

SUDAN & NUBIA

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Front cover: QSAP Dam-Debba Archaeological Survey Project. Site DS7, Ganati: the re-erected columns in the church (photo: Fawzi Hassan Bakhiet).

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Archaeology at Selima Oasis, Northern Sudan - recent research

Friederike Jesse, Coralie Gradel and Franck Derrien

Introduction¹

Compared to the Egyptian oases, the archaeology of the oases of northern Sudan has attracted much less attention, probably because they have not been permanently occupied and because they are more difficult to access. Being located on one of the main ancient traffic routes - the Darb el-Arba'in - they have, however, been important places within the trans-Saharan network. The Darb el-Arba'in, the Forty-Days-Road, linked Middle Egypt with the Darfur region in Sudan and was in use probably since Pharaonic times (Plate 1). Up to the 19th century enormous caravans of camels used this about 1800km long road which, in post-Medieval times, became the major trading route for slaves and commodities such as ivory, salt, spices, ostrich feathers, ebony and gum arabic (e.g. Riemer and Förster 2013, 52-53; Asher 1986, 82-87). Not only are the oases in northern Sudan little known from an archaeological and historical perspective but also the Darb el-Arba'in itself. Archaeological research in this part of the southern Libyan Desert is still selective and scarce, despite the great importance of this region for trade and contact between the Nile Valley and the areas to the west, south and north. To fill this gap, the Selima Oasis Project (SOP) was initiated by the French archaeologist Coralie Gradel in 2011. The aim of the project is to study the development of the oases at Selima and Laqiya since Prehistoric times but also to elucidate their role as trade stations on the Darb el-Arba'in. From the beginning the Selima Oasis Project has been a German-French cooperation in close collaboration with Sudan's National Corporation for Antiquities and Museums (NCAM). Three short field seasons have taken place so far² and preliminary results will be presented here.

The area of interest

The oasis of Selima (Plate 2) is located at the base of an escarpment formed by Jurassic to middle Cretaceous rocks. Geoscientific research (see Haynes 1985; Haynes *et al.* 1989; Pachur and Altmann 2006) documented old lake sediments: shore terraces of different ages are present and Palaeolithic

¹ This paper is the slightly reversed version of a paper presented at the SARS colloquium 'Recent Archaeological Fieldwork in Sudan' held at the British Museum on Monday, 11th May 2015.

² The following participated in the fieldwork: Dr Coralie Gradel (archaeologist), Dr Friederike Jesse (archaeologist), Dr Franck Derrien (geographer), Michael Flache (archaeologist), Jan Kuper (archaeologist), Mohamed Eltoum Mohamed (inspector, NCAM), the late Amged Bashir (inspector, NCAM), Awadallah Ali el Bacha (driver, technician, SFDAS), Suleiman Abdel Arim (driver, NCAM), Aid Zihada Saad and Sadding Awad Abdallah (excavation workers from Qubbat Selim).

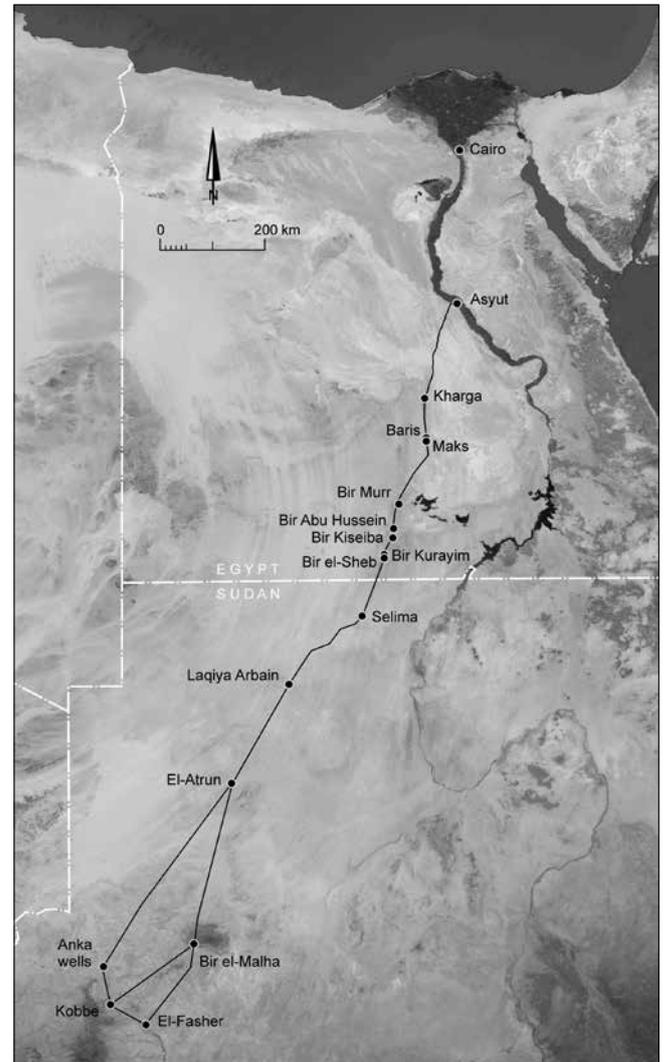


Plate 1. The Darb el-Arba'in and the location of the oases of Selima and Laqiya (adapted from Riemer and Förster 2013, map on pg. 52).

artefacts were found. The Holocene lake development started at around 8300 BC and can be explained by increased local rainfall. At that time savannah-type vegetation can be supposed. The main extension of the lake seemed to occur around 6900 BC. The molluscs found point to a water depth



Plate 2. View of Selima Oasis from the south (photo: C. Gradel).



of more than 3m over large areas of the lake and in places of more than 10m. Around 4300 BC transition to a saltwater/sebkha phase is attested at Selima. A radiocarbon date of about 2700 BC (H-7877-7929) indicates the drying out of the lake (Pachur and Altmann 2006, 363-371).

