## Preliminary report on the excavations in Kwieka cemetery (KWC)

- seasons 2016 and 2018


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## The site

The village of Kwieka is located on the right bank of the Nile a little upstream of Abri ( $20^{\circ} 42.788^{\prime} \mathrm{N}$ / $30^{\circ} 19.705^{\prime} \mathrm{E}$ ), opposite the south end of Sai island, 704 km north of Khartoum.

The site is a cemetery lying between the village and the highway (east-west) and from the southern edge of the village until Ebood village at the south. About 207 graves with different types of superstructures (Table 1) were scattered over an area $500 \times 1500 \mathrm{~m}$ in size (Plate 1 ), extending between the village and the asphalt road. The ground surface is Nile silt mixed with salty black soil with, in some areas, especially in the southern part, gravel covering the surface. Some small wadies cross the site from east to west heading towards the Nile. The team concentrated its efforts for the two seasons on excavating in the middle of the cemetery because it was considered that this part would be where the earliest burials lay.

## The Excavations

The rescue operation took place over two short seasons during which 17 graves were investigated. The fieldwork strategy was predicated by the need to rescue the remains threatened by the extension of the village of Kweika and cultivation. The first task was to create a topographical map of the site and its surroundings to understand the spatial layout of the cemetery. The cemetery contains superstructures of many different types and sizes (see Table 1).

## Dating

The small amount of evidence made it clear that the cemetery was in use in the late Meroitic (NCAM excavation KareimaNawa road, 2008), Post-Meroitic and Christian periods.

Use by late Meroitic people was deduced from the analysis of the graves with a trapezoidal shaft well known from tran-


Plate 1. An aerial vien of the site of Kwieka.

Table 1. Details of the graves and their associated monuments.

| Type | Superstructure | Examples | Sub-structure |
| :---: | :---: | :---: | :---: |
| A | Large mound from alluvium, some superstructures contain schist in the middle of the surface of it and others mixed with quartz. Diameter 9-27m, height 1-2.5m. | T 4 | Rectangular shape $3.8 \times 2.06 \mathrm{~m}, 4.25 \mathrm{~m}$ in depth, oval burial chamber, cut into the bedrock. |
| B | Small mound, diameter between $4-8 \mathrm{~m}$, height $0.4-1 \mathrm{~m}$ | T 1, T 8, T 10, T 16 | Rectangular shape $1 \times 1.8 \mathrm{~m}, 1.5 \mathrm{~m}$ in depth, oval burial chamber cut into the bedrock |
| C | Circular in shape, diameter 7-13m, height 0.8-1.2m. | T 5, T 7 | T 5, the descendary trapezoid shape $1.94 \times 1.9 \mathrm{~m}$, the burial chamber is oval $1.3 \times 2 \mathrm{~m}$. |
| D | Flat-topped gravel superstructure rounded in shape, diameter $4-7 \mathrm{~m}$, height $300-500 \mathrm{~mm}$. | T 6, T 9, T 11, T 12, T 13, T 14, T 15, T 17 | T 6, rectangular shaft $2.15 \times 1.05 \mathrm{~m}$, the burial chamber sub-rectangular $1.3 \times 0.8 \mathrm{~m}$ |
| E | Rounded with ring of schist and quartz, diameter $4-10 \mathrm{~m}$, height $200-800 \mathrm{~mm}$ | T 3 | Trapezoid shape, double burial chambers, $3.6 \times 4.43 \mathrm{~m}$, both of them rectangular. |
| F | Rounded shape made from schist and quartz. Diameter $9-11 \mathrm{~m}$, height $300-500 \mathrm{~mm}$ | T 2 | Rectangular $2.35 \times 1.1 \mathrm{~m}$, depth 1.44 m , the burial chamber is oval. |

sitional burials studied at the Fourth Cataract, where they are dated to from the late Meroitic to early Makuria period, late $3^{\text {rd }}$ - mid $4^{\text {th }}$ century AD (Mahmoud El-Tayeb 2012, 104). Also this grave type was noted at Gabati and found to be associated with Meroitic and Post-Meroitic burials (Edwards 1998, 13-26, 72). Thus Graves 3 and 5 were broadly contemporary. However for more accurate results samples were taken for radiocarbon dating to provide chronological data and also for DNA to ascertain if the deceased were genetically related.

