The Southern Dongola Reach Survey: Results of the first (1998) season.

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Introduction

The initial season of the Southern Dongola Reach Survey (SDRS) was conducted on the right (east) bank on the Nile River between Old Dongola and Khor Makhafour near Ez-Zuma from January to March 1998 (Figure 1). A short reconnaissance previously had been undertaken in February 1997 in the desert east of Istabel fortress (Zurawski 1998a). The SDRS was a joint mission of the Research Centre for Mediterranean Archaeology of the Polish Academy of Science, the National Corporation of Antiquities and Museums, The Michalowski Centre for Mediterranean Archaeology of the University of Warsaw, the Poznan Archaeological Museum, and the Faculty of Mediterranean Archaeology of the Jagiellonian University. Team members included Bogdan Zurawski (archaeologist and director), Krzysztof Cialowicz and Mahmoud el-Teyeb (archaeologists) and Jacke Phillips (ceramologist and archaeologist), together with six University of Warsaw student volunteers (Joanna Bogdanska, Anna Blaszczyk, Beata Kołodziejek, Kazimierz Kotlewski, Pawel Rurka and Paulina Terendy) and Piotr Parandowski, who documented the expedition on film. The NCAM was represented by Amel Awad Mokhtar. We also are grateful to Dr. Hassan Hussein Idris and the staff of NCAM for much practical assistance.

The 1998 season of SDRS complied with certain prerequisites. In accordance with the NCAM suggestions, the entire concession area was inspected on low-intensity survey basis, the vulnerability of sites examined and rescue excavations conducted as necessary. The architectural chef-d'oeuvre of the Southern Dongola Reach, the Christian strongholds of Helleila, Degga and Istabel, were photographed from the air and the state of their preservation carefully documented. All activities were introductory in character. High intensity survey will begin this next season, from the southern end of the abandoned village of Old Dongola and continuing upriver to Duffar.

The survey so far has recorded over 50 sites and sub-sites, ranging in date from the Middle Palaeolithic through to Islamic periods, and in scale from small sherd or lithic scatters to major djebel fortresses. Artifact collection and study, in addition to site recording, already has provided some initial conclusions regarding the development of environmental and human exploitation patterns as well as changing of the settlement pattern throughout this time period. While a number of major sites have long been known and were occasionally reported by early Classical and later Arabic authors as well as by European travelers in the past three centuries, surprisingly little actually has been documented even for the most prominent man-made features. The majority of sites so far recorded previously were unknown.

The vast majority of new sites so far cluster in two areas of the concession, where some testing was conducted together with attendant more intensive survey. The first is in a 10 km stretch south of Old Dongola between the abandoned village of El-Ghaddar and the area of Banganarti, and the second some 50 km farther downstream in the Abkor area surrounding the Soniyat temple. An intensive survey is planned throughout the concession in future seasons. Thus the survey, when completed, has the clear potential to fill a major gap in our knowledge for a region vital to most links between the Mediterranean world and the African interior on the one hand and between the Red Sea ports and central Africa on the other.

A prominent feature of the concession area are the dunes, constantly drifting southwards to be
Figure 1. 'Debba Bend' area of the Nile river, west of the 4th Cataract.
trapped in the so-called “Debba Bend” of the Nile river. The result has been a constantly changing riverbed as the Nile continues to cut through the altered landscape on a regular basis. For this reason, many sites and features are visible only from the river itself, and members of the project are surveying the concession from both land and river. Major changes in the riverbed can be inferred also from a thorough high-intensity survey and mapping of sites according to their occupation date.