The Laqiya region is part of the large Nubian sandstone plateau. The most remarkable feature is the escarpment of Laqiya which extends over more than 100km in a south-east to north-west direction and forms, with a height of up to 110m, the northern part of the depression of Laqiya. The oasis of Laqiya Arbain (see Plate 1) was a main watering point on the Darb el-Arba'in. Wells are present here. Like Selima, Laqiya Arba'in was occupied only sporadically by military posts. About 30km south east of Laqiya Arbain is the small oasis of Laqiya Umran (Haynes 1985, 269-271; Lange 2006, 22-23). Here no wells are present, but salty water quickly appears when digging a small hole.

History of research

Only a little archaeological research has been done in this part of the southern Libyan Desert. In 1935 William Boyd Kennedy Shaw conducted a multi-disciplinary expedition to the southern Libyan Desert during which he visited Selima

there. Records of ancient travellers to Selima go back to the 17th century (see Pichler and Negro 2005).

Research in the southern Libyan Desert was intensified in the 1970s and 1980s: some Palaeolithic and Neolithic sites were discovered in the Laqiya Depression and at Selima by an American team (see Haynes 1985). Many more sites, especially in the Laqiya area, were recorded by the University of Cologne's B.O.S. project directed by Rudolph Kuper (for an overview see Kuper 1995) during the field seasons between 1980 and 1985. The, at that time, ruined habitation³ at Laqiya Arbain was documented (B.O.S.-site 82/47) and a few sherds were collected at Selima Oasis (registered as B.O.S.-site 80/90).

The Selima Oasis Project began work in 2011; three short field seasons have taken place so far in 2011, 2013 and 2014. During the survey in 2011 and 2013 altogether more than 150 sites were recorded, covering all periods (Plate 3). These consist mainly of a more or less dense scatter of artefacts (mainly lithic material) on the surface. On many sites stone heaps were recorded in various amounts which are difficult to interpret without further investigation: They might be tumuli or 'Steinplätze' (the relics of ancient nomadic camp fires; see e.g. Gabriel 2002) but could also be natural features. Most of

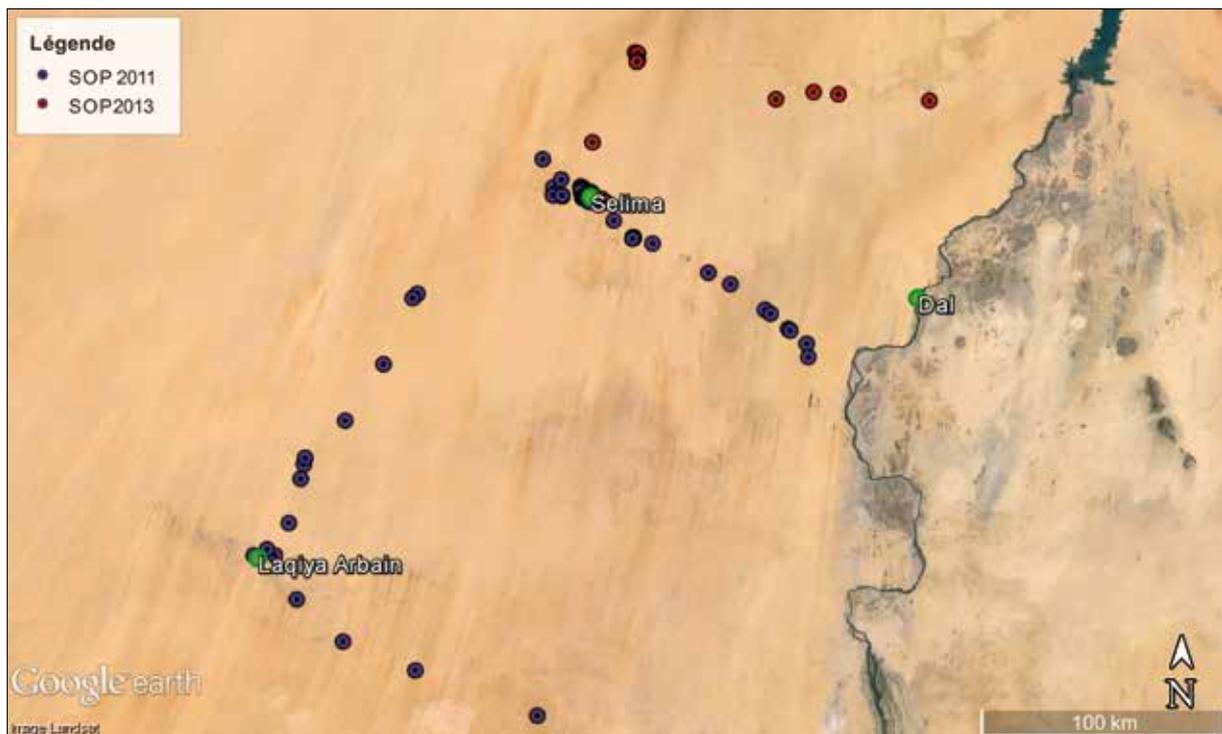


Plate 3. The sites documented during the Selima Oasis Project: blue dots – field season 2011; red dots – field season 2013 (satellite image Google Earth; field mapping F. Derrien).

Oasis, '...the loveliest of all the Libyan oases...' (Shaw 1935, 11), Burg et-Tuyur and discovered archaeological remains in the Laqiya region (Shaw 1936a; b). Selima Oasis was better described, especially the building recorded there (e.g. Leach 1926; Newbold and Shaw 1928; see also Hinkel 1979, 93-96), but no substantial archaeological work has even been done

the sites belong to the Early and Middle Holocene; however, on site SOP 3206 Palaeolithic artefacts such as handaxes were found. There are also more recent remains such as fuel

³ The habitation was ruined in the 1980s but, when the B.O.S. team passed through Laqiya Arba'in in 2011, the military had repaired some buildings for reuse.

depots from the early 20th century, relics of camp sites of earlier explorers or soldiers and numerous *alam(at)*.

