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CONDIVIDI / SHARE

THE ITALIAN ARCHAEOLOGICAL EXPEDITION TO THE EASTERN
SUDAN OF THE UNIVERSITÀ DEGLI STUDI DI NAPOLI
“L’ORIENTALE”.

An overview of the 2010 and 2011 Field Seasons

Andrea Manzo (Università degli Studi di Napoli “l’Orientale”)

Introduction

The fieldwork of the Expedition of the Università degli Studi di Napoli “l’Orientale” to the Eastern Sudan took place from 1980 and 1995¹, was resumed after a gap of fifteen years in 2010, and continued in 2011 (Manzo 2011, 2012b)².

At the very beginning of the project, the main goal of the research project was the explanation of similarities in the ceramic traditions of the Ethiopian highlands and of the Nile Valley. Thus, the Kassala region and Gash Delta, a study area located in an intermediate and crucial position for understanding the relationships between Ethiopian highlands and Nile Valley, was selected (Fig. 1). This was an area which, before the fieldwork conducted from 1980 to 1995 by the Expedition, was virtually unknown from the archaeological point of view. Therefore, the definition of a cultural sequence for the Kassala region and Gash delta is an outstanding result of

¹ At that time as “Italian Archaeological Mission to the Sudan (Kassala) of the Istituto Universitario Orientale (IAMSU)” under the direction of Rodolfo Fattovich.

² The members of the expedition were: Andrea Manzo, director and ceramic analyst (Università degli Studi di Napoli “l’Orientale”, 2010 and 2011), Alesaged Beldados Aleho, paleoethnobotanist (Addis Ababa University, 2010), Alfredo Coppa, physical anthropologist (Università di Roma “La Sapienza”, 2010), Marco Barbarino, MA student and surface surveyor (Università degli Studi di Napoli “l’Orientale”, 2011), Pietro Fusco, MA student and archaeologist (Università degli Studi di Napoli “l’Orientale”, 2011), Vincenzo Zoppi, MA student and archaeologist in charge of the survey (Università degli Studi di Napoli “l’Orientale”, 2010, 2011). The colleague representing NCAM was Habab Idriss Ahmed both in 2010 and 2011. Specialists involved in the study of the materials were Alfredo Carannante, archaeozoologist (Università degli Studi di Napoli “l’Orientale”, 2011), and Donatella Usai, lithic analyst (Center Sudanese and Sub-Saharan Study Center, Treviso, Italy, 2011).

the fieldwork conducted by the Expedition in the 80s. Moreover, it was also possible to outline the following processes taking place in the region (Fattovich 1989; 1990; 1991b; 1994; Fattovich, Sadr and Vitagliano 1988-1989):

- 1) the peopling of the region seems to be characterized by a certain degree of continuity from the 5th millennium BC to the 1st millennium AD, as shown for example by a characteristic tradition in pottery production, the Atbai Ceramic Tradition, whose main feature is the occurrence of *scraped ware*;
- 2) an agro-pastoral economic strategy may have emerged in the region in the 4th millennium BC and seems to have been characterized by an increasing degree of mobility in the herding component resulting from environmental and social stresses;
- 3) in the 3rd and 2nd millennium BC the region seems to have been involved in a broad network of contacts, possibly related to the network of economic exchanges through which Egypt (and via Egypt the rest of the Mediterranean and Near East) were supplied with African raw materials such as ivory, ebony, spices, animal skins, gold, etc.;
- 4) hierarchical societies may have arisen in the region in the 3rd millennium BC;
- 5) in the 1st millennium BC, although the region was still crossed by caravans and nomad groups of herders, the groups inhabiting it were marginalized, possibly because of the fledgling states of central Sudan and of Northern Ethiopia and Eritrea.

The reasons for resuming the field work after fifteen years were as follows (Manzo 2011, 2):

- 1) to resume the study of the materials kept in the storeroom of the expedition in Kassala in the perspective of the publication of the final report of the first stage of the project (1980-1995);
- 2) to get a better knowledge of the relationships between Eastern Sudan and Upper Nubia as well as to investigate the possible relationships between the cultures of Eastern Sudan and the Red Sea coast *via* the Eastern Desert.

To these tasks a further and more urgent one was added because of the plans to build new dams on the Atbara and Setit rivers and introduce an agricultural scheme in the region between the Gash and the Atbara (Upper

Atbara Agricultural Irrigated Scheme). For this reason, in 2010 the National Corporation for Antiquities and Museums (NCAM) of Sudan launched a systematic survey in order to evaluate the archaeological richness of the region, identifying 135 archaeological sites in the area which will be affected by the dams and the irrigation systems.

Rescue archaeology and territorial studies in the Kassala region

In 2010 and 2011 the expedition actively supported the NCAM to rescue the menaced heritage (Manzo 2011, 2-16; 2012b, 1). Significantly, the southern sector of the endangered area partially overlaps with the area which was surveyed by IAMSK, Southern Methodist University (Dallas, USA) and University of Khartoum in the 80s, while the northern sector of the endangered area had not been covered by previous surveys (Fig. 2). For this reason the access to the materials and data on the location of the sites kindly provided by NCAM is very important also in the perspective of the research project, as it may complete the model of settlement dynamics proposed after the investigations of the 80s.

