural study will focus on a detailed documentation of selected residential units, emphasising building technique and decorative schemes which are both considered unique to Nubian house architecture. The archaeological documentation of immovable and related movable cultural remains and deposits will be analysed with regard to the questions as to what was left and the reasons for so doing, in a settlement which was systematically abandoned. A core issue is the fundamental question as to whether the material assemblages of the abandoned site accurately reflect the conditions of occupation. Furthermore cultural- and socio-anthropological field studies in the few still inhabited Nubian settlements in the immediate vicinity will complete and cross-check the study, and will cover questions of traditional oral knowledge.

Through the interdisciplinary research strategy and the combination of a variety of methods, standard interpretations may be reflected upon and questioned. By the mutual correction of recorded interpretations, the evaluation of the various data will produce an outstanding documentation, but above all will be a very important contribution to the discussion of cultural formation processes and their transformation into the archaeological record, as well as bringing insights into the debate on context interpretation of material culture. Abandonment and post-abandonment behaviour and its effect on the formation of archaeological records have rarely been studied, and have not yet received enough acknowledgment in archaeological fieldwork. In the proposed case study, formation processes and the archaeological inferences can be evaluated through research strategies of archaeology, building research, and cultural and social anthropology covering the wide range of movable, immovable and intangible cultural heritage.

SESSION 6: SURVEY - FIELDWORK

All That Remains? A virtual collection for the Archaeological Survey of Nubia

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The first Archaeological Survey of Nubia (1907-1911) is widely recognised as one of the earliest studies of ancient Nubia and one of the largest surveys of archaeological human remains undertaken in this area. In the century that has passed since the completion of the ASN project much of the interest in the human remains from this collection has focussed on the Nubian Pathological Collection in the Royal College of Surgeons, London. Sir Grafton Elliot Smith, lead anatomist on the survey, put together this dedicated collection displaying the range of pathologies, traumas and methods of preservation found during the survey; however it only ever contained a fraction of the human remains excavated. The published anatomical reports from the excavations, although detailed for the time, also focussed largely on the bodies that went into the Nubian Pathological Collection. The main body of skeletons and mummies discovered were not subject to significant study either during the survey or in the years that followed.

A recent attempt to locate the remaining part of the ASN collection has met with mixed success. Whilst it has been possible to identify more than 900 bodies in museums and institutions from across the world, it is clear that a substantial part of the collection is missing. It has however been possible to reassign provenance to many of the skeletal remains found and to trace the history of several of the collections made following the completion of the survey. Although a preliminary assessment has only been possible of many of the bodies, the potential for significant further research is clear. A database of provenanced remains has been produced in an attempt to create a virtual collection, allowing links to be drawn between bodies held in various repositories and to support more detailed curation of an entire Archaeological Survey of Nubia collection.

Remote Sensing in Sudan: possibilities and limitations with examples from the Western Desert and the Wadi Abu Dom

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From the early beginning of archaeology in Sudan, remote sensing technologies played an important role for exploring its antiquities. Aerial photography helped, for example, documenting ruins in remote areas like Kordofan or Darfur. One of the pioneers of Sudan's archaeology, O.G.S. Crawford, also played an important role in developing the technologies of aerial archaeology.

Since these early days of remote sensing and Sudan archaeology, much has changed. Aerial photography from manned and unmanned aerial vehicles as well as high resolution satellite images offer a great variety of opportunities for archaeologists. Online services like Google Earth meanwhile cover large parts of the country with high resolution data like Astrium or Quickbird.

Besides remote sensing techniques, a huge amount of topographically referenced information can be found in old maps, administrative reports and the documents of early travelers – but since these pieces of information are mostly quite scattered and fragmentary, it proved useful to incorporate them into a GIS, where they can be correlated with remote sensing and ground survey data.

This paper shows some examples where remote sensing and other geographical data is used to improve the possibilities of archaeological survey projects in Sudan. First, many categories of archaeological features can be easily detected from satellite images, which can accelerate the regular survey work (as, for example, at the Wadi Abu Dom Itinerary project) or make remote areas more accessible (like at the Gebel al-Ain). Additionally, there are other categories of features (like ancient pathways now partly covered by dunes) which are hardly to be detected at the ground, and remote sensing data is almost the only way to follow them. On the

other hand, there are still some other kinds of features, such as rock art or cleft burials, where a detection by remote sensing technologies is quite hard or even impossible, so that in those cases the limitations of remote sensing makes the classical ground based survey still a necessary working method besides the tools provided by remote sensing.

Wadi Abu Dom Itinerary (W.A.D.I.)

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Since 2009, the project “Wadi Abu Dom Itinerary” (University of Muenster, Germany) is doing a survey, mapping all pre-islamic traces on both banks of the Wadi Abu Dom in the Bayuda desert. We identified numerous sites, mostly very small ones like single burials or shelters etc., but also some larger sites like tumulus and box grave cemeteries. Their time range stretches from the Palaeolithic to the Medieval Period. There are at least two Palaeolithic sites which may be identified as workshops for tools: Palaeolithic artefacts like blades which can be dated to 200.000-40.000 BP were so plentiful and so densely spread over these outcrops that we can interpret this as remains of a concentrated production process. The Neolithic phase (5th-3rd mill.) is represented by sherds and various lithic artefacts, for example one stone axe. The Neolithic material was found mostly on higher elevated terrain than the remains of later periods.

The Kerma Period (2500-1500 BCE) left several traces; we identified quite a number of tumuli with associated sherds. These tumuli are located on top of the ridges, whereas the so called Post-Meroitic (350-550 CE) tumuli were erected on the flat plain. Moreover those types of tumuli differ by their appearance: Kerma tumuli are conical mounds consisting of fist- to head-sized stones, the Post-Meroitic tumuli are flat and larger in diameter. Some of them, although not all, are surrounded with a ring of stones and the central part consists of finer material. We found sherds of pottery from all these phases near the graves.

The dominant remains at the western end of the Wadi Abu Dom are to be dated to the medieval time (6th-14th cent. CE). Besides the monastery of Ghazali, several cemeteries with Christian box-graves were mapped. As usual in Christian graves, they contain only the corpse and no grave goods.

Besides the graves, we mapped several hut structures, campsites, fire places and small shelters. Up to now we are unable to date them, since there were only few associated pottery sherds. All these traces hint to a small, rural and quite poor community living in the Wadi Abu Dom.

Although in its first step the W.A.D.I. Project is focussed on the survey, we conducted an architectural documentation of the structures of Umm Ruweim, Quweib, Umm Khafour and the newly discovered ruin of El Tuweina. Besides small sondages, we did not execute excavations and therefore the interpretation of date and function of these structures is not settled yet (we do have C14 dates for Umm Ruweim 1 and El Tuweina, both ruins can be dated to the late Meroitic/early Post-Meroitic time). After the completion of the survey we plan to partially excavate these buildings.

Selima Oasis and Darb el-Arbain: first results of the SOP project.

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The oasis of Selima is located on the track of the Darb el Arba'in, the Forty Days' Road, which links the Egyptian Nile valley and the region of Darfur in Sudan. Many travellers visited the oasis of Selima (e.g. F.

Cailliaud, L. Almasry, D. Newbold, W.B.K. Shaw and R.A. Bagnold) and gave descriptions, but no detailed archaeological work was done there up to now.

In 2011, the Selima Oasis Project (SOP) started research in the oasis against the background of incorporating this area into a larger project concerning the traffic of goods and people between the Kingdom of Meroe, Egypt and the Mediterranean. Our objective is to ensure an archaeological point of view on the use of trans-Saharan trails during ancient times on several sections in Sudan and in Egypt.