## Grave inventory

T 1:
Superstructure: Located south of T 2, at the centre of the cemetery on its eastern edge. Work was begun here because the recent robber activity allowed a rapid assessment of the buried customs.
Sub-structure: the shaft, cut into the alluvium, was rectangular in plan, $2.1 \times 1.4 \mathrm{~m}$ in size, its long axis oriented north-south. The disturbed fill of the shaft consisted of clay soil and some stone slabs of different shapes. The robbers had reached the bottom of the shaft, and also disturbed the burial. Some pottery sherds and human bone were found in the filling. At a depth of 1.05 m we also found disarticulated bone and part of the stone blocking from the entrance. At a depth of 1.3 m from the surface we found schist stone slabs of different size presumably from the blocking.
Burial niche: the niche, cut into the sandstone on the western side of the shaft, was oval in shape. It is difficult to ascertain the orientation of the body owing to this disturbance (Plate 2). No grave goods were found in this tomb.


Plate 2. T 1: disarticulated skeleton.
T 2: Located at the centre of the cemetery on its eastern edge. Superstructure: the superstructure, an oval ring, 9.2 m eastwest and 11 m north-south, contains quartz stones of different sizes (Type F) (Plate 3). Small grey gravel and pottery sherds were also scattered on the surface.
Sub-structure: The tomb shaft, cut into the alluvium, was rectangular in shape, its long axis oriented north-south. At a depth of 100 mm a clay quseiba (storage bin, Plate 4), was


Plate 3. T 2: superstructure of type F.


Plate 4. T 2: the mud storage bin used as an offering.
found in the south-west part of the shaft. It may have been provided as grave furniture or be of later date as it lies within the robber pit fill. There were pieces of schist in the northern part of the shaft along with some human bone, and close to it, a large sherd from a beer jar used as shovel was found near the robber pit. About 910 mm from the surface were found schist stones, some vertical and others set in a row, closing the entrance 1.5 m north-south and 530 mm in height, to the burial chamber. The oval chamber, cut into the sandstone bedrock on the western side of the shaft, was filled with sand mixed with alluvium and pebbles. The skeleton was completely disturbed: nothing can be said about its original position. A sherd of pottery was found in the burial niche.
T 3: Located about 100 m to the south of T 1.
Superstructure: circular in shape (Type E, Plate 5) with some pottery sherds scattered on its surface.
Sub-structure: a trapezoidal cut, oriented east-west (Plate 6), tapers from 4.4 m at the west to 3.96 m to the east and was 4.6 m in length. Within the fill of the shaft were mud bricks scattered in the centre, presumably from the missing western end of the blocking wall which sealed burial chambers A and $B$, the roofs of which were about 1 m below the surface.


Plate 5. T3: superstructure of type E.


Plate 6. T 3: trapezoid shaped descendary with the two interconnected burial chambers.

In the western part of the fill were pottery sherds including one used as a shovel, also iron arrowheads, various kinds of beads, human bone, a complete pottery jar and wood possibly part of a bed. In the southern part of the shaft at a depth of about 850 m there was ash and charcoal (fireplace).
Burial chambers: The two burial chambers were designated T3/A and T3/B.
T 3/A: On the southern side of the shaft, the rectangular chamber about $1.9 \times 0.63 \mathrm{~m}$, in size, oriented north-south, was cut into the bedrock at a depth of 1 m from the surface. Some mud bricks were built inside the burial chamber forming a blocking wall 570 mm in width, 660 mm high at the west and 400 mm high at the east. The filling of the burial chamber was compact alluvium and mud indicating the one-time presence of water. Most of the bone was found disturbed, fractured into small pieces and stuck into the clay. Long bone and remains of a large piece of iron were found at the back of burial chamber on western side. It was disturbed by robbers. T 3/B: Sub-structure: On the northern side of the shaft, the rectangular chamber was $2 \times 1 \mathrm{~m}$ in size, oriented north- south, as in T3/A. It was cut into bedrock, with mud bricks blocking the entrance. The burial niche is located at the western side, its filling consisting of clay soil, hard and wet. There is clear evidence for water penetration probably via the opening connecting T $3 \mathrm{~A} / \mathrm{B}$ (there is a large opening connecting the two chambers, perhaps made by the robbers or it is an original feature). There are a few human bones and small amount of beads (the same bead types were found at T3/A). The burial
is completely disturbed; only a few human bone fragments were found in the filling along with iron fragments, an arrowhead with the remains of the wooden shaft and some beads of quartz and faience.

The pit cut is rectangular shaped with an almost rectangular (rounded corner) burial niche in the western side.
T 4: Located at the middle of the cemetery.
Superstructure: one of the largest mounds of type A (Plate 7), rounded in shape, flat on top, with a diameter of 22.6 m ; the diameter of the flat top is 11.5 m , with a height of 2.15 m . Some pottery sherds were collected from the surface of the mound.