Therefore, the artifacts collected by the colleagues of NCAM and presently kept in the National Museum were examined in 2010 in order to suggest a cultural affiliation and, when possible, the absolute chronology of each site (Manzo 2011, 2-6, 36-39). Actually, these materials fit into the cultural sequence of the area elaborated by IAMSK, Khartoum University and Dallas University. Always in 2010 some of the major sites recorded by NCAM were visited by the expedition in order to select some sites suitable for excavation also according to our research interest (Manzo 2011, 6-16) while a GIS of the area was implemented (Zoppi 2011).

In 2011, 65 sites of uncertain dating and/or unspecified extension in the NCAM records were revisited (Zoppi 2012). For several of them it is now possible to suggest a cultural affiliation and a chronology (Manzo 2012b, 117-123). Other sites will be revisited in 2012. After the 2012 field season the fresh data collected by NCAM and IAEES will allow us to enhance the proposed models on the location of the sites in the different chronological phases as well as on the changes of the settlement pattern over time (Sadr 1988; 1991; 1993).

Moreover, at the request of the Regional Ministry of Culture, Media and Tourism, in 2010 the expedition conducted a short survey in the Kassala region East of the Jebel Mokram and close to the Eritrean border and a visit to Jebel Maman (Manzo 2011, 16-18) (Fig. 3), a crucial site to understand the spread of Islam in Eastern Sudan (Fattovich 2009-2010), in order to assess the state of preservation of the site, which looks quite undisturbed. In the next seasons a proper map of Jebel Maman will be dressed and a survey will be conducted in its surroundings.

Survey in the Eastern Desert

A preliminary survey of the site of Jebel Qoqay/Jebel Romeladid, in the Eastern Desert, North of the Gash delta was conducted in 2010 (Manzo 2011, 18-27). The site was first identified on the satellite imagery, and was selected together with the surrounding region because of its location, which suggested that its exploration could contribute to gaining a better knowledge of the relationships between Eastern Sudan and Upper Nubia. Moreover, as Jebel Qoqay/Jebel Romeladid is also located on a system of *wadyan* draining to the Red Sea coast, it was thought that it could contribute to investigating the possible relationships between the cultures of Eastern Sudan on one side and the Red Sea coast *via* the Eastern Desert on the other. In the satellite imagery it was already possible to recognize that the site consisted of more than 100 tumuli or mounds (Fig. 4).

The preliminary survey allowed us to confirm this and to identify the eight different types of structures. Some of these structures, like the elongated tumulus with East-West axis and stelae on the eastern and western side are likely to date to Islamic times; the square structure may also well be an Islamic grave, perhaps related to the archaic *qubbas* of Jebel Maman. Nevertheless, the other structures are likely to be earlier and their variety may suggest a long use of the site and/or its frequentation by groups with distinctive funerary habits. Among them, the cylindrical structures (Fig. 5) which can be compared with the ones recorded at Samadi and Mendilo, in the region of the Wadi Allaqi and all over the Eastern Desert and dating from the 3rd to the 7th-8th cent. AD (Manzo 2011, 23). The mounds built on natural cracks recall the *Crevice burials* recorded in the Eastern Desert of Egypt, where they are associated with materials dating to the 4th-6th cent.

AD, and in the Fourth Cataract region, where they are dated from the mid-2nd millennium to the end of the 1st millennium BC (Fig. 6) (Manzo 2011, 23). Nevertheless, in this case the type is very simple and opportunistic, taking advantage of the natural features of the terrain, so it is likely that it was used over a long period.

The pottery on the surface of the site is scarce and its classification is still in progress. Nevertheless, at this preliminary stage it may be suggested that it confirms the different dates of the structures and that the site may have been used as a cemetery for a long period. Among the diagnostic finds, some sherds may fit into the horizon of the *Eastern Desert Ware*, widely recorded in sites dating to the 3rd-5th centuries AD of the Egyptian and Sudanese Eastern Desert and also in the Kassala area, where it represents an important component of the pottery of the Khatmiya Group (Manzo 2004, 77-80). Finally, the angular shoulder of a wheel made jar with comb horizontal incised decoration and cord impressions on the external surface may be an Aswan production of early Islamic times. Nevertheless, its possible use here as a grave good may suggest that the associated tomb was built when the Islamization of the people living in the Eastern Desert was not yet fully accomplished.

Excavations

In 2010 a test pit (K1 VI 2010) was excavated at Mahal Teglinos (K 1) (Manzo 2011, 27-30). Actually, in the western sector of the site a storage pit plastered with clay was almost completely exposed, and it was decided to conduct a surface stripping and a limited 2x2 m test pit around it in order to record the structure as well as to collect the associated materials which may enable it to be dated. The exposed storage pit proved to have been cut from a living floor now completely eroded. An earlier and better preserved living floor was discovered as well. It had been unaffected by the cutting of the storage pit. On top of the earlier living floor large sherds and an almost complete broken vessel were discovered. Given the good preservation of this living floor, it may deserve further and more extensive investigations.

