

Science Communication Research Field Analysis

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New perspectives on the Attab to Ferka region in Sudan

Professor Julia Budka Egyptian Archaeology and Art History, LMU Munich

Remote sensing and more by the DiverseNile project.

The pandemic affects all areas of life, including science and also archaeology. Fieldwork at many archaeological sites was cancelled in 2020 and is still difficult or almost impossible this year. What does this mean for a multidisciplinary project like DiverseNile, which focuses on excavations and on-site studies in Sudan? Well, 2020 has been a challenge and forced us to find new solutions, adapt the schedule and modify the individual work tasks. In the case of the ERC DiverseNile project, the restrictions caused by the pandemic resulted in fresh input for our main aim to reconstruct a contact space biography for the region between Attab and Ferka in northern Sudan (Nubia).

New paths of remote sensing, including radar data

The DiverseNile project investigates an almost unknown stretch along the river Nile between Attab and Ferka in Sudan (Nubia) which represents the research concession area of the Munich University Attab to Ferka Survey Project (MUAFS). This region, situated just south of the Dal Cataract, is the hinterland of two of the main Egyptian centres of the region, the towns of Amara West and Sai Island (Figure 1). The Attab to Ferka region is also a natural borderscape, situated close to a Nile cataract and the natural frontier of the rocky outcrop of the Batn el-Haggar.

Our new study of the landscape properties and the intertwined material remains will be conducted through geoarchaeological methods like survey, mapping, soil samples, core drillings and geoelectric measurements to highlight the reasons for the site distribution within these 'contact spaces' along Geological the Nile. applications like rock sampling will complement geomorphological studies of the ancient course of the Nile and isotope analysis of the soil, water, human, animal and plant remains to reconstruct the past landscape and patterns of mobility.

These planned geological and geomorphological surveys and

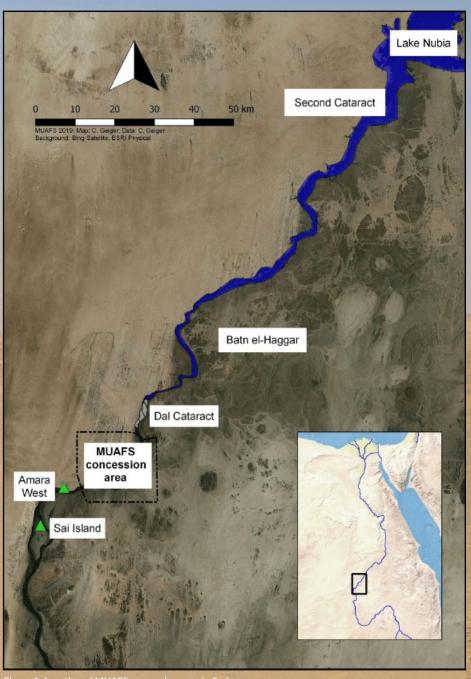


Figure 1: Location of MUAFS concession area in Sudan.

assessments of the area, including a detailed geological field mapping, focusing particularly on the occurrence of gold and other raw materials and the hinterland's geological properties, needed to be postponed because of the pandemic. Instead, a new focus was laid on remote sensing of the area. Thanks to cooperation with the German Aerospace Center (DLR), we will be able to prepare the archaeological fieldwork in much detail and carry out the first geological modelling based on satellite data. Furthermore, SAR data (synthetic

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aperture radar) which is frequently used for archaeological prospection elsewhere in the world, will be processed. The high-resolution SAR-images available from the German satellite TerraSAR-X derive from a penetration depth of c. 30cm. Given the fact that some of our archaeological remains are just covered by sand but already visible on the surface, excellent results regarding the maps of the sites are to be expected, especially in combination with the available DEM (Digital Elevation Model) data of satellite TanDEM-X.

DISSEMINATION DiverseNile Project

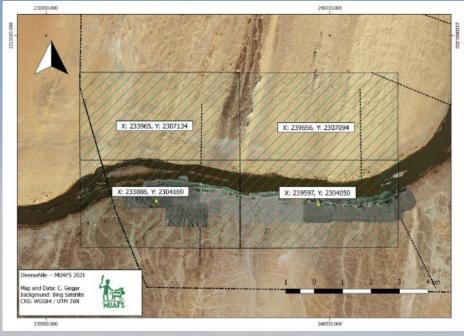


Figure 2: A map of the MUAFS research concession and the working area of the DiverseNile project.

Figure 2 is a map of the MUAFS research concession and the working area of the DiverseNile project for which data provided by the DLR (TerraSAR-X) will soon be available; the southern grids are already partly covered by our drone aerial photography, allowing a combined assessment with the DEM data from TanDEM-X.

This new way of remote sensing of the Attab to Ferka region will boost our current knowledge about the ancient river and island systems and many other crucial factors in assessing humanenvironment interactions. These data cannot replace our work on-site in Sudan, but they allow us to plan more precisely and effectively.

New approaches, retracing earlier steps

Within the DiverseNile project, we comprehend landscapes as shaped by humans, human activities, technologies, materiality, and animals. The project considers the individual life cycles of all cohabiting actors and addresses essential open questions—cultural identity, social stratification and gender, herding and farming activities, trade and manufacturing—regarding the occupants in the hinterland of Egyptian urban sites like Sai and Amara West. This is of particular relevance to recognise the social complexity of possible groups. The nature of the coexistence of 'Egyptian' and 'Nubian' groups and how the occupants of these peripheral regions were in contact with the major administrative sites are essential for any theory about cultural entanglement and encounters. Our integrated aim of reconstructing 'contact space biographies' will result in a completely revised and differentiated picture of the Middle Nile as a social space, being home to diverse groups and actors rather than a static landscape.