Work in Selima and its surroundings

In 2011 we spent three days in Selima oasis (Plate 4). In addition to the archaeological survey in and around the oasis, a study of the vegetation and water resources was conducted.



Plate 4. The ancient building in the southern part of Selima Oasis. View from the north (photo: C. Gradel).

At the ancient building a photographic documentation was made of the engravings and inscriptions on its walls as well as on the flanks of the small hill on which the building stands. Furthermore the ground plan published by Thomas Archibald Leach after his two visits to Selima in 1925 and 1926 (Leach 1926, fig. 9) was checked and corrected. During the second field season in November 2013 excavations took place in and around the ancient building ('Beit es-Selima', SOP 2001) in the oasis, at site SOP 57 about 80m west of the former, and at a prehistoric site (SOP 1024) situated about 6km north west of the oasis. In 2014 the French section of SOP continued the excavation at SOP 2001.

In all descriptions of Selima it is mentioned that there is good water. Three wells were described by Frédéric Cailaud in the early 19th century (Pichler and Negro 2005, 174) and three wells are still in use today. Water is available at a depth of about 700-800mm. Water samples were taken and analysed at the laboratory of the UNESCO Chair in Water Resources in Khartoum. The results confirmed that the water is drinkable.⁴

The vegetation is not very rich in species (see already Leach 1926; Newbold and Shaw 1928, 159). Different kinds of grasses, among them Halfa grass (*Desmostachya bipinnata* and *Imperata cylindrica*), were recorded, as well as reed (*Phragmites australis* and *Saccharum*), camelthorn (*Albani maurorum*) and

⁴ Written communication Feda A. Bukhari and Mohammed Osman, Khartoum, in November 2011.

tamarisk (*Tamarix*). There are also date (*Phoenix dactylifera*) and dom palms (*Hyphaene thebaica*).⁵ In 1903 between 2000 and 2500 date palms existed (Leach 1926, 41); in November 2011 only 1600 were noted of which 542 were dead. As they belong mainly to rather inferior date varieties there never was a real economy based on dates at Selima (see Leach 1926, 41). About 90 dom palms were present in 2011, among them 56 dead ones. Some of the palms are burnt and others risk being covered by sand.

More important from an economic point of view is the salt of Selima which up to recent times has been exploited. According to the description of Thomas A. Leach (1926, 42-43), at the beginning of the 20th century people came with donkeys and camels from Argo, Sukkot and the Mahas to fetch salt. The track used to reach Selima started in Sagiat el-Abd in the Nile Valley and the journey took three days. The salt had to be mined as it is a rock-salt not found on the surface (see also Haynes 1985, 272). In the area of Dal, on the western bank of the eponymous Nile cataract (Plate 3), there are a few people who still know about the salt mining at Selima. In 2014, an old Nubian told Coralie Gradel and Franck Derrien that he had travelled with camels to Selima twice a year, always in winter between October and January. The party then stayed 7-8 days in Selima for salt-mining. According to the oral tradition, the last salt caravan from Dal to Selima took place in 1980.

During the stays at Selima, a part of the SOP team recorded the mines of salty rocks in and around the oasis (Plate 5). The analysis of the collected samples confirmed that it is salt: White powder from the centre of the oasis consists mainly of halite (NaCl), traces of bloedite (Na-Mg sulfate), and Na sulphate; the salty rocks found west of the oasis are essentially of halite (NaCl).⁶ Whether natron is present can only be indicated by further investigations.



Plate 5. Salt mines near Selima Oasis (photo: C. Gradel).

⁵ The analysis of the botanical remains was made by Dr Claire Newton, University du Québec à Rimouski.

⁶ The analysis was made by Dr Ivana Angelini at the University of Padova.



Survey in and around the oasis (Plate 6) allowed for the recording of sites ranging from Palaeolithic to modern times; most of the sites are, however, difficult to date due to the lack of diagnostic artefacts. About 200m east of 'Beit es-Selima' is a group of structures made of stone and trunks of palm trees. It could be the remains of the huts used by the Police Post in 1906 as mentioned in the description of Thomas A. Leach (1926, 40). Engravings were found at several spots, for example at site SOP 58. It is fascinating to see how clearly the

A verification of the ground plan published by Leach (1926, fig. 9) revealed that the building is much more complex than thought (Figure 1). The careful study also showed that the surface of the hill had been levelled prior to construction. Several phases of construction can be recognized. The oldest part is in the centre and consists of two rooms, a large room in the west (G) and a smaller in the east (F), only partially preserved. Two extensions were made, one to the north, the other to the south.

