

Towards Middle Nile Biographies: The Munich University Attab to Ferka Survey Project 2018/2019

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Introduction (J. Budka)

The area that is the focus of the Munich University Attab to Ferka Survey Project (MUAFS) is a stretch along the Nile, including various islands between Attab and Ferka in northern Sudan. The new concession, situated just south of the Dal Cataract, can be regarded as 'periphery' to two of the main Egyptian centres of the region, to Amara West (Spencer 2017; see also Stevens and Garnett 2017) and Sai Island (Budka 2015) (Map 1).

The MUAFS research concession is primarily a geological boundary zone, being located next to a cataract region, and secondly a frontier in terms of cultures. During the Late Bronze Age, the area was first the northernmost region of the Kerma Kingdom and became later the southernmost area of influence by the Egyptians (Morris 2018, 119-120). Already the ancient Egyptians had divided the area between the First and Forth Cataract into Wawat (Lower Nubia) and Kush (Upper Nubia), being shaped by different groups and varying cultures (especially C-Group and Pan-Grave Nubians who were differentiated from Kerma Nubians). The border between these entities is not clearly defined, but is assumed

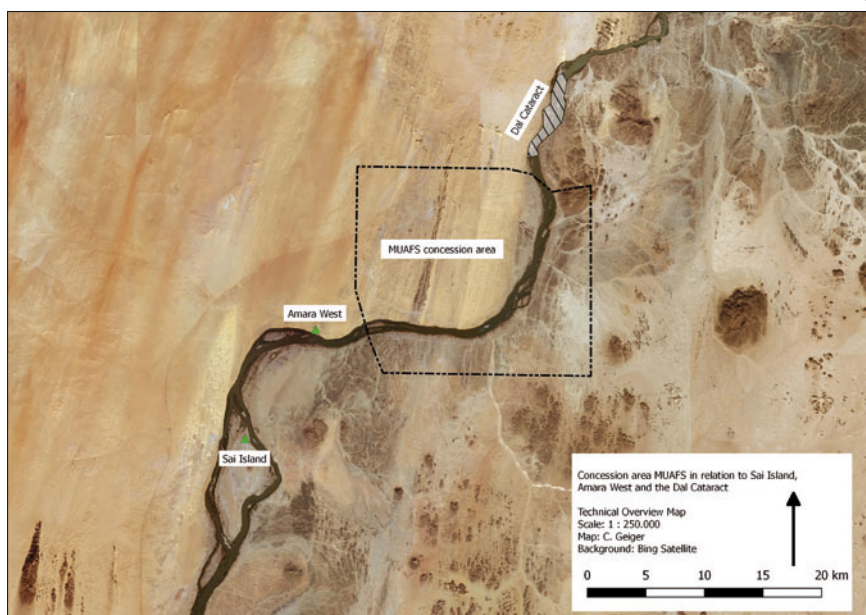
as either north or south of the Batn el-Hagar, thus closely connected to our study area (see Smith 2003, 3, Fig. 1; cf. also Nordström 2016 and recently Raue 2018, 18-19 and *passim*). This region was previously preliminarily surveyed by the Sudan Antiquities Service together with the French Archaeological Research Unit under the direction of André Vila in the 1970s (Vila 1976a; 1976b; 1977a; 1977b), providing multiple sites comprising settlement and funerary remains (from Palaeolithic to Post-Medieval periods) (see below).

The major goal of the MUAFS project is to evaluate the specific living conditions in this Middle Nile 'contact space' (following the concept of 'contact spaces' by Stockhammer and Athanassov 2018) in direct comparison with New Kingdom urban centres, and to reconstruct biographies of landscapes, shaped by humans, human activities, technologies, and materiality as well as animals (Kolen and Renes 2015). The project introduces a new approach for a regional study of the Middle Nile focusing on these biographies, investigating encounters of humans and landscapes in a peripheral borderscape. Our methodology is complemented by a long *durée* approach, considering all attested finds from Palaeolithic times until the Islamic age.

Previous work in the area: results of Vila's survey (V. Hinterhuber)

The first systematic survey of the region south of the Dal Cataract, directed by Vila, aimed to take up the diverse archaeological salvage campaigns starting in the early decades of the 20th century in response to the successive flooding of large areas of the Nile Valley. The new objective was to systematically investigate the area from the Dal Cataract to the island of Nilwatti, south of Sai Island, a region at this time still little known (Vila 1975a, 5-7; Vila 1979, 5; for previous studies see e.g. Kirwan 1939).

For the survey's methodology, a different approach was chosen, with the clear principle to examine all archaeological sites with as little disturbance as possible. Invasive methods like sondages, surface clearings, collecting samples or excavations were reduced to a minimum, mostly for cases of uncertain dating. Some minor excavations, limited to one to three tombs, were carried out in cemeteries (Vila 1975a, 10-11). Thus the defined work parameters included a systematic registration of each site, individually recording and documenting it, e.g. its environmental characteristics, its nature (settlements, lithic industry, tombs etc.), as well as the visible remains, the layout, extent and specific characteristics of the site and its cultural period. Further work included the collection of surface findings (e.g. stone tools, sherds, flakes) together with drawings, sketches or photography, whereby the latter



Map 1. The location of the MUAFS concession area
(map: C. Geiger, © MUAFS).

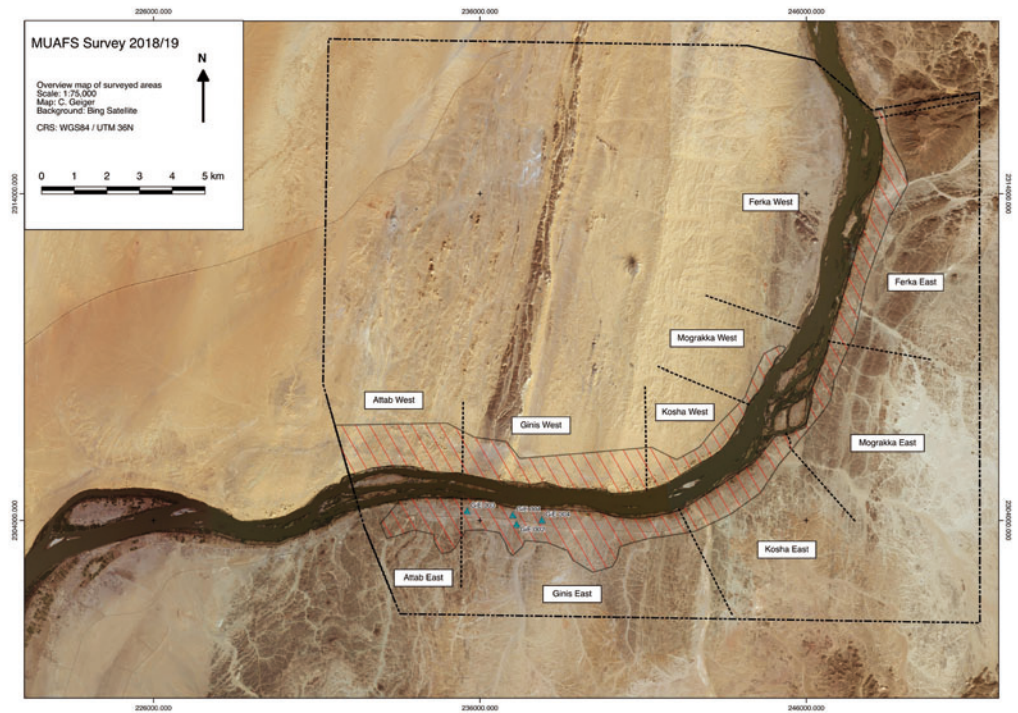


were – despite the altogether comprehensive documentation – unfortunately frequently left out from the following publications (Vila 1975a, 9-12).

For the geographic localisation and numbering of the newly found archaeological remains a system of alphanumeric classification was used, according to which sites were registered to the 1, 250 000 map sheets of the Sudan Survey Department (map NF-36-, Kosha, used by Vila) by 15-minute grid square – in total 24 squares – each again subdivided into 25 units of 3-minute grid squares with the help of 1:50 000 cadastral maps and aerial photography. Each site was then assigned a specific registration number (e.g. NF-36-M/2-T-1, Ginis East, Kerma cemetery), all in all providing a considerably precise site localisation within an area of *c.* 5 x 5km (Vila 1975a, 23-24).¹ The main topographic framing consisted of the larger administrative districts already indicated on the 1, 250 000 map sheets, each specified with ‘East’ and ‘West’ for respectively the right and the left bank (Vila 1975a, 26).²

The MUAFS concession area, the Attab to Ferka region, was surveyed during three campaigns between 1970-1971, 1971-1972 and 1972-1973. The results were published in four subsequent volumes explicitly intended as a solid basis for further field research (Vila 1975a, 29; Vila 1976a; 1976b; Vila 1977a; 1977b).

The 1970s survey provided a total of 219 sites from Palaeolithic to medieval times, showing the high density of findings both on the right and left banks as well as a rich cultural and temporal diversity of the region south of the Dal Cataract. The assigned dates followed the common archaeological categorisations and terminology, e.g. Meroitic, X-Group or Christian, although some particularities in Vila’s dating should be mentioned. The terms Early Nubian (*Nubien ancien*) and Middle Nubian (*Nubien moyen*) were used for labelling local cultures Vila thought to be contemporary with the Egyptian Early Predynastic and Middle Kingdoms, but showing different features than the Lower Nubian A- and



Map 2. Surveyed areas in the MUAFS concession 2018/2019.