The archaeological materials associated with these living floors are all ascribed to the Jebel Mokram Group, and are mainly representative of the Nubian component of this culture, characterized by vessels with the

upper part of the body covered by crossing oblique incised lines, vertical or oblique incised lines (Fig. 7) or with the body completely covered by horizontal grooves. Comparatively few *scraped* sherds which can be ascribed to the local traditions were recorded in these assemblages. Based on the comparisons with Nubian materials and on the radiocarbon dates available for the Jebel Mokram Group (Manzo 2011, 29-30; 2012b, 60-65, 127-128), an absolute dating in the 2nd millennium BC can be suggested for the assemblages investigated at K1 VI 2010.

In 2011 nine excavation units were investigated at UA 53, a 150 x 90 m site South-West of Kassala, characterized by the presence of eroded tumuli or mounds in its central and western sector, by concentrations of shells and by a possible lithic workshop in its southern sector (Manzo 2012b, 6-21).

Fresh evidence on the Butana Group (4th-early 3rd millennium BC) was collected in excavation units UA 53 I and UA 53 IV, which also gave a couple of radiocarbon dates going back to the first half of the 4th millennium BC for samples from two shell middens (Fig. 8). The excavations at UA 53 I and UA 53 IV provided new elements on the subsistence economy of this culture which, at least at this specific site, may have largely relied on the exploitation of giant land snails and big freshwater snails (Carannante 2012, 94-95).

As far as the Butana Group material culture is concerned, the 2011 fieldwork confirmed the typical ceramic features characterizing this culture, but also allowed some further comparative remarks with the Late Neolithic of the Nile Valley and the Pre-Kerma Upper Nubian materials, demonstrating that the Butana Group fits well into the general cultural framework of Nubia and Sudan of the 4th and early 3rd millennium BC (Manzo 2012b, 52-56; Manzo 2011, 5). Excavations at UA 53 also enlarged our knowledge of the Butana Group lithic industries, with collections apparently corresponding to the descriptions made after the earlier investigations of Butana Group sites in the area close to the Atbara (Usai 2012, 86).

Excavations at UA 53 also gave interesting insights into the domestic architecture of the Jebel Mokram Group (2nd - early 1st millennium BC), considerably enriching what was known from the previous investigations. Remains of a large circular hut or fence delimited by the holes where the posts were fixed was discovered at UA 53 IX (Fig. 9), while

remains of more elongated huts with a rounded northern perimeter were unearthed in UA 53 III (Fig. 10). Although heavily robbed, also the tombs marked by tumuli in the eastern sector of UA 53 (Fig. 11) may be related to the Jebel Mokram Group culture, as suggested by the materials collected in this part of the site and by comparisons with early 2nd millennium BC funerary structures in the Nile Valley.

Dealing with material culture, new comparisons of Jebel Mokram Group ceramics with Upper Nubian materials and new imported materials collected at UA 53 VII and IX in Jebel Mokram Group assemblages may suggest that this culture also have originated earlier than previously thought, i.e. before 1500 BC. An alternative hypothesis, if a date to the mid-2nd millennium BC should be confirmed for the end of the Gash Group (dating to the late 3rd-early to mid-2nd millennium BC), is that Gash Group and Jebel Mokram Group may have been partially contemporary and chronologically overlapping. Moreover, new comparisons with Pangrave materials from the Eastern Desert (Manzo 2012a, 80-81) seem to confirm that the Jebel Mokram Group is related to the material culture of that area and, as previously suggested (Sadr 1987), its appearance in Eastern Sudan may represent an interaction, that was perhaps seasonal and related to the periodical movements of pastoral groups, between Eastern Sudan and the Sudanese Eastern Desert. Finally, in terms of the later phases of the Jebel Mokram Group culture, further comparisons with the Ethiopian Pre-Aksumite seem to fully support the view of an end of this culture in the early-mid-1st millennium BC.

The imported materials collected in Jebel Mokram Group assemblages at UA 53, together with the Red Sea shells collected on the surface close to some robbed graves (Manzo 2012b, 64-65; Carannante 2012, 95-96) and with the possible use of the stone cylinders (Fig. 12) and cubes from several assemblages of the same site as weights using the early 2nd millennium BC Egyptian standard for gold (Manzo 2012b, 89-91), seem to suggest that at that time Eastern Sudan continued to be involved in a broad network of relationships with the neighbor regions (also Sadr 1990, 79-80), which so far was known mainly for the earlier (late 3rd - early - to mid-2nd millennium BC) (Fattovich 1991b; Manzo 1997). Also a possibly imported bronze *khol* stick from a Jebel Mokram Group assemblage of UA 53 (Manzo 2012b, 93), a rare and unexpected object for such a general

context, could suggest the involvement of the Jebel Mokram Group people in extensive long-distance relationships.

For the *Gergaf Group*, possibly dating to the early second half of the 20th century AD, a new radiocarbon date to the 16th-17th century AD was made available by excavations at UA 53 VI. This date fits well into the chronological framework of this culture suggested previously. Also a domestic structure, closely recalling traditional Beja huts/tents still visible in the region and on the fringes of the Eastern Desert, was investigated at UA 53 VI (Fig. 13). This increases our knowledge of the culture representing the very end of the cultural sequence of Eastern Sudan.

