ARCHAEOLOGICAL BAYUDA CONFERENCE

First International Conference on the Archaeology of the Bayuda Desert in Sudan

10. - 12. September 2015
Lecture Building of the
Cluster of Excellence *Religion and Politics*
Johannisstr. 4
48143 Münster, Germany

Westfälische Wilhelms-Universität Münster
Institut für Ägyptologie und Koptologie
DFG

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CONFERENCE PROGRAM

Thursday, 10. September 2015

From 17:00	**Registration**
	Opening of the Conference
18:00	Welcoming addresses by: Angelika Lohwasser & Johannes Auenmüller Cornelia Denz, Vice-Rector for International Affairs, University of Münster Abdelrahman Ali Mohamed, Director General, National Corporation of Antiquities and Museums, Sudan
18:30	Keynote Lecture by Rudolph Kuper (Cologne): From Gilf Kebir to Wadi Howar – 35 Years of Archaeological Research in the Libyan Desert
19:30	Reception

Friday, 11. September 2015

09:00 – 09:30	**Registration**
09:30 – 09:45	Angelika Lohwasser (Münster): Introduction
09:45 – 10:15	Mirosław Masojć (Wrocław): Stone Age in the Bayuda

10:15 – 10:45	Ahmed Hamid Nassr (Khartoum): Regional Diversities of Paleolithic Stone Tools from the Eastern Desert of Lower Atbara River – Comparative Studies between Bayuda Desert and Central Sudan
10:45 – 11:15	**Coffee break**
11:15 – 11:45	Friederike Jesse (Cologne): Site ELG 13/15 and the later Prehistory in the Bayuda
11:45 – 12:15	Henryk Paner (Gdańsk): The Western Bayuda Desert at the End of the Third and in the time of the Second Millenium BC
12:15 – 12:30	Time for discussion
12:30 – 14:00	**Lunch** *(would participants please make their own arrangements)*
14:00 – 14:30	Michel Mallinson (London): Road Archaeology in the Muqqadam
14:30 – 15:00	Timothy Kendall (Salem, Mass.): Al-Meragh and the Wadi Muqqadam between Tamtam and Korti
15:00 – 15:30	Fawzi Hassan Bakhiet (Khartoum): The Debba-Dam Archaeological Survey Project (DDASP) funded by QSAP – Two seasons
15:30 – 15:45	Time for discussion

15:45 – 16:15	**Coffee break**
16:15 – 16:45	Faisal Mohammed Musa (Khartoum): The Sand Dune Movements towards the Archaeological Sites near Nuri
16:45 – 17:15	Madani Mohamed Aboelfath (Khartoum): The Forgotten Roads in Bayuda Desert
17:15 – 17:30	Time for discussion
17:30 – 18:30	*Refreshments, Walk to the bus stop*
18:30 – 19:30	Münster City Bus Tour

Saturday, 12. September 2015

09:30 – 10:00	Angelika Lohwasser (Münster): The "Wadi Abu Dom Itinerary-Project" 2014-15
10:00 – 10:30	André Beuger & André Wieghardt (Münster): Web Mapping the Past – The Wadi Abu Dom at the Geoarchaeology 2.0 Web Service
10:30 – 11:00	**Coffee break**
11:00 – 11:30	Tim Karberg (Berlin/Münster): Irrigation and Water Management in the Wadi Abu Dom – Wells and Oases
11:30 – 12:00	Jana Helmbold-Doyé (Berlin): The Christian Pottery from the Wadi Abu Dom. Testimonies of an Irreligious Community?
12:00 – 12:30	Time for discussion

12:30 – 14:00	**Lunch** *(would participants please make their own arrangements)*
14:00 – 14:30	Jana Eger (Berlin/Münster) & Elżbieta Kołosowska (Gdańsk): From the Post-Meroitic to the Makurian Period – First Results of the Excavations of Cemeteries in the Wadi Abu Dom
14:30 – 15:00	Friederike Jugert (Göttingen/Münster) & Theresa Klatt (Göttingen/Münster): Morphological Investigations and DNA-Analysis on the Skeletons of the Upper Wadi Abu Dom collected in 2015
15:00 – 15:30	**Coffee break**
15:30 – 16:00	Mohamed El-Toum (Khartoum): Consequences of Some Activities in the Bayuda Desert from the Past until Now – A Case Study on Salt and Tar (Gutran)
16:00 – 16:30	Baldur Gabriel (Berlin): Unsettled Cultural Relics in the Bayuda (N-Sudan) and Adjacent Areas
16:30 – 17:00	Mahmoud El-Tayeb (Warsaw): Bayuda Desert From Late Antique to Present Time
17:00 – 17:30	Final discussion
17:30 – 18:30	**Comfort break**
From 18:30	Farewell dinner *Speakers are invited, other guests are welcome with previous notice only*