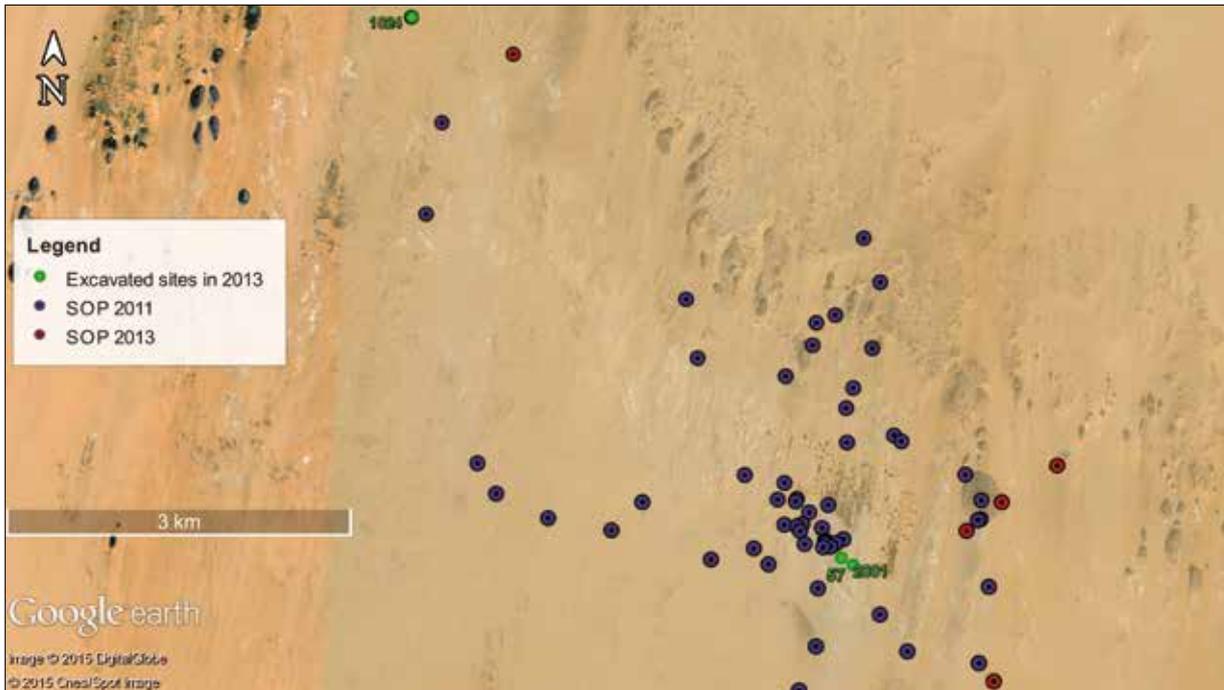


Plate 6. Map of Selima Oasis and surroundings showing the sites recorded during survey in 2011 (blue dots) and 2013 (red dots) and the three sites (SOP 57, SOP 2001 and SOP 1024) excavated in 2013 (green dots). (Satellite image Google Earth, field mapping F. Derrien).

traces of the Darb el-Arba'in are still discernable, especially north of the oasis (Plate 7). Not only do bones and graves mark the road, but the tracks themselves are clearly visible.

The ancient building of Selima (Beit es-Selima, site SOP 2001)

Most remarkable in Selima Oasis is certainly the ancient building which has been mentioned by nearly all of the travellers passing through the oasis (Plate 8). The interpretations about its age and function are manifold and range from a Christian convent up to a tavern on the Darb el-Arba'in managed by an amazon-like princess called Selima. At the beginning of the 20th century it was used as a watch tower by the Police Post due to its prominent position commanding the surrounding territory and was, therefore, called 'tabia' (the fort) (Leach 1926, 43-44). Today the name 'Beit es-Selima' is commonly used.

The building is located on a small hill about 200m south east from the actual vegetation area. It measures 9.82 x 5.92m and is oriented north-south. The material used for construction is sandstone; for the lintels quartzite and fossil wood were used.



Plate 7. Traces of the Darb el-Arba'in in the north of Selima Oasis (photo: F. Jesse).

The extension to the north consists of a central corridor (B) and two small adjacent rooms (A and C), probably used for storage. Each room has a niche in the southern wall.

Both parts of the building, the central and the northern



Plate 8. *Beit es-Selima* (SOP 2001)
seen from the west (photo: F. Jesse).

one, show a similar type of wall construction, only the size of the stone blocks differs. In the corridor formed by spaces D and E a partition wall (see Figure 1) was installed later, probably to provide an animal pen. There are fragments of plants and dung which attest to a reuse as such. The building was probably covered by a flat roof as there are fixtures in the wall which might have been used to hold the timber beams.

The extension to the south is very badly preserved.

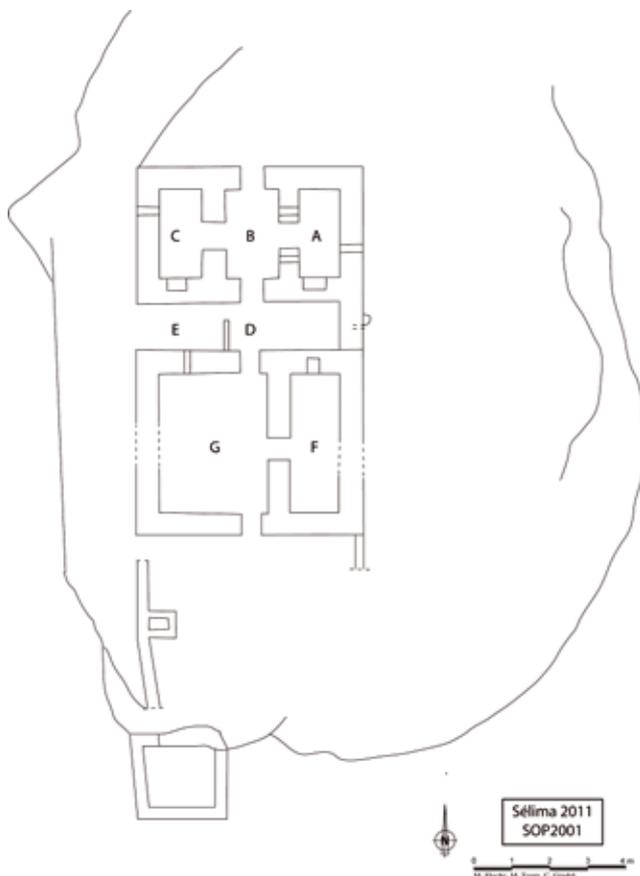


Figure 1. *Beit es-Selima* (SOP 2001): the ground plan established in 2011 – scale 1:200.

Only few courses of the east and north walls are present. This might have been a third part of the building or just a courtyard.

What is noteworthy at Beit es-Selima is the large amount of engravings and inscriptions not only on the walls of the building but also on the flanks of the small hill on which it stands. These engravings and inscriptions have already been noted earlier (e.g. Hinkel 1979, 94-95; Pichler and Negro 2005) (Plates 9 and 10). Besides schematic signs, some Arabic inscriptions were observed however, there are no Greek or Coptic ones as had been mentioned in much earlier descriptions of the building (e.g. by F. Cailliaud; see Pichler and Negro 2005, 174). The incised signs might partly



Plate 9. *Petroglyphs in the ancient building of Selima: north wall of Room G* (photo: F. Jesse).