Throughout a 30-mile reach of the river between the estuary of Wadi Moggadam and Wadi el-Melik, the Nile flows from East to West as the “Debba Bend”. In terms of geomorphology and early history, it is the most interesting area in the whole concession. The most important landscape-shaping factor is the southward shift of the huge dunes from the Nubian Desert. The basins at Affat were formed and duly sanded up, and the huge agricultural areas at Tergis now are barely visible in aerial photographs. Local oral testimony at both Abkur and Selib says that within the past 200 years the Nile bed continuously has moved southwards. Regardless of their present relationship to the Nile, all the fortresses originally stood near the river. The Nile must have flowed near the Degga fortress, for example, since its lower section was destroyed by flooding. As late as the second half of the 17th century, the river bank opposite Soniyat ran in a straight line to the northwest, cutting off what is now Abkur village from Istabel fortress hill. Argi ‘island’, now part of the right bank, was a true island as late as 1905 (Gleichen 1905:31). The right bank mani qa of Banganarti, as both name and local oral tradition suggest, was an island within living memory. The historic process of a southward shift of the Nile bed is observable today in Tangasi-Hammur. Both islands here have merged into one and been incorporated into the right bank, after blocking the right Nile channel. It is only the latest episode of a long process.

**Survey of the djebel fortresses**

**Helleila.** The first site to be visited and documented, including aerial photography, was the tremendous fortress site of Helleila, located midway between the villages of Bakbit and Magal. Helleila constitutes an important link in the chain of right bank Christian strongholds linking the majestic stronghold in El-Kab with Old Dongola via Degga, Duffar, Istabel, and possibly Selib(?) and Sinada(?). All reveal many affinities in general layout and construction features. The employment of undressed stones bonded by mud mortar is dominant, as are the rounded and elongated towers. The affinity of general layout and construction features (e.g. gates) between Helleila and the Byzantine stronghold at Pelusium (Tell al-Farama) is striking (Abd El-Maksoud et al 1994, 95-103). Lepsius visited here in 1844. Apparently, the heat of the day is responsible for an embarrassing mistake by the Prussian team whilst measuring the fortress; while the spans between the towers recorded were to a centimeter, the length of the fortress extending along the Nile was estimated scores of meters short (Lepsius 1913:252 fol. IV.4, 194-195). The perfect rectangle published there actually is a trapezium, as seen on the aerial view (Figure 2).

Surface ceramics collected within the girdle walls suggest Helleila was settled at the very onset of the Christian period, while a few Meroitic and possibly even earlier potsherds hint at an earlier occupation. However, the girdle walls are certainly Christian. The fortress was able to shelter the local population, who lived mostly on the left bank, only from nomadic attack. As its river side is virtually unprotected, the fortress apparently was not intended to withstand regular siege from a forces employing boats or siege machines. The vast interior of the fortress, measuring 230 by 130 meters, has been completely ravaged by sebakhin. The only building to survive is the fortress church, a mud brick structure preserved in places up to 4 m high. Its eastern passage, apse curvature and tripartite division of the western part are still visible, with fired bricks of the vaulting scattered about.

The huge Christian cemetery of Helleila, built of huge well-baked bricks and located on hills overlooking the fortress, was totally dismantled in 1988. Soon after the catastrophic flood of that year, the locals turned to antiquities for badly needed building material to reconstruct their homes.

The Helleila church appears very modest when compared with the grandiose Magal church located nearby at the river edge. It had an embankment with stairs leading down to the water directly opposite the church. When visited by Lepsius, one of the six granite columns now scattered about the
Figure 2. Helleila fortress, composite aerial view taken February 1998.

site still stood (Lepsius 1913, V:251), topped by the granite capital now half buried in the ground. The church was much destroyed by the sagia installed within its walls. Nothing can be said on the its layout and construction, but the sagia pit contains much red brick and lime plaster. Potsherds are scarce, as on other church sites, but the church seems to correspond in date with the earliest ceramics from Helleila, of the 7th century A.D.