ABSTRACTS (in order of the presentations)

Rudolph Kuper

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From Gilf Kebir to Wadi Howar - 35 Years of Archaeological Research in the Libyan Desert

About 10000 years ago the Sahara underwent a dramatic climatic change that turned the earth's largest desert into a Savannah-like environment, creating favourable living conditions for animals and their hunters. For a period of 5000 years the region provided the background for essential economic and cultural developments, amongst others the evolution of the first African cattle herding societies. At the end of this humid phase, the new aridification of the Sahara and the consequent movements of people towards the Nile Valley and Sub-Saharan areas set in motion the processes that finally led to the birth of the ancient Egyptian civilisation and the great African migrations. This ancient occupation is reflected by rich archaeological evidence, including a wealth of rock drawings that provide a vivid insight into the people's daily life, their culture and their struggle with an increasingly harsh environment.
Understanding this close interrelation between people and climate was the chief aim of the interdisciplinary project B.O.S. (Besiedlungsgeschichte der Ost-Sahara) that started into the Libyan Desert of Egypt and Sudan in September 1980, later followed by the Collaborative Research Center ACACIA (Arid Climate, Adaptation and Cultural Innovation in Africa) and several more regional projects. The lecture will summarize some main results of this long-ranging research, supported by the German Research Council (DFG), as well as efforts to protect the Saharan cultural and natural heritage. Altogether this finally led to the establishment of the "Forschungsstelle Afrika" and the "Heinrich-Barth-Institute" at the Institute of Prehistory of the University of Cologne.

Mirosław Masojć

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Stone Age in the Bayuda

An interdisciplinary research program designed to recognize the history of settlement in the desert from the earliest periods of prehistory to modern times, including its geological structure in the context of paleogeography, is being currently realized in the Bayuda Desert by team of the Gdansk Archaeological Museum Expedition (GAME). Our activities brought richness of new materials and data concerning the Stone Age in Sudan, starting from Early Paleolithic inventories and ending on the Late Neolithic.

Unlike the most of other sites, the Paleolithic material at site BP177 has been preserved in the original stratigraphic arrangement in 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 approximately forty kilometers east of the Nile Valley. The mountain is a small, isolated volcanic cone about 200 m in diameter.

The site's exceptional character is manifested by the fact that originally in the middle of the mountain's flat summit there was a depression, a basin 15 x 8 m in size. The depression was 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.

Detailed discussion of the results of analysis of lithic material as well as the results of optical dating (TL, OSL) concerning the Stone Age of the Bayuda will be presented.

Ahmed Hamid Nassr

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Regional Diversities of Paleolithic Stone Tools from the Eastern Desert of Lower Atbara River – Comparative Studies with Bayuda desert and central Sudan

Evidence of Sudanese regional diversities is observed over long cultural horizons in Sudan Archaeology, especially in the context of prehistoric artifacts. The archaeological discoveries of Paleolithic materials revealed Early, Middle and Upper Paleolithic stone tools along the Nile and the desert territory. Central Sudan, Bayuda desert and Atbara River are mentioned in earlier discoveries and the recent field work adds much new information.

The study of Paleolithic stone tools involves a thorough observation of several dimensions or properties of artifacts or artifact assemblages that is commonplace in archaeological data analysis. In spite of the multivariate nature of the routine observation and recording of archaeological data, descriptive and interpretive summaries have largely remained at the level of diversities.

That has been shown from the results of Paleolithic discoveries in central Sudan, Bayuda desert and eastern desert of Lower Atbara River. The landscape of these three regions differs considerably as well as the variations in topography and land use. A hypothesis has been raised here, that these large geographical diversities indicate contrasting adaptations, which might be reflected by the Paleolithic stone tools.