Plate 10. *Petroglyphs around the ancient building of Selima* (photo: F. Jesse).

be camel brands (see already Newbold 1928, 283) and others represent tribal marks. These attest to contact with Libya, the oases of Dakhla and Kharga as well as Darfur. There are also different writing types including Arabic of several periods and Lybico-Berber scripts (see Pichler and Negro 2005). Of interest are some figurative representations such as a probable donkey cart.

In 2013, three trenches were excavated in Beit es-Selima



(SOP 2001) to get an idea of the function and date of the building (Figure 1): the first in one of the probable storage rooms (Room C) in the northern part of the building, the second in the main room (Room G) of the southern part and the last one outside, a little south of the building.

Room C is located west of the corridor. It is a rectangular room of 2.4 x 1.24m size, oriented north-south. A door in the east wall gives access to the corridor. The surface level looks very much disturbed with rubble mixed with wind-blown sand and blocks of stone, plant remains and dung, which attest to a later reuse as a pen for small livestock. The archaeological layer has a thickness of only about 400-500mm above the bedrock. After removal of the first excavated layer two walls appeared, both with an east-west orientation, which divide the room into three smaller zones of roughly similar size (nos 1-3 from south to north) (Plate 11). During excavation two floor levels made of brown mud (*muna*) were identified. The bedrock was levelled with gravel and/or a fine grey very hard screed which formed the first floor. The following floor levels



Plate 11. The excavation in Room C of Beit es-Selima (photo: C. Gradel).

of *muna* were laid on a layer of date stones. This might either be an indication that the room was used for the storage of dates or a construction technique to form a firm foundation. These levels are not visible in zone 3 in the northern part of the room where they had been destroyed by a robber pit dug to the bedrock. It was filled with wind-blown sand as well as animal and human bones.

A second trench extending over 1 x 1.8m was excavated in Room G. This is the largest room of Beit es-Selima and has an extension of 3.5 x 2.7m. Several levels of destruction characterized by stone blocks, mortar, sand, palm fronds and wood are present up to a depth of 700mm. A pillar of square section appeared in the south-east corner of the trench (Plate 12). It consisted of stone blocks bonded with white mortar. The broken upper part of the pillar was also found during the excavation. It presumably supported the roof probably of palm trunks and fronds. Below the disturbed levels one occupation level appeared before the bedrock was reached at a depth of about 750-780mm.



Plate 12. The pillar of square section found in Room G of Beit es-Selima (photo: F. Derrien).

A last trench 2 x 2m in size was excavated outside the building. The trench was situated south west of the building on the flank of the hill. The surface was covered with pottery sherds. The bedrock was quickly reached; the archaeological layers were only 150-180mm thick (Plate 13). In the north-eastern part of the trench a circular pit was found with part of a trunk of silicified wood and other stones set around it. The whole arrangement looked like a hearth. Only the upper levels of the sounding contained ceramics.



Plate 13. The sounding outside the ancient building of Selima Oasis (photo: C. Gradel).

Both soundings in the building provided very little archaeological material. In Room C only a few sherds which are not diagnostic for dating, two beads, a millstone, grains of wheat, bones and numerous date stones were found. It seems that the building was cleaned of its contents before it was abandoned. Two samples of date stones coming from zone 1 of Room C (sol 1008 and sol 1009) were submitted for radiocarbon analysis. The results point to Medieval times, the 10th-12th century.⁷

In Room G fragments of wood, palm fronds, pieces of

⁷ AD 1039-1212 (900 ± 35 bp; Lyon-16555) and AD 999-1155 (975 ± 30 bp; Lyon-16554).

textile, some bones (among them camel), date stones and one very eroded piece of pottery were found. A piece of wood, which was recovered from the disturbed layers just above the occupation floor, was radiocarbon dated to the 7th century AD.⁸ This confirms that the central part of the building is the most ancient one and that the rooms to the north are a later extension.

The upper levels in the sounding outside the building were full of pottery sherds, mainly wall fragments but also some rim sherds (Plate 14). Except for a few, all sherds are wheel-made. Most of the sherds belong to domestic pottery; only a few pieces of fine ceramics with painted decoration are present. Some of the sherds are of Aswan production. The pottery dates to Early and Classic Christian times (see e.g. Adams 1986, fig. 164.11-2; fig. 155.9-11).



Plate 14. Examples of Christian pottery found at Beit es-Selima (photo: C. Gradel).

Excavation at site SOP 57 in Selima Oasis

About 80m west of Beit es-Selima (SOP 2001) another historic site was documented already in 2011, site SOP 57. On the surface a scatter of stone blocks is visible, amongst which there seem to be some structured alignments. Undecorated potsherds are present as are fragments of grinders and grinding bases and some bones of probably recent age. At six places on the site holes have been dug in recent times.

One of these holes (situated in the eastern part of the site) was chosen for excavation (Plate 15). A 2 x 2m trench was laid out and excavated to a depth of about 700mm. On the surface and to a depth of about 200mm artefacts (charcoal, remains of dates, potsherds and some stone objects) were present. Beneath the layer with artefacts there was a thin layer of fine sandy sediment of greyish colour, which might be an old occupation surface. Then sandy to very fine sandy-silty sediments are present down to the excavated depth of 700mm. Probably we are dealing with an ancient habitation site of an as yet unknown age which in recent times was disturbed by modern (rubbish or robber?) holes.



Plate 15. Excavation at site SOP 57 close to Beit es-Selima (photo: J. Kuper).

The prehistoric site SOP 1024

Finally, a prehistoric site was excavated: site SOP 1024 (see Plate 6). This large surface site, discovered in 2011, is situated about 6km north west of the oasis in a flat depression which is surrounded by small outcrops. The archaeological material consists of stone artefacts, a few potsherds of Early Khartoum type as well as some fragments of bone and ostrich eggshell, and spreads over an area of about 1000 x 300m (Plate 16). Denser concentrations of artefacts are visible as are numerous small mounds of gravel and/or stone which probably are tumuli. An area with a concentration of lithic artefacts and some bone fragments visible on the surface was chosen for excavation in 2013. Additionally the location of some artefacts was recorded using GPS and some were collected from the surface.