Plate 7. T 4: superstructure of type $A$.
Sub-structure: The top was cleaned but no shaft appeared unless the soft, sandy area could be the robber pit. The robber pit, clearly visible at a lower level, was excavated. The fill was alluvium mixed with small pieces of schist stone, different type of pottery sherds and fragments of human bone. At a depth of 500 mm a complete small pottery jar, with black lattice decoration at the neck and two holes in the sides, was found upside down, and part of another pottery jar, and an ostrich eggshell bead were also found. A metre below the surface the cut of the shaft was found, rectangular in shape, oriented north-south $1.9 \times 3.2 \mathrm{~m}$ in size, and 4.05 m deep. The fill of the shaft was compact, hard wet soil with some human and animal bone and pottery fragments. At a depth of 2 ma large, complete, wheel-made jar, probably used for storage, was found in the north-east corner (Plate 8) and traces of a fireplace were noted. The remains of the blockage, built from mud bricks, extended from north to south (Plate 9). The surviving part is 900 mm in width, 1.04 m in length, and between $350-750 \mathrm{~mm}$ high. The rest of the wall was probably disturbed by ancient looters. The burial niche to the west, oval in shape, 2.3 m long and 1.75 m wide, was cut into the bedrock. Within it were found a complete pottery jar, a piece of iron rod and a red quartz bead.
T 5: Located north east of T4. An excavation trench $6 \times 6 \mathrm{~m}$ square was laid out over the grave.
Superstructure: The tumulus (Type D, Plate 10) was oval in shape, 5 m north-south by 3.5 m east-west and 400 mm high, covered by quartz pebbles of different sizes.


Plate 8. T 4: the burial shaft, niche and offering storage jar.


Plate 9. T 4: the base of the mud-brick blocking wall.


Plate 10. T 5: superstructure of type $D$.
Sub-structure: The trapezoidal descendary was not directly under the superstructure but on its eastern side. The shaft, oriented east-west, measured 2.05 m east-west by 1.9 m northsouth at its western end and attained a maximum depth of 1.6 m . It formed a steeply sloping descendary, from east to
west, with a step at the entrance to the burial niche. The descendary was filled with alluvium, some pottery fragments and human bone. Large schist stones were located in its eastern part. The blocking was constructed from schist stones with quartz stones filling the interstices, concentrated at the northern part of the blocking. The southern part of the blocking had been removed by the robber pit, here measuring 1.08 m north-south and 0.8 m east-west, filled with soft soil.
Burial chamber: The burial niche, located at the western end of the descendary, oval in shape, 1.9 m north-south and 1.2 m east-west, was cut into the bedrock. The fill of the chamber was a hard Nile silt. The skeleton was much disturbed by ancient looters, although the left femur and the pelvis remained in situ indicating that the body had been oriented north-south, facing west. The other femur, tibia, skull and the mandible were in the northern part of the burial chamber.

T6: Located to the north of $T 4$, it had been disturbed by the local people to utilise its gravel for their building activities. Superstructure: A type D tumulus.
Sub-structure: The rectangular pit (Plate 11), measured 2.2 m north-south, 1.4 m east-west and attained a maximum depth of 1.3 m . In its northern part the fill is very soft soil while the southern part was very hard. The filling of the shaft contains chunks of mud, fragments of schist stones and a large pot


Plate 11. T6: the grave pit.
sherd. The blockage, at a depth 650 mm from the surface, was oriented north-south and located at the western side of the shaft. It was constructed of mud brick and survived intact in the northern part but to the south was destroyed by the robbers. Up to six courses of brick remain in places; only the lower three are completely preserved; on the northern side the blocking wall was built from two rows of vertical mud bricks. The lower course is built of bricks laid as one row of stretchers and one of headers. Small stones were used in the wall to fill any gaps. On some mud bricks there were remains of white lime plaster, which may suggest their re-use from a settlement context. The burial niche is almost rectangular in shape, its long axis oriented north-south. The southern side was disturbed by ancient looters.

The skeleton of a child was disturbed and scattered in the southern half of the chamber throughout the fill. Part of a ceramic baby feeder was found in the fill.

T 7: Located almost at the middle of the cemetery between two wadis toward the western edge.
Superstructure: The superstructure had clearly been a mound, about 4 m in diameter, but was largely destroyed by the looters and natural activities.
Sub-structure: The grave pit, cut in hard black soil layer, was oval in shape at the surface measuring 1.2 m east-west by 1.5 m north-south and with a maximum depth of $1.6 \mathrm{~m}, 550 \mathrm{~mm}$ to the step. Below the surface it became trapezoidal. It was filled with dark soil, incorporating some pottery sherds, a rib and ostrich eggshell beads. The burial niche on the western side was oval in shape. Disarticulated human bone was scattered in the niche; ostrich eggshell beads came from around the pelvis. From the position of the bones it appears that the body was placed in a semi-flexed position, oriented north-south, the skull at the south west (not in situ). A complete handmade pottery jar was found in the northern part of the niche.