The first SOP mission took place in November 2011, as a collaboration between the French unit of the National Corporation for Antiquities and Museums (SFDAS), the University of Cologne, the French Centre for Research in Khartoum (CEDEJ) and NCAM. The main objective was to identify the remains indicating human occupation of the oases of Selima, Laqiyat Umran, Laqiyat Arbain, and the surrounding areas but also the roads that connected them. We therefore chose a multidisciplinary approach. In addition to the archaeological survey which led to the description of 149 archaeological sites, a study on the vegetation and water resources was conducted.

The second SOP mission in 2013 focused on excavations at the oasis of Selima. Trenches were excavated at Beit as-Selima to get an idea of the function and the age of the building. An Early to Mid-Holocene site, site SOP 1024, located about six kilometres west of the oasis was studied and provided a good collection of lithic objects, a few sherds and animal bones. A additional area of focus was on the survey of the salt and natron mines around the oasis.

The two missions and their first results will be presented in the paper.

Keywords: Selima, *Beit as-Selima*, *Darb el-Arbain* (Forty Days' Road), Sudan.

Rescue Excavation East of Jebal Barkal: results of preliminary reports for seasons 2010/2011/2012

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This paper presents a detailed report of the excavations carried out in one of the archaeological sites of Eastern Jabal Barkal in recent years by the Department of Archaeology, University of Dongla.

The archaeological activity dates back to 2001, and has continued to the present date during numerous campaigning seasons.

During 2011, a geophysical survey was carried out at the site, and one of the most striking outcomes was the discovery of architectural structures dating back to the Kushite Period.

The Bioarchaeology of Nubia Expedition (BONE) in 2014 and Beyond

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Arizona State University's Bioarchaeology of Nubia Expedition (BONE), funded by QSAP, builds on work conducted during the MDASP from 2007-2009. Research focuses on mortuary, habitation, and rock art sites in a 33-km-long project area on the right (north) bank of the Nile River in the region of el-Ginefab, across from the tip of Mograt Island, extending 3.5 km into the desert. Fieldwork in 2014 included excavation at two sites: ASU 09-02, a Neolithic habitation and production area, and a cluster of tumuli at UCSB 03-14, likely from the Ancient Kerma period. Documentation and surface collection were conducted at several other sites; ten new sites were recorded.

Thought to be a Neolithic necropolis due to numerous regularly spaced gravel-covered ovoid mounds in 2009, the western portion of Site 09-02 was leveled for development by 2012. In the intact southeastern portion, excavation of gravel mounds revealed no burials and only two subsurface features. A possible well was cut through alternating layers of sand/silt and gravel with footholds carved into the sides. No artifacts or organics were found to permit dating but the overburden suggests it is ancient. To the northeast, several units were excavated to the level of a cracked mud surface under windblown sand. This area contained the highest density

of lithics and ceramics, including dotted wavy line and incised chevron patterns. A volcanic tufa outcrop at the northwestern edge of the site contained a series of round pits, some interconnected. A 14 x 3 m trench along the south side of this bedrock feature revealed a Neolithic surface rich in ceramics and lithics. Clay linings are preserved at the bottoms of some pits and small clay balls found in the trench and along the north edge of the feature suggest that this area may have been used to refine clay. Numerous shallow bedrock mortars were also found in boulder outcrops surrounding this site.

Site UCSB 03-14 contained 13 tightly clustered graves and one 45 m to the northeast. Although superstructures were similar, substructures varied. Bodies were flexed on the right side, with one exception. All were looted in antiquity, yet preservation of remains still in situ shows that bodies were wrapped in cow hides, then in reed mats, and most were covered with red ochre. One to four vessels were found in most graves, often black-topped redware. Remains include an infant, child, and young to old adult males and females. One female sustained a badly aligned but well-healed fracture to the right lower leg that would have caused a limp. Next season, work will continue in the surrounding area, which includes tumulus clusters on nearby ridges and across the wadi. These clusters are linked visually and include dome graves on ridge ends. Similar interconnections are observed in other parts of the project area and will be explored more fully to improve our understanding of how people placed their settlements and cemeteries within the ancient landscape.

Space from Space: examining the landscape character of the Bioarchaeology of Nubia Expedition 4th Cataract concession

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The Bioarchaeology of Nubia Expedition (BONE) concession stretches for more than 30 kilometers along the right bank of the Nile, from the modern village of Abu Tin at the top of the Great Bend, west to the area across from Shamkhiya. Extending roughly 3.5 kilometers into the desert, the entire concession covers over 90 km² of terrain. One of the project goals is to identify undocumented archaeological resources in the area, and to explore the potential relationships among them. Previous work in the project area has established the effectiveness of high resolution remote sensing data as a tool for the initial identification of archaeological resources, and the BONE project continues with this approach by using high resolution orthoimagery to assess remotely and quickly both the presence of archaeological resources and current environmental conditions in our concession. These results have subsequently been corroborated through on-ground inventory and pedestrian survey. The acquisition and analysis of historic aerial and spaceborne imagery covering the concession has complemented this work by providing a critical overview of regional development over the past 60 years. Interpretation of these datasets has helped form the basis of a 'broad brush' understanding of the region through the application of methods based on historic landscape characterisation approaches, albeit one that is biased by the types of data being used and what they are capable of representing. These types of assessments have proven useful in other regions; however, they have yet to be widely applied and evaluated for their effectiveness as a component of landscape research in this area. The resulting GIS-based interpretive data extracted from this imagery provide a generalized time depth of the modern landscape that can be linked with other archaeological and paleoenvironmental data. These results also provide a continuous coverage that affords a wider view of the region, which has already had a significant effect on our perception of the modern environment and the present remains of past human activity within it.

In this submission, we present a summary of the current state of our landscape research and pedestrian survey activity, as well as plans for future work in the region. This research includes the potential acquisition of further high-resolution remote sensing data to provide more information about the surface and near-surface remains of local and regional human and paleoenvironmental activity, the application of geophysical prospection methods to a number of localities in order to answer specific and general questions about what may be below the modern ground surface, and a geoarchaeological assessment of the project area. Through

these means, we aim to achieve a greater understanding of the present remains of past human activity in the region and the fabric that binds past and present use of the landscape together.

Ruins on the West Bank of the River Nile in Kali Village against Bajrawiya Pyramids

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The west bank has not been widely archaeologically surveyed and excavated compared to the east bank of the Nile. We conducted an Archaeological Survey on the area close to Bejrawiya, and noted that the most important sites in the area of the study were located in the villages opposite Bejrawiya on the eastern bank of the Nile. This is confirmed by the archaeological sites that have been found in the village of Kali which is located directly opposite the Bejrawiya Pyramids. The sites that have been recorded are characterized by the lack of monumental buildings, which lead us to believe that they belonged to common people, who may have worked in agriculture, stock breeding, thus supplying the ruling class on the east bank with agricultural and animal products. There is also a lack of Meroitic settlements.

The Recent Archaeological Discoveries along the White Nile – 9th Season

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Our work during the 9th season concentrated on the region south of Jebel Awlia, between the site of El-Goubush and Goz El-Khazna to the north, as far as the El-Getaina area to the south. This area was for long devoid of archaeological prospection. The present survey of this area was executed by means of a walking survey (on foot and by car), recording all the sites discovered with their coordinates; they were photographed, described and selected surface finds collected from a number of squares (x22m.), made up of pot-sherds and pots with varying decorations, different types of stone tools (hand-axes, grinders...), animal bones. Some human remains exposed on the surface were also excavated and documented.

Historical Events and Archaeological Evidences in The Twin Cities of Shendi and Elmatamma: an archaeological survey inside the borders of the two cities

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The area which is known archaeologically as Shendi Reach is known for its cultural variety and its various archaeological sites. This region includes two famous cities and witnessed important historical events. They are always mentioned as Shendi and Elmatamma and are to be found at a distance of 170 km from the Khartoum, in an area in which the cultivated land extends many miles from the Nile, thus known for its agricultural economy in addition its trade for a long time.

