Sudan

Preliminary report on the excavations of Jebel Al-Ain and Qasr Al-Maraga – North Kordofan state

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Introduction

The concession of work in this district was granted by the authorities of antiquities in Sudan to the Department of Archaeology at the University of Khartoum in order for the authors to undertake archaeological investigations in the area of the North Kordofan territory. The authors sought to focus our research here because the region has not been a focus of archaeological research for some time. Our aims during the 2016 field season were to record all the archaeological evidence in the area evident through surface deposits with limited excavations. Thus, we tried to follow recent theoretical and methodological trends in archaeology that primarily emphasize the cultural sequence and make a general inference about behavioral patterns in the past (socio-economic organization, regional networks, demography, subsistence activities, etc.). At the same time, we hoped to improve our present knowledge of the rich archaeological heritage in western Sudan, in order to make its preservation feasible in the near future. The 2016 season was preceded by a general survey, completed in 2009, that had been initiated by the University of Khartoum, Department of Archaeology, that identified several archaeological sites in the area of central Kordofan (Adam 2009). The data from this previous survey served as the basis for our study and the sites excavated were selected from those identified in 2009.

In November 2016, test pits and systematic excavations were conducted at four sites in the southeast of El-Obied. Each was chosen for investigation based on the evident stratification and the quantity of archaeological material reported in the previous survey (Adam 2009). The sites include: 1) Al-Ain 14; 2) Al-Ain 15; 3) Al-Ain 16; and 4) Qasr Al-Maraga (Figure 1). Below we report on our work and findings at each site.

The North Kordofan Territory

The North Kordofan territory is characterized by several cultural and environmental phenomena, including its location in the middle of Sudan in a sandy plain. The region is interposed by a number of wadies (Lloyd 1910: 521), making it a cultural and ethnic convergence zone. We are fully aware that the wadies and channels that come from the Darfur region, passing Kordofan, have had a great impact in that cultural correlation and intermingling. There are a number of these wadies feeding the Nile, particularly during the humid periods that prevailed during the early Holocene. The most significant are Wadi El-Melik, which passes through the northern part of Kordofan province, and it includes Umm Badir, Abu Zeima and other villages up to the Nile at the southern part of Ed-Debba region; Wadi El-Maqaddam, which passes through the land of Kababish tribe, and connects to the Nile in the Kurti area; and Khor Abu Habl which comes from the Nuba Mountains area until it connects to the White Nile at Kosti. These channels have worked to control the movement of people between the Nile and Kordofan (Hayati 2017: 42). In addition, the area consists of several hills, outcrops and plateaus that form a refuge suitable for dwelling, providing protection from environmental and human disasters. This included many caves that could be occupied during periods of upheaval. These outcrops also contain useful raw material for manufacturing stone tools and grinding stones such as quartzite, chert and sandstone to name a few.

Another distinction, relevant to the geographic location of this area, is that it represents a junction between the Nile Valley and western regions of Africa. This characteristic is strongly visible through the archaeological



Figure 1: The area of investigation, south-east of El-Obied town and east of Khor Abu Habl. (Figure by author.)

features having some similarities to cultures lying along the White Nile in particular (Clark 1973: 63), and the Sudanese Nile Valley in general (Arkell 1975). Furthermore, it represents a good correlation between west and central Africa and the Nile Valley (Jousse *et al.* 2008: 2).

Al-Ain 14: N 13° 01' 42.8", E 30° 25' 7.9"

Archaeological excavations here consisted of a 1x1 meter test pit located in the south-western edge of Al-Ain mountain, and toward the south of Al-Ain 14 site. The test pit was excavated to 50 centimeters in depth via 10 centimeter arbitrary levels. A quantity of pottery was found in the first level. At the base of this level, animal bones were encountered. In level 2, a few beads made from ostrich eggshell were encountered. Pottery sherds were recovered in level 3, however the quantity decreased toward its base. There was also a dearth of stone tools in this level, especially microlithics, as well as few animal bones throughout this level. The fourth level was similar. Excavations ended at 50 centimeters because a new settlement context was encountered.

Several archaeological finds associated with the Neolithic settlement (sixth millennium to third millennium BCE) were visible on the surface of the site, such as pottery, and an abundant of stone tool debitage rather than proper tools, suggesting that the site might have been a lithic workshop. In addition, there were a variety of sizes and shapes of grindstones. The team collected the surface finds that included an abundance of pottery, but a scarcity of stone tools. It was clearly notable that the pottery was characterized by a variety of decorations.

Al-Ain 15: 13°00'9.1" N 30°25'041" E

Excavations at Al-Ain 15 were more extensive than at Al-Ain 14. Here, a 10 x 10 meter grid was established and then divided into 25 squares (each 2×2 meters). All excavations were done by 10-centimeter arbitrary levels. Three of the squares were selected for excavation: A3, C3, E2.