Interestingly, the excavations at UA 53 also provided several remarks on the environmental history of the region (Manzo 2012b, 106). A first Butana Group phase likely to go back to the first half of the 4th millennium BC seems to be related to the intensive exploitation of resources of a humid environment characterized by swamps, as is suggested by the occurrence of shell middens and by the archaeomalacological study of the shells. After this, a pedogenetic phase related to the formation of the soil stratum (or possibly strata) covering the shell middens took place. On top of this stratum the pit of a badly damaged burial of unspecified date discovered in UA 53 I was cut. Finally, a strong erosion took place which brought to light and partially eroded the burial in UA 53 I as well as the shell middens. Interestingly, on the basis of the other excavation units excavated at the site, it is likely that this very intense wind erosion took place not only before Gergaf Group times (ca AD 1500-1800), but also before Jebel Mokram Group times (2nd-early 1st millennium BC). Actually, both in Jebel Mokram Group times and in Gergaf Group times structures were built immediately on top of the Butana Group ones which were brought to light by severe wind erosion. We may hypothesize a relationship between the swamp environment and the pedogenetic phase with the wet conditions still prevailing around the mid-Holocene and, perhaps more significant, with the earlier course of the river Gash, before the major changes taking place in the 3rd millennium BC (Coltorti *et alii* 1984, 20; Durante, Fattovich and Piperno 1980, 65-66). On the contrary, the erosive phase affecting the site later on may result from the arid conditions prevailing in the region after the mid-Holocene (Sadr 1988, 383-384; 1991, 26, 30-33).

Laboratory Analysis

Despite the fact that the materials kept in the storeroom of the IAMSK in the Regional Ministry of Culture, Media and Tourism were partially damaged and dispersed by the 2003 flood of the Gash river, a program of analysis of the surviving materials was conducted in the perspective of the publication of the final report of the investigations conducted by the Expedition from 1980 to 1995. Analysis was performed by Alfredo Coppa on some osteological remains kept in the storeroom of the Expedition in Kassala. Three fragmentary Gash Group human skeletons brought to light in the main stelae field in the central part of the site in 1994 were examined. These skeletons represent the first phases of use of the cemetery in Middle Gash Group times, tentatively dated to ca. 2000 BC (Fattovich, Manzo, and Usai 1994). According to stratigraphic evidence, these three tombs were discovered one on top of the other and represent three different phases of use of the same spot. According to the analysis conducted by the physical anthropologist, the three skeletons resulted to be two males and a female. Some remains of a further juvenile individual were also found in the collection, and they are probably due to the cutting of an earlier grave when the pits for these burials were excavated.

Palaeoethnobotanical analysis of pot sherds and fragments of plaster with plant impressions going back to Jebel Mokram Group times (2nd millennium BC) from the site of Mahal Teglinos, excavation unit K 1 VI 2010, were conducted by Alemseged Beldados Aleho. The results of the analysis³ suggest that wild millet, *Ziziphus spina-christi*, cowpea, as well as wild and domesticated sorghum were exploited in Jebel Mokram Group times (Alemseged Beldados Aleho 2012; Alemseged Beldados Aleho and Costantini 2011). Noteworthy, the discovery of impressions of cultivated sorghum from reliable excavated assemblages represent the earliest evidence of domestication of this crop.

Finally, shells collected in the first phase of the project as well as in the last seasons were studied by Alfredo Carannante and provided

³ Also discussed in the PhD dissertation in Africanistica - Archaeological curriculum "Paleoethnobotanical study of ancient food crops and the environmental context in North-East Africa, 6000 B.C. - 200/300 A.D." prepared by Alemseged Beldados Aleho under the tutorship of Rodolfo Fattovich and Lorenzo Costantini at the Università degli Studi di Napoli "l'Orientale" and defended in 2011.

interesting insights not only on the environmental setting, and on the subsistence economy of the area in ancient times, but in the case of marine shells fresh evidence of long-distance contacts was provided as well (Carannante 2012).

Perspectives of research

In the next years the Expedition intend to continue the exploration of some endangered sites of the Kassala region which were selected according the tasks of the research project.

Among them UA 14, whose a topographic map was drawn up in 2011 and a more precise assessment was elaborated in 2010 and 2011. This is a 300 × 200 m site located in a flat area and characterized by a high concentration of archaeological materials on three mounds located on the surface of the site. The materials which are visible on the surface can be ascribed mainly to the Butana Group, therefore, a date to the 4th-3rd millennium BC can be envisaged (Manzo 2011, 6-7; Manzo 2012b, 4-6). What was observed in the profiles of streams cutting the site suggests that UA 14 was a large settlement with a preserved stratification of ca. 1.5 to 2 m in its northern sector. In 2012 we plan to excavate test pits at this site. Moreover, other sites dating to the 3rd-1st millennia BC, ascribed to the Gash Group and to the Jebel Mokram Group, such as UA 42 and UA 51, will be tested in order to clarify the above outlined chronological and cultural issues related to the Jebel Mokram Group.