T 8: Located at the eastern edge of the cemetery.
Superstructure: A semi-circular mound, 300 mm in height and 5 m in diameter, with some stones in the shallow depression over the robber pit. There are pottery fragments scattered on the surface.

Sub-structure: The shaft was rectangular with its long axis north-south. Some schist stones were found in the northern part of the shaft. The burial chamber, extending over most of the shaft, was roofed in a Nubian vault constructed of mud brick, the southern part of which was destroyed by the ancient looters. Two pottery goblets and an amphora were found in the robber pit (Plate 12).

The skeleton was in a flexed position, oriented southnorth, its head to the south (not in situ, moved by the looters) originally facing west, the hands in front of the face. The grave goods comprised 14 pottery vessels, one amphora, three different-sized jars, two cups and eight goblets; ostrich eggshell and faience beads were found at the distal part of


Plate 12. T8: the barrel-vaulted roof robbed, and pottery in the shaft.
the spine. The other finds were a mat lid about 160 mm in diameter, cylindrical traces of wood (probably from a kohl pot), an iron arrowhead and fragments of wood probably from a bed (angareeb).

## T 9: Located south of T 8 .

Superstructure: The circular mound, 7 m in diameter, and 260 mm high, comprised some gravel mixed with soil.
Sub-structure: The shaft is sub-rectangular measuring 0.5$0.64 \times 1.5 \mathrm{~m}$ and 960 mm in depth; filling was a soft dark grey soil. The niche was also filled with soft soil. Some pottery sherds, ostrich eggshell beads and human remains came from within the fill, all from the southern part where the robber pit was located.

T 10: Located south west of T 7.
Superstructure: Semi-circular in shape contains small grey gravel and grey soil, partially destroyed.
Sub-structure: The rectangular pit, 2.4 m north-south, 1.2 m east-west and 2 m deep, appeared under the centre of the tumulus. It was filled with hard soil mixed with sand and small stones; some pottery fragments come from within it. The blocking wall 1.5 m in depth made of schist stone and mud bricks sealed the niche at the western side of the shaft. The wall was destroyed at the top and in its southern part by the ancient robbers. The burial niche, cut into the bedrock, was 600 mm high, and oval in shape measuring 1.7 m north-south and 0.8 m east-west. In it were found pottery sherds, a goblet and a complete amphora l, and human bone (only part of the skull and long bones), all in the northern part of the grave. The finds were affected by the humid conditions in the grave.

## T 11:

Superstructure: Circular about 6 m in diameter and 230 mm high, with some black stones at the north west.
Sub-structure: The rectangular grave pit, appearing under the western part of the superstructure, cut into a hard black soil layer. It was 2.05 m north-south, 0.6 m east-west and 800 mm deep. There was no separate grave chamber. There are traces of looting in the northern part. At a depth of about 430 mm in the shaft two goblets were found, one with festoon decorated in white paint at the rim; at 750 mm were some human bones, the skull at the northern part, the pelvis, right femur, left arm, vertebrae and some ribs scattered at the bottom of the grave (Plate 13). In the northern part where the cups were found the soil is harder and mixed with sand - this is probably the robber pit. From the position of the legs it appears that the skeleton had been laid in a flexed position, oriented north-south with the legs flexed toward the west, head to the north. A goblet was placed upside-down on the knee. A total of three goblets were found (Plate 23).

## T 12:

Superstructure: Semi-circular of dark soil with gravel: some pottery fragments were scattered on the surface. The western part was completely destroyed.
Sub-structure: The shaft, cut into hard soil, was rectangular in shape, 2.2 m north-south, 1.05 m east-west and 1.25 m


Plate 13. T 11: disarticulated skeleton and goblets.
deep. The blockage, about 600 mm below the surface, was of large slabs of schist; the length of the wall is 400 mm , and it was 600 mm high. The southern part of the blockage was destroyed by looters. The oval burial niche, on the western side of the shaft, was oriented with its long axis north-south and was 850 mm high from the surface. It was filled with dark soil containing human and animal bone in the northern part along with pottery sherds.