The presentation tries to compare the data of Paleolithic stone tools in central Sudan, Bayuda and the eastern desert of Lower Atbara River with the interpretations of previous publications, a revision of the Khaleefa Museum collections, whose the stone tools had collected by Arkell 1940–1950, and with the survey and test pits of eastern desert of Lower Atbara River. The standard methods of comparing stone tools have been traditionally established not from the techniques alone, but there are typologies and classifications with regard to the raw material, tool size and weight, and the description the tools edges, end, butt, faces, stri-

king platform and the function of tools, too. The data from the sites of the eastern desert of Lower Atbara River revealed different raw material and typologies, and in the same time it shows gradual developing technology horizons.

The principle component of comparing stone tools adopted in this presentation is their technology in order to first understand the interactions among these regions chronologically and, second, the taxonomic classification of stone tools from one region to the other. Additionally, the typology of stone tools sheds light on the similarities and contrasts within these three regions and especially during the Paleolithic.

The main focus of the paper is directed towards determining the nature of the Paleolithic assemblage of the eastern desert of Lower Atbara River to assess contact attributes with the Bayuda desert in the Northwest and central Sudan in the Southwest. These goals are reached firstly by describing the main archaeological sites within their landscape in each region incorporating the result of previous studies. With regard to the central Sudan, the stone tools have already been compared with Kenya collections (Arkell 1949). For the Bayuda, earlier studies compared the Paleolithic stone tools with the CPE discoveries (Sandford & Arkell 1929–1949). However, in more recent times the GAM discoveries have been compared with the later discoveries of Sudan MSA (Nubian) in northern Sudan (Sai Island and Dongola reach) (Masojć 2010).

The datasets mentioned above show large diversities when comparing each assemblage with its boundary area: the central Sudan with the southern Nile basin and the Bayuda with the northern Nile basin. Besides that, the assemblage from the eastern desert of Lower Atbara River reveals some similarities with Ethiopian discoveries (Nassr 2014).

The comparison of the Paleolithic assemblages from the three regions shows the main indications for cultural interactions in the Nile basin regions and the relationship of the Paleolithic stone tools in the Nile basin in the context of its cultural development.

Friederike Jesse

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Site ELG 13/15 and the later Prehistory in the Bayuda

The paper will present the survey made by the "El Gol Project" of the Institute of Egyptology and Coptology of the University of Münster in the area south of the 5th Nile Cataract in spring 2013. Especially the prehistoric sites recorded will be focused on and the promising site ELG 13/15 south of the village El Gol will be described.
In a second part I would like to consider the actual state of the art concerning the later Prehistory in the Bayuda region, this means in Early and Middle Holocene times, better known under the terms of "Mesolithic" and "Neolithic", and outline perspectives for future research.

Henryk Paner

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The Western Bayuda Desert at the End of the Third and in the time of the Second Millenium BC

Since 2009 nearly 900 previously unknown archaeological sites have been recorded in the area of around 20 000 square kilometers. More than 120 of them has been classified to the Old Kush Period. The majority of them brought to the light materials, mainly pottery referring to the Kerma Culture. This sites create several clusters, all of which are located on the slopes and tops of rocky elevations.

In light of the current state of research, the Kerma Culture presence in the Bayuda Desert seems to be confirmed, at the end of the third and beginning of the second millennium BC. Nearly 15% sites discovered in the Bayuda desert can be associated with the Kerma Culture and only 10% of them are recognized as small settlements or camps, while all other are cemeteries with superstructures made of stones. So, the boundaries of the impact of Kerma Culture can now be set up for about 120 km south and south-east from Karima.

During the period of New Kingdom and Napata appear the new form of burial i.e. the Dome Graves, Semi Dome Graves, Crevice Graves and Tunnel Graves. Their origin and association with cultural tradition in this part of the world, still remains a mystery, though in the near future we will try to resolve it. On the other hand one can say for sure, that Bayudy Desert settlements in the days of the Kingdom of Napata is much less intense than in the days of the Kingdom of Kerma. Practically, we do not know the large settlements of that time, and also cemeteries are generally limited to individual graves. This means that during this time the economic importance of this part of Nubia may be significantly reduced due to adverse climate change. This situation will be continued until the time of the Kingdom of Meroe.

Michael Mallinson

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Road Archaeology in the Muqaddam, SARS Survey from Omdurman-Gabolab, Environmental and cultural change in the Bayuda (co-authors A. Abdelrahman Ali, Dorian Fuller & L.V.M. Smith)

Following the Butana Surveys of 1993 – 96 along the "Challenge Road", in 1997 The Sudan Archaeological Research Society funded a surface survey at the request of NCAM along the line of the "Victory Road" or Shariat Shamal, the tarmac road from Omdurman across the Bayuda, mostly following the Wadi Muqaddam, to Gabolab near Debba.