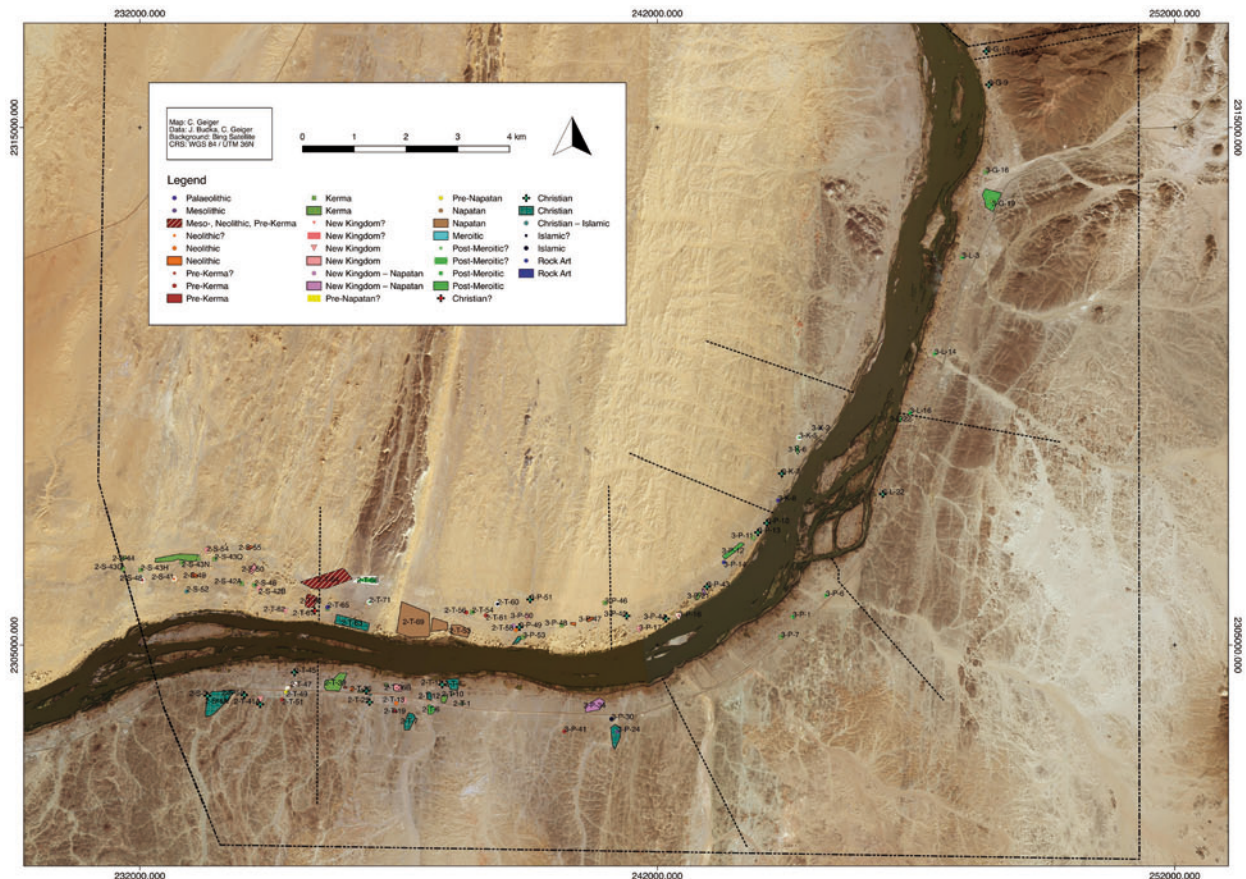
C-Groups (Vila 1975a, 28). Early cultures were differentiated after their resemblance to Khartoum Variant (attributed by Vila to the Neolithic Period) or Abkan, which was at that time still wrongly ascribed to his so-called Early Nubian. Remains with typical Kerma features were labelled as Kerma, multi-period sites mixed with contemporary Nubian cultures termed e.g. as Kerma/Middle Nubian, as the Pre-Kerma Period was not known yet at that time. The labels Egyptian New Kingdom or Pharaonic were not further subdivided (Vila 1975a, 28-29). Rock pictures were subsumed in a separate category mostly without further dating. It should be noted that no sites within the MUAFS concession area were assigned by Vila to the Kushite cultural periods, as e.g. the Napatan, except for the Meroitic Period, pointing to the need for revising his dating in some cases.

Looking closer at the distribution of diverse sites and cultural stages according to Vila’s survey data from each river bank, the right banks of the districts from Attab to Ferka (in total 127 sites) show an overall high occurrence of sites belonging to the early Nubian cultures (27.7%). While the Palaeolithic and Mesolithic sites are limited to 3.2% (lithic industries), the Neolithic Period is present with a comparatively large number of sites (11.1%). Their nature consists mostly of occupation sites or campsites, some of them classified by Vila as Khartoum Variant and often mixed with other cultural stages. Sites addressed by Vila as Early Nubian (among them sites Vila assigned to Abkan) and Middle Nubian, often continuously merging, account for a further 13.4%. These remains were predominantly occupation sites or campsites, except for one cemetery and a few tombs.

Sites attributed by Vila to the Kerma culture and the

¹ This method was firstly implemented by W. Y. Adams, see Adams and Verwers 1961, 7-8, 11-14, and later further refined by F. W. Hinkel for his Archaeological Map of Sudan in 1977. See also Edwards and Mills 2013, 9, note 2.

² Since the Nile in this region flows east-west, the terms left and right bank seem more suitable because they consider the actual river course.



Map 3. Re-located Vila sites in the MUAFS concession 2018/2019 (map: C. Geiger, © MUAFS).

Egyptian New Kingdom are both represented at 7.1%. These sites are comprised entirely of cemeteries and tumuli/tombs, with only one Kerma site classified as settlement.

The Meroitic sites documented by Vila (4.7%), often reused in X-Group or Christian times, also fall mainly in the category of funerary remains. Comparable is the nature of X-Group sites (10.3%), represented mostly by cemeteries with only some habitations or isolated dwellings.

The majority of sites on the right bank date to the Christian Period (37.8%), some of them intermingled with later vestiges. Their nature varies between funerary and settlement remains. The category of rock art is represented by 3.9%. Eventually, only one site could not be assigned to a specific date.

The left bank of the districts from Attab to Ferka shows a slightly lower amount of sites (in total 83 sites). The early cultural stages are comparably well represented (26.4%), with predominantly campsites or settlements dating to the Palaeolithic (2.4%) and the Neolithic periods (12%, sometimes assigned by Vila to Khartoum Variant), the latter often mixed up with later cultural stages. The so-called Early Nubian and Middle Nubian sites are equally present at 6%, often intermingling and comprising mostly occupation sites and campsites, with only one funerary site in each case.

A significantly larger number of sites compared to the districts' right banks were assigned by Vila to the Kerma

culture (12.4%) with slightly more settlement than funerary vestiges, and the Egyptian New Kingdom (16.9%) with predominantly settlement sites and only two cemeteries.

Whereas Meroitic remains are nearly completely missing in Vila's record (except for some traces of occupation and sherds mixed up with later periods), the majority of sites were again attributed to the Christian Period (28.9%), among them cemeteries as well as villages and larger fortified towns. The X-Group is shown at 4.8% of sites, mostly funerary remains. One site was attributed to the Islamic era. The category of rock art is present at 3.6% and 7% of archaeological remains had to be left undated. On the diverse Nile islands in the Attab to Ferka region nine sites were registered, all of them assigned by Vila to later periods dating from Meroitic to Christian times.

Results of the 2018/19 MUAFS season

(J. Budka)

The first season of the MUAFS project was conducted from 28th December 2018 to 11th January 2019. The principal goal was a new survey of the concession area, checking on Vila's results and sites (Map 2). Altogether, 119 of Vila's sites were re-identified and documented in the area between Attab East and Ferka East and Attab West and Mograkka West (Map 3). His registration numbers were adopted for the



Cultural phase/Dating	Number of sites
<i>Palaeolithic</i>	1
<i>Mesolithic</i>	1
<i>Neolithic</i>	5
<i>Meso- and Neolithic</i>	3
<i>Meso- and Neolithic and Pre-Kerma</i>	2
<i>Pre-Kerma</i>	7
<i>Kerma</i>	25
<i>New Kingdom</i>	12
<i>Ramesside and Napatan</i>	3
<i>Pre-Napatan</i>	3
<i>Napatan</i>	4
<i>Meroitic</i>	1
<i>Post-Meroitic</i>	13
<i>Post-Meroitic and Christian</i>	1
<i>Christian</i>	34
<i>Islamic</i>	3
<i>Multi period</i>	1
	119

Table 1. Number of sites re-located in the MUAFS concession 2018/2019 according to periods.

MUAFS records, but new labels were introduced for four sites investigated by magnetometry in district Ginis East (with an acronym for the area, GiE, and a consecutive number, 001-004, see 3.1.4). These new labels will allow a clear distinction of recording by survey (and using Vila's numbers) and new in-

depth methods like magnetometry and future excavations.

For some of the 119 sites, the dating can now be corrected, especially for Khartoum Mesolithic and Abkan sites, Pre-Kerma, New Kingdom and Napatan sites. Diagnostic stone tools and pottery fragments were collected from relevant sites. Other findspots of pottery and lithics previously not recorded by Vila were documented as GPS waypoints and will be integrated in the new map of the area to be composed based on the results of the first season.