Ethnically this area is known as one of the important centres of the Gaaliin tribes even though it is not the most important one. This does not prevent the existence of other tribes who dwell there in differing numbers. Archaeologically, there is evidence for sequences of human settlement since the Neolithic to the present time.

The two cities includes many archaeological sites going back to different ages, but only a few of them have been archaeologically recorded. Recent results show evidence for new settlement that have not previously been previously revealed before dating back to the Fong and Turkish phases. This evidences includes pottery, pipes, copper tools and ruins of settlement sites, in addition to a number of Gubas, khalwas and Maseeds, plus cemeteries of unknown dates not far from places in which pottery and lithics of the Neolithic age have been found.

The records of some travellers show the existence of a castle in the City of Shendi, which has not received later confirmation, but there is a building which has recently been converted into an educational institution that sits on the ruins. The spread of a large quantity of shells, in addition to the existence of clay soil far from the present riverbed is possible evidence for a change of the course of the Nile.

Wad Shanaina from the Reality of the Archaeological Evidence

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The Goz wad Shanaina is one of the main archaeological sites located in the middle of the Gezira State in central Sudan, and is situated in the middle of the Gezira Agricultural Scheme. This site contains a long cultural sequence as it contains substantial evidence of the Mesolithic with similar finds to the Early Khartoum, as well as containing remains of the late Neolithic in addition to remains of the Islamic period. There are large quantities of water shells, confirming that the site lay close to a Palaeochannel during the Early Holocene. The site is rich in archaeological material covering the periods mentioned above with the remains of pottery and stone tools. This paper tries to shed a light on the archaeological material in this site, since it has not received attention from archaeologists and is threatened with destruction through human agency.

Burial Customs in the Blue Nile Region and Eastern Sudan: an overview

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This work is the results of two fieldwork projects which were conducted by the National Corporation for Antiquities and Museums and funded by the DIU in the area endangered by the re-heightening of Roseiris Dam (2012) in the Blue Nile Region, and the area endangered by the construction of Sitite Dam (2013) in Eastern Sudan.

In the Rosiris region, 8 archaeological sites have been subject to archaeological investigation during the 2012-2013 campaigns.

Thus, more than 50 skeletons were documented at three sites, which had been excavated with different levels of care.

The Sitite region is characterized by rich archaeological remains. More than 41 archaeological sites were recorded between Milaga to Zahana at the end of the lake in 2013. More than 997 graves had been noted with different types of superstructures made of dry stone which were arranged in rounded and elongated shapes.

Through this work in the two regions, we conclude that the cemeteries differ in terms of the age and sex of the incumbants, with differences in the direction of body (supine and contracted position) and orientation: Northeast - southwest with the face towards the West; South East - North West, facing east; East - West, facing south; South - North, facing West.

We also found that funerary offerings only appeared with adult skeletons, and that these included shells, beads of coloured stone and ostrich egg shells, in addition to iron bracelets and a bronze (earring) in the first region and with children in the second.

The Pottery the Late Phases of the Eastern Sudan Cultural Sequence (ca. mid-1st mill. BC-mid. 2nd mill. AD): a preliminary agenda

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This study is aimed at conducting an analysis of the late phases of the cultural sequence of Eastern Sudan (Hagiz and Gergaf Groups, ca. mid-1st mill. BC-mid. 2nd mill. AD). Mainly on the basis of remarks on the

settlement pattern and distribution of the sites, it was suggested that at that time nomadism became the dominant way of life in the region.

The pottery analysis of late phases of Gash Sequence can possibly also be used to point out the emergence of a nomadic way of life in the Eastern Sudan and to understand its development. In this perspective, technological and stylistic characteristics of the ceramics may be taken into consideration. The fabrics may provide crucial information on the clays used and, therefore, on the model of exploitation and occupation of the land by human groups, on their possible movements and exchange of goods. The shapes and dimensions of the vessels may be related to their function and their portability and may help in reconstructing the daily practices and the mobility of people using them. Finally, the study of the distribution of stylistic traits, such as decorations, may contribute to the reconstruction of areas of social relationships, which are reflected in the stylistic regions.

Some preliminary insights into an ongoing research project will be presented as well as a time-table for the next steps and future strategies will be discussed.

Archaeological Cultures in the Eastern Desert During the First Millennium AD

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Archaeology in the Eastern Desert is extremely rich although this region of Egypt and Sudan still remains largely unexplored. In parallel with careful (re)interpretations of written sources, new archaeological projects are studying increasing numbers of historical sites in this area.

In addition to the presentation of these new results through the examples of two areas: the tumulus cemetery sites on the edges of the desert in Upper Egypt (Molla, and el-Kab) and sites from the Khadaweeb locality east of Port Sudan, the paper focusses on the cultures of desert dwellers from the first millennium AD.

New Sites for the Study of Ancient Eastern Sudan: recent developments in the study of settlement patterns in Kassala Region

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In 2010 the Italian Archaeological Expedition in Eastern Sudan (IAEES) resumed fieldwork in the Kassala Region with the purpose of improving our understanding the socio-economic dynamics which occurred in the region between the Atbara River and the Gash River in the past. Part of this work involved the implementation of a GIS, which has the goal of analysing and interpreting the data collected during the excavation campaigns. The GIS also helped to face the challenge of managing and studying the archaeological evidence which emerged in the course of an extensive survey conducted in the same region by the National Corporation for Antiquities and Museums (NCAM) in the framework of the project for the construction of dams and canals for the agricultural exploitation of the area west-northwest of Kassala.

This paper will outline the implementation, management and use of the database aimed at collecting all the available data and at conducting territorial studies through the use of a GIS software.

The database is not limited only to the sites identified by the National Corporation for Antiquities and Museums (NCAM), but incorporates the sites identified by the expedition of the University of Naples "L'Orientale" (at that time Istituto Universitario Orientale), and by the joint project of the Southern Methodist University (Dallas, USA) and the University of Khartoum between 1980 and 1995. At that time 150 sites were identified in the area between Khashm el Girba and Kassala.

The area surveyed from 1980 to 1995 and the one investigated by the NCAM and by IAEES are largely complementary with only few overlaps and this has enabled us to broaden the study of the settlement pattern conducted by Karim Sadr in the early 1990s with an additional 130 sites.

The preliminary results so far achieved will be presented in this paper.

Survey at Jebel Dajou: a new archaeological site in South Darfur region

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The survey was conducted between 2003 and 2006, and covered the southern part of Jebel Dajou, east of the town of Nyala, as well as some sites west and south of Nyala. The survey was conducted by the National Corporation for Antiquities and Museums, Local Ministry of Cultural and Social Affairs and the Tourism Administration Office in the Southern Darfur state.

The survey covered some 17 sites, some of which were visited by A. J. Arkell during 1930s.

As a result of this survey work we discovered some very rich sites with a high density of archaeological remains (ornaments, hand axes, ceramics, and iron objects), some samples of which were collected from the eroded graves and settlement sites, so as to make a preliminary evaluation of the archaeological material. We also recorded some rock painting sites at Jebel Dajou and cemeteries with different types of stone superstructures.

The discovery of new sites in the southern part of the region will give an indication regarding the distribution of certain objects and open new questions concerning the links between the Nile Valley and the Eastern Desert.

Archaeological Survey in the Sodiri Region, 2011: preliminary report, Sodiri 2011

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Introduction

The Kurdfan region of the Sudan is not very well recognized from archaeological point of view. Very few systematic archaeological projects have been previously carried out there. The knowledge about the archaeological remains in the region is therefore very limited. As part of the Polish-Sudanese project the project was developed to carry out a preliminary survey in some selected areas. The field work of the joint project ran from February 3-7, 2011.