The survey preceded the construction of the road surface at various stages of completion. Up to Tam Tam the central point the road was in an advance stage of completion while North of this the way was marked only by survey points. This separated the kinds of sites identified, as early road preparation unearthed different levels of material from the pure surface of the desert.

In preparation of the survey detailed aerial photography from the road builders were used to identify the majority of possible visible surface sites, and this ensured late period sites were recorded as tumuli and surface settlements were clearly visible, the earlier material depended on chance uncovering by the road builders, or surface wash out.

As a result the Pottery and small finds indicated occupation during the Palaeolithic, Khartoum Mesolithic, the Egyptian Late Period, Napatan, Meroitic, Christian and Islamic periods. Material datable to the Khartoum Neolithic, Late Neolithic, Egyptian Middle and New Kingdom, and Post-Meroitic was either of uncertain identification, or apparently absent from the survey line.

Three forms of palaeoenvionmental evidence, animal bone and shell, plant impressions from pottery and sediment samples were from three broad periods: Lower Palaeolithic, Mesolithic/Neolithic and 'historic', i.e. Kushite to Christian to Early Islamic. This evidence indicated a wetter early Holocene (c. 7000-5500 BC), with an apparent absence of evidence from Neolithic through to Kushite period, in first millennium BC.

Hypotheses were put forward, including that species such as catfish,

snails and river mussels indicating possibility of the Wadi Muqaddam having been a channel of the White Nile in the Early Holocene; and the shift of this channel during the Neolithic leading to the area surveyed having been relatively depopulated until c. 800 BC, with the arrival of the camel.

To investigate this hypothesis since the survey we have studied more recently available high-resolution satellite imagery to consider this issue, and also separate geological studies on the water tables of the Nile Valley. This paper intends to present a summary of the site and dating evidence found, and relate this and the environmental evidence to the satellite data, to examine more closely the relationship between the evidence for settlement and the evidence for the environment, over the long duration from the Early Holocene. Given that such data extends the record to the present, the paper will also examine the changes that have taken place since the survey was carried out, resulting from the presence of the 'Victory Road".

Timothy Kendall

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Al-Meragh and the Wadi Muqqadam between Tamtam and Korti

In December, 1996, before the completion of the trans-Bayuda highway, members of the Jebel Barkal Mission found themselves driving through one of the more desolate regions of the Bayuda, about 270 km north of Omdurman, and discovered - quite by chance - the site of an important, previously unknown Kushite town, with the remains of several major structures incorporating fine stone doorways and columns with bell-capitals. The site, called Al-Meragh, lay 66 km south of Korti, on the Wadi Muqaddam, 150 km to the west of the ancient road linking Napata and Meroe. In the fall of 1999, I organized a modest archaeological reconnaissance of the site and of the 129 km stretch of the Wadi between Tamtam and Korti, and between then and March 2000, my team spent a total of 29 days in the field there. Our aim was to discover as much as we could about this little known area, its landmarks, its place names, its environment, its weather conditions, its history, its antiquities, and its residents and their life-ways, through direct interview. My original paper, written in 2001, was at the time printed only in a few copies and privately distributed. I am very grateful to Prof. Lohwasser for inviting me to present the work here again, and for offering to properly publish the paper in the conference proceedings. Despite the passage of fifteen years, the information, I believe, will still seem fresh to colleagues, since little or no work has been done here since and since so little of our work was ever publicly presented. This particular area of the Bayuda holds great promise for future work, since for the foreseeable future it is likely to remain completely undisturbed by further development or population pressure.

Fawzi Hassan Bakhiet

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The Debba-Dam Archaeological Survey Project (DDASP) - Two seasons QSAP

The NCAM mission of the Debba-Dam Archaeological Survey Project sponsored by the Qatar Sudan Archaeological project focused on a 195 km area along the left bank of the Nile between the Dam site at the Fourth Cataract and the town of ed-Debba downstream, extending to a maximum of 5 km into the desert. In two seasons, the work was divided into three phases: survey, excavation and restoration. We investigated an area over a distance of 77 km starting from Debba up to Ambakol; during this survey over 126 new archaeological sites were discovered, ranging in date from the Neolithic to the Islamic periods. An ethnographic survey was also conducted to study the oral history, place names and popular beliefs between Debba to Hussienarti. Four sites have been partly excavated that date to the Neolithic, Post-meroitic, Christian and Islamic periods. The reconstruction of Ganati church columns with their bases and capitals was the main and most important issue during these two seasons.