State of preservation

One particular focus was on the state of preservation of the sites nowadays. We encountered very different conditions than Kirwan in the 1930s (Kirwan 1939) and Vila in the 1970s (Vila 1976a; 1976b; 1977a; 1977b). There is a lot of modern destruction going on and many sites are endangered. The most relevant aspects are new electricity and the electricity posts, car tracks, the asphalt road going to Wadi Halfa and modern gold working in various parts of the concession, in particular at Mograkka West. A site management plan for sites like the church of Mograkka (3-L-22) (see Kirwan 1939, 24, Pl. VI.5 for a still excellent state of preservation), which is now partly covered under modern stone debris with some damage in its north-eastern corner, needs to be developed.

Survey

The focus of our work was the right bank and in particular the districts of Attab, Ginis and Kosha (see Map 2). The survey in this part of the concession as well as on the left bank was conducted by foot. Only for the northern part of the concession, the region between

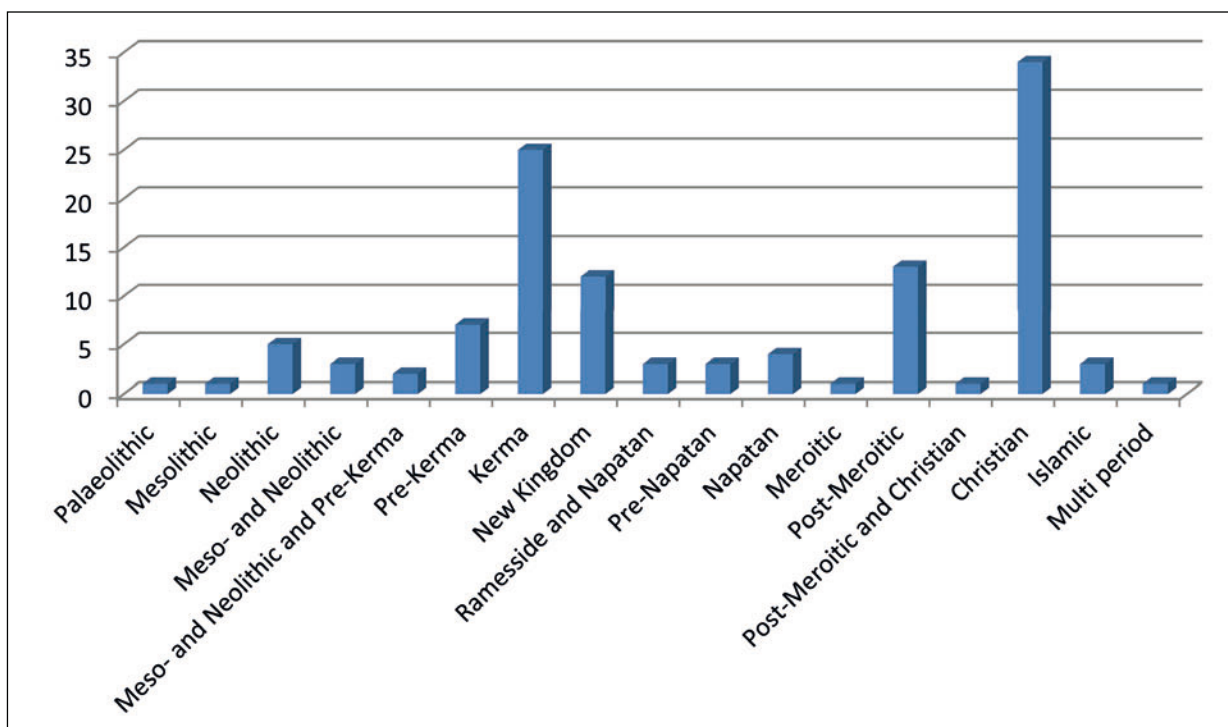


Figure 1. Quantity of sites in the MUAFS concession 2018/2019 according to periods (N = 119) (illustration: J. Budka).

Site	District	Vila's description	Pottery type	Description / Collection
2-T-31	Ginis East	Neolithic / Nubian Ancient occupation	Khartoum Variant	Sherd undecorated, quartz-K-feldspar-mica-rich fabric.
2-T-34 ?	Ginis East	Nubian Ancient occupation	Khartoum Variant	1 sherd decorated with rocker stamp impression, quartz-K-feldspar-mica-rich fabric; 1 sherd decorated with rocker stamp impression (large comb / zig-zags with dashes). Fine, quartz-rich fabric.
[WP 313]	Ginis West	[not recorded]	Khartoum Variant	Large Khartoum Variant sherd decorated with rocker stamp impression.
[10 m from WP 313]	Ginis West	[not recorded]	Khartoum Variant and Abkan	8 Khartoum Variant sherds (6 coarse ware possibly belonging to a large storage vessel and 2 with a fine fabric). Also, 2 possible Abkan sherds.
2-T-59	Ginis West	Nubian Ancient / Moyen camp	Khartoum Variant and Abkan	5 Khartoum Variant (very coarse and undecorated) and 8 Abkan sherds (1 black-topped rim). Also 1 Khartoum Variant / Abkan sherd. (+ 1 Pre-Kerma sherd)
3-P-47	Ginis West	Neolithic occupation	Khartoum Variant and Abkan	7 Khartoum Variant (1 rim and 1 sherd with dotted wavy line decoration) and 7 Abkan sherds (some are black-topped wares; 1 rim with reparation hole).
2-S-55	Attab West	Neolithic camp	Khartoum Variant	7 Khartoum Variant sherds (2 are from the same rim and are decorated with the rocker stamp impression). (+ 1 possibly later sherd; Pre-Kerma?)
2-T-64	Attab West	Neolithic camp	Khartoum Variant and	20 Khartoum Variant and 3 possible Abkan sherds.

Table 2. Preliminary classification of pottery from Meso- and Neolithic sites in the MUAFS concession (G. D'Ercole).

Mograkka and Ferka, was a car survey carried out.

Frequency of sites according to period

Within the 119 sites re-located by the MUAFS project, the quantities of sites according to cultural phases largely confirm Vila's results (Figure 1, Table 1). However, there are some important new observations related to the early sites (Meso- and Neolithic sites amount to 9.2%, see 3.1.2) as well as fresh information on New Kingdom and Napatan remains; the latter have all been wrongly assigned as 'Pharaonic' by Vila, due to the presence of wheel-made ceramic sherds covering the surfaces (cf. Edwards and Mills 2013, 8, note 1 for a similar

re-dating of sites in the Batn el-Hagar region).

Corresponding to Vila's data, the majority of the remains in the Attab to Ferka region are Christian sites (28.6%). Many Kerma sites (21%) were recorded in the MUAFS concession. Also New Kingdom, Pre-Napatan and Napatan sites appear in a significant amount (18.5%), but differences between the two riverbanks can be noted (see below, Maps 6 and 7). Post-Meroitic (X-Group) sites amount to 11.8% and are primarily burial grounds and some rock art stations.

Meso- and Neolithic evidence in the MUAFS concession area (G. D'Ercole)

The presence of prehistoric occupation in the Attab to Ferka region was first reported by Vila, who preliminarily surveyed and documented settlements and camps attributed to the Mesolithic, Neolithic and Early Nubian periods (see above). In the course of our first field season, we were able to identify and re-locate many of these sites and to attribute them respectively to the Khartoum Variant and Abkan cultural horizons based on the occurrence of diagnostic pottery (see Table 2).

Most of the Khartoum Variant and Abkan sites are currently located on the left bank of the Nile, mainly between the districts of Attab and Ginis West. However, it is worth noting that at the time of the Early Holocene this part of the river valley was shifted to the west of the Nile's present course, therefore numerous sites were located on the right bank of the earlier incision (Garcea *et al.* 2016, 4; see also



Plate 1. Neolithic site 2-T-16 at Ginis East (photo: J. Budka).



Plate 2. Pre-Kerma site 2-T-19 at Ginis East (photo: J. Budka).



Plate 3. Present situation of Kerma site 2-T-36A at Ginis East, largely overbuilt with modern houses (photo: J. Budka).

Woodward *et al.* 2017).

The prehistoric sites are situated at approx. between 200m and 1500m from the current Nile, and most are on average 500m. They are mainly set on gravel bars or on alluvial terraces along the ancient Nile bank or next to the banks of now desiccated river arms (*widian*). They can also be placed on a slight elevation on top of gentle hills or slopes, being often delimited by quartz and schist outcrops.

All the occupations are indicated by concentrations of eco- and cultural artefacts, which reach a maximum density in correspondence with the centre of the site. Interestingly, the Khartoum Variant sites in particular were characterised by very large concentrations of artefacts, including grindstones and millstones as well as numerous ceramic sherds, lithic tools and debitage. Remains of stone structures referring to features as possible huts and/or ancient hearths have also been identified (Plate 1). Furthermore, the occurrence of eroded faunal remains on the surface at some of the sites suggests the possibility that they might have preserved *in situ* archaeological deposits. All in all, based on the spatial

distribution of the artefacts, most of the sites appear to have an extension of many metres. Occasionally, continuity is observed between one site and the next, with some interruptions in between. This feature was already recorded by Vila (see e.g., sites 2-S-55 and 2-T-64 in Attab West; Vila 1977b, 56 and 90) and it might represent a distinctive characteristic of the prehistoric occupations of this area, not observed in the insular context of Sai.