Method

Field-walking was the main method applied for the survey. Both the aim as well as timing of the project allowed only for a very quick survey. The team was divided into two groups which surveyed the area. Each group recorded the path using GPS as well as precisely locating individual features: grinding stones, iron slag, sherds, graves, tumuli, boundaries of sites, buildings, etc. For three survey areas we used satellite images (from Google Earth) as basic maps. The fourth area (Al-Nurein) was out of the range of pre-prepared satellite images but all data was also recorded using GPS.

Most of archaeological features recorded were documented by using digital photography. All data received cross-checking references which will allow identifying within space. Written descriptions are also a part of documentation. Also as part of the documentation, information about the threats to the sites and features were recorded.

As a result of the survey and analysis of collected data, a spatial database will be created.

An ethnographic survey was also included as part of the project to get a wider view on the approach of local communities to remains of the past.

Survey areas

Four sample areas had been selected for survey. They are catchments of jebels: Al Baklai, Al-Nurein, Souni al-Songor and Al-Grian.

Results

Al Baklai

On the plateau at the top of the mountain there are more than 40 water containers or collectors. They are cut in the bedrock. The biggest one reaches about 7 m in depth and is about 4 m wide. Some of the collectors are surrounded by small stone walls whose function was probably to direct the water flowing down the slope to

the collectors. In the south west part of the plateau there are about 15 stone features (about 90 cm in diameter). Their exact function is not determined.

Furthermore, at the bottom of the mountain there are graveyards. Different types of graves were recorded (stone tumuli, flat graves covered by stones, earth barrows). Some sherds were also noticed on the surface.

Hilat al_Nurein

On the plateau at the top of the mountain there is a settlement whose size is approximately 700 x 500 metres. Its central point is an extensive (ca. 100 x 50 metres) water collector (*Hafir*). The edges of the collector are constructed of stone walls covered with the mud taken from the inside. Moreover there are ca. 70-80 circular stone huts, partially preserved up to 1.3 metre height. Some of the huts are clustered and resemble cell-structures. In addition, between the huts are rounded stone structures of undetermined function. There are also water containers cut into the bedrock at the site. From the West the settlement is limited by a stone wall, with a possible gate/entrance. Large amounts of pottery sherds and a few flint tools were noticed on the surface. There is also a second smaller settlement with similar huts and water collectors located west from the first one.

It is a common feature to find graveyards at the base that of the mountains of the region. Different types of graves were recorded (stone tumuli, flat graves covered by stones, earth barrows). In addition, in the west part of the surveyed area there is an historic Islamic graveyard for children.

Suoni al-Songor

In this area no settlement was identified. However at the base of the mountains of the region a large number of graveyards are present. Different types of graves were registered (stone tumuli, flat graves covered by stones, earth barrows). Some pottery sherds were noticed on the surface, as well as iron slag, which might be evidence for local iron melting.

Gebel al-Grian

The description of the site of Gebel al-Grian matches that of Suoni al-Songor in most of the details. In the South part of the surveyed area is located an historical Islamic graveyard, which might still be in use.

Conclusions

The very rapid survey proved the huge potential of the region from an archaeological point of view. A large number of archaeological remains were found, mostly graves, whose different types suggests that the area was occupied over an extended period.

Most of sites are well preserved and easily visible in the landscape. However some natural and cultural processes were identified which create threats for the archaeological heritage, including erosion, agriculture (especially in the eastern part of Souni Al-Songor) and looting .

SESSION 6: CULTURAL HERITAGE

Prehistoric Rock Art in Lower Nubia and Upper Egypt: study of deterioration and conservation

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Rock art is considered one of the most important features in lower Nubia and Upper Egypt. These rock art artefacts are considered the first records before the invention of writing, and they are an important record regarding the ancient life-ways in Lower Nubia, as they represent all the animal species which lived in the region in prehistory, such as giraffes, cattle, elephants as well as other species. Hunting scenes are also represented as well as ferry boats which were used for transportation on the Nile.

Thousands of rock art fragments were removed from lower Nubia during the international campaign for the salvage of Monuments in Nubia in the sixties of the twentieth century. Some of these rare fragments were displayed in the Nubia Museum and the remaining fragments were stored beside the Khalabsha and Elsebou temples above the high dam lake.

Rock art fragments from Lower Nubia were exposed to different factors of deterioration and they show substantial damage due to factors such as surface disintegration, various types of crusts loss, scaling and cracking, coupled to parts of the original fragments being broken and others lost. They also encounter a lot of bio deterioration problems and salt crystallization.

The study currently being undertaken is focusing on documenting the rock art fragments, studying the deterioration factors and the suitable methods of preservation.

Several samples from the decayed fragments have been studied, analyzed and characterized by means of WAXD , IR , SEM , RAMAN Spectroscopy as well as petro graphical study by stereo microscope and polarizing microscope.

A lot of valuable results have been obtained from the above-mentioned detailed study and they have been used in planning a conservation programme to conserve the rock art artifacts in both outdoor and indoor environments.

The study has also led to the discovery of a new prehistoric rock art site in Gabel Goulab, on the west side of Aswan, which can be added to the Egyptian archaeological heritage.

The Spheres and Challenges of Heritage Conservation in Sudan

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Current concerns that arise from threat and risk to archaeological sites and remains are focused on the challenges presented by proposed dams, the impact of gold mining activities, and the extension of agricultural schemes and the devastating effects of excessive irrigation. These phenomena brought on by political, social and economic change need to be addressed and resolved at the political level. Here, archaeologists must assume responsibility in line with Bruce Trigger's claim that «Intellectual integrity requires an awareness of the social and political conditions in which archaeology is practiced».

However, this should not prevent archaeologists from concentrating on the absolutely essential tasks of heritage conservation. This implies at the same time the preservation and conservation of archaeological sites and monuments, and the permanent control and care of objects in museum and university collections. The objects held temporarily by foreign missions are not exempt from this either.

While the main emphasis of such efforts should be on the protection and restoration of archaeological heritage, a holistic conservational approach would also encompass the meticulous documentation of the archaeological heritage, i.e. the production of knowledge, but also its dissemination and mediation.

On the basis of several case studies, this paper investigates how the proposed holistic approach to heritage might be adapted by archaeologists working in the Sudan, but also how it might be integrated into larger social structures and ongoing social practices.

The Future Role of the Documentation centre at Nubian Museum

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The Executive Committee of UNESCO for the Establishment of the Nubia Museum of Aswan and the National Museum of Egyptian Civilization in Cairo has voted a recommendation to establish a Library and a Documentation Center at the Nubia Museum of Aswan.

Nubia can be considered the most 'excavated' corner of the world. After almost a century of excavations, we now have an enormous volume of documentation about the area. These documents are scattered around the world, given the international character of the Salvage Campaigns.

In 2001, UNESCO once more drew the attention of international institutions to Nubia: a recommendation was voted to establish at the Nubia Museum a Documentation centre on Nubian studies for which UNESCO is trying to collect as many publications as possible as well as gather copies of documentation (photos, drawings, reports, articles, etc). Moreover we would also like to make an inventory of the existing documentation scattered throughout the world.

The portrayal of Nubia as a culture and a land in the form of documentation will represent and repay, at least in part, those who have lost their land; Besides, the Documentation Centre will be an important reference point for everyone interested in studying Nubia and its people.

The Future of New Dams in Sudan

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The objectives of old and new Dams in Sudan are: enhancement of the country infrastructure for alleviate poverty, power generation, development of agriculture and food security, the development and connection of the different parts of country to the national electricity transmission and distribution networks, etc.

In all DIU projects there is good co-operation between NCAM and National bodies in field of studies and surveys, and the rescuing in order to preserve the national tangible and intangible heritage located in all of DIU's projects.