Faisal Mohamed Musa

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The Sand Dunes Movements towards Archaeological Sites near Nuri

The sand dunes movement is a geographical phenomena in the western Sahara. It creates major danger towards the archaeological sites near Nuri on the western bank of the river Nile in the Sudan. There are about eleven pyramids around Nuri and some mounds, facing the danger of the sand dunes swift creeping. The only way of stopping this scramble is to make use of the wells that spreads in some areas in the Bayuda desert, by planting a surrounding belt of trees characterized with winds resistance. This paper gives more details notes about the mentioned topics.

Madani Mohamed Abu Alfath

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The Forgotten Roads in Bayuda Desert

The presentation will first deal with the historic city of Berber (East Bayuda Province) focusing on the location of this city and its locality asking the question why the Sudanese call it Berber. It will be shown that they believe that many of Sudanese traditions started from this city. Also many old roads cross it leading to the ports of the Red Sea and Egypt and central west Sudan and west Africa. Old lines of river navigation link areas located south until the north edge of Khartoum. The archaeological discoveries in the Berber region indicate that the area was an authentic part of the Kingdom of Kush.

Second, the paper will deal with Jadallah village (West Berber City) under the topics location and population. There are several indicators that show that the village is an ancient village: Customs and traditions and an ancient irrigation channel as well as ancient tombs and offerings.

Thirdly, the presentation will take the forgotten road between Jadallah village and Nuri in to account with regard to the following aspects: the road names, the beginning points of the road, and the features of the road. The presence of an old spring in Gadallah village flows in the Nile indicates the presence of water sources in Bayuda desert. A shortcut distance between Jadallah to Nuri avoids the area between the 4th and 5th cataract. The existence of signs helps not to lose the way. The road passes by places that we heard a lot of oral narratives about (like Wadi Abu Hareeg). Finally, there is a place for smelting and the production of iron and wadi Pharaoh mother.

Lastly, the findings will be summarised and recommendations given.

Angelika Lohwasser

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The "Wadi Abu Dom Itinerary" 2014-2015

Since 2009, a team of the University of Muenster in Germany conducts an archaeological survey in the Wadi Abu Dom. Since I presented an overview over the first five seasons in Neuchatel in 2014, I will focus on the latest two at the Bayuda Conference.

The survey in 2014 and 2015 took place in the middle and upper Wadi Abu Dom. It was prepared by intensive study of satellite images, and the inclusion of the visible data into our database. In general, we noted a significant reduction of sites behind the bent of the Wadi Abu Dom at Umm Beida until the ridge of Bir Merwa, although several quite huge cemeteries (Post-Meroitic with some box graves) are situated on the northern bank. This reduction of sites coincides with the change in the today's subsistence (horticultural vs. pastoral) which may have existed already in the past. Nevertheless, the few but huge cemeteries with tumuli of 12-15 m diameter hint to a highly stratified society with powerful elites at least in the Post-Meroitic period.

Very few Kerma-style tumuli, but also some Kerma Moyen and perhaps even Kerma Ancien sites were noticed. Concerning the Middle Ages, we found two box-grave cemeteries with about 200 graves in the western part of the upper Wadi Abu Dom. These cemeteries are without any visible settlement or church nearby. Although the habitation site can be made of organic material and is therefore eroded, this seems to be less likely for a church. In the Nile valley, early churches are made in mud-brick, but since water as well as mud is very limited in the Wadi Abu Dom, this seems to be less likely here. We have to think about churches like tents (reet) or open churches like to recent giblas (Islamic places to pray, laid out with a row of stones only).