Another aspect that is worth noting is the frequent compresence within the same site of both Khartoum Variant and Abkan ceramics. From a chronological perspective, this evidence is of crucial importance as it might indicate an overlap between the two cultural horizons with the possibility of a phase of cohabitation of Khartoum Variant and Abkan people. A similar scenario was observed at site 8-B-76 on Sai Island. This site was occupied at first by Khartoum Variant groups of hunter-fisher-gatherers and, at a later time, by Abkan pastoral groups who settled at the same site as the Khartoum Variant people, although their occupation was closer to the river and characterised by a different subsistence economy, as well as by a completely new ceramic tradition (Garcea *et al.* 2016; see also D'Ercole 2017, 156).

The changes observed in the ceramic assemblages at the shift between the Khartoum Variant and the Abkan Period were also recognised in the assemblages of the sites within the MUAFS concession area (Table 2). All in all, the preliminary visual analysis of the prehistoric ceramic material from the sites between Attab and Ferka suggests the existence in the region of two very distinct traditions that stylistically and technologically can be assimilated to the Khartoum Variant and Abkan cultural horizons³. This material also shows many traits in common with the Mesolithic and Neolithic of the region of El Barga/Kerma (Honegger 2014), as well as with the Early Neolithic and Neolithic cultures of the Egyptian Western Desert (Gatto 2002).

Economically, the Khartoum Variant and Abkan phases correspond respectively to the Mesolithic and Neolithic horizons, the first being characterised by a hunting-fishing and gathering economy and the latter by a productive pastoral economy. However, a critical review of the definitions used for indicating these Early Holocene cultures would be necessary. Currently, many different terms and labels are used in different ways with diverse meanings, depending on the geographical context and/or on the archaeological team working in the area. The study of the new evidence

³ The first definition of the Khartoum Variant and Abkan cultures was proposed by Shiner (1968a; 1968b) and later by Nordström (1972) based on the analysis of the ceramic and lithic material of the area between Abka-Wadi Halfa (Second Cataract). Recently, new studies on Khartoum Variant and Abkan assemblages from other contexts have contributed to a general review of these complexes as well as to a new definition of their geographical borders and cultural networks (see Gatto 2006; Garcea and Hildebrand 2009; Garcea 2011-2012; Nordström 2016; D'Ercole 2017).



Plate 4. Part of destroyed Kerma cemetery 3-G-19 at Ferka East. (photo: J. Budka).

in the MUAFS concession appears particularly promising in this perspective, both for the unique geographical location of the sites, on both of the riverbanks, and for their large extension and the exceptional overlapping of Khartoum Variant and Abkan ceramics. This area of the Middle Nile has already provided one of the earliest evidences for pottery making in northern Sudan with a date ranging from 10,400 to 10,700 cal BP (mid-ninth millennium BC), coming from the Arkinian site 2-R-66 in the nearby Amara West district (Garcea *et al.* 2016).

Evidence for other periods in the MUAFS concession (J. Budka)

Pre-Kerma sites

Sites attributed by us to the Pre-Kerma horizon are of particular interest, because until now Sai Island has provided the northernmost substantial evidence south of the Batn el-Hagar for this 3rd millennium BC occupation (see Garcea and Hildebrand 2009; Raue 2018, 318; cf. also Honegger 2004, 46, figure 8). Mostly huts and camp sites were identified, according to ceramics and stone tools (e.g. site 2-T-19, Plate



Plate 5. Settlement site 3-P-15 at Kosha West, Rameside to Napatan. (photo: J. Budka).

2), and were found sometimes associated with Meso- and Neolithic material (e.g. site 2-T-64).

Kerma sites

Camps, settlements and cemeteries of the Kerma culture were recorded at both riverbanks. Of particular interest are stone structures in the Attab West district associated with 18th dynasty pottery (see below) and site 2-T-36A in Ginis East. The latter is by now largely overbuilt by modern houses (Plate 3). Nevertheless, the ceramics from the surface confirm the dating and interpretation of the site by Vila.

Large Kerma tumulus cemeteries are located at Kosha East and Ferka East (Plate 4) and were already noted by Kirwan (1939, 19, 27). Most of these tombs have been plundered and some are by now completely destroyed (see, e.g., 2-T-1 and 2-T-9).

New Kingdom sites

New Kingdom sites are also quite numerous and comprise both settlement and funerary sites, being distributed on both riverbanks. The settlements include both stone and mud brick structures as well as combinations of these two materials. Other than site GiE 001 (2-T-36B, see 3.1.4), most domestic sites are located at the left bank, forming a cluster in the districts of Attab and Ginis, thus in the neighbourhood of Amara West.

Tombs are attested as dome/cleft tombs (all of which were plundered and are therefore of partly uncertain date, but see similar rock crevices burials of the 18th dynasty around Faras West, Nordström 2016, 157) and tumuli/unclear stone structures with subterranean chambers. The most spectacular Pharaonic burial is 3-P-50, which was excavated by Vila and can be dated to the Ramesside Period (Vila 1977a, 145-159). This unusual tomb type finds a new parallel at Amara West with tomb G244, a burial monument with a Nubian-style tumulus as superstructure and an Egyptian-style substructure (Binder 2017, 599-606). 3-P-50 is the only site within the MUAFS concession where until now a personal name for an occupant during the New Kingdom was found: the Lady Iset is attested by shabtis (Vila 1977a, 151-152).



Plate 6. Overview of northern part of post-Meroitic tumulus cemetery 3-G-1 at Ferka East (photo: J. Budka).



Plate 7. Mudbrick church 3-G-9 at Ferka East (photo: J. Budka).



Plate 8. Magnetic prospecting of GiE 002 with the handheld Ferret 4.032 magnetometer in a quadro-sensor configuration (photo: G. D'Ercole).

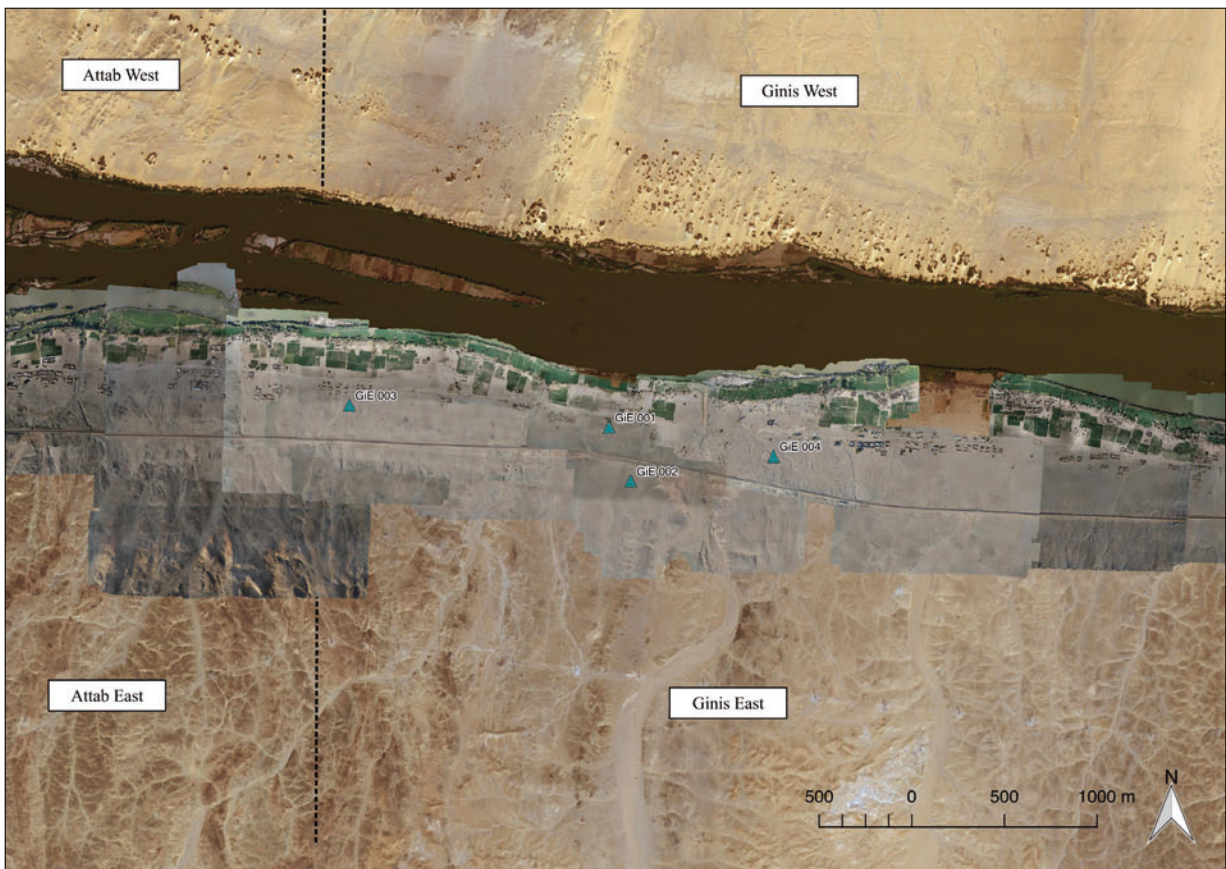
Pre-Napatan sites

For the Late New Kingdom, the 20th dynasty, and the Pre-Napatan era some plundered tumuli/cemeteries at Attab East can be noted (2-T-48, 2-T-48 and 2-S-2). This dating is confirmed by means of ceramics from the destroyed chambers and represents a correction to Vila's assumption of these burial mounds as 'Pharaonic' tombs. Of special interest is the habitation site 3-P-15 at Kosha West, because it shows a continuation from late Ramesside times well into the 9th and maybe even the 8th century BC according to the

surface ceramics (Plate 5). A more precise dating and a concise characterisation would, of course, require excavations.

