

■ SUDAN

**El- Mirabiet Excavation in El-Ga'ab Depression, Western Dongola Reach, Sudan**

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**Introduction**

El-Ga'ab Basin is a depression situated southwest of the Third Cataract of the Nile on the western bank of the northern end of Dongola Region. It extends approximately 123km, crossing the desert in a northeast/southwest direction (Figures 1 and 2).

The lowest portion of the Wadi el-Ga'ab must be considerably lower than the level of the river flood level (214m above sea level). Underground water is found at a depth of approximately 3 to 5m. The basin is considered to be a palaeolake connected to the Nile during the Early Holocene (Tahir 2012: 99). There are seven Ga'abs (villages and oasis): Ga'ab el-Lagia, Abu Namel, el-Mangoor, et-Thowani, Um Hilal, Baouda and Ga'ab el-Bab. Other inhabited or abandoned Ga'abs are el-Mowailih, el-Gamra, Zohellia and el-Mariebit. The Archaeological, Ethnographical and Ecological Survey Projects for el-Ga'ab Basin have conducted work in the area since 2009 over five field seasons. The work up to now has revealed the conspicuous presence of large numbers of archaeological sites dating to two major periods: the prehistoric and the Christian.

In Ga'ab el-Lagia there is a Christian com-

plex comprising a church, a monastery and a cemetery with high tomb vaulted graves. In Ga'abs el-Gamra, et-Thowani, el-Komotaih and el-Mariebit many Christian settlement sites are reported. Three Christian forts, el-Kab (at Ga'ab Um Hilal), el-Ke-weib (near Ga'ab Baouda) and el-Hafra (south to Ga'ab et-Thowani) were discovered. West of Ga'ab el-Mongoor, in the Hitatin area, a Christian cemetery was also registered. Christian rock drawings such as crosses are seen in the sandstone hills east of Ga'ab el-Mangoor and in Jebel Gernat in the area of el-Habaja (Tahir 2009).

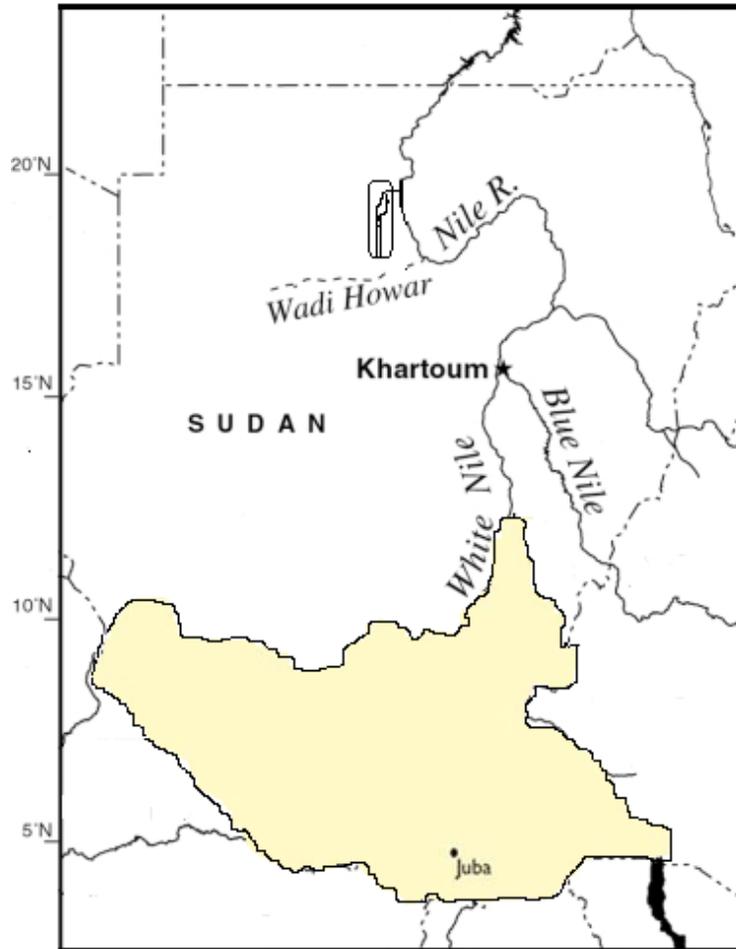
In Ga'ab el-Mowailih, el-Hamra area 11 Christian sites were registered. Here another Christian complex with six sandstone buildings, among them church and a castle house, were reported (Tahir 2013). The castle house has now disappeared under sand dunes. As mentioned by natives of the area, there were about 100 buildings, but they are now buried beneath the sand dunes. The name *hamra* (red) comes from the density of pottery sherds scattered on the surface (Tahir 2014).