André Beuger

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Web Mapping the Past – The Wadi Abu Dom at the Geoarchaeology 2.0 Web Service

Computerized geoinformation systems have permanently altered spatial data processing in modern archaeology. But the emerging challenges of a broad archaeological and interdisciplinary exchange of digital content are despite overlaps often limited by local desktop-GIS solutions and individual data management concepts. Since the introduction of the dynamic geoweb 2.0 in 2005 with e.g. google earth this "digital evolution" offers a unique chance of global and interactive data visualization particularly within the scientific community.
In recent years, web-based archaeological geoportals like the iDAI-Geoserver (http://geoserver.dainst.org) have increased with significance. The guideline was set out in the "Berlin declaration" on open access in 2003. Research funding institutions recently stated that the philosophy of scientific open data will be mandatory in future.
The objective of the Geoarchaeology 2.0 Web Service (http://geo-archaeology.uni-muenster.de), invented as open source architecture with the Geoserver application in cooperation with the *Institute for Geoinformatics, University of Münster*, was to provide a web mapping portal which is intended to represent standardized archaeological field data and to improve the interoperability in this way.
At present stage the Wadi Abu Dom Itinerary Project, Sudan and the Dülü Baba Tepesi Project, Turkey (*Research Centre Asia Minor, University of Münster*) as two pilot studies demonstrate the potential of different scales and complex spatial data visualizations. They show the presentability and reproducibility of diverging geodata sets and give a perspective of easily direct uploading of standardized files by the user.

Tim Karberg

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Irrigation and Water Management in the Wadi Abu Dom – Wells and Oases

Most of human subsistence – either pastoral or horticultural – within the Wadi Abu Dom depends on irrigation from different types of wells. Most interestingly, these different types of water resources seem to correlate with different strategies of food production – large pit-shaped wells are found within the lower Wadi Abu Dom around the modern-day micro oases with date, doum and vegetable plantation. Smaller wells with cylindrical shafts within the middle Wadi Abu Dom are mainly used for watering the herds of pastoral nomads. Additionally, within the upper Wadi Abu Dom, some rain-fed durrha cultivation can be found.

At least the large wells within the lower Wadi Abu Dom seem to be of a considerable age. Ceramic finds associated with these well pits indicate at least a medieval date for the wells. On the other hand, some ethnographical data collected during the Anglo-Egyptian Condominium show that these wells were not used continuously during the ages. Indeed, some of the oases and their wells seem to be reopened not before the 20th century after longer periods of abandonment, correlated with the shifting of the oases.

The dating of the wells of the middle and the rain-fed agriculture of the upper Wadi Abu Dom is far more difficult – but it seems likely that also in earlier periods of history, water management and subsistence strategies in these areas differed significantly from the lower Wadi.

Jana Helmbold-Doyé

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The Christian Pottery from the Wadi Abu Dom. Testimonies of an Irreligious Community

text.

Jana Eger

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Elżbieta Kołosowska

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From the Post-Meroitic to the Makurian Period – First Results of the Excavations of Cemeteries in the Wadi Abu Dom

This paper will present some first results of our excavations of cemeteries in the Wadi Abu Dom, which started in 2015.
The main topic of this presentation is to give some examples for the transitional phase from the post-meroitic to the Christian period, which is an aspect of our studies. The main focus of this paper is cemetery site 5364, where this transitional phase is documented quite well.
Site 5364 is a cemetery in the central Wadi Abu Dom with late meroitic- and post-meroitic tumuli associated with several so-called box graves. But there's also another, quite special feature of this cemetery. During the survey preceding the excavation, two graves were addressed as tumuli due to their superstructures. During excavation, it turned out that the substructures and burials resembled the Christian burial customs, comparable to the substructures of the nearby box graves. Thus, we can address them as "Christian tumuli".
Additionally, while clearing the surface between these graves, we discovered seven more burials close to the Christian tumuli which can be seen as heavily disturbed box graves.
These box graves and tumuli are to be presented in this paper, including first interpretations concerning the chronological implications of the newly discovered material.

Friederike Jugert

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Theresa Klatt

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Morphological Investigations and DNA-Analysis on the Skeletons of the Upper Wadi Abu Dom collected in 2015

During this initial excavation campaign, 15 skeletons were recovered from three different grave sites. Preservation differed strongly among findings. The bones of one third of the individuals were decomposed in a cretaceous and porous manner, thus not allowing complete excavation. If possible, morphological and osteometric data was obtained for every skeleton, including the basics: age at death, sex, pathological changes, anatomical variations and body heights. Furthermore, osteometric data of the skulls and extremities were collected in order to compare results with different populations during continuing investigations. Main interest lies within population structures like family relationships, behavioral patterns and general circumstances of life. Therefore, epigenetic characteristics, pathological and habitual dependent changes were recorded as well. After examination, samples of each of the individuals were obtained for further investigations in Germany, such as dental material and bone fragments for DNA analysis (sex verification, family relationship reconstruction and analysis of regional origin), histological investigations (age verification) and isotopic determination (burial time and history of settlement).