Moreover, a broader palaeoenvironmental model for the whole region to be related to the archaeological remains by means of systematic geoarchaeological studies is greatly needed and will be considered a priority of the project in the next few years, together with the continuation of the archaeozoological and palaeobotanical studies aimed at the palaeoenvironmental reconstruction and at getting a better definition of the ancient economy and man-environment relationships.

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FIGURES



Fig. 1 - Map of NE Africa with indication of the area investigated by “l’Orientale”, (at that time Istituto Universitario Orientale), Southern Methodist University (Dallas, USA) and University of Khartoum in the 80s, Mahal Teglinos (K 1), the major archaeological site of Eastern Sudan, and other relevant sites and regions mentioned in the text

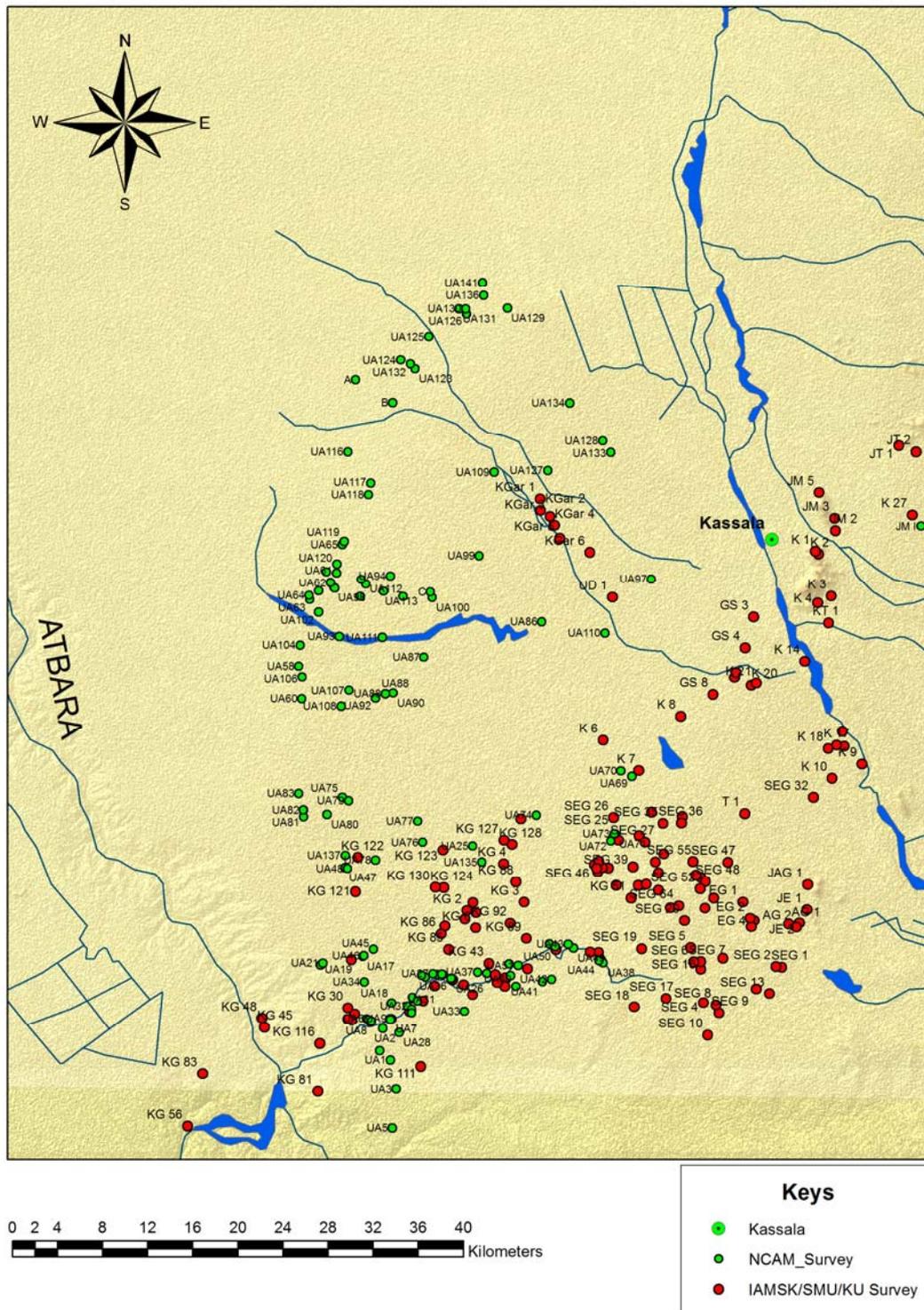


Fig. 2 - Map of the investigated region showing the sites recorded by NCAM in 2010, and the ones investigated by “l’Orientale” (at that time Istituto Universitario Orientale), Southern Methodist University (Dallas, USA) and University of Khartoum in the 80s