The presentation will focus on DIU roles and activities in the field of archaeology (past, present, future projects) and DIU future strategy to support and participate in archaeological activities related to its projects.

The Role of Development Projects in the Discovery and Documentation of Archaeological Sites: Mirowe Dam case study

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Despite the large volume of research and archaeological studies in the Fourth Cataract material, the available information about the archaeological sites in this region is still quite scarce. Once the preliminary arrangements and preparations needed for the Dam Construction were completed, the National Corporation for Antiquities and Museums launched an appeal to the international community to enable it to participate in a salvage campaign to rescue the archaeological monuments of the region. This region contains a large number of archaeological sites, spread all along both banks of the Nile, as well as on the Islands. These sites related to different historical periods, and notably, most of them were unknown before this campaign, since no serious studies had ever been undertaken previously, other than at a very few sites. The construction of the Dam in the region of Mirowe Island, which lies due north of Great Hamdab Island, has dictated the necessity for a salvage campaign to rescue those sites which are threatened by the rising waters of the lake that is expected to extend about 170 km upstream behind the Dam wall.

This study thus came about in an attempt to throw light on the contribution of the major development schemes and projects in fostering rescue operations and salvage campaigns of the archaeological monuments and cultural heritage of the region.

Therefore, this study is focussed on all rescue projects which have been undertaken, mainly concerned on those involving dam constructions, with particular focus on Mirowe Dam, as a case study to enable the evaluation of the efforts that have gone into these campaigns. It is also of great importance to detect any negative aspects which might have occurred, so as to avoid them in any future work.

Nubia and Nubians: digging in museums

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For over one hundred years, what we traditionally define as Nubia is more and more submerged by the water of dams built, or planned, all over the area for reasons relating to development. This damming program is not only endangering the traditions of modern Nubians displaced elsewhere, but it is also causing the loss of valuable knowledge of Nubia's place in the archaeological record. If the trend is not reversed, museums will become 'the only and sole alternative' venues where Nubian culture can still be admired and understood. The responsibility of museums has, therefore, never been greater.

The current developments in the region beg for new research on the idea, history, heritage and present life in Nubia and its representation in museums. This article will therefore present the results of a research project aimed at assessing the interpretative models of the displays of Nubian collections worldwide. The point of

departure has been the descriptive and analytical ‘tour’ of the current state of Nubian collections in their homeland and abroad. The aim of the research was in fact not only to create a topographical map of the collections but also to provide an initial understanding of how they have been understood, created, presented or conversely silenced in the context of museums worldwide. It is very much hoped that the research can provide a solid base from which to raise awareness on the existing problems and can represent an inspirational tool that will give engender new ideas and projects.

Tutankhamun was a Nubian : Dongolawi and Kenzi perceptions of their own history

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When passing on their history, contemporary Nubians, like other people groups, enjoy connecting themselves with a glorious ancient past. An example is a Dongolawi Nubian mono-lingual lady who asserted that she was related to Tutankhamun. It is an image of oneself one wants to transmit to the outsider.

History passed on orally, as among the Nubians, is insider information. The way history is incorporated into an ethnicity's identity tells us at least as much about the present as about the past. The present is interpreted in the light of an idealized past, and the past in the light of a sometimes not so glorious present.

By setting out the Nubian perceptions on their origin and history, history is shown as an identifying marker. The portrayal of the glorious past grants insights into the Dongolawi and Kenzi view of the present as a marginalised group. Throughout the paper I give individual Dongolawi and Kenzi Nubians a voice even if they use methods differing from formal Western approaches to doing research.

In spite of ancient Eastern Africa being the cradle of humankind, among the Dongolawi, the pre-Pharaonic period is discussed less than later periods, whilst among the Kenzi almost never. The Pharaonic period is a source of pride. Nubians relate to all the Pharaonic dynasties.

The Meroitic period is rarely mentioned. With some exceptions, modern-day Nubians claim much less of the Nubian kingdom history for the present than Pharaonic history. What remains in people's minds is the shift from the Christian to the Muslim faith, and Christian symbols which were valued until a short while ago, by both Dongolawi and Kenzi.

While the Old Nubian language was in use during the Nubian Christian kingdom, that connection is seldom mentioned. However, during the last two decades, the significance of the Old Nubian language and its characteristics as an identity marker are increasing.

Finally, Islamisation and Arabisation are looked at together, introducing a topic heavily discussed among Kenzi and Dongolawi: Does the African or the Arab descent play a bigger role in forming their identity?

Learning from Local Communities: participatory GIS in mapping ‘living heritage’ on Mogrart Island, Sudan

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Within the framework of the Qatar-Sudan Archaeological Project (QSAP)-sponsored activities of the Mogrart Island Archaeological Mission (MIAMi), a Historical Archaeology & Living Heritage pilot project was dedicated to the recent past as well as the present of Mogrart island. One segment of the project aimed at writing the recent (Islamic) history of Mogrart by starting from recording the present use of the island and adding a diachronic aspect by tracing family histories and their material correlates, especially the development of compounds and dwellings in living memory. Tapping into local knowledge helped gain an idea of the development of settlements and settlement patterns over time, and identify possible locales relevant to the

study of the island's deeper Islamic past. The project successfully employed Participatory GIS as the main method of tracking local people's current use of the island, and it actively involved members of local communities in writing (family) histories of place. A second segment of the project aimed at establishing to what extent work on the 'living heritage' of the island could enrich our understanding, as heritage practitioners, of tangible and intangible landscape values that are of interest to the local communities, whilst, at the same time, sharing our knowledge of the deeper past of the island. Accordingly, themes were identified that may be built upon in the future in the effort of learning and constructing a mutual understanding of the present and the past of the island of Mograt.

Rebuilding of the Garf Hessein Temple

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The location and its history

The temple was built by Ramses II on the west bank of the Nile about 90 km south of Aswan city. It is one of the temples in caves.

Description of the temple

It is composed of a rectangular exterior open court surrounded on three sides by columns.

The first stage in the salvage of the temple:

When the Egyptian government decided to build the Aswan high dam in 1954, the Nubian monuments became endangered. Egypt and Sudan therefore appealed to UNESCO to save the Nubian monuments.

The saved portions of the temple were about 250 blocks kept close to the Kalabsha Temple.

In 2002 we were able to give new life to the temple again after a lapse of about 40 years.

Art, Archaeology & Sensory Knowledge at El Kurru

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The *Art, Archaeology and Sensory Knowledge* (AASK) project is part of the International Kurru Archaeological Project (directed by Dr Rachael J Dann & Dr Geoff Emberling), which initiated new work at the cemetery of the 25th Dynasty in 2013. The AASK project initiates a programme of visual art residencies, events, exhibitions and publications engaging with the archaeologists and the archaeological process at El Kurru. This paper describes the project, and discusses how embodied and sensory aspects of the archaeological work and the archaeological site will be used as the inspiration for artistic production. Fundamentally conceived of as a cross-disciplinary project both artist and archaeologists will engage in a reflexive process, which seeks to question how archaeological, and artistic knowledge are experienced, produced, recorded and explained. This process disrupts traditional interpretative hierarchies in archaeology, to push them in new directions and to disseminate results to new publics. This paper questions what archaeological practice at a key site for the history and archaeology of Sudan could entail, and what it might become.

Open Access to the Past – the African Archaeology Archive Cologne (AAArC)

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The enormous impact of the internet on structures and processes of research is undeniable: digital archives are manifold and the principle of open access is gaining more and more importance. The advantages of open access to scientific literature and data are obvious - but there are also challenges. Especially, when starting to

build an online repository and make it work. How it can be done will be presented using the example of the African Archaeology Archive Cologne (AAArC).