Mohamed El-Toum

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Consequences of Some Activities in Bayuda Desert from the Past until Now - A Case Study on Salt and Tar (Gutran)

The paper will present two topics. The first is about salt, its history, extraction and use. First, I will deal with the history of salt in Africa in general. Then, the focus of the paper will shift to the Sudan and especially the Bayuda desert: Where do we find salt in the Bayuda desert and what are the methods of extraction and how is it traditionally used?
As for the history of salt, it is generally assumed that chloride was added either accidentally or intentionally to the human diet from very early on. The diet of early stone age hunters and gatherers must have contained a mixture of sodium chloride through various food items. Some time in the past humans noticed that goats try to eat from a special stone, about which they later realized that these stones contain some salt. The earliest evidence of salt extraction in the Nile Valley comes from Egypt (south of Luxor) dating from 2345 BC–2181 BC. In Sudan, there is not much evidence if salt was used in the stone age. However, its use is known in the A– and C–Groups, in Kerma, in Napatan and Meroitic times until the present day. The places of salt procurement in the Bayuda are located near the Nile and at old dry lakes in the central Bayuda. In the rain season, water is collected in this lakes. After the drying out of the lakes by the sun, it is easy to find salt there. There are famous tribes living in the Bayuda desert which exploit and use salt like the Hasania, Hawaweer and Manaseer.
The second part of the paper is about tar (Gutran). First, the meaning of Gutran, its extraction and use will be shown. It is extracted from seeds that are put in the middle of a jar which itself is put on a fire. Later, filters are employed to obtain the oily liquid of Gutran. It is used as medicine for humans and animals. There is also evidence, that people used it to preserve the body from Kerma and Napatan times until today. Additionally, it is applied as a shiny finish on cow and

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Unsettled cultural relics in the Bayuda (N-Sudan) and adjacent areas

Every archaeological field survey demands good knowledge of geomorphology and physical geography to understand the history and the regulations of landscape development. One has to decide whether a special situation in the field is of human or of natural origin. As far as it is of archaeological interest, one is supposed to answer the questions of *Who – When – Why – How?* During field survey the question *How?* will first lead to a detailed description and documentation, while the other issues can often not be solved. The question *Why?* might be easy to answer with regard to obvious funeral or residential constructions. However, there are many sites that escape any reasonable explanation.

The author will present some examples of such enigmatic relics. They can be classified by external characteristics like size and shape or differentiated by their single, local, regional or widespread occurrence. Former enigmatic features that are now largely understood will be briefly mentioned in the presentation. The main focus is laid upon some frequently encountered puzzling mysteries. For example, large pit fields of different character may have had various reasons, but hundreds of small shallow scratches distributed over gentle slopes always seem to have had the same unknown motivation. Thousands of small heaps of gravel spread over the plains are better visible on remote sensing images than in the field. Geometrically shaped depressions, next to Post-Meroitic tumuli, are just known from the 5th Nile cataract, while only at the 4th cataract we found long walls and valley stone lines of unknown significance.

Most interesting are small stone rings, normally occurring in confined clusters of sometimes a dozen. We can only speculate about their connection with mining activity. However, there are still many other kinds of unexplained cultural relics. The archaeologist should register them in lists and maps trying to find out the mental and virtual background of their existence.