**Plan of Work**

In season 2014-2015, Ga'ab Al-Thawani, Al-Karmataia, and part of El- Mirabiet areas were surveyed. Moreover, archaeological sites threatened by erosion and human factors were identified so that they can be protected or excavated through mapping or measuring. One of these sites was El-Mirabiet Church that was found in the southwestern side of Ga'ab Al-Sawani (Tahir 2015). A number of factors including the importance of El- Mirabiet site location, are threatened by natural factors (wind and sand) and human threats (human invasion and mining workers), that led us to excavate the site in order not to lose it. Thus, it was a priority in the 2015-2016 season to excavate El- Mirabiet building.

**Site Location**

The site is located to the southwest of Ga'ab El-Thowani in a depressed area. It is bordered in all



**Figure 1:** Location of the el-Gaab depression.

directions by palm and doom trees (Figure 3).

### Site Description

The site is a rectangular building, possibly a church. It is 16m east/west and 12m north/south and it is covered with sand in most parts. The wall thicknesses vary: the northern wall thickness is 70cm, the southern wall is 65cm, the eastern wall is 49cm, and the western wall is 60cm. It consists of a building (possibly an altar that is cross-like) on the top of which there is a square basin (180x140cm.). The basin was built of stones. On the exterior surface, the stones are covered with plaster. The building also contained the eastern corridor (partition) near the ba-

sin in the centre, two rooms (halls) in the southwest and the northwest, two hallways and a doorway in the south (Figure 3). On the site surface, there are coloured pottery sherds of different shapes, upper grinding tools, coal, and animal bone remains.

### Building Material

The site (church?) building material is adobe blocks with various measurements (30x16x7cm) and (28x16x6cm). There are circular adobes with an 18cm diameter on the exterior western church wall. The church was also built of mud, a few burnt bricks and stones.