Degga. The Degga fortress ceramics are more limited in date, appearing only to span the majority of the Christian period, possibly (to judge from the collected sherds) abandoned for a period during Classic Christian times. It resembles in both scale (60 by 80 m) and general layout the fortress at El-Kab some further 110 miles upstream. Its five meter thick outer walls, of mud-bonded stone, are masterly executed and remarkably well-preserved. As at Helleila, the gates visible in the ruins are sim-
ple, unflanked openings in the walls, with no trace of any entrance pillars, spur or shield walls. However, the pace of deterioration is alarming. The mud brick church, seen within the fortress by Lepsius, now has totally disappeared, as have the fragments of granite capitals and columns. The region around the fortress was densely inhabited in Christian times, and another church-site lies inland from the fortress. On top of Jebel Degga there is a holy shrine of Sheikh Ibn Auf, a well known pilgrimage center marked and annotated on Sheet 45F of the Sudan map as a place formerly visited by pilgrims from Egypt.

Duffar. Nothing can be said at the moment on the layout of the huge Duffar fortress that now shelters a few houses. The fortress seems to have been inhabited in the Early Christian period, and then again in Terminal Christian and Islamic times, on the basis of the ceramics collected there. Duffar was visited and drawn by Linant de Bellefonds in 1821 (Bellefonds 1958:38, pl. IX), and by Baron von Muller in 1847 (Muller 1849:333). Both drawings, when compared to the present shape of the kom in Duffar, reveal the rapid pace of its deterioration in recent times. Today, Duffar fortress is a shapeless mound of sand and stones, although a church site with some granite column bases still remains in situ amongst the eastern, lowermost section of ruins. A granite column shaft lies nearby and a ferrocrete capital a hundred meters away. Another stone church was reported by Linant de Bellefonds opposite Duffar on the Gigernarti Island (Bellefonds 1958:37).

Istabel. Whilst the outer walls of this fortress remain remarkably well-preserved, little survives of its interior buildings beyond worn rock-cut floors and brick fragments, and a large hafir. Most of the interior buildings seen on aerial photograph probably dating to 1936-37 (Edwards 1996:19 pl. 5) have since disappeared. No Pre-Christian remains have been found here, nor the near vicinity. The granite capital and column lying on the southern (riverward) slope of the fortress hill are the earliest architectural remains in Abkur and its immediate surroundings. The ceramics are a combination of Islamic and Early Christian, together with a few intermediary (Classic or Post-Classic Christian) sherds and a Terminal Christian vase sherd that suggest the Early Christian occupation continued into the later Christian periods as well. In Abkur village, the site of the Istabel stronghold, people relate that 200 years ago, crocodiles basked in the sun at the fortress’s foothill, now a mile from the river’s edge.

Selib. A few kilometers downstream from Istabel, the Nile turns sharply right and continues its northward drift until Selib, the site of another fortified Christian period settlement now badly denuded and marked only by potsherd scatters. The locals here tell the same story as the inhabitants of Abkor, that a century or so ago the Nile passed close by the enclosure and then turned south.

Sinada. The fortress of Sinada, recognisable by its rounded bastion towers and three metre thick outer wall, once sat on the river bank at the mouth of the wadi at Banganarti, and still is partly submerged during a high Nile flood. The main period of occupation is Early Christian, which continued into the later Christian periods, with evidence for Islamic as well as some possibly late Post-Meroitic use.

Other survey results

The wadis leading to the right bank of Nile between Abkor and Old Dongola were densely populated from Middle Palaeolithic to Post-Meroitic times. In the wadi estuaries, the quantity of lithics washed away from sites located deeper in the desert is enormous. More than 300 lithics were collected during the partial removal of the Hammur tumulus mound alone.

One of the most promising and most complex prehistoric sites was found on top of the Jebel Abu Elem, rising high among the table flat desert. On some prehistoric sites, shelter post-holes were found. The most schematic settlement pattern in a wadi was found in Khor Jerf al-Mardi leading to the Nile at Hammur: Middle Palaeolithic sites in the 3-6 km sphere from the river, a Neolithic site within the sphere of 2-4 km, a Post-Meroitic tumuli field at the distance of 1-2 km and a Christian settlement guarded by a fortified enclosure at the wadi’s estuary. This stepped series of sites suggests again that the right bank of the river has been moving continuously over time. One extended settlement site near the Soniyat temple consists of three or four separate concentrations of material, which progress from Early through Terminal Christian and even into...
Islamic period occupation, to judge from their surface collections. This interesting pattern suggests the inhabitants may have needed to move laterally on a long term but regular basis as the encroaching sand rose around their homes to make them unsafe.