Fig. 3 - the Islamic tombs at Jebel Maman

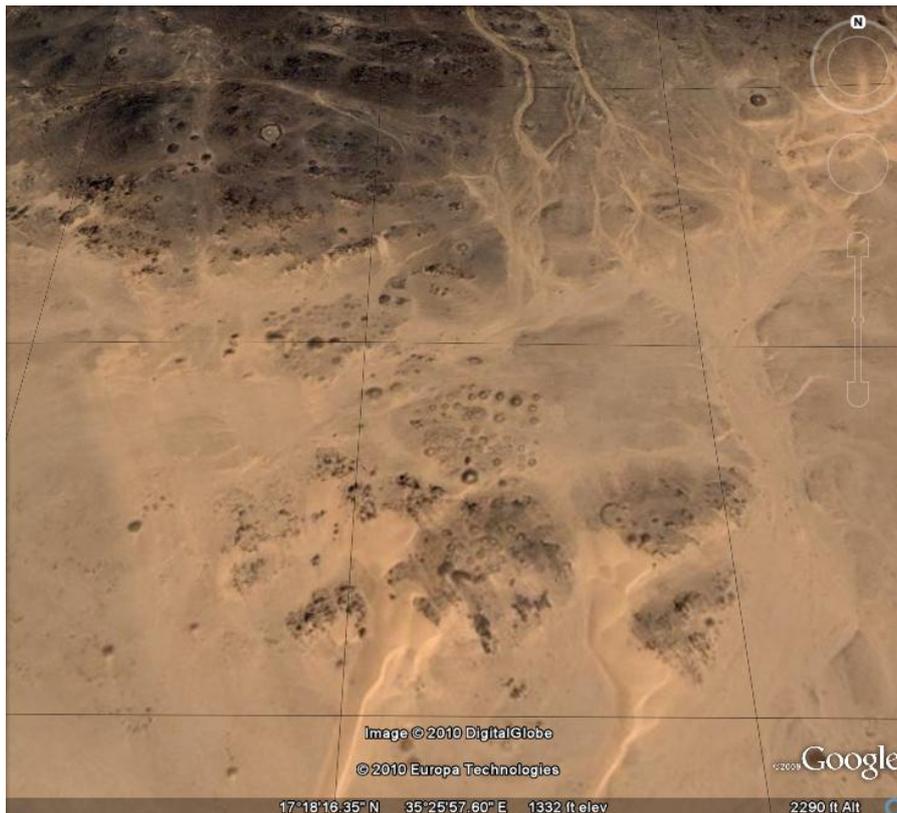


Fig. 4 - Satellite image of the Jebel Qoqay/Jebel Romeladid with the field of tumulus (© Google earth)



Fig. 5 - Cylindrical funerary (?) structure at Jebel Qoqay/Jebel Romeladid



Fig. 6 - Funerary (?) mound built on natural cracks at Jebel Qoqay/Jebel Romeladid