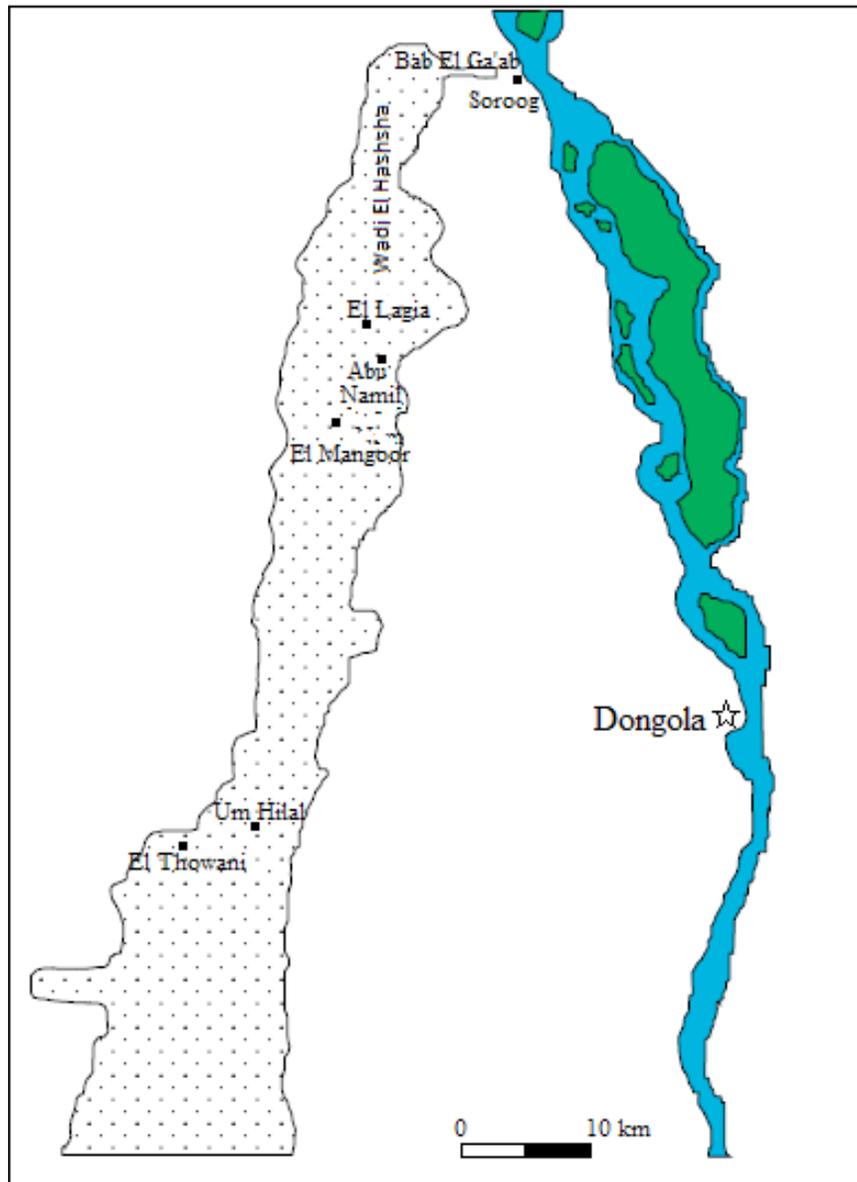
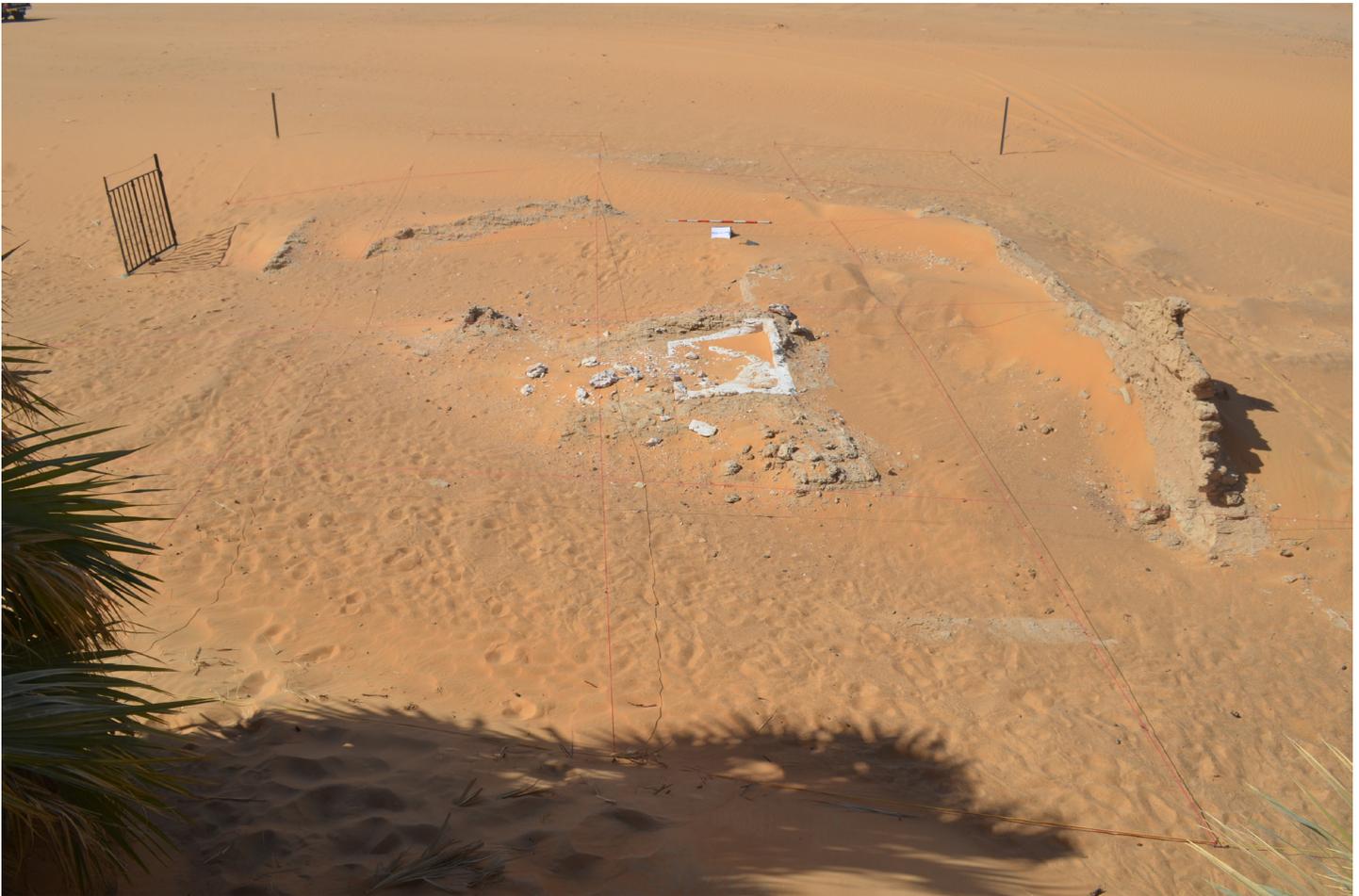