Some of the right-bank sites are accessible only from the river, due to the encroaching dunes which reach the river bank itself. An interesting fortified site guards a granite ridge crossing the river midway between Ed Debba and Old Dongola. According to the ceramics, it was settled in the Early Christian Period and abandoned before characteristic Late Christian wares appeared. Apart from Girra, Buros and Tangasi, the Nile islands generally were not visited during the first season. The lack of time and diving equipment prevented us from closer investigation of the most mysterious structure in the Middle Nile region. Two huge pillars rising from the river between Buros Island and the left bank were first noticed by Edmond Combes in 1834. They are built of fired bricks bonded by hard lime mortar. Plausible explanations for this enigma are many, but we should wait for a final verdict until next season, when a professional diver will test the surrounding river bed. A huge post-Meroitic tumulus field begins by the road from Abkur to Argi some 1500 meters north-east of the Istabel fortress, and continues for about a kilometer. It is one of the largest Post-Meroitic funerary complexes in Dar Dongola. The majority of mounds are devoid of crater-like depressions at the top suggestive of robbing, so may be un plundered.

Arkell reported a Napatan cemetery lying two miles east of the river in the Argi area (Arkell 1950, 35-36), its existence being confirmed during the first season. The burial ground, robbed by the Bedouin, extends westwards towards the river from the gubha of Wad Idris. It is marked on the surface by large quantities of crushed bones, stones and crude Napatan ceramics.

Sondages at Soniyat temple

The hamlet of Soniyat is situated some 2.25 km east/upstream of the Istabel fortress. Here, a Napatan temple was tested, drawn and photographed from the air during the 1997 preliminary survey. The temple temenos is located some 600 m south of the hamlet. It was first noticed and briefly mentioned by Lord Prudhoe (1828) in 1829. Then it must have been concealed by dunes, since it escaped the attention of other European travelers. In 1997, two test sondages were dug in the southernmost part of the building in order to estimate the extent of the damage caused by an abandoned irrigation project near the ruin. In 1998, a further 14 sondages were made, under the direction of Krzysztof Cialowicz, to clarify the construction, plan and history of the building (Figure 3). The temple sits within a temenos, of which only the huge foundation stones of the gate and small fragments of the wall remain. The temple itself lies 95 m south of the temenos gate. It sits on a table-plain alluvial terrace covered by aeolian sand. The geological section exposed in the matara hole dug nearby produced an alluvium continuum at least 8 m in depth. The temple itself measures 18.35 m by 27.90 m. The corners of the outer walls were molded into a vertical roll protruding beyond the outer perimeter. The better preserved northern part is constructed on a regular symmetrical plan of a tripartite naos with a transverse pronaos, flanked on both sides by a long corridor-like chamber. The central cela was connected with a western subsidiary chamber. The floors in the side chambers, naos and pronaos were laid with big sandstone slabs covered with lime-plaster, now almost totally worn out. Four holes are cut into the pavement slabs in the cela. Since they are too close to the walls to be sockets for an altar or stand, they could have served as e.g. socket holes for posts of a canopy, or apertures accommodating stands for lamps or censors. The jambed passageway links the temple's pronaos with its hypostyle. Near the southern jamb of this passageway, a cache of bizarre stones and other objects was found. Roofing at the southern end of the temple was supported mainly by columns, of which five have been located. The columns were raised on round flat bases placed directly onto the mud brick floor. Paving was recorded in a 1998 sondage dug into the middle section of the hypostyle. Its otherwise regular pattern occasionally is disturbed by multiple repairs.