Since 2012, AAARc has made it its mission to digitize the documentations stored at the African Archaeology of the Institute of Prehistoric Archaeology at the University of Cologne and make them available in the object database Arachne. The data consists of a rich collection of finds, slides, drawings, rock art pictures and texts resulting from various research projects (among them the DFG projects "Rock Art in the upper Brandberg", "B.O.S." and SFB 389 ACACIA). Large parts of the inventories have already been digitized and are now available online. A comprehensive contextualization of the objects managed by AAARc is a task for the coming years.

New in Munich – the Ancient Sudan

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By the acquisition of Amanishakheto's treasure in 1839, Munich became, after London, the leading place for ancient Sudanese art in Europe. In 2013 the State Museum of Egyptian Art opened its new building, which includes a large gallery "Nubia and Sudan". Based on a continuous sequence of pottery from the Neolithic via A-Group, C-Group, Kerma, Napatan, Meroitic to Post-Meroitic, the collection displays masterpieces of sculpture such as the head of Shabaqa, an ushebti of Taharqa and the 'Venus of Meroë'. Loans of the NCAM from Naga – the faience statue of Isis and a stela of Amanishakheto - refer to the ongoing excavations at Naga which are now under the aegis of the Munich Museum.

Special attention is given in the Sudan Gallery to the demonstration of the autonomy of the cultures of ancient Sudan and their impact on Pharaonic Egypt. A large-scale interactive projection presents the historical evolution of the Sudan from 10.000 BC to 2100 AD (dam projects!) and the changing spheres of political influence between Egypt and its southern neighbours. Ancient Sudan has become an integral and essential part of the Munich Egyptian Museum.

Early Photography and the Ancient Monuments of the Sudan

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Almost all travellers to the Sudan during the nineteenth century, who left published reports of their journeys, included drawings of archaeological sites, monuments and objects in their descriptions. The invention and improvements of photography presented a new means of documentation, allowing the production of precise and detailed images.

Although it has been suggested that the Frenchman, Pierre Trémaux, was the pioneer of photography in the Sudan, it is now known not to be the case. This merit can be attributed to the British photographer Francis Frith, who documented Pharaonic, Meroitic and Christian sites in the Northern Sudan, including the temples of Amara and Soleb as well as the church on Sai Island. Stereoscopy was applied to the photos, so that a three-dimensional view of the monuments could be experienced.

The first photos of the pyramids of Meroe were produced by the Austrian, Richard Buchta; Only two of them were however published. The most comprehensive documentation of ancient sites at the "Island of Meroe" is due to the activities of the German, Carl Berghoff, comprising not only photos of the named pyramids, but also Wad Ban Naqa and Naqa. Furthermore, he also was present when the well-known double statue of Shanakdakhete was discovered in the ruins of Meroe.

From a general point of view, other than the photos of Pharaonic sites, the Meroitic ones reflect a Europe-centric attitude by comparing Meroitic relics with those of Roman times, or incidental curiosity which is embedded primarily in geographical and ethnographical documentation, or sincere interest in the relics of an African culture which was almost unknown at the time. Some of the images have been published in rare and

hard-of-access books, or lie in cardboard boxes or as lithographs, whilst others are stored in private collections which are widely unknown.

Fortuitous find of an Unpublished Album of the Nubia Campaign in the Photographic Storage of the Documentation Department at the National Archaeological Museum, Madrid, Spain

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Returning to the idea that began in 2010 at the 12th Nubian Conference in London, in which we discussed the discovery of the documentary heritage of the Archaeological Museum of Madrid, we now present an album of photographs found in the basement of the museum. This “fortuitous find” shows the excavations of one of the Spanish Archaeological Missions sent to Sudanese Nubia, particularly the as yet unpublished necropolises of C Group (ANX, and the Pharaonic of SAF), as well as that already published (SAX-75), and the Meroitic (MAN).

There are images of very poor quality, some of which are somewhat deteriorated, so that it would be best to transfer these rolls to other formats to ensure their preservation. Their discovery was made by chance, when the Photographic Archive Storage of the Documentation Department was transferred during the renovations that the institution has been undergoing since 2008.

We believe that publishing these photographs is a form of diffusion of cultural heritage, saving the past for the future. The museum that re-opened its doors on March 31st of this year contains true “jewels”, witnessing the time when the Spanish teams spent digging in Nubia during rescue work, as part of the UNESCO Nubian Rescue Campaign in the sixties of 20th century.

Keywords: Documentary Heritage, Spanish Archaeological Mission, Nubia Campaign, UNESCO, photographs, Sudan, Archaeological sites.

ABSTRACTS OF POSTERS

The Tiye Temple Project

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Since 2014 the "Tiye Temple Project", developed by the Centre of Studies on Egyptology and Coptic Civilization "J.F. Champollion" in Genoa, aims to restore the XVIII dynasty temple in Sedeinga dedicated to Queen Tiye. The project strategy is dedicated to the restoration and further conservative of the site. Another relevant part of the project is dedicated to the study of the whole cultic area. The data that will be obtained by the archaeological survey and investigations can contribute to a better knowledge of the role of the site in the political domination of Nubia in the New Kingdom.

Multidisciplinary Investigation of an Early Post-Meroitic Tumulus at Jebel Sabaloka, Sixth Nile Cataract, Sudan

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The exploration in 2011 of one of the tumuli in the western part of Jebel Sabaloka by the mission of the Czech Institute of Egyptology uncovered a standard burial of an archer 14C-dated to the beginning of the post-Meroitic period in the Sudan (see Suková – Varadzin 2012: 128). However, more than 1,800 macro-remains with a clear predominance of desiccated *Urochloa* sp. florets and dozens of small soil molluscs were recovered by wet and/or dry sieving of the contents of the burial niche; more than 100 pollen grains with a predominance of Graminae pollen were obtained by pollen analysis of the residues in the beer jar accompanying the burial, and a further series of archaeobotanical data were recovered from a hearth located at the base of the tumulus. How do these finds, together with the archaeological and anthropological findings, contribute to our knowledge of the subsistence, environment, climate, and the burial rites during the early post-Meroitic period in Central Sudan?

Suková, L. & L. Varadzin, 2012. Preliminary report on the exploration of Jebel Sabaloka (West Bank), 2009–2012. *Sudan & Nubia* 16: 118–131.

The Quarry Landscape at Meroe, Northern Sudan

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In the autumn of 2012 the three-year project “Raw material procurement in the Kingdom of Meroe, Sudan” started at UCL Qatar (QNRf project 5-879-6-025). The study area lies in a plain in the heart of the Kingdom of Meroe with the Pyramids of Meroe, the Royal City and the Meroitic town of Hamadab. A huge amount of building stones needed to be quarried for the construction of these monuments. As Nubian sandstone extends along the whole Middle Nile region sandstone was not traded but quarried in the vicinity of the construction sites themselves.

The surveyed area extends about 25 km from the hills of Djebel Umm Ali in the north to Djebel Makbor and Jebel Mileha, a small group of hills to the south of Wadi el-Hwad. So far 72 quarries have been located and mapped. Five sectors of extensive quarrying can be distinguished: the Northwest Sector to the very north, near the banks of the Nile, with 25 quarries; the Northeast Sector to the east of the main highway, with 10 quarries; the Central Sector West with 27 quarries and the Central Sector East with 9 quarries, both to the east of the Pyramids of Meroe, and the Southern Sector in the hills to the very south of the surveyed area, where only one quarry has been located so far.

Each quarry has been documented using datasheets containing a comprehensive list of features that can be observed in the ancient quarries, including also information on the state of preservation. Documenting and studying the various features of each individual quarry yields valuable information on methods of extraction, types of tools used, organisation and infrastructure (for example slipways for transportation of stones; temporary shelters) and sometimes also on the preparation of the stones before they were put in place at the construction site.