In this respect, another major working task in times of the pandemic was the reassessment of earlier work conducted in the area, especially the survey directed by the French archaeologist Andre Vila in the 1970s. We need to carefully assess the methodology and theoretical framework of this scholar working in our research concession (in view of the then relevant Zeitgeist) and deal with actual traces left by earlier archaeologists at various sites, thus considering the material impact they left on the landscape. To do so, much effort was spent on assessing the documentation system chosen by Vila and his team and

their systematic observations and notes. These old survey results from the 1970s were then transferred to a digital database (FileMaker Pro). The new database has the big advantage of containing all the available documentation published by Vila concerning the sites and providing contrast between the state of research back in the 1970s with the new data gained from our new investigation, e.g. a revised dating for several dates given by Vila. There is a clear and critical separation of the different data sets.

One of the best case studies for newly dated sites is a settlement place, 3-P-15 in Vila's nomenclature, in Kosha West, which is part of a cluster formed by three settlement sites (3-P-15, 3-P-16 and 3-P-17). This habitation site on a mound of c. 55-100 m shows a surface covered by schist blocks and sherds (Figure 3). In the northeastern part, the remains of mud bricks are visible. Mud bricks are usually associated with 'Egyptian' architecture and the so-called New Kingdom. It is therefore not surprising that Vila dated this site to the New Kingdom and marked it as 'Egyptian'. We were already able to revise this slightly. The surface ceramics we documented back in 2019 show a continuation from late Ramesside times, thus the very end of the New Kingdom. At this time, the 'Egyptian' presence was already diminishing in Nubia, well into the ninth and maybe even the eighth century BCE, thus into the so-called Napatan era marked by an indigenous Nubian culture. In general, almost nothing dating to the Napatan era was documented by Vila throughout the concession area. Thanks to our increased knowledge about dating ceramics to this period, we can show that our region was clearly occupied during this era. Furthermore, it is exemplary for a reuse of the New Kingdom sites in later times. Here, we will investigate whether the landscape properties played a role, for example, if the geological and geomorphological features can be regarded as the framework for the continuity in certain spaces of the region. This will require on-site research, and thus we keep our fingers crossed that archaeological fieldwork in Sudan will soon be feasible and safe again.

Continuity at sites in our research concession from periods underso-called 'Nubian' rule of the Kerma Kingdom to the colonial time under the Egyptians during the New Kingdom and postcolonial eras like the pre-Napatan and Napatan times is of high significance for the DiverseNile project. This continuity and our applied biography approach will allow us to challenge the well-established categorisation of sites as 'Egyptian' and 'Nubian', highlighting not only differences but also common features and mutual exchanges. The objective is to document the complexity of interconnected cultures in the Middle Nile, which was inhabited by various groups communicating with each other, refigurating, changing and developing throughout time. This will change our present understanding of Bronze Age Nubia, especially regarding social dynamics, and allow a glimpse into Iron Age Nubia.



Figure 3: Settlement site 3-P-15.

Outlook

Based on the new satellite and radar data, we will continue to assess the diverse landscape of the MUAFS concession area. In particular, we will focus on the distribution of archaeological sites and possible correlations with landscape features. The distribution of the sites is fascinating, especially for questions of cultural diversity. At present, it seems as if New Kingdom sites are clustered within the southwestern part of the research area and that 'Egyptian' sites are missing in the close neighbourhood of the Dal Cataract in the north. Is this maybe reflecting diverse social/cultural groups and/or environmental factors? This phenomenon of an unevenness of sites needs to be assessed in detail. It leads to the conclusion that, together with continuity, discontinuity must also be considered a major research question regarding the use of both settlement and cemetery sites in the region. The frameworks of both discontinuity and continuity need to be reconstructed and will lead to a better understanding of the varied use of this landscape of the Middle Nile as a complex social space.



PROJECT SUMMARY

The multidisciplinary ERC Consolidator Grant project DiverseNile explores a crucial part of northern Sudan as a case study to reconstruct Bronze Age biographies (c. 1650–1200 BCE) beyond the present cultural categories 'Egyptian' and 'Nubian'. The main hypothesis that is addressed by interdisciplinary methods is that degrees of cultural diversity become archaeologically more visible in the peripheral zones of urban sites.

PROJECT LEAD

Julia Budka studied Egyptology and Classical Archaeology in Vienna. Professor for Egyptian Archaeology and Art History at LMU Munich since 2015, Budka has been working on international archaeological excavations in Egypt and Sudan since 1997. DiverseNile is her second ERC project with archaeological fieldwork in Sudan after AcrossBorders (ERC-2012-StG).

PROJECT PARTNERS

DiverseNile is based at the Faculty for the Study of Culture at LMU Munich, Germany, taking advantage of the faculty's strong profile in archaeology around the world and building on experience gained during the ERC AcrossBorders Project. Collaboration partners include groups from Austria, the UK, and beyond.

CONTACT DETAILS

Professor Julia Budka

Ludwig-Maximilians-Universität München Institut für Ägyptologie und Koptologie Katharina-von-Bora-Str. 10 D-80333 München

- Julia.Budka@lmu.de
- https://www.sudansurvey.gwi.unimuenchen.de/index.php/erc-projectdiversenile



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