Figure 2: Sites in the el-Gaab depression.



**Figure 3:** A general view of the site.

### Site Threats

There are natural and human threats to the site.

- Sand dune encroachment, the most important threat.
- Wind movement leading to erosion of the church.
- Area population attacks.
- People who are mining the site for materials (e.g., gold).
- Grazing donkeys and camels.

### Excavation Objective

The excavation aims to:

- Discover the building schemata to show

whether it is a church.

- Identify the period to which the building belongs.
- Find out the relationship of the church to other sites in the Ga'ab El-thowani area.
- Discover the church's relation to Al-Hamra church in Ga'ab Al-Mwalih.
- Discover whether it was a separate church or part of a monastery or a cathedral.
- Identify its general design. Is it similar to the buildings or churches in Ga'ab depression (Laqia –Hamra) or in the Nubia area (Old Dongola at the Third Cataract)?
- Show its importance.

*Site Planning.* The site was enclosed in a rectangle (20m east/west and 16m north/south). The rectangle was divided into a number of squares 4m

long. Then the site was excavated in 10cm levels.

*Excavation.* After mapping the site, a clearance process was conducted by removing the sand on the site surface in order to reveal the site's structure. The structure revealed is a building of adobe, mud, and a few stones, possibly cross-like in form. On the top of the building, there is a basin (possibly for baptism or wine fermentation), the yard, pillars, the eastern part, and the side rooms.

*Side Rooms: Northwestern Room.* A room on the northwestern side appeared after removing the sandy surficial layer. The room is rectangular (4.70x3.30m). Its doorway is on the southeastern side of the room. It is 70x35cm in dimension, and it has pillars on the two sides, adobes and mud shelf. The walls are 70cm high and they have various thicknesses; the northern one is 60cm and the western is 65cm. In the northern part of the room a stack of adobes was uncovered, which may be part of the base or floor for the room.

The first layer (10cm) was excavated and it was sandy. Pottery and animal teeth were found. The second layer (20cm) contains sandy soil mixed with mud. Some animal bones were located. In addition, an unclear mud mass was located in the centre of the room. The third layer (30cm) is sandy and has broken adobes. Pottery, coal, and parts of an animal jaw (teeth) that might be part of what was found in the upper layer, were recovered. In the fourth layer (40cm), the soil continued to be sandy and mixed with pieces of adobe and mud. There were no archaeological finds. In the fifth layer (50cm), the soil was similar to that in the fourth layer. Pottery pieces, upper and lower grinding tools, animal bones (teeth) and coal were found in some parts of the room. The layer has sandy soil mixed with salt. The sixth layer (60cm) has sandy soil. Pottery pieces were found. In the bottom part of the room, a collapsed stack of adobes were found that were possibly the base or floor. Some ash and coal appeared in the northwestern part of the room and in the northeastern side and a lower grinding stone was found.