The ceramics recovered range from at least the Napatan period through to Christian and Islamic times, together with some imported Egyptian sherd s, and artefacts of bronze, faience, 'Egyptian blue', frit, shell, stone, bone and clay; one artifact is inlaid with glass and retains traces of gilding. Surface ceramics include a conspicuous quantity of
Figure 3. Plan of Soniyat temple.
Early Christian wares, some with scratched monograms. In the subsurface layers, Kushite wares strongly predominate. The temple seems to have been in use from at least Napatan times and, after abandonment, occupied by squatters in the Christian and Islamic periods, presumably for habitation. Nothing could be identified specifically as Meroitic in date, except the scratched graffiti on the upper surface of a displaced column drum (multiple unintelligible designs resembling Meroitic script). Meroitic in date, except the scratched graffiti on the upper surface of a displaced column drum (multiple unintelligible designs resembling Meroitic script).

In the subsurface layers, Kushite wares dominated by a Meroitic hieroglyph repeated at least six times) that indicate the temple must have been in a ruinous state by that time. The same sign was found painted on the shoulder of a fragmentary wheelmade jar from the Temple of Taharqa at Kawa (Macadam 1955:77, 73, 161 figure 53).

The Soniyat temenos is located at the north end of the Tergis mantiqa, the border between the mantiqa of Abkur and Tergis being halfway between the temple and Istabel fortress. Archaeological evidence, augmented by the literary sources, so far strongly suggests the Soniyat temenos is the sacral nucleus of a larger urban center located south-west of Istabel fortress, west of the cultivable grounds of the Tergis-Affad Basins and opposite the agricultural district on the left bank. The topographical situation of the Soniyat temenos leaves no doubt that it is a part of an agglomeration identical with Pliny’s Tergedum, mentioned in the itinerary of the Neronian expedition to the sources of the Nile (Pliny, Natural History, Book VI.XXXV.184-185; see Rackham 1947:474-477). The location of Tergedum in Tergis already had been suggested in 1971 by Karl-Heinz Priese (Priese 1973, 123), who calculated the distances comprised in Pliny’s text. A more detailed report of this aspect of the 1998 season is Zurawski (1998b).

Excavations at Hammur el-Abassija tumulus field

In February 1998 the Hammur Abbassija tumulus field was photographed from the air, sondaged, and thoroughly surveyed with a note of the most endangered tumuli located amongst the village houses. Four of the most threatened tumuli (#1, 4, 5 and 6) were excavated under the direction of Mahmoud el-Tayeb, their mounds already partially or totally removed by the villagers in search of building material for new housing after the 1988 floods. All tumuli excavated already had been entered and robbed in ancient times, their digging tools also being recovered. The robbers either entered the burial chamber through the original access shafts (Tumuli 5 and 6) or tunnelling from ground surface beyond the mound’s perimeter (Tumuli 1 and 4). It seems that the latter method was employed only on the larger mounds. The layout of the hypogea in Tumuli 1 and 4 were very similar. Both were provided with an unusual U-shaped entrance shaft, giving access to the blocked burial chamber and offering repository chambers located opposite and left of the protrusion.

**Tumulus 5.** A simple pit grave, later partly obscured by the construction of Tumulus 1, this contained a disarticulated extended skeleton covered by huge slabs. Few grave goods were recovered, but these indicate it had been a poor burial even prior to plundering. It probably is late 4th or 5th century A.D. in date, probably earlier rather than later in that range.