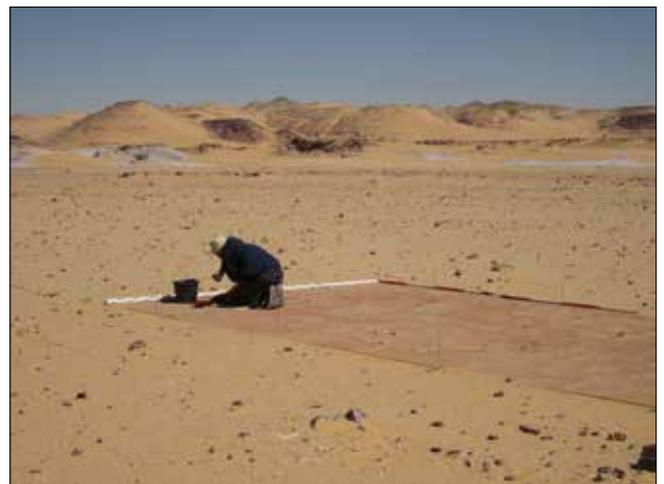


Plate 16. Excavation at the prehistoric site SOP 1024 close to Selima Oasis (photo: F. Jesse).

The trench (SOP 1024-1) covered 7 x 4m. Beneath the thin layer of windblown sand (about 20-30mm) playa sediments of reddish-brown colour were visible (see Plate 16). In some parts of the excavation trench artefacts such as lithics and bones were visible in the playa. In these squares two further levels, of about 50mm thickness each, were excavated to re-

⁸ AD 668-868 (1260 ± 35 bp; Lyon-11375 [GrA]).



cover the archaeological material. On the second 'planum' a small knapping area was documented. One part of the trench was then dug to a depth of about 500mm to allow for a small geological section. Only playa sediments of slightly different colours were present.

The archaeological material comprises stone artefacts, very few pottery sherds and bones. Among the more than 5,000 bone fragments, with a total weight of about 2kg, only wild animals are present (especially gazelles and antelopes) which certainly had been hunted. Some of the bones show traces of burning.⁹ Two rim sherds were recovered (Plate 17) and six further wall sherds were collected from the surface of the site. The pottery is handmade and heavily tempered with mineral material. Decoration is made by impression using the rocker technique. The decorative motifs are either horizontal rows of impressed dots or closely serrated dotted zigzags. Comparisons can be found in the Early and Middle Neolithic pottery material from other regions such as the Nabta-Kiseiba



Plate 17. The two rim sherds excavated at site SOP 1024 (photo: F. Jesse).

region in Egypt (e.g. Nelson 2002, 28, fig. 3.8) or the Selima Sandsheet (e.g. Schuck 1993, 245, fig. 6.3 and p. 246, fig. 7.6; Idris 1994) and the Laqiya region in northern Sudan.

Most of the nearly 2,800 pieces of stone artefacts were found in the excavation trench SOP 1024-1. Raw materials used for stone artefact production are quartzite of different varieties (about 68%), quartz (about 20%) and chalcedony (about 10%). The lithic industry is a flake based one; blades are seldom present. The few modified stone artefacts were mainly made of either chalcedony or the fine grained variety of quartzite. Pieces with simple edge retouch or use retouch are most numerous (Plate 18). Comparable lithic material can be found in the Early and Mid-Holocene of the Nabta-Kiseiba region (e.g. Wendorf and Schild 2001). A few side-blow flakes made of Egyptian flint (Plate 19) were discovered on site SOP 1024 and find their parallels in Mid-Holocene assemblages of Egypt such as for example Djara B dating to the 6th millennium BC (Kindermann 2010, 106-108). Some

⁹ The faunal analysis was made by Dr Hubert Berke (University of Cologne) and Dr Nadja Pöllath (Ludwig-Maximilian-University Munich).



Plate 18. Examples of stone artefacts excavated at site SOP 1024 (photo: F. Jesse).



Plate 19. A side blow flake found at site SOP 1024 (photo: F. Jesse).

pieces of grinding material, among them one complete lower grinder, complete the spectrum of lithic objects from site SOP 1024.

Two radiocarbon dates were obtained using bone samples. The dates indicate an occupation during the Middle Holocene: *c.* 6000 to 6200 BC.¹⁰ Thus, site SOP 1024 with its archaeological material of the Middle Holocene gives the first insights in the hitherto more or less unknown prehistory of the Selima area and indicates contacts with other parts of the southern Libyan Desert.

Conclusion and perspective

To ensure sustainability and in light of the growing importance of the 'open access principle' in the field of research it is planned to integrate the data collected during the Selima Oasis Project into the African Archaeology Archive Cologne (AAArC).¹¹ This online repository, open for everyone working in African archaeology, was started in 2012 with the aim to make digitally available the abundant material (e.g. photographs, documentation, finds) which was accumulated during

¹⁰ 6010 ± 30 cal BC (7125 ± 35 bp; Poz-63698) and 6150 ± 50 cal BC (7280 ± 40 bp; Poz-64363). The dates were calibrated using CalPal 2007 (Weninger *et al.* 2007).

¹¹ For further information and the link to the database: <http://www.fstafrika.phil-fak.uni-koeln.de/14839.html>

several Cologne research projects on rock art and archaeology in Africa and which is stored in the Forschungsstelle Afrika at the University of Cologne.