*Southwestern Room.* After removing the san-

dy surficial layer, a 5.60x3.40m room was located in the southwestern area. The eastern wall is 65cm thick and the northern wall (for both rooms) is 60cm thick and the southern wall is 70cm. The entrance room is in the southeastern corner (110x65cm) where the thickness of the wall is 65cm. In the first layer (10cm), the soil is sandy but mixed with mud and salt in some parts. In the western side of the room, some bone remains were found, possibly gazelle. Next to these, a burnt layer appeared (black soil mixed with white soil). Stacked stones, possibly for a cooking fire, were found in the northeastern part of the room. In addition, pottery and a mud utensil cover were found. There are no archaeological relics in the second layer (20cm) where the soil is sandy. In the third layer (30cm), the soil is sandy and mixed with broken adobes and small stones. Pottery, bones, and an upper grinding tool were found. A burnt layer (ash) was located in the southeastern area. The fourth layer (40cm) is the same as the third, and it contains little pottery, burnt layer (ash), and a few bones. The soil continued to be sandy and it was mixed with broken adobes and mud in the fifth layer (50cm). We found pottery pieces, bones, and an ash layer in the western part of the room. In the sixth layer (60cm), the soil was sandy. Pottery was found beside ash layers in most parts of the room (Figure 4).

*Northern Hallway.* Parts of the walls and a building with an unclear function, possibly stairs, appeared after removing the surficial layer of sand mixed with mud. In the northeastern part of the room a doorway, which might be the main doorway of the Church, appeared and it is 75x40cm. The first layer (10cm) was excavated and contained collapsed wall remains (adobes, mud, and a few small stones). After removing the fill, a building that is supported by adobes and a mud pillar appeared. It may have been a place for reciters to sit or it may have been stairs (Figure 5). The thickness of the northern wall of the church from outside is 70cm and the maximum height of the stairs is 115cm. The northern wall is 2m high. Parts of an animal jaw, possibly camel teeth, and upper grinding stones were found. In the second layer (20cm) the soil is sandy and mixed with little mud. Little pottery and animal bone parts that may be part of the bone remains in layer 1, were found in

the northeastern part of the hallway. The third layer (30cm) is similar to the second one. In the centre of the hallway (or corridor), an ash layer appeared. In the northwestern side, we found pottery pieces and coal. In the fourth layer (40cm), the soil is sandy and it is mixed with broken adobes and mud, specifically in the northwestern area. An ash layer appeared in the centre of the hallway. The soil continued to be sandy in the fifth layer (50cm), but it was strong and coherent in the northern part of the hallway. We found pottery and animal bones (teeth). The sixth layer (60cm) has sandy, strong, and coherent soil. Large amounts of pottery, coal, and an ash layer were found.

*Central Part or the Yard Area.* This area is relatively depressed. Pottery, bones, coal, and upper grinding tools were scattered on the surface. In the centre of the basin, there was an adobe pillar that is square in shape (1m). The first layer (10cm) was excavated and the soil was sandy with little pottery and upper grinding stones. In the second layer (20cm), the soil continued to be sandy. Nothing was found in this layer. The third layer (30cm) the soil was also sandy. We found pottery and upper grinding stones. In the centre we found a squared base for a column (1m) that was built of adobes and mud (Figure 6). This extended to the north (possibly a seat for reciters). To the northwestern direction, a burnt layer of white and black ash appeared. In the fourth layer (40cm), the soil was also sandy and an ash layer was found in the centre of the yard, as well as pottery pieces. The fifth layer (50cm) had sandy, strong, and coherent soil, specifically in the northern part. We found pottery and bones (animal teeth). In the sixth layer (60cm), the soil is similar to that of the fifth layer and there were pottery pieces, coal, and an ash layer.

*Basin Area.* In the northeastern part of the site near the basin, an adobe building (28x16x6m) was located. It is built of adobes, mud, and stones. In the middle of this building, a rectangular basin (180x140cm) appeared with a 14cm wall thickness. It is built with regular stones covered with gypsum mixed with sand. In the bottom area adobe and mud were stacked to fix the basin, but it was destroyed in some parts. In the southern part of the building, two

adobe mud walls extended 130cm in length and 80cm in thickness. It appears that they were built in the basin later. Six small circular holes varying in size were found on the edge of the building. Their diameter sizes are 10, 20, and 30cm. These holes might have been for pillars in the building (basin) roof (Figure 7). In the middle of these holes, a big pottery jar was found; it was 85cm in diameter, 4cm thick, and 36cm in height (Figure 8). On the lower side of the vessel, a 15cm opening was noted and it may have been used to pour liquid (such as wine) out of the vessel. In the first to the fourth layer (10cm all), pieces of pottery were found. Between the southern walls, a big circular pottery utensil was located that was 85cm in diameter, 4cm thick, 36cm in height and 255cm circumference. In the second layer (20cm) the soil was sandy and mixed with some mud. We found pottery pieces and bones. In the northern and eastern areas, some pillar bases appeared. Some stone remains that were unorganized were stacked (possibly stairs) and were found in the northeastern side. In the third layer (30cm), we found sandy soil and an ash layer to the south of the jar. We also found pottery pieces, bones, and coal. The soil is muddy and mixed with sand in the fourth layer (40cm). Under the jar (after excavating below it), a gypsum layer mixed with sand appeared.