Selected quarries will be documented in more detail using aerial and terrestrial photography for detailed mapping purposes as well as 3D models and reconstructions.

Protecting and Presenting Sudan's World Heritage: an evaluation of visitor behaviour and expectations at Musawwarat es Sufra as a prerequisite for site management planning

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In 2011, Musawwarat es Sufra was included in the World Heritage List as part of the serial property 'The Archaeological Sites of the Island of Meroe'. In 2013, with funding from the Qatar-Sudan Archaeological Project (QSAP), a systematic effort at developing and implementing a comprehensive site management plan was begun. One of the pillars of site management planning at Musawwarat is a visitor study that was undertaken at the Great Enclosure in early 2014. Based mainly on tracking visitor movement within this labyrinthine monument and on structured exit interviews, this study provides empirical data on visitor behaviour, experience and expectations at Musawwarat, and the 'Island of Meroe' more generally. The complex Great Enclosure, similar to the Royal City at Meroe, is currently under-presented to visitors travelling without well-trained guides due to the near absence of explanatory panels. This results in an often poor visitor experience as well as in potential damage to some of the monuments through undirected visitor movement. In preparation for the development of a visitor guidance system that aims to protect the site while enhancing the visitor experience, the study recorded 'wild' tracks used by various types of visitor, those that would need to be developed for visitation, re-routed for better visitor experience or closed to visitors due to poor preservation. Furthermore, themes and 'stories' were identified that were of particular interest and fascination to varied visitor groups in the context of the site of Musawwarat and the wider cultural landscape of the 'Island of Meroe' World Heritage Site. Apart from information on the ancient monumental remains and their cultural and environmental context, these themes of interest also include information on the local nomads who live near the site today, work in archaeological excavations and guard the monuments. The study also included interviews with Sudanese and international tour guides, as well as with the local site guards, to record their approaches to, problems with and suggestions for the presentation of this unique site.

Animals of Makurian Fortified Dwelling in Banganarti, 6th-12th centuries AD

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Archaeozoological research in Banganarti provides data on the economic role of animals during the formation and flowering of Makuria. These are first-time archaeozoological analyses of bone materials yielded outside the capital cities, i.e. Old Dongola and Soba. In total, the area of the fortified settlement surrounding the sacral complex yielded about five thousand animal remains, related to two phases: Early Makuria (6th-10th centuries AD) and Classic Makuria (11th-12th centuries AD). Cattle predominated in the economy and consumption during this period, their remains constituting about 45% of NISP. The importance of ovicaprids, second most numerous in the assemblage, tended to diminish with time, unlike the pig, whose role in consumption gradually increased (Early Makuria: 12% of NISP; Classic Makuria: 20%). Osteometric data indicate that animal populations in Banganarti were notably uniform in terms of morphology, in contrast to those of Old Dongola. Hunting and fishing were insignificant in consumption.

Levallois Tradition Epigones in the Middle Nile Valley: preliminary results of the new project in Southern Dongola Reach, Sudan.

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The state of the prior knowledge on the final Pleistocene settlement in the Middle Nile Valley was largely based on the data from remote sites located at the Nile cataracts. Interdisciplinary research in the area of Southern Dongola Reach within the project 'Levallois Tradition Epigones in the Middle Nile Valley' has provided extensive data that has radically revised our views of the environment, fauna exploitation and camps organisation of humans group during MIS2.

Research in the Affad Basin has been conducted at open sites and together with lithic inventories and animal remains, it has yielded unquestionably unique relics of habitation structures from sealed sediments dated by luminescence methods (TL, OSL). Comprehensive environmental studies on the ecosystem established that human groups functioned in extensive wetlands inhabited by diverse fauna. Spatial analyses and lithic refitting allowed for the reconstruction of technological processes related to chert processing and identification of the means employed in the construction of the occupied space.

Comprehensive, interdisciplinary research in the area of Affad has revised the hitherto prevailing picture of the functioning of human groups in the late Pleistocene in the area of the Nile Valley and made it possible to provide characteristics of the regional variety of the Terminal Nubian Complex, with the lithic industry based on Levallois methods.

Project financed by Polish National Center of Science, grant UMO-2011/01/D/HS3/04125.

Jebel Uweinat: more than rock art

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Jebel Uweinat is an isolated massif rising from the peneplains (?) of the Eastern Sahara at the intersection of the 22nd parallel N and the 25th meridian E, where the borders of Egypt, Sudan and Libya meet. The mountain covers an area of more than 1000 km², with *Cima Italia* reaching an altitude of 1934 masl.

In the last two decades Jebel Uweinat has proved to be one of the richest areas for rock art in the Sahara. At the beginning it was assumed that paintings and engravings only decorated rocky walls or shelters in wadi

floors, along transhumance routes of nomads or semi-nomad groups of cattle or goats herders. Recently, this has been shown not to be completely true as artistic imagery was found up to 1450 masl.

As a consequence, over the last few years a small and informal group of rock art amateurs has started a series of field surveys in order to systematically explore the territory.

During our surveys on and around the massif, we have come across a number of sites with stone circles and other structures, such as tumuli, stone alignments, tethering stones and fireplaces. We particularly noticed the presence of large numbers of circles and semi-circles on top of several *garas* dotting the plains to the east of Jebel Uweinat. Some sites also stone artefacts and pottery fragments.

Following the socio-political developments in the area, we were no longer able to travel to the mountains to continue our field research; as a consequence, we decided to turn our attention to the satellite pictures, as most Google earth images for this corner of the Sahara are sharp enough to detect stone structures having a diameter of at least 180 cm. After checking and harmonizing data collected from several people, we assembled a database listing 567 sites and 4119 stone structures. These can be considered minimum numbers, as some circles documented during our field surveys were not visible on Google images; also all blurred or questionable sites were ignored. By cross-referencing position, area, elevation, number of structures at each site, etc we were able to produce distribution maps and statistics. The sites are shown to be concentrated around the main valleys of the mountains, both on the slopes and on the nearby alluvial areas. Many sites are spread out to the East, along ancient waterways and up to a distance of more than 200 km from the mountains, testifying that climatic conditions during the Holocene humid intervals could support a human presence in areas that are presently totally deserted.

We feel that these figures can strengthen the archaeological potential of Jebel Uweinat, today only known for its wealth of rock art.

The production and consumption of ostrich eggshell beads at the Mesolithic settlement of Sphinx (SBK.W-60), Jebel Sabaloka (West Bank)

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The Mesolithic sequence at site Al Khiday 3 (Central Sudan): preliminary data from first sounding.

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Among the group of sites of Al Khiday is a Mesolithic mound named Al Khiday 3 (16D3). This relatively large mound has been often visited for surface survey, but only in the 2013 field season it was considered for a stratigraphic text excavation. This had the first aim of understanding its preservation condition, depth of deposit and archaeological potentialities.

A 5x5 meters trench was positioned on the south–western slope of the site, in a point where an excavator had damaged the first 30 cm of deposit.

Apart for the upper part of the stratigraphy that appears made of a colluvial deposit as in other contemporaneous mounds along the White Nile and at Al Khiday 1 (16D5), an interesting anthropic stratification is here preserved.

A thick deposit of burned to fresh *Pila* shells and intermixed ashy groundmass, a proper shell midden, and some other features related to firing activities were identified. A first geoarchaeological study of the sequence including thin sections analysis has also been done to confirm preliminary archaeological interpretation of the good state of preservation of the stratigraphy and the functional interpretation of excavated layers.