Work in Selima Oasis and its surroundings has revealed the great potential of this area to provide more information about the role of this place as a station in the trans-Saharan trade and exchange network. Occupation is attested since Palaeolithic times and the excavation at site SOP 1024 indicates wide connections and contacts during the Middle Holocene. In the oasis itself only a few remains of the ancient world and later periods have been found, the most important being Beit es-Selima. Obviously the oasis was never densely populated, as certainly from an economic point of view it was not feasible to rely on date production. Salt exploitation was made by people coming from the Nile Valley specifically for that purpose. The good quality of the water in Selima made it an important stop on the Darb el-Arba'in. Selima, therefore, assumed importance as a point of control of ancient traffic and trade routes such as the Darb el Arba'in or those going to the Nubian Nile Valley (see Vercoutter 1988, 11). Today, a military post, the police and the customs are present in Selima and traffic passing by is coming from or going to Libya.

The work of the Selima Oasis Project carried out so far has opened a broad spectrum of further perspectives of research in this area including not only further investigations in the oasis itself and of the prehistoric sites in the immediate surroundings but also a continuation of the study of the mining and trade of salt in this part of the Libyan Desert using an ethnographic approach.

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Bibliography

- Adams, W. Y. 1986. *Ceramic Industries of Medieval Nubia*. Lexington.
 Asher, M. 1986. *In Search of the Forty Days Road*. Bungay, Suffolk.
 Gabriel, B. 2002. 'Neolithic Camp Sites in the Sahara – Anticipation of Future Research', in Jennerstrasse 8 (ed.), *Tides of the Desert – Gezeiten der Wüste. Contributions to the Archaeology and Environmental History of Africa in Honour of Rudolph Kuper*. Africa Praehistorica 14. Köln, 51-66.
 Haynes, C. V. 1985. 'Quaternary Studies, Western Desert, Egypt and Sudan – 1979-1983 Field Seasons', *National Geographic Society Research Reports* 19, 269-341.

- Haynes, C. V., C. H. Eyles, L. A. Pavlish, J. C. Ritchie and M. Rybak 1989. 'Holocene Palaeoecology of the Eastern Sahara; Selima Oasis', *Quaternary Science Reviews* 8, 109-136.
 Hinkel, F. W. 1979. *Archaeological Map of Sudan II, The Area of the South Libyan Desert*. Berlin.
 Idris, G. 1994. 'Burg et Tuyur: A Neolithic Settlement in the Selima Sandsheet, Northern Sudan', in C. Bonnet (ed.), *Études Nubiennes II*. Neuchâtel, 101-108.
 Kindermann, K. 2010. *Djara. Zur mittelhöhlenzeitlichen Besiedlungsgeschichte zwischen Niltal und Oasen (Abu-Muharik-Plateau, Ägypten)*. Africa Praehistorica 23. Köln.
 Kuper, R. 1995. 'Prehistoric Research in the Southern Libyan Desert. A brief account and some conclusions of the B.O.S. project', in *Actes de la VIII^e Conférence Internationale des Études Nubiennes (Lille 11.-17.9.1994). I - Communications principales. Cahier de recherches de l'Institut de Papyrologie et d'Égyptologie de Lille* 17, 123-140.
 Lange, M. 2006. *Wadi Shaw – Wadi Sabal. Studien zur holozänen Besiedlung der Laqija-Region (Nordsudan)*. Mit Beiträgen von Jürgen Richter and Werner Schuck. Africa Praehistorica 19. Köln.
 Leach, T. A. 1926. 'Selima Oasis', *Sudan Notes and Records* 9, 37-49.
 Nelson, K. 2002. 'Ceramic Assemblages of the Nabta-Kiseiba Area', in K. Nelson and Associates, *Holocene Settlement of the Egyptian Sahara. Volume 2. The Pottery of Nabta Playa*. New York, Boston, Dordrecht, London, Moscow, 21-50.
 Newbold, D. 1928. 'Rock Pictures and Archaeology in the Libyan Desert', *Antiquity* 2, 261-291.
 Newbold, D. and W. B. K. Shaw 1928. 'An Exploration in the South Libyan Desert', *Sudan Notes and Records* 11, 103-194.
 Pachur, H.-J. and N. Altmann 2006. *Die Ostsabara im Spätquartär. Ökosystemwandel im größten hyperariden Raum der Erde*. Berlin-Heidelberg.
 Pichler, W. and G. Negro 2005. 'The Libyco-Berber inscriptions in the Selima Oasis', *Sahara* 16, 173-178.
 Riemer, H. and F. Förster 2013. 'Ancient desert roads: Towards establishing a new field of archaeological research', in F. Förster and H. Riemer (eds), *Desert Road Archaeology in Ancient Egypt and Beyond*. Africa Praehistorica 27. Köln, 19-58.
 Schuck, W. 1993. 'An archaeological survey of the Selima Sandsheet, Sudan', in L. Krzyżaniak, M. Kobusiewicz and J. Alexander (eds), *Environmental change and human culture in the Nile Basin and Northern Africa until the Second Millennium B.C.* Poznań, 237-248.
 Shaw, W. B. K. 1935. 'Dead Libya', *The Times*, 7th August 1935, 11.
 Shaw, W. B. K. 1936a. 'An expedition in the Southern Libyan Desert', *The Geographical Journal* 87, 193-221.
 Shaw, W. B. K. 1936b. 'Two Burials from the South Libyan Desert', *Journal of Egyptian Archaeology* 22, 47-50.
 Vercoutter, J. 1988. 'Le Sahara et l'Égypte pharaonique', *Sahara* 1, 9-19.
 Wendorf, F. and R. Schild (eds) 2001. *Holocene Settlement of the Egyptian Sahara. Vol. I. The Archaeology of Nabta Playa*. New York, Boston, Dordrecht, London, Moscow.
 Weninger, B., O. Jöris and U. Danzeglocke 2007. *CalPal-2007. Cologne Radiocarbon Calibration & Palaeoclimate Research Package*. <http://www.calpal.de/>