Napatan sites

Napatan sites within the MUAFS concession have rich potential since they were not previously noted by Vila. Especially striking are stone walls and huts which constitute three very large settlement sites on the left bank in the district of Ginis (2-T-53, 2-T-57 and 2-T-69), located in 'Sand Hills



Map 4. Aerial photographs providing further details around the sites GiE 001-004, investigated by magnetometry. Orthophotos laying on a Bing Satellite image (map and data: C. Geiger).

along River' (as noted on a map of 1886, see Woodward *et al.* 2017, 228-229, Fig. 1) between tamarisks and acacia trees and still largely covered by sand. These sites were dated by Vila to the New Kingdom, misinterpreting wheel-made ceramics (see Map 6).

A gold extraction site at Ginis East with both Ramesside and Napatan remains, 3-P-34, is also very noteworthy (again wrongly attributed to the New Kingdom, Vila 1977a, 94). This site with numerous artefact concentrations and deposits of crushed quartz on the surface represents an important new addition to New Kingdom gold working activities in the Batn el-Hagar region (see Klemm and Klemm 2013; 2017) and their continuation in later times.

Meroitic sites

Meroitic burial grounds were noted by Kirwan and Vila (sometimes re-used in post-Meroitic and Christian times), but are by now very much affected by destruction. The only cemetery re-located in the first MUAFS season is site 2-T-17 (Vila 1977a, 53-54) which is located directly at the modern asphalt road to Wadi Halfa and has been completely plundered.

Post-Meroitic sites

Post-Meroitic sites in the MUAFS concession are numerous and represent very large tumulus cemeteries, including the elite tombs at Ferka (3-G-1, some of which have a diameter of more than 12m, Plate 6) and Kosha which bear resemblances to the Qustul and Ballana tombs (see Kirwan 1939; Welsby 2002, 22, 47, 55). However, at present most of the post-Meroitic cemeteries are partly or severely plundered.

Christian sites

The MUAFS concession with prominent Medieval remains at Attab East, Kosha East and West, Mograkka East and Ferka East lies within the realm of the Kingdom of Nobadia (see Welsby 2002, 24-25, fig. 7). As was already noted, Christian sites represent both the majority within the sites recorded by Vila and the selection re-located by us in 2018/2019. These sites are distributed throughout the concession and comprise stone huts, medium-sized and large settlements, mudbrick churches (Plate 7), cemeteries and rock art.

Islamic sites

Islamic sites are somewhat difficult to date and comprise a small amount of cemeteries, stone huts and stone structures (e.g. sites 3-P-30 and 2-T-60). Further Christian and Islamic sites still wait to be recorded in detail on the islands (see, e.g., a walled fort on Firkinarti, dated by Kirwan 1939, Pl. II as 'Byzantine and Medieval', by Vila 1976a, 3-L-25, 90-94 as X-Group, Christian and post-Medieval).

Rock art

Rock art is restricted to certain areas with appropriate geology in the Attab to Ferka region like Mograkka. The rock art comprises examples from Neolithic times until Christian/Islamic times. Some rock art stations can be dated because

of their association with other sites and parallels, e.g. post-Meroitic cattle pictures (3-P-5).

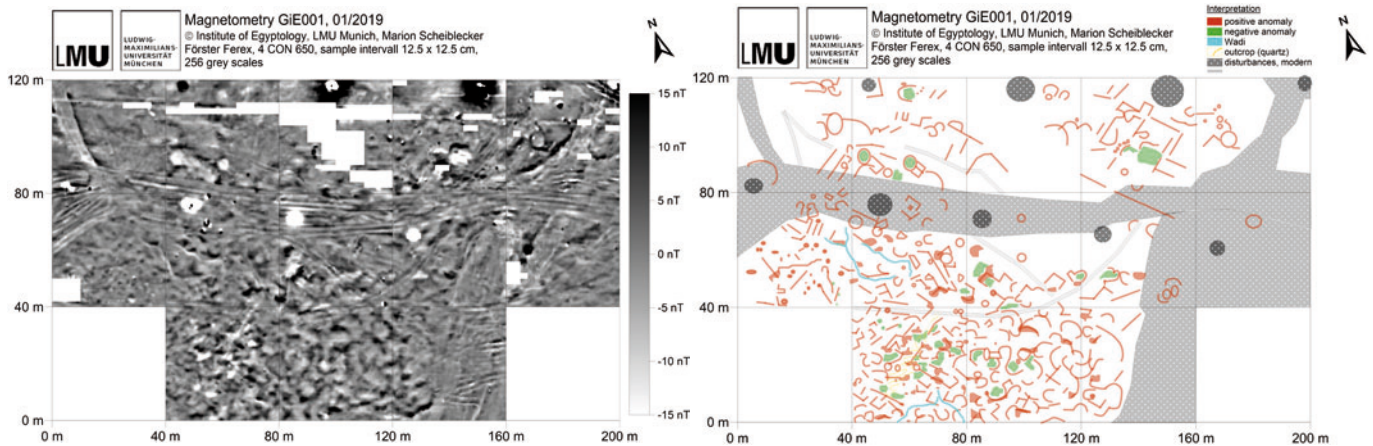
As yet, no New Kingdom inscriptions or graffiti were recorded by Vila or by us (see, however, Vila 1975b, 3-B-16, 52, fig. 54; Edwards and Mills 2013, 8, Fig. 1; Davies, this volume for hieroglyphic graffiti at the Dal cataract, thus north of the MUAFS concession).

Magnetometry (*M. Scheiblecker*)

Four sites in the area of Ginis East (GiE001 to GiE004) – in total more than 6ha – were investigated with the handheld Gradiometer Foerster Ferex 4.032 in quadrosensor configuration (Plate 8) accompanied by selective magnetic susceptibility measurements. According to Vila and the surface finds recorded by MUAFS, these four sites belong to the Kerma horizon (GiE003 and GiE004) and the New Kingdom respectively (GiE001 and GiE002). The results at the two domestic sites GiE001 and GiE004 will be highlighted in the following text.

At GiE001 (2-T-36B), magnetometry revealed two different types of settlements (Figure 2). Recently erected power line pillars cause circular high positive and negative magnetic anomalies in the northern and middle part of the magnetogram. Especially in the middle parts of the site, modern tyre marks also disturbed the magnetometry results (Figure 3). In the northeast a rectangular layout up to 25 x 20m is visible, possibly a building of Egyptian type datable to the New Kingdom, while especially in the southern part circular features are attended by posts and linear features. The latter features indicate houses or huts, silos/cellars and open spaces between the huts limited by fences or walls and were probably used not only for living/working but also for livestock holding. These round buildings and fences are typical of Kerma architecture (see, e.g., Bonnet 1986, 27-38) but seem to date also to the New Kingdom according to the surface pottery. Magnetisable mudbrick/brick or ditches as well as posts can cause positive magnetic anomalies, for example, walls made of mudbrick or foundation trenches for constructing the huts/buildings (Fassbinder 2017, 505).

The main area of GiE004 (2-T-5; southwestern part of the magnetogram, Figures 4 and 5) is still visible on the surface as a little elevation enclosed by different wadi systems. A Kerma settlement system – comparable to the southern part of GiE001, but definitely older according to the surface ceramics – with rounded huts and additionally walls can be clearly identified in this almost untouched area; whereas the attached southern part consisting of Kerma graves is recently destroyed. Rectangular as well as circular features are visible in the northern part of the investigated area showing negative magnetic anomalies (Fassbinder 2017, 505-507). They could be caused by mudbrick with less magnetisable content than in the southern part, where the magnetic anomalies show high positive values indicating different building materials and/or sources. The borders of the wadi systems are clearly visible in the magnetogram; excavation would demonstrate if there



Left: Figure 2. MUAFS/GiE 001. Magnetometer measurement of the survey area (200 × 120m). Foerster Ferex, 4 CON 650, sampling interval 10 × 50cm, interpolated to 12.5 × 12.5cm, dynamics in 256 grey scales, 40m grids (M. Scheiblecker, © MUAFS).

Right: Figure 3. MUAFS/GiE 001. Interpretation of the magnetogram.

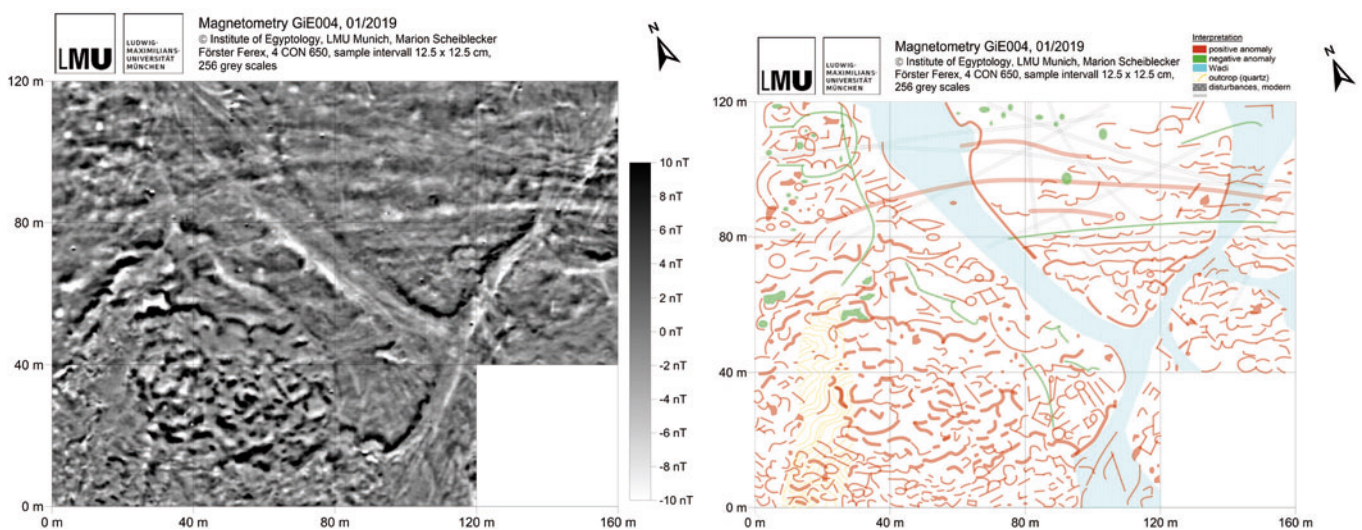
was any kind of fortification along the wadi.