## T 13:

Superstructure: The semi-flat (topped mound) tumulus was made of grey soil, some gravel and schist stone and had pottery fragments on the surface.
Sub-structure: The rectangular shaft, 2.6 m north-south, 1 m east-west and 1.15 m deep, was filled with soft soil within which was some matting. The entrance to the burial niche on the western side of the shaft, was blocked by large schist slabs. The oval robber pit, in the southern part of the grave, was filled with soft soil. Some human bone and a pottery jar missing part of the rim were found at the northern half of the niche which was 400 mm in height.

## T 14:

Superstructure: Semi-circle, 6 m in diameter and 110 mm in height contains quartz gravel and schist stone: pottery fragments were scattered on the surface.
Sub-structure: The grave was found under the western part of the mound. The rectangular shaft, 1.83 m north-south, 0.75 m east-west, and 1.3 m deep, was filled by sand and soft soil. At about 700 mm below the surface, the shaft was cut into the bedrock as was the niche, which is cut into its western side. The blockage of schist stone was bonded in mortar. Part of it had been destroyed by looters in ancient times. The burial niche was completely robbed except for the skull which was found in the southern part of the niche but not in situ, along with a fragment of a pottery jar.

T 15:
Superstructure: Largely destroyed but traces remain as a semi-flat grey soil mound.
Sub-structure: The rectangular grave cut, 1.22 m north-south, 1.05 m east-west and 1.4 m deep, appeared under the western part of the mound. It was filled with soft soil at the top. Human bone and part of a goblet were found on the surface of the fill. The blockage of schist stones only closed the northern part of the niche which lay on the western side of the shaft. It was cut into the bedrock and was oval in shape. At the base of the shaft a 200 mm high step gave access down into the chamber. The niche was empty apart from a few human remains.

T16: Located south of T7.
Superstructure: Circular, about 3 m in diameter, and 200 mm high. There are traces of a hole in the middle of the structure and one schist stone stood vertically at edge of the grave cut. Sub-structure: The oval or trapezoidal shaft, 1.4 m north-south and 0.7 m east-west, was cut in the hard black soil. Its fill contained disarticulated human bone in the southern part (arms) along with ostrich eggshell beads. The niche was cut into the western side. In the western and northern parts some articulated bone (legs) remained in situ indicating that the body had been placed in a flexed position aligned north-south, facing west. Other types of beads were found under the skeleton.

## T 17:

Superstructure: Semi-circular, almost flat mound with traces of an oval pit in the centre, presumably the robber pit, 1.5 m north-south, 0.95 m east-west and 900 mm in depth. Sub-structure: The burial shaft was greatly damaged by rain water and ancient looters. The fill of the shaft contained some human bone, and a large pottery jar fragment, probably used as a shovel. Below a depth of 750 mm the rest of the totally disarticulated skeleton appeared.

## Grave goods

A variety of different objects were found in this cemetery including: different types of beads (faience, ostrich eggshell and quartz) (Plate 14) from graves T 7, T 8 and T 16, iron and copper-alloy objects including arrowheads (Plates 15-18), a mat lid, a range of pottery vessels of which about 14 were complete and one broken. Some were handmade (see T 7)

while others were wheel-made (Plates 19-23). The vessels were of different functional types including goblets (see T 11, Plate 23), cups, amphorae and beer jars.

Similar goblets have been found in Lower Nubia at Missi-
minia (Adams 1986; Vila 1982, 9) and at ez-Zuma (Mahmoud el-Tayeb 2012, 104). They are typical of the late Meroitic pottery in this area. If we compare the sites around we will find similarities even in the funeral rituals.


Plate 15. T 3: iron arrowheads.


Plate 19. T 2: beaker from the robber pit.


Plate 21. T 4: the body of a decorated flask or jug.


Plate 16. T 3: iron objects.


Plate 20. T 4: a storage jar.

## Discussion

The site was extensively looted in ancient times and this is reflected in the presence of some graves with few associated objects in comparison with T 3. From these two field seasons we observed that the grave shafts are commonly rectangular in shape, oriented north-south, with the niche cut into hard soil or bedrock on the western side of the shaft. Trapezoidal and oval-shaped shafts also appeared in this cemetery.

The entrance to the burial chamber was usually blocked with schist stone slabs sealed with mud, or mud bricks. Most

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Plate 23. T 11: goblets.
of the blockages had been destroyed by ancient looters.
We observed some small tomb monuments around a few of the large tumuli presumably marking the graves of followers or relatives.

Grave T 4 was richly endowed and marked by one of the large tumuli suggesting it may have been for a member of the elite.

The location of a settlement associated with the cemetery is at present unknown. In this context, the mud bricks covered with white plaster re-used in the blocking of grave T 6 are of particular interest.

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