Neolithic Green-Stone Beads from R12 Necropolis (central Sudan): sourcing area and archaeological implication

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The sources and distribution of gems and other stones carved for prestigious objects in prehistoric North Africa have not been well investigated except for ancient Egypt. We are thus limited in our understanding of the circulation of and access to resources that were highly valued by prehistoric societies. Identification of the source areas for raw materials is of utmost importance because it can help in reconstructing the intricate network of social relationships behind their regional exchange. Among the many materials used in prehistoric North Africa, amazonite was one of the most prized. Amazonite is a semi-precious, green to blue-green variety of microcline feldspar with white perthite veins. It was employed for beads and pendants since the beginning of the Holocene in the Levant and the Neolithic in North Africa. It was also occasionally used for jewellery in prehistoric Sudan, especially at the Nubian cemetery R12, where necklaces with amazonite beads are common. R12 is a Nubian Middle Neolithic cemetery with 166 graves and these generally include offerings such as pottery, polished stone objects, carved ivory, and gems of different kinds.

The first to point out the importance of amazonite was A. J. Arkell in “Excavations at Esh Shaheinab, Sudan” (1949). He also suggested that this gem was imported from the Tibesti region (southern Libya), where a pegmatite with blue-green microcline was found by T. Monod. Amazonite-bearing pegmatites are also known from southern Egypt (in the Eastern Desert’s Red Sea Hills) and in northern Ethiopia. Additionally, there is a poorly known amazonite occurrence, which has been quarried, at Jebel Nuhud in western Sudan. The results of an archaeometric investigation that compares the geochemical signature of green stone beads (amazonite) from the R12 cemetery and amazonite samples from several deposits in North Africa will be presented in this contribution. The results may elucidate the main mobility patterns of Neolithic people living at R12 and their ability to obtain and exchange the raw materials for jewellery.

MESOLITHIC FAUNA FROM AL KHIDAY

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The poster will summarise the results of studies of Mesolithic fauna from closed archaeological contexts in the Al Khiday area in Central Sudan, excavated by a team from the ‘Istituto Italiano per l’Africa e l’Oriente’.

Carbon and oxygen isotope composition of human and faunal bones apatite from Al Khiday archaeological site (Central Sudan)

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Stable isotopes of fossil skeletal remains represent a source of palaeo-climatic and palaeo-environmental information and allow to reconstruct aspects of ancient diets.

In this study human bone remains from Al Khiday cemetery, (Central Sudan) have been taken into account which cover a period from pre-Mesolithic to Meroitic. In addition, a set of finds of terrestrial and aquatic fauna of Mesolithic and Neolithic periods have also been analyzed.

The isotopic abundances of carbon and oxygen were measured on apatite.

The $\delta^{13}\text{C}_{(\text{PDB-1})}$ values allow to distinguish between a diet based on C_3 , C_4 or mixed plants being the distribution of the two groups of plants bimodal with no overlap.

The oxygen isotope composition of bone apatite ($\delta^{18}\text{O}_{\text{V-SMOW}}$) gives information on palaeoclimatological condition in continental areas. The ^{18}O value of body water reflects the oxygen isotope composition of environmental water that the individuals ingest over their lifetimes, which in turn is a direct function of the physical conditions of the environment: temperature, relative humidity, amount of atmospheric precipitations.

Bone diagenesis study on multiple burial phases at Al Khiday (Khartoum, Sudan) and interaction with soil and climate

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The study of diagenetic alterations by histological analysis provides valuable information on the taphonomic history of archaeological bones and on their burial environment. In this research, histological analysis was performed on a set of 58 human bone samples, belonging to four different burial phases, from 16D4 archaeological site, located at Al Khiday (Khartoum, Sudan). The well-defined archaeological context provides a set of bone samples buried during different phases along a wide span time, therefore under different environmental conditions. Scanning electron microscopy and high-resolution X-ray computed microtomography analysis revealed extensive bacterial and fungal attack, and secondary phases precipitation and dissolution in the samples. The analysis of textural relationships between each diagenetic feature enabled to establish a relative chronological sequence of events acting during burial. Moreover different patterns of diagenetic alterations were observed for burial phases of different ages, proving a strong relationship between diagenesis and environmental conditions.

Archaeological excavations show that some bones of the most ancient phases are partially embedded in carbonate concretions and secondary calcite in bone microstructure was detected and several of the more recent graves are carved into hard carbonated layers. The study of carbonate concretions was here addressed to better understand the diagenetic processes affecting bones. During the early and middle Holocene, alternation of short dry periods and wet periods lead to a series of subsequent events of calcite dissolution and precipitation, resulting in calcium carbonate accumulation in the soil. The complete sequence of carbonate-rich horizons (1m thick) was sampled and specimens were studied by scanning electron microscopy (SEM), cathodoluminescence microscopy (CL), X-ray Powder Diffraction (XRPD) and ^{14}C -AMS for radiocarbon dating. Microstructural analysis revealed differences in size and distribution of calcite crystals, and CL analyses confirm the presence of several generations of calcite possibly linked to different fluid fluxes and evaporation rates through time. Preliminary radiocarbon dating of carbonate samples with different texture confirms the diachronic formation of calcium carbonate concretions in the soil.

Archaeometry at Al Khiday: what's for?

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Due to the extraordinary preservation of the stratigraphy and the long frequentation period at the sites of Al Khiday (Khartoum, central Sudan), an archaeometric program has been planned and partially completed in the last years, focusing on the reconstruction of different aspects of the material culture in the site and in the region.

The analysis on the ceramic fabrics and the quantification of the textural features with an innovative approach, based on the image analyses, allowed to quantitatively describe the pottery technology in terms of production recipes and to follow its changes from the Mesolithic to the Neolithic. On the basis of the petrographic composition, specific decorative motives testify the link with other communities near the sixth cataract. In order to understand if also other decorative systems, for which the lack of any mineral and rock indicator limits the provenance definition, can be referred to specific regions in central and north Sudan, an intensive program of analysis on the bulk composition and Sr and Nd isotopes ratio has started in the last year. The comparison of pottery from Al Khiday and other sites with clay materials sampled from different locations along the White, the Blue and the Main Nile and the Atbara, will allow to explore the social organization and the length of connections between communities in the Mesolithic and the Neolithic in this region.

Analogously, the analysis on 60 faience beads and pendants from the Late Meroitic and Post Meroitic graves at Al Khiday (16D4; 10U21; 16U3 and 10X6), aims of understanding social economic aspects related to exchange networks of raw materials and finished objects. The lack of systematic archaeometric investigation, despite the abundance of these objects in the Sudanese Nile Valley, limits the knowledge of the raw materials used and production technologies. Here, the multi analytical approach, combining optical microscopy, non-invasive X ray diffraction (XRD), a Scanning Electron Microscopy (SEM), and Electron Probe Micro Analysis (EPMA), will allow to define the preservation state and the production techniques. The presence in several samples of swelling, dripping, and drying marks and the glaze thickness and distribution indicate that direct application and/or efflorescence technique were used for the faience production. Moreover, the occurrence of cristobalite in few samples suggests for these beads the use of a high temperature production process.

CONTENT

PROGRAMME OF THE CONFERENCE	3
ABSTRACTS OF MAIN PAPERS	17
ABSTRACTS OF PAPERS PRESENTED IN THE PARALLEL SESSIONS	25
Session 1: Prehistory	25
Session 1: Protohistory	30
Session 1: Bioanthropology	32
Session 1: Man – Animal	35
Session 2: Protohistory	41
Session 2: Egypt	44
Session 2: Napata	49
Session 3: Meroe	55
Session 4: Middle Ages	69
Session 4: Islam	78
Session 4: Meroitic Iconography	80
Session 5: Epigraphy and Linguistic	83
Session 5: Fortifications	90
Session 5: Transcultural Approaches	94
Session 6: Survey – Fieldwork	97
Session 6: Cultural Heritage	105
ABSTRACTS OF POSTERS	112