Drone aerial photography (C. Geiger)

During the two weeks of MUAFS' fieldwork, intensive attempts were made to document as much of the survey area in as much detail as possible by aerial photography. For this purpose, a remote-controlled drone DJI Phantom 4 Pro was used. The main difficulties encountered during this process were heavy winds with high velocities during the entire season and the complete lack of any reliable geodetical reference points, as well as the simply huge dimensions of the concession area. For the first step a net of geodetical main survey points was created using a Leica Viva GNSS by logging and rectifying the measured positions. This grid was densified using a Leica TCRP 1203 Total Station to get Ground Control Points in a resolution feasible for the

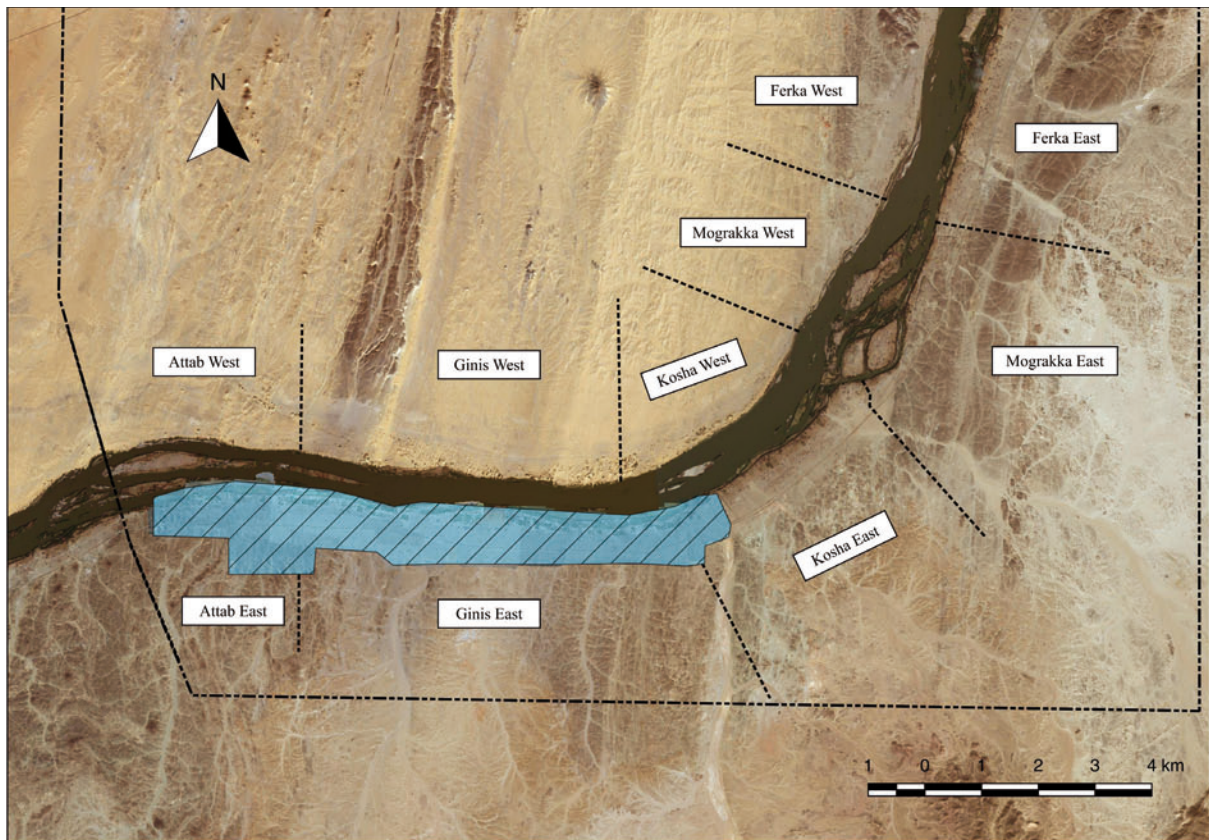
drone photography. The area was divided into grids and the flight routes were predefined for the single flights. From the photos recorded by the drone, orthophotos were calculated using Agisoft Photoscan Pro (Map 4). The surveyed Ground Control Points together with naturally appearing features of good visibility on satellite imagery (e.g. radio antennas, edges of buildings etc.) were used for georeferencing the drone orthophotos.

As the entire MUAFS concession area was too large to be completely covered to a reasonable detail in the short timeframe of the first season, the focus was set on the areas investigated by magnetometry (cf. Map 4). The resulting data is important for the further planning and preparation of future excavations. The covered areas for which aerial photographs exist so far are illustrated in Map 5 and comprise primarily Attab East and Ginis East.

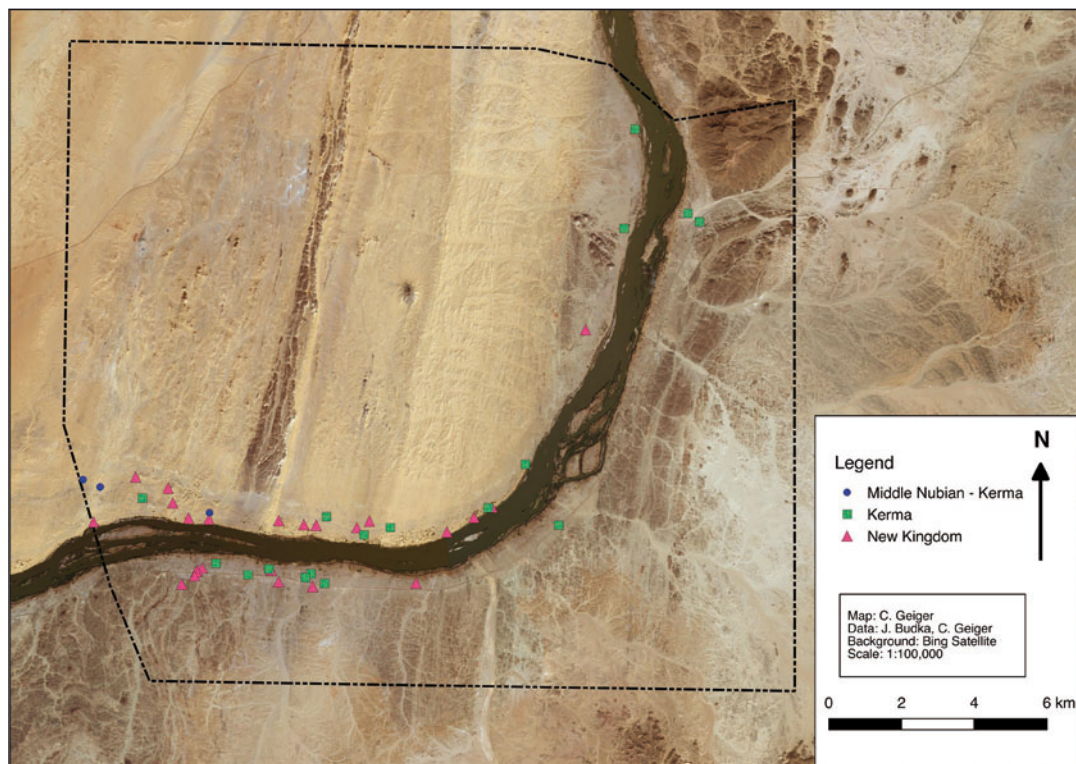


Left: Figure 4. MUAFS/GiE 004. Magnetometer measurement of the survey area (160 × 120m). Foerster Ferex, 4 CON 650, sampling interval 10 × 50cm, interpolated to 12.5 × 12.5cm, dynamics in 256 grey scales, 40m grids (M. Scheiblecker, © MUAFS).