Figure 2: Grooved tool from E2. (Photo by author.)

A3

The surface layer of this square contained a substantial amount of pottery sherds in a variety of shapes and sizes. There was also some debitage consisting of quartz and quartzite. Again, the levels excavated produced a range of finds including pottery, lithics, and animal bones. One unique find appears to be a lip plug made of stone. The archaeological finds began to decrease by the third layer, and were mostly pottery, animal bones, and a few stone tools. The archaeological finds become very scarce in the fourth layer, after which sterile soil was reached and the unit was terminated at 40 centimeters in depth.

C3

C3 is characterized by similar specifications as A3, in terms of a large number of surface artefacts collected and the hardness of the ground in the first level; it is essentially clear that this occurs whenever the excavation turned northward, towards the waterway that runs down from the mountain. The first level also contained a lot of archaeological material. A few stone tools appeared in the second and third layers but the quantity of finds significantly decreased in the third layer. The excavation reached sterile soil in the fourth layer terminating at 40 centimeters in depth.

E2

E2 is in a low-sloping area towards the small stream. The surface layer contained Neolithic pottery. Generally, there were few archaeological finds in the first level that included some forms of pottery likely post-Neolithic in dates. A grooved tool was also found (Figure 2). A fireplace was



Figure 3. Various microlithics made of quartz. Test Pit at Al-Ain 16. (Photo by author.)

found, where a layer of ash appeared, but it was significantly damaged. We suggest that it may have been part of a furnace for iron-melting/smelting, or possibly used for pottery manufacture, as the remains of iron slag and charcoal were found. Through the third and fourth layers the ground became very hard, and few archaeological remains were recovered. The excavation stopped at a depth of 40 cm within the fourth layer.

Al-Ain 16: 13°00'8" N, 30°25'0.53" E

A small square within the site Al-Ain 16 was excavated, with measurements of 1×1 meter. There were a large number of archaeological artefacts on the unit's surface, yet the first and second levels were scarce in archaeological material. The greatest abundance of finds came from the third level with sterile soil appearing in the fourth level. Prior to reaching sterile soil, a general decrease in the amount of pottery and microlithics was observed (Figure 3).

Qasr Al-Maraga: 12°57 '31"N, 30°19'49" E

The test pit at Qasr Al-Maraga was located in Wad Al-Bagha, located toward the southeast of El-Obied town. Qasr Al-Maraga is one of the largest historical sites in the Kordofan region. Its name means Soup Palace, which refers to the tradition that the builders had of mixing mortar with soup because of the abundance of animals and meat, as a tribute to the greatness of the chiefs.

The team dug a test pit in the center of the site, in order to determine the stratigraphic and cultural sequences of the site, particularly as there are what look like the ruins of buildings visible at the site. A 2 x 1 meter unit was excavated extending over four meters in depth and

Site	Stone Tools	Grinding Stone	Pottery	Bones	Mollusca	Other	Period
Surface			130				Islamic
Level 1		2	14				Islamic
Level 2		1	9				Islamic
Level 3	6	2	10				Islamic
Level 4	17		26				Islamic
Level 5	8	1	5				Islamic
Level 6	11	1	9				Islamic
Level 7	8	1	23				Islamic
Level 8	3	1	9				Islamic
Level 9	6		13				Islamic
Level 10	18		11				Islamic
Level 11	1		6				Historic
Level 12	11		11				Historic
Level 13	4		5				Historic
Level 14	4		7				Historic
Level 15	5		7				Historic
Level 16	4		11	1			Historic
Level 17	9		7				Neolithic
Level 18	4		12				Neolithic
Level 19	5	1	5			Bird bones	Neolithic
Level 20	7		12				Neolithic
Level 21	9		1			1	Neolithic
Level 22	27		17				Neolithic
Level 23	23	1	18			Ostrich Eggshells	Neolithic- Mesolithic
Level 24	6	2	7			Grooved	Neolithic- Mesolithic
Level 25	9		6				Neolithic- Mesolithic
Level 26	8	2	40				Mesolithic
Level 27	1		37				Mesolithic

 Table 1. Archaeological material from Qasr Al-Maraga excavation unit. (Table by author.)

a collection of surface finds was made, which included thick, mostly undecorated pottery sherds (Figure 4). In the first level of the unit, there was a large amount of animal bone present that continued throughout the remaining levels and included goats and sheep. This fits with the site's association with abundance. Also, some coarse pottery was found, and quartz debitage. The soil was very loose in this level, but as the excavations proceeded, the soil became more compact in the second level. The second level contained fragments of pottery distinguished by some geometric motifs and grinding stones. In addition, the ground was clayey and contained the remains of mud brick and ash was found. Therefore, this level represents a domestic occupation dating to the historic period.



Figure 4: Depth of the excavation, Qasr Al-Maraga. (Photo by author.)