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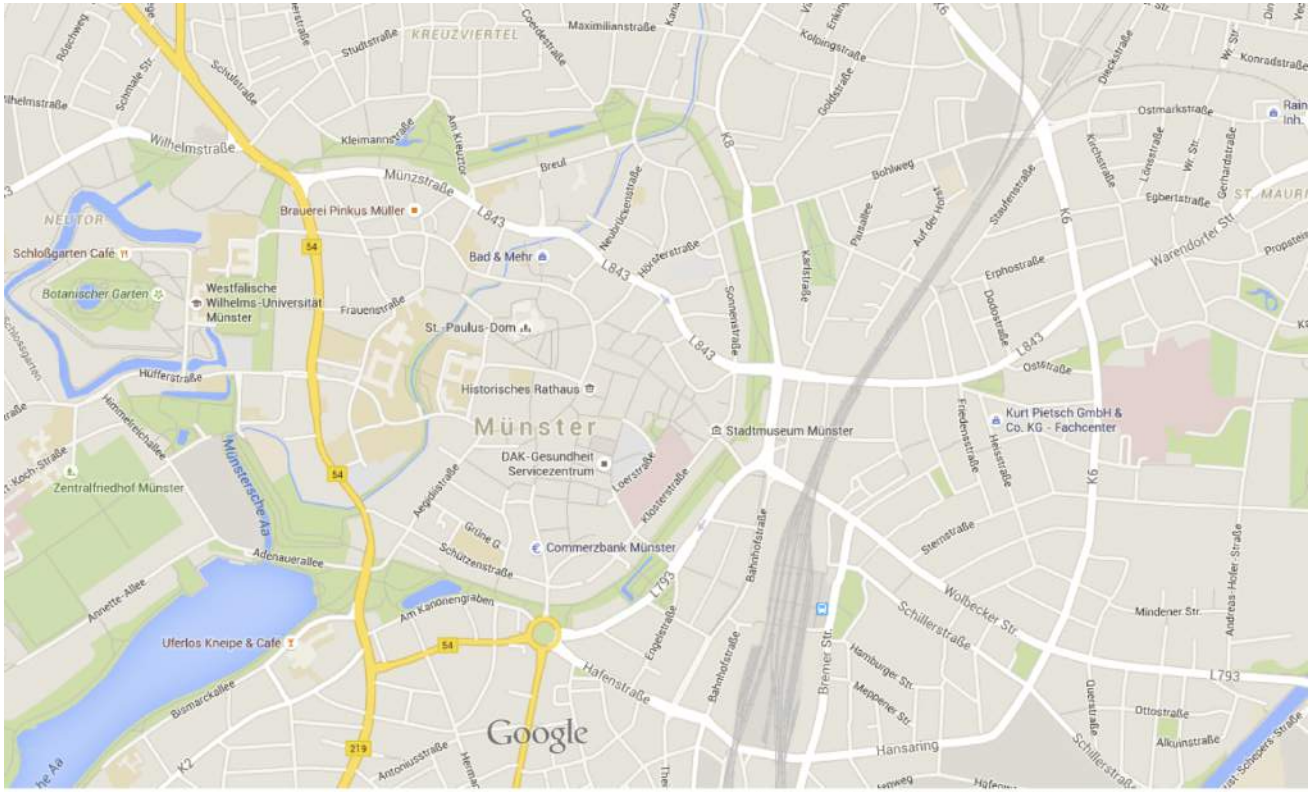
Bayuda Desert from Late Antique to Present Time

Bayuda Desert is a territory almost forgotten and to far extent neglected by Archaeologists, and not only. Apart from some limited excavations no serious research projects ever planned, till the beginning of the twenty first century. Amongst these early limited works is the survey done by Shinnie and Chittick, in the early fifties of the last century. In this same period Shinnie excavated three tumuli out of about 250 burials at Tanqasi cemetery, beside the work done at Deir El-Ghazali. Long after, in 1989 the X-director of Sudan antiquities Service Osama A. El-Nur and Hassan Bandi, conducted excavations on two site at Umm Ruweim and khor El-Greyn. Worth mention, none of these works dealt with the prehistoric or even the Early Antique periods (Old Kush and Napata).

At the begging of the 21st century the research has witnessed some progress. Three promising projects have seen the day light in the years between 2008-2012; Wadi Abu Dom, directed by A. Lohwasser, Bayuda Survey Project, directed by H. Paner and Deir El-Ghazali, directed by A. Obłuski. Hence, one would say there is a great chance to unveil the archaeological potential of this area and its impact in the culture and economy of the Nile Valley, since its early days.

The subject of this presentation is dealing with the late antique in Bayuda till the present time. This program is part of Bayuda survey Project directed by Henryk Paner. The idea stems from our experience in the Fourth Cataract Survey, where Gdańsk archaeological mission gained a lot of information about the period in concern from this part of the Nile Valley. Therefore, the number of sites that have been so far recorded and initially dated to the Meroitic, Late-Meroitic and Post-Meroitic periods, no doubt after being fully excavated and scrutiny analyzed and studied, then there we may be able to better understand what exactly linked Bayuda with the area of the Nile Valley at least between Shendi and Dongola Reaches. Furthermore, such study can through light on the problems of the climate changes in the area which

till the near past was geographically called semi-desert, today it's a real desert. Yet, this is another story concerning the present situation in the dry and deserted Bayuda…. Can we as archaeologists be of any help, for the land and people, or we are just researchers and observers???



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