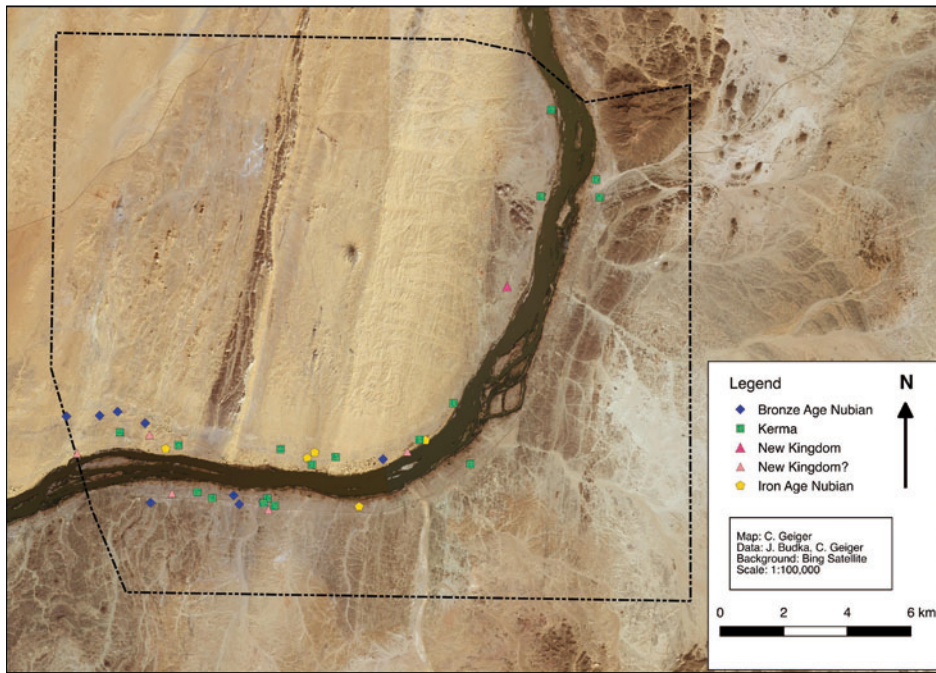
Right: Figure 5. MUAFS/GiE 004. Interpretation of the magnetogram (Figure 4) (M. Scheiblecker, © MUAFS).



Map 5. Map showing the total covered area by aerial photography within the borders of the MUAFS concession area (map and data: C. Geiger, © MUAFS).



Map 6. Distribution of Kerma and New Kingdom sites according to Vila (map: C. Geiger, © MUAFS).



Map 7. New distribution of Kerma and New Kingdom sites according to the results of the MUAFS 2018/2019 season (map: C. Geiger, © MUAFS).

Cultural diversity in the Attab to Ferka region

(J. Budka)

MUAFS' focus on a peripheral region in the Middle Nile, which is perceived as complex social spaces intertwined with the landscape, allows us to address crucial open questions – cultural identity, social stratification and gender, herding and farming activities, trade and manufacturing – about the occupants in the neighbourhood of urban centres and the question of 'cultural entanglement' in New Kingdom Nubia (see e.g. Stockhammer 2013; van Pelt 2013; Smith and Buzon 2017) on such a peripheral level.

This intended focus of the MUAFS project is of particular relevance since we cannot use cultural categorisations as long as we do not understand the social complexity of possible groups. This applies for all cultural horizons and can be exemplified already for the Khartoum Variant and Abkan groups, the Pre-Kerma population, but is especially relevant for the period of the New Kingdom. The nature of the coexistence of 'Egyptians' and 'Nubians' and how the occupants of these peripheral regions were in contact with the major New Kingdom administrative sites are essential aspects for any theory about cultural encounters. Our new approach aiming to reconstruct biographies and address all kinds of material culture in conjunction with trade, technologies, architecture and foodways will result in a completely revised picture of this part of the Middle Nile Valley as a social space shaped by humans and non-humans as well as environmental conditions rather than as a static landscape inhabited by a clearly distinct 'Nubian' and 'Egyptian' population.

In this respect, the most important result of our first field season is a new distribution of sites classified by Vila as either 'Kerma' or 'Egyptian New Kingdom' (Map 6). Noteworthy are Kerma sites with dry-stone architecture that we found associated with 18th dynasty material for which I introduced the preliminary label 'Bronze Age Nubian', corresponding to sites including Ramesside material as 'Iron Age Nubian' (Map 7). These new labels should illustrate that currently we can only identify the dating (Bronze Age or Iron Age) and the location (Nubia) of these sites, but have no means for a concise cultural classification (cf. Liszka 2017; see also Nordström 2016, 156 for 'Transitional' sites from the first half of the 18th dynasty in the Second Cataract Area).

In addition, several so-called New Kingdom sites by Vila (Map 6) were identified by us as Pre-Napatan and especially Napatan, postdating the New Kingdom (and are thus omitted from Map 7). This first assessment of a revised dating and a possible cultural mixture needs to be studied in detail by means of excavation of the individual sites and a complete survey of the region. Already at this stage of work, the distribution of the sites is highly interesting.

Sites labelled by Vila as 'Kerma' are located along a palaeochannel of the Nile ('Northern palaeochannel' according to Woodward *et al.* 2017, 232-241, Fig. 6) in the district of Attab West in the region named OUNET. Apart from one site with mud brick remains, these sites are built in dry-stone architecture and comprise stone huts and stone walls (e.g. site 2-S-43, Pl. 9). Close parallels with so-called



Plate 9. Dry-stone architecture at site 2-S-43 in Attab West, early 18th dynasty (photo: J. Budka).

sentinel huts in the districts of Abu Sir, Mirgissa and Gemai (Nordström 2016, 138-140) as well as the location along the palaeochannel make it likely that these huts were connected with controlling river traffic and communication between major sites/groups. The ceramics associated with these features are both 18th dynasty pottery and Kerma Classique material (fine ware as well as cooking ware). Although these sites were interpreted by Vila as Kerma habitations, the New Kingdom ceramics are abundant and dominate the material culture (comparable to the huts published by Nordström 2016 in the Second Cataract region), making a more concise cultural assessment of the remains by means of excavation necessary. Similar to the results in the hinterland of the Amara West concession, ‘the close sharing of space and activities’ (Stevens and Garnett 2017, 303) between Egyptian and Nubian populations seems at present very likely.

In terms of distribution of sites, New Kingdom settlement sites are clustered within the southwestern part of the MUAFS concession area and are rare in the close neighbourhood of the Dal Cataract (see, however, Pharaonic sites further downstream, Edwards and Mills 2013). At present, it seems likely that we have to consider three aspects influencing the variability of sites in the Attab to Ferka region, 1) a former bias in interpretation; 2) an actual unevenness of sites, most likely reflecting diverse social/cultural groups and environmental factors (see Woodward *et al.* 2017 for the hydrological and geomorphological changes in the local riverine system), thus illustrating the varied use of the landscape as complex social space; and 3) an influence by means of the administrative centres of Amara West and Sai Island and/or gold working sites (see Stevens and Garnett 2017, 303-304; Woodward *et al.* 2017, 240-241).

In this context, the site GiE 001 (2-T-36B), recently documented by MUAFS with magnetometry (see 3.1.3, Figures 2 and 3), is a perfect case study for cultural diversity in terms of architecture and material culture. Various types of huts/houses, presumably of both ‘Egyptian’ and ‘Nubian’ type, were found seemingly next to each other, and the ceramics include Egyptian and Nubian wares, suggesting a cultural mixture for the occupants.⁴ The site is contemporary to the main town of Sai Island, but completely dissimilar in appearance, finding rather parallels in the rural Kerma site of Gism el-Arba with fences, granaries, rectangular and circular structures (Gratien *et al.* 2003; 2008).

Summary and outlook (J. Budka)

Already the first season of the MUAFS project has illustrated the rich potential of the area for this new approach, focusing on cultural encounters and ‘peripheral’ sites in a border region over several millennia, from Khartoum Variant/Abkan and Pre-Kerma times onwards. Several so-called New Kingdom

sites could be fine-dated by us to the 18th dynasty or the Ramesside Period respectively. Completely new information is the existence of large Napatan settlement sites using dry-stone architecture in the Ginis West district.

The MUAFS project intends to fill the considerable gap of investigations at sites in the periphery of major settlements in the Nile Valley and of so-called rural sites. We will study cultural encounters in a peripheral borderscape (cf. Edwards 2012) which is situated close to the Dal Cataract and the natural frontier of the rocky outcrop of the Batn el-Hagar (see Edwards and Mills 2013). Within our long *durée* approach, the focus of the forthcoming years will be on Kerma and New Kingdom sites. The distribution of these sites within the concession area already poses several questions which need to be addressed by means of excavations and detailed data analysis.

Important future working steps comprise a continuation of the survey on the left bank of the Nile, in the northern part of the concession as well as in the hinterland and on the islands. Excavations at sites with promising results from the geophysical survey in 2019 will be conducted in the near future. And last, but definitely not least, the necessity of cultural heritage measurements and the protection of sites and monuments in the area between Attab and Ferka will keep us busy in the upcoming years.

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Bibliography

- Adams, W. Y. and C. J. Verwers 1961. ‘Archaeological Survey of Sudanese Nubia’, *Kush* 9, 7-43.
- Binder, M. 2017. ‘The New Kingdom tombs at Amara West: Funerary perspectives in Nubian-Egyptian interactions’, in N. Spencer, A. Stevens and M. Binder (eds), *Nubia in the New Kingdom. Lived experience, pharaonic control and indigenous traditions*. British Museum Publications on Egypt and Sudan 3. Leuven, 591-613.
- Bonnet, C. 1986. *Kerma. Territoire et Métropole*. Cairo.
- Budka, J. 2015. ‘The Pharaonic town on Sai Island and its role in the urban landscape of New Kingdom Kush’, *Sudan & Nubia* 19, 40-53.
- D’Ercole, G. 2017. *Ceramic manufacturing techniques and cultural traditions in Nubia from the 8th to the 3rd millennium BC. Examples from Sai Island*. Cambridge Monographs in African Archaeology 96. Oxford.
- Edwards, D. N. 2012. ‘The Third-Second Millennium BC. Kerma and New Kingdom Settlements’, in A. Osman and D. N. Edwards (eds), *Archaeology of a Nubian frontier. Survey on the Nile Third Cataract, Sudan*. Leicester, 59-87.