*Eastern Corridor.* A depressed area is found in the eastern corridor. Pottery was scattered on the sandy soil of its surface. A door (75cm long and 40cm thick) appeared in the northeastern part and it may be the main entrance to the site. There is a 1m long pillar built of adobe and mud in the southern part. In the first layer (10cm to 60cm total), the soil continued to be sandy. Pottery was found, but there were no archaeological finds.

## Archaeological Evidence

Many archaeological relics were found. They will help us know more about the site.

*The Building (Wine Manufacturing Location).* There are a number of difficulties in classifying this building that is believed to have been a church,



**Figure 4:** A general view for the sixth layer.



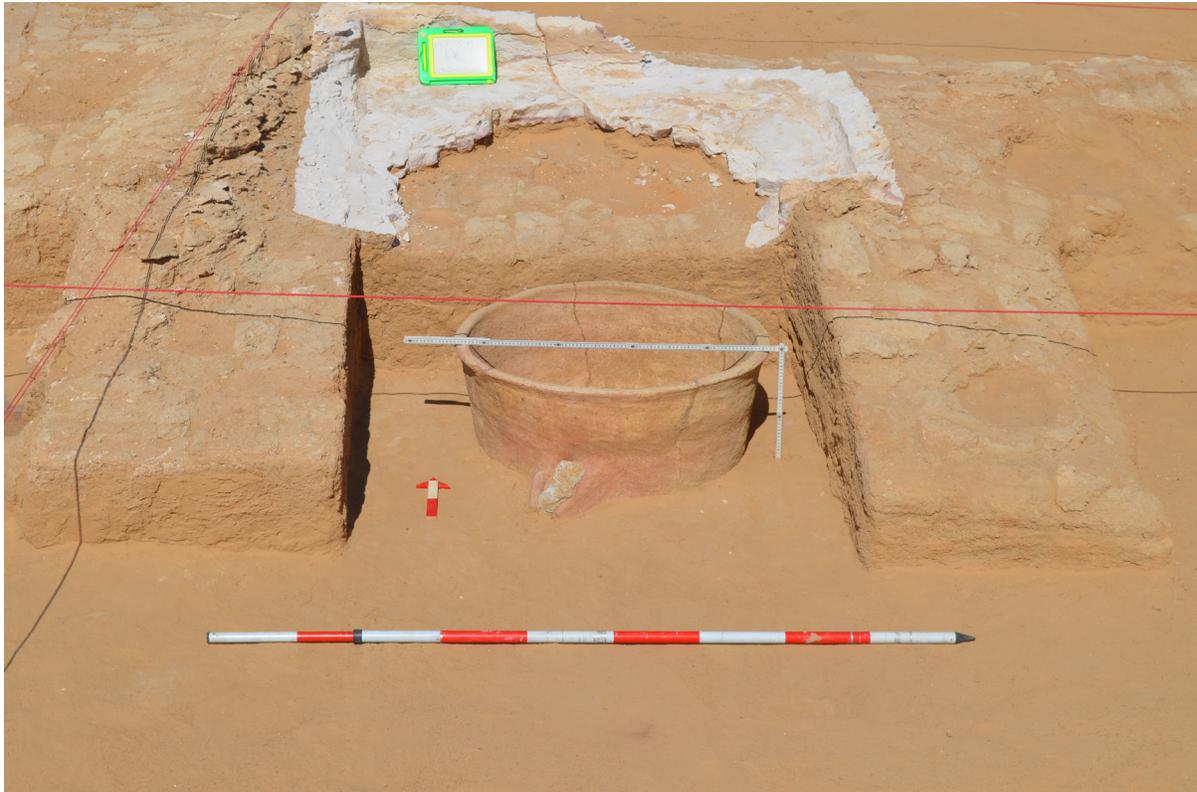
**Figure 5:** Adobes and mud pillar.