Fig. 7 - Jebel Mokram Group sherds from excavation unit K1 VI 2010

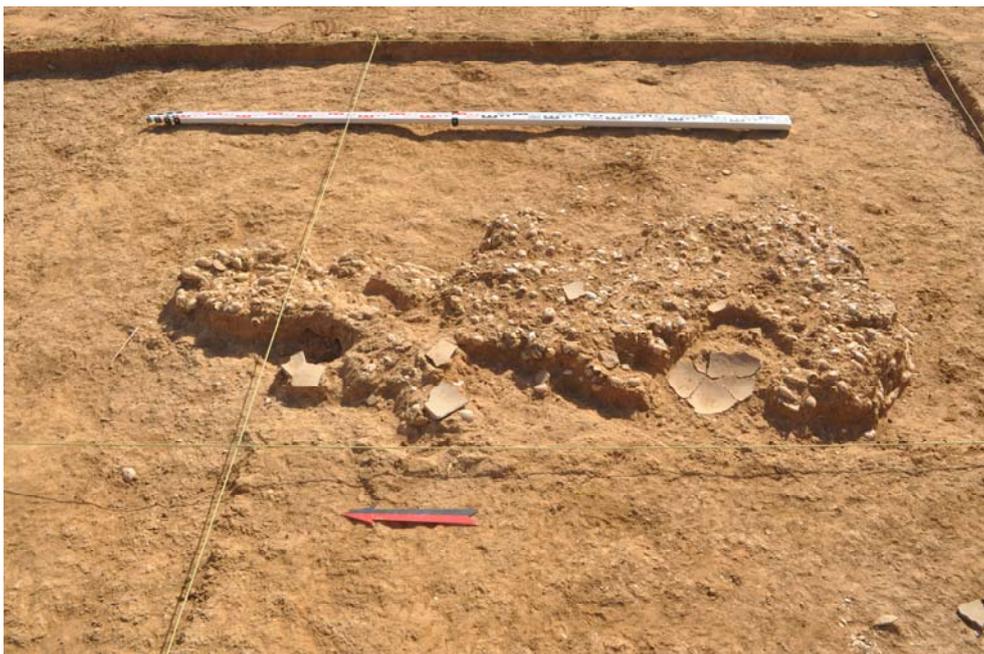


Fig. 8 - Shell midden in excavation unit UA 53 IV

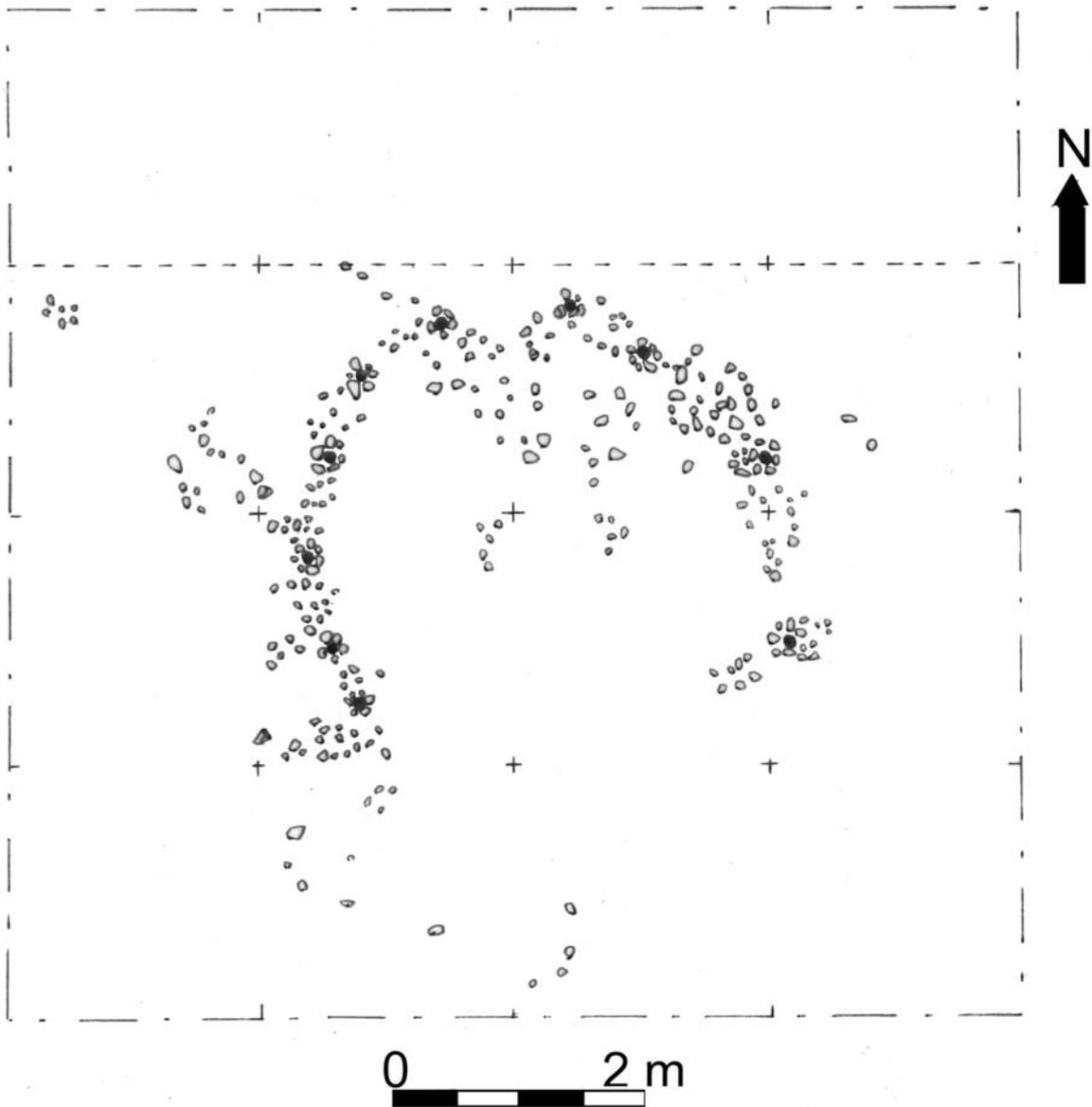


Fig. 9 - Map of the large circular hut or fence delimited by posts holes discovered in excavation unit UA 53 IX