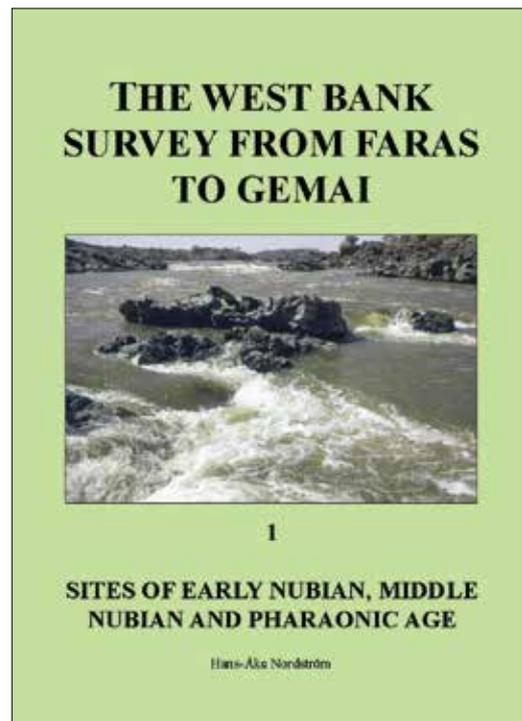
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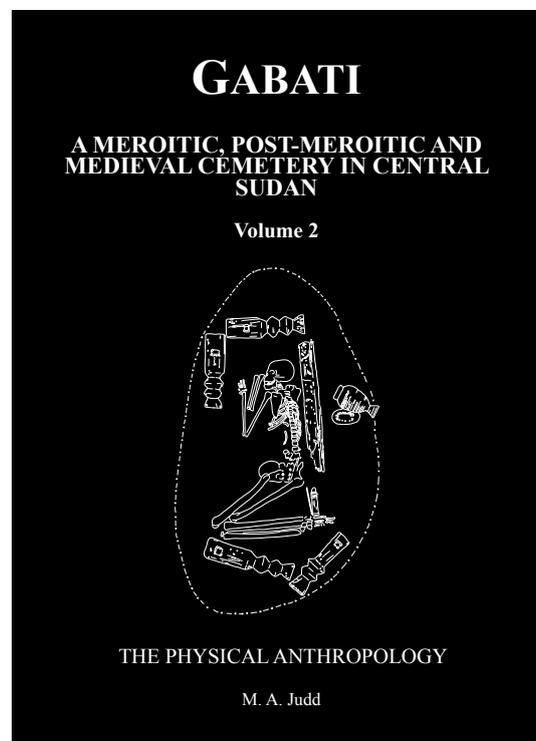
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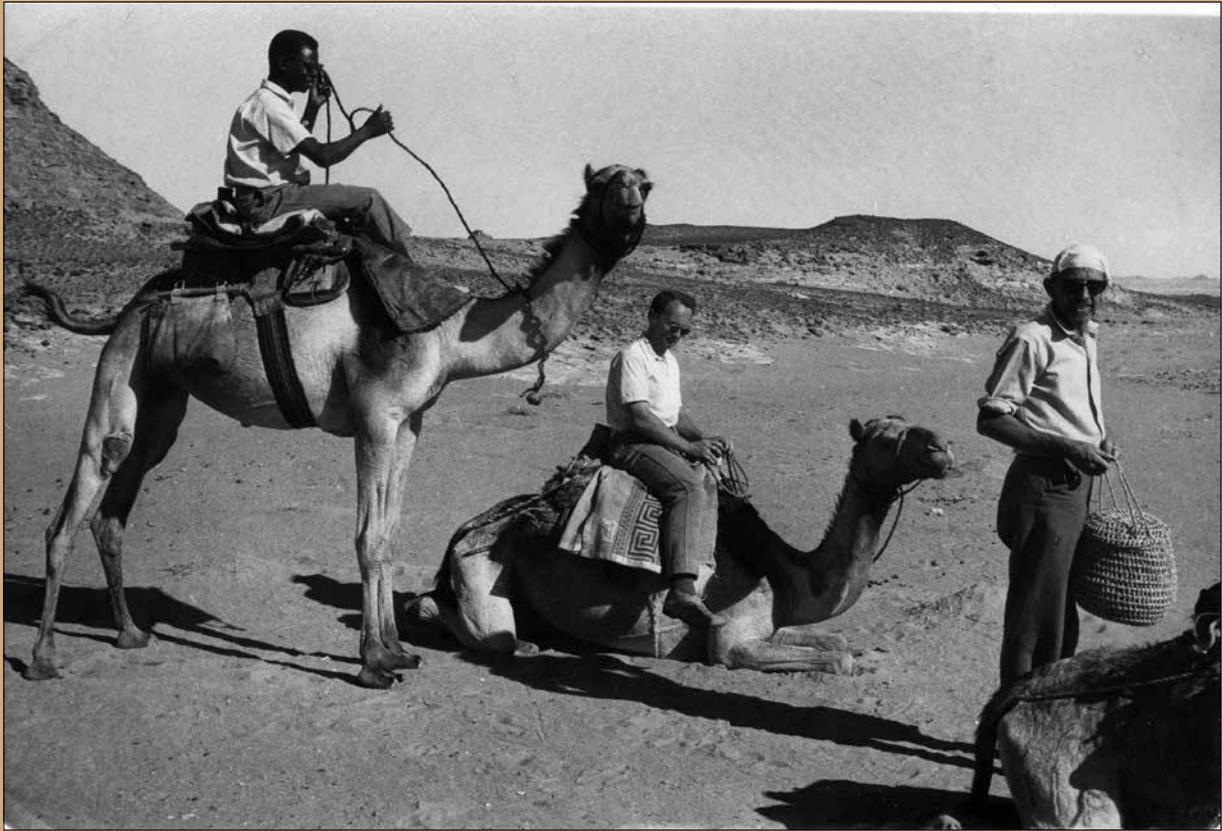
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Members of the University of Ghana Expedition to Sudan. John Alexander (centre), James Anquandah (left), Tony Bonner (right) (photo: SARS Alexander Archive, ALE P003.05).



The Debeira West excavation team 1964 with amongst others, Peter and Margaret Shinnie, John Alexander, John Anquandah and Tony Bonner (photo: SARS Alexander Archive, ALE P003.04).