The ground became more compact in the third level and was dug with difficulty. The debris contained the remains of mud brick, a little pottery, and stone tools. The fourth level was similar and the compactness increased. These levels did not contain distinctive artefacts; rather it appears that these were mixed with clay, with which they made the brick used to build the palace and thus a secondary deposit. The next level to standout is level 7. The seventh level contained ash, particularly in the eastern part of the trench which continued into the eighth level.

Because of the overall continuity of the archaeological finds inside the trench, we decided to divide it into two parts, where the focus of work was on the eastern portion in the ninth level in which the ash layers disappeared. The tenth layer varied greatly from the previous layers and contained a larger quantity of remains. These consisted of poorly made pottery and various shapes and sizes of stone tools, and an increase in the number/amount of animal bones. The soil in level 11 was looser and it contained a dense accumulation of archaeological remains that continued into the twelfth level. The remaining levels were relatively consistent and revealed a steady decrease in material with depth (see Table 1). While all levels were 10-centimeter arbitrary levels, by level 19 the scarcity of materials and relative uniformity of the soil led the team to excavate it as a 20-centimeter level.

The same archaeological remains continued uninterruptedly until level 23, the continuity of the ash layers was noticeable, as well as the remains of charcoal, bones and ostrich eggs, in addition to grooved stone, which appeared at level 20. At level 24, a depth of 3.20 meters was reached and the type of the soil changed to a gravel soil that tended to be yellow and contained poorly made pottery, some grinding stones and stone tools. The excavation was continued until level 27 terminated at 4.15 meters in depth (see Figure 4). The levels were similar, but at level 27, the soil was wet and contained only the remains of pottery, in contrast to the preceding layers, which contained ash, charcoal, pottery, stone tools, animal bones and ostrich eggshells.

Discussion

It is clear that the North Kordofan province is wealthy with a huge cultural heritage existing from before the ninth century BCE, and consequently up to the Islamic period (651-1898 AD). It shows some aspects of chronology starting from prehistory and up to the recent period. The general chronology of the region starts from the Mesolithic (ninth millennium to sixth millennium BCE), continuing through

the Neolithic (sixth millennium to third millennium BCE), with some chronological hiatus during the proto- and historic period (2500 BCE to the first century AD). However, after that period, several features of recent historic period (651-1898 AD) are clearly visible. Most of the archaeological sites that have been unearthed in this area are affiliated to the late prehistory (Mesolithic-Neolithic ninth millennium to third millennium BCE), and our excavations reported here cover prehistoric sites, with the exception of Qasr Al-Maraga which contained a long time depth of more than four meters, with the archaeological artifacts in the Islamic period. In contrast, the excavations at a couple of sites at Jabel Al-Ain stopped at a depth of 40 centimeters, which is evidence of the shallowness of the stratification in this area. However, this is likely due to the location of the remaining sites reported here in an area on the edge of the mountain, which is exposed to erosion and other climatic forces. Neolithic material was found at all the sites, but it varied from Jabel Al-Ain to Qasr Al-Maraga in terms of amount and quality of the materials. However, it was noticeable that the pottery was very heterogeneous in terms of its fabric and decoration. In general, most of the pottery at Jabel Al-Ain is decorated and of better quality than the pottery of Oasr Al-Maraga given that the pottery of the latter is very coarse and the majority is undecorated (Figure 5).

With regard to the stone tools, it is obvious that most of the retouched tools are made of quartz and quartzite, as they are not distinctive in terms of knapping and serrating. Also, there are some tools made of sandstone, such as grooved stones. Most of the excavations contained grinding stone tools and shells. The majority of the archaeological finds date to the historic period and comprise crude pottery and some grindstones. Finally, there were small finds found through the excavations that include various sizes and shapes of eggshell beads and small mineral rings.

The results of this work can be summarized as follows:

- 1. The sites near Jabel Al-Ain are very rich in terms of the archaeological material; however, they have been eroded gradually by rain, which has left shallow stratigraphy.
- 2. There was visible variation in the archaeological remains recovered from Jabel Al-Ain, mainly in pottery sherds that were characterized by several motifs.
- 3. The site of Qasr Al-Maraga is one of the deepest sites in this area, as it consisted of a long cultural sequence ranging from the Mesolithic up to the Islamic period.



Figure 5: Various forms of pottery varying from coarse to polished. (Photo by author.)

- 4. The area has essentially benefited from the outcrops and plateaus that provide natural shelter as well as being a catchment area for the raw materials needed for the lithic industries.
- 5. It is notable that the area has benefited from several streams that cross it from the west and south up to their confluences with the White Nile; these have provided viable routes for population movement.

This project has highlighted a previously understudied region. This fact increased its value as a new area of study. The latest season in this area was devoted to excavation and examination of some of the richest sites and the results of this work, we hope, will encourage further efforts in the region as well as others outside the Nile Valley.

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