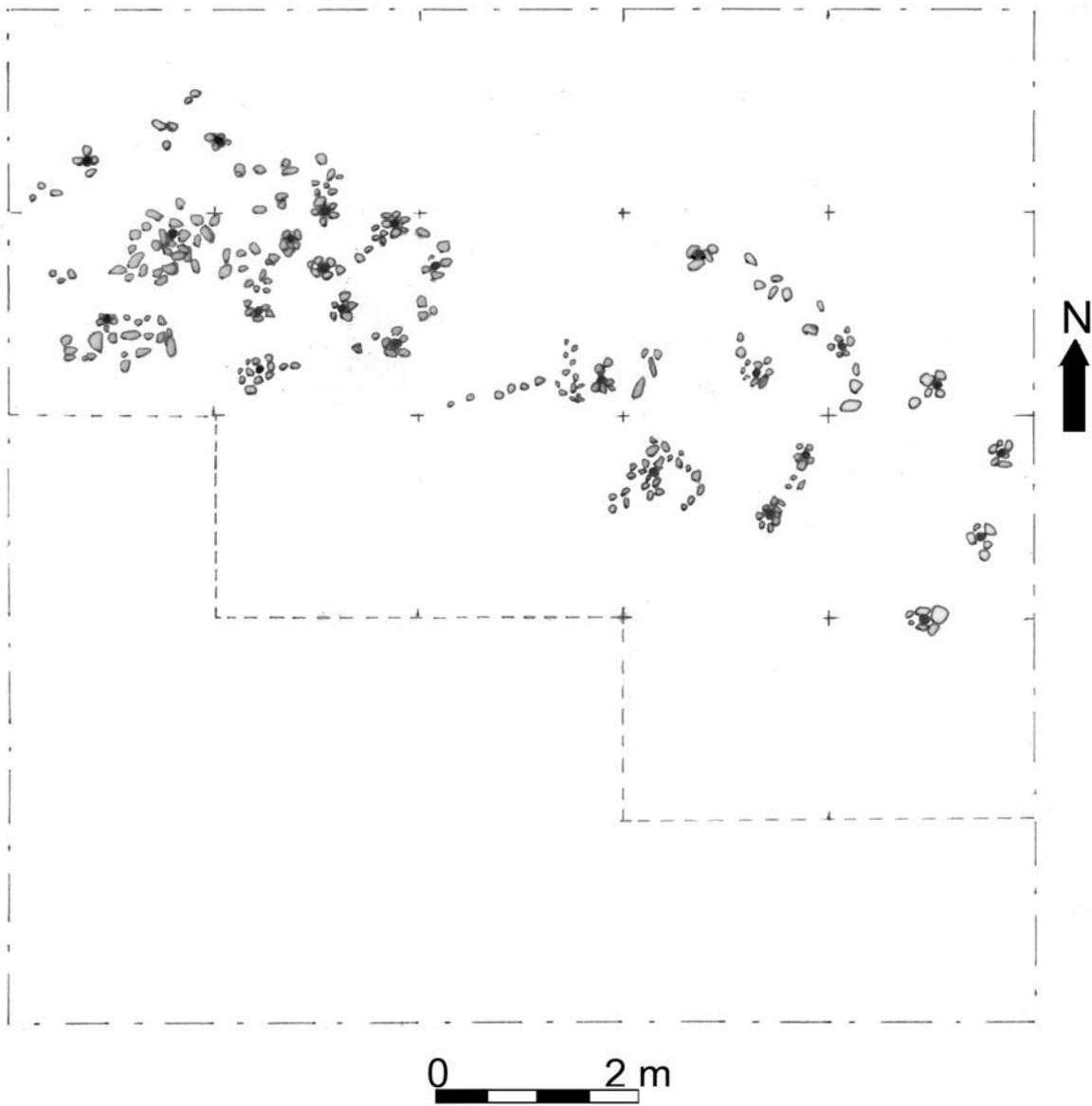


Fig. 10 - Map of the elongated huts unearthed in excavation unit UA 53 III



Fig. 11 - Partially excavated heavily robbed funerary tumulus in excavation unit UA 53 II



Fig. 12 - Stone cylinders, possibly weights using the early 2nd millennium BC Egyptian standard for gold

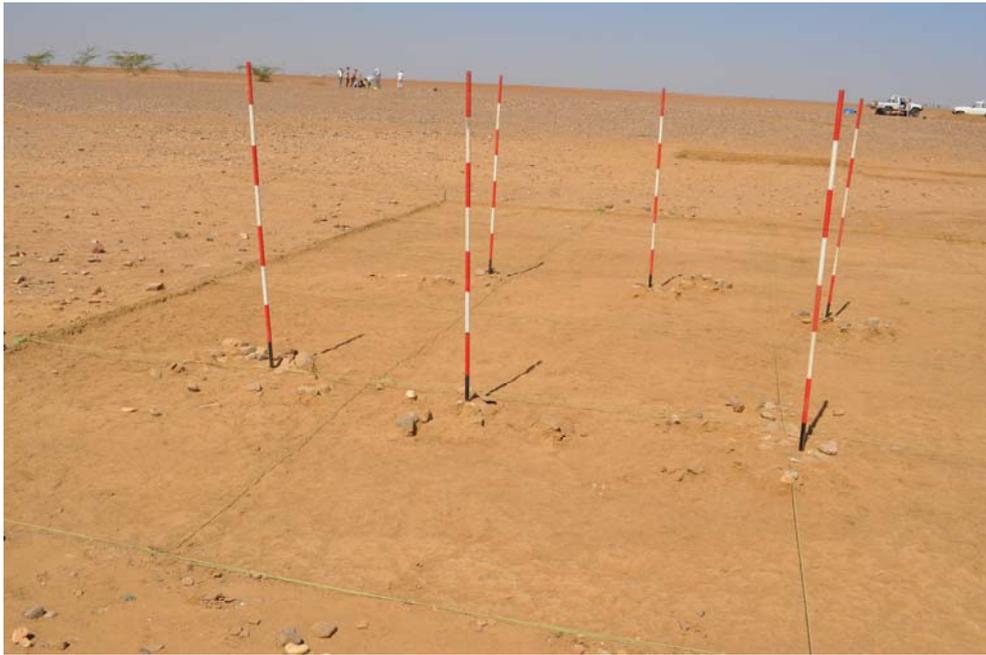


Fig. 13 - Hut delimited by post holes discovered in excavation unit UA 53 VI