⁴ Of course this needs to be tested by excavation, in particular whether different sectors existed at GiE 001; especially the middle part of the site that is destroyed by modern car tracks, which also caused disturbances for the magnetogram (see Figure 3).



- Edwards, D. N. and A. J. Mills 2013. "Pharaonic" sites in the Batn el-Hajar - the "Archaeological Survey of Sudanese Nubia" Revisited', *Sudan & Nubia* 17, 8-17.
- Fassbinder, J. W. E. 2017. 'Magnetometry for Archaeology', in A. S. Gilbert, P. Goldberg, V. T. Holliday, R. D. Mandel and R. S. Sternberg (eds), *Encyclopedia of Geoarchaeology. Encyclopedia of Earth Sciences Series*. Dordrecht, 499-514.
- Garcea, E. A. A. 2011-2012. 'Revisiting the Khartoum Variant in its environment', *Cahiers de Recherches de l'Institut de Papyrologie et d'Égyptologie de Lille* 29, 139-150.
- Garcea, E. A. A. and E. A. Hildebrand 2009. 'Shifting social networks along the Nile: Middle Holocene ceramic assemblages from Sai Island, Sudan', *Journal of Anthropological Archaeology* 28, 304-322.
- Garcea, E. A. A., Wang, H. and L. Chaix 2016. 'High-Precision Radiocarbon Dating Application to Multi-Proxy Organic Materials from Late Foraging to Early Pastoral Sites in Upper Nubia, Sudan', *Journal of African Archaeology* 14 (1), 83-98.
- Gatto, M. C. 2002. 'Early Neolithic Pottery of the Nabta-Kiseiba Area: Stylistic Attributes and Regional Relationships', in K. Nelson and Associates (eds), *Holocene Settlement of the Egyptian Sahara. Volume 2: The Pottery of Nabta Playa*. New York, 65-78.
- Gatto, M. C. 2006. 'The Khartoum Variant Pottery in Context: Rethinking the Early and Middle Holocene Nubian Sequence', *Archéologie du Nil Moyen* 10, 57-72.
- Gratien, B., S. Marchi, O. Thuriot, and J.-M. Willot 2003. 'Gism el-Arba, habitat 2. Rapport préliminaire sur un centre de stockage Kerma au bord du Nil', *Cahiers de Recherches de l'Institut de Papyrologie et d'Égyptologie de Lille* 23, 29-43.
- Gratien, B., Marchi, S., Sys, D. and R.-P. Dissaux 2008. 'Gism el-Arba - Habitat 2, Campagne 2005-2006', *Kush* 19 (2003-2008), 21-35.
- Hinkel, F. W. 1977. *The Archaeological Map of the Sudan. A Guide to its Use and Explanation of its Principles*. Berlin.
- Honegger, M. 2004. 'The Pre-Kerma: a cultural group from Upper Nubia prior to the Kerma civilisation', *Sudan & Nubia* 8, 38-46.
- Honegger, M. 2014. 'Recent advances in our understanding of prehistory in Northern Sudan', in J. R. Anderson and D. A. Welsby (eds), *The Fourth Cataract and beyond. Proceedings of the 12th International Conference for Nubian Studies*. British Museum Publications on Egypt and Sudan 1. Leuven, 19-30.
- Kirwan, L. P. 1939. *The Oxford University Excavations at Firka*. London.
- Klemm, R. and D. Klemm 2013. *Gold and Gold Mining in Ancient Egypt and Nubia. Geoarchaeology of the Ancient Gold Mining Sites in the Egyptian and Sudanese Eastern Deserts*. Natural Science in Archaeology. Heidelberg.
- Klemm, D. and R. Klemm 2017. 'New Kingdom and early Kushite gold mining in Nubia', in N. Spencer, A. Stevens and M. Binder (eds), *Nubia in the New Kingdom. Lived experience, pharaonic control and indigenous traditions*. British Museum Publications on Egypt and Sudan 3. Leuven, 259-270.
- Kolen, J. and J. Renes 2015. 'Landscape Biographies: Key Issues', in J. Kolen, J. Renes and R. Hermans (eds), *Landscape Biographies: Geographical, Historical and Archaeological Perspectives on the Production and Transmission of Landscapes*. Amsterdam, 21-47.
- Liszka, K. 2017. 'Egyptian or Nubian? Dry-stone architecture at Wadi el-Hudi, Wadi es-Sebua, and the Eastern Desert', *Journal of Egyptian Archaeology* 103 (1), 35-51.
- Morris, E. F. 2018. *Ancient Egyptian Imperialism*. Hoboken.
- Nordström, H.-Å. 1972. *Neolithic and A-Group sites*. Uppsala.
- Nordström, H.-Å. 2016. *The West Bank Survey from Faras to Gemai 1. Sites of Early Nubian, Middle Nubian and Pharaonic Age*. BAR International Series 2650. Oxford.
- Raue, D. 2018. *Elephantine und Nubien vom 4.2. Jahrtausend v. Chr. Band 1*. Deutsches Archäologisches Institut Abteilung Kairo Sonderschrift 40,1. Berlin.
- Shiner, J. L. 1968a. 'The Khartoum Variant industry', in F. Wendorf (ed.), *The Prehistory of Nubia, Volume 2*. Dallas, 768-790.
- Shiner, J. L. 1968b. 'The Cataract Tradition', in F. Wendorf (ed.), *The Prehistory of Nubia, Volume 2*. Dallas, 535-629.
- Smith, S. T. 2003. *Wretched Kush. Ethnic identities and boundaries in Egypt's Nubian Empire*. London and New York.
- Smith, S. T. and M. Buzon 2017. 'Colonial encounters at New Kingdom Tombos: Cultural entanglements and hybrid identity', in N. Spencer, A. Stevens and M. Binder (eds), *Nubia in the New Kingdom. Lived experience, pharaonic control and indigenous traditions*. British Museum Publications on Egypt and Sudan 3. Leuven, 615-630.
- Spencer, N. 2017. 'Building on new ground: the foundation of a colonial town at Amara West', in N. Spencer, A. Stevens and M. Binder (eds), *Nubia in the New Kingdom. Lived experience, pharaonic control and indigenous traditions*. British Museum Publications on Egypt and Sudan 3. Leuven, 323-355.
- Stevens, A. and A. Garnett 2017. 'Surveying the pharaonic desert hinterland of Amara West', in N. Spencer, A. Stevens, and M. Binder (eds), *Nubia in the New Kingdom. Lived experience, pharaonic control and indigenous traditions*. British Museum Publications on Egypt and Sudan 3. Leuven, 287-306.
- Stockhammer, P. W. 2013. 'From Hybridity to Entanglement, from Essentialism to Practice', *Archaeological Review from Cambridge Issue 28.1: Archaeology and Cultural Mixing*, 11-28.
- Stockhammer, P. W. and B. Athanassov 2018. 'Conceptualising Contact Zones and Contact Spaces: An Archaeological Perspective', in S. Gimatzidis, M. Pieniżek and S. Mangaloğlu-Votruba (eds), *Archaeology across Frontiers and Borderlands. Fragmentation and Connectivity in the North Aegean and the Central Balkans from the Bronze Age to the Iron Age*. OREA 9. Vienna, 93-112.
- Van Pelt, W. P. 2013. 'Revising Egypto-Nubian Relations in New Kingdom Lower Nubia: From Egyptianization to Cultural Entanglement', *Cambridge Archaeological Journal* 23.3, 523-550.
- Vila, A. 1975a. *La prospection archéologique de la Vallée du Nil, au Sud de la Cataracte de Dal. The Archaeological Survey of the Nile valley south of dal cataract 1: General introduction*. Paris.
- Vila, A. 1975b. *La prospection archéologique de la Vallée du Nil, au Sud de la Cataracte de Dal (Nubie Soudanaise). Fascicule 2. Les districts de Dal (rive gauche) et de Sarkamatto (rive droite)*. Paris.
- Vila, A. 1976a. *La prospection archéologique de la Vallée du Nil, au Sud de la Cataracte de Dal (Nubie Soudanaise). Fascicule 3: District de Ferka (Est et Ouest)*. Paris.
- Vila, A. 1976b. *La prospection archéologique de la Vallée du Nil, au Sud de la Cataracte de Dal (Nubie Soudanaise). Fascicule 4: District de Mograkka (Est et Ouest), District de Kosha (Est et Ouest)*. Paris.
- Vila, A. 1977a. *La prospection archéologique de la Vallée du Nil, au Sud de la Cataracte de Dal (Nubie Soudanaise). Fascicule 5: Le district de Ginis, Est et Ouest*. Paris.
- Vila, A. 1977b. *La prospection archéologique de la Vallée du Nil, au Sud de la Cataracte de Dal (Nubie Soudanaise). Fascicule 6: Le district de Attab, Est et Ouest*. Paris.
- Vila, A. 1979. *La prospection archéologique de la Vallée du Nil, au Sud de la Cataracte de Dal (Nubie Soudanaise). Fascicule 11: Récapitulations et conclusions. Appendices*. Paris.
- Welsby, D. A. 2002. *The Medieval Kingdoms of Nubia: Pagans, Christians and Muslims along the Middle Nile*. London.
- Woodward, J., Macklin, M., Spencer, N., Binder, M., Dalton, M., Hay, S. and A. Hardy 2017. 'Living with a changing river and desert landscape at Amara West', in N. Spencer, A. Stevens and M. Binder (eds), *Nubia in the New Kingdom. Lived experience, pharaonic control and indigenous traditions*. British Museum Publications on Egypt and Sudan 3. Leuven, 227-257.