**Tumulus 6.** This is a common side-niche grave, its burial chamber blocked by stones. Despite this humble arrangement, the individual buried seems to have been an important man buried on an angareb. Joining fragments of a very large spearhead, lacking only its tang and very tip, were found in the access shaft and niche. Now measuring 52 cm, it probably was up to 64 cm in original length. In scale, it may be compared with those found in the Post Meroitic ‘royal’ burial at El-Hobagi (Lenoble et.al. 1994, pls. 10, 16). Other military accoutrements also recovered constitute an important collection of such artifacts from this area. A superb attachment in the shape of a reclining lion was found below the head of the disarticulated skeleton. The figure was cast of brass, composed of Cu 85.17%, Si 0.29%, Pb 1.00%, Ag 0.19%, Sn 1.07%, Sb 0.18%, Cr 0.07%, Mn 0.88%, Fe 0.37%, Ni 0.37%, and Zn 11.36%. (Analysis No 11768.00 by E. Pawlicka, using the Philips EDAX 9800 X-ray spectrometer in the Central Laboratory of the Institute of Archaeology and Ethnology, Polish Academy of Sciences). A nearly identical example was found at Aksum in a level dated to the 4th through early 7th centuries A.D. (De Contenson 1963:12, P1. XIV.a-b). The ceramics, four large handmade semiglobular bowls and a ‘beer jar’, are similar to others from Tumulus 4. Although the bowls generally compatible with others reported
elsewhere, they seem to be a particularly local variant of the type, and extremely well-made. The grave may provisionally be dated to the same time, late 4th-5th century A.D.

**Tumulus 4.** Curiously enough, the most heavily blocked of the three side chambers in Tumulus 4 were the offering repositories (2 and 3), both by a huge heap of stones piled against the entrance wall. Additionally, chamber 2 was blocked by a further wall of mud brick. The burial chamber (1) was blocked by huge mud bricks laid in regular pattern, additionally abutted from outside with smaller mud bricks haphazardly laid. The evidence found in the hypogeum clearly suggests the burial chamber was blocked before the repositories. Originally the three chambers were divided. The present passages were cut by robbers, who first entered chamber (2) and then penetrated into burial chamber (1) and chamber (3) from beyond the tumulus itself.

Burial chamber (1) also had been equipped with an angareb, on which the body was laid with its head apparently to the north-east. Further disturbed bones were piled against the wall. Within the burial chamber were recovered wheel made bowls and a cup, and two handmade ‘beerjars’, whilst the repositories contained both wheelmade and handmade bowls, the latter similar to those from Tumulus 6. Others were recovered in the robbers’ tunnel, including one wheelmade bowl clearly Early Christian of the type familiar at the Old Dongola excavations, found near a secondary and probably Christian burial lying on its back with the head to the north-west and hands crossed at the pelvis. The majority of wheel made vessels are similar to those from Tum. 1. The tunnel may have been cut for the Christian burial, as it is begins as a rectangular shaft cut west of the mound perimeter. The tomb probably dates to the mid/late 6th century A.D., although the multiple burials clearly were not all contemporaneous. It probably dates to the later 5th or first half of the 6th century A.D., possibly even to the mid 6th century.

**Initial Observations**

The survey so far has highlighted the chronological disparity of sites within the concession area. Early Christian and Islamic sites predominate, with less Christian material for the intervening period. In fact, many individual Christian sites themselves indicate their occupation flourished mostly in the Early Christian and Islamic periods, but less predominantly in Classic through Terminal Christian times. The general lack of Kerma period, Napatan and Meroitic sites also is striking, with the notable Napatan exceptions of the one cemetery near Argi and the temple at Soniyat. This is in striking contrast to the work of Derek Welsby (1996) almost immediately to the north in the Northern Dongola Reach, where Christian period occupation is virtually absent and Kerma to Napatan material predominates. Our working assumption is that many of these ‘missing’ sites remain buried under the
encroaching dunes at present, and that earlier sites are more likely to be situated farther into the desert away from the present Nile course. For example, this identification of the Tergis locality with Pliny's Tergetum seems quite secure, strongly suggesting the area was heavily populated in the Meroitic period despite the lack of archaeological remains. Evidence for the generally southward and eastward movement of the river itself, probably due to the same underlying cause, also is apparent. Some early sites are found near the river, and early material sometimes can be the result of wadi erosion and down wash. Further work should clarify the situation.

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