**Figure 6:** Squared adobes and mud column.



**Figure 7:** The basin area.



**Figure 8:** A pottery jar.

especially in Ga'ab depression. This is because there is not enough study of the medieval period in general, and on this type of archaeological site (wine manufacturing locale) specifically.

The studies conducted, though few, were specialized in specific archaeological sites such as Old Dongola, Faras, and Suba. For example, Adams (1992) classified churches; the Polish Mission worked in Old Dongola; Ali Osman M. Salih and David Edward (2012) conducted an archaeological survey in the Third Cataract as part of the Archaeological Project of El-Mahas area; and Welsby and Daniels (1991) and some graduate students' studies looked at medieval sites.

All of these difficulties make it hard to attribute the El- Mirabiet building in Ga'ab depression to any architectural type. In addition, it cannot be compared with any architecture or specialized building types making it difficult to study or to interpret. There are only studies of pottery, iron and other man-

ufactured products. This type of study is known in Christian Nubia through Adams and other studies.

In an interview, Professor Ali Osman M. Salih stated that wine manufacturing locales were known in Nubia generally and specifically from the Third Cataract (El-Mahas). This may be attributed to all Nubian Christian periods starting from the early periods, the classic, and the late periods, but this issue needs more investigation.

### **Building Material**

A number of scientists wrote about building materials. Somers Clarke (2000) mentioned that adobe dominated all the architecture and churches in Egypt and Lower Nubia (Batn Al-Hager) and he described other places (Old Dongola) as using bricks. Most buildings and churches in the Third Cataract used adobe and mud. The main building material in the study area (El-Mirabiet) used adobe. The outside

walls are of adobe and there are also some areas that are built with small stones and mud. There are some features built of stone (e.g., the stairs). The basin is built of quartzite stone.

*Pottery.* Christian pottery has received little study with a few exceptions. Adams studied post Meroe and Christian pottery. Salahedin M. Ahmed studied Meroitic pottery and there have been a few graduate studies that are confined to limited geographic areas. Some pottery sherds that varied in shape, type and decoration were found in El-Mirabiet. One was a specialized pottery vessel that was 85cm in diameter, 4cm thick, and 36cm in height--on the lower side of the vessel a 15cm opening was noted and it may have been used to pour the liquid out of the vessel.

*Stone Tools.* Small stone tools and a few lower and upper grinding stones were found in the site.

*Metal Tools.* No metal tools are found in the site.

*Organic material.* Animal bones were found and it appeared that they belong to sheep/goat and gazelle. They were affected by soil and damp. Despite the difficulty for wood and coal to remain in archaeological sites, a lot of coal was found in many places in the site.

*Dating.* Through work at the site, the relics and the primary studies, it is worth mentioning that the site is a wine manufacturing place. It dates back to the Medieval age (early, classic, and late), but this needs more research.

## Conclusion

In sum, Ga'ab El- Mirabiet has borrowed many habits and cultures from other areas including Lower Nubba, Batn el Hajar, the Third Cataract, and Old Dungla. Each area has its own environmental features and unique characteristics. Nevertheless, these areas are not the same to the relatively large distances between them. The Gaab area, situated at

a distance from the Nile, is a somewhat isolated territory, quite naturally preserving many cultural traits from the past.

Ahmed Elias (2012: 217-219) mentioned that Al-Idrisi and Ibn Alwardi described Nwabia and its population thusly: "It is a small town with rich people. They wear leather and wool and drink from wells. They eat *Dura* and wheat. Dates were brought to them and they have lots of milk". The Ga'ab area might be the lost city according to a number of types of evidence and by the existence of buried buildings under the sand (100 buildings). Five buildings were registered apart from the church and a number of settlement areas. This site needs more research.

Even if Ga'ab is not the lost city (Nwabia) as mentioned above, we can confirm what was stated by Al-Idrisi and Ibn Al-Wardi that the people's food was wheat and dura and that dates were brought to them. This proves that wine (Al-Aragi, Al-Dakai), which is made of dates, existed in this area. This study is incomplete. What is needed are more excavations of the other buildings and the need to use other types of evidence such as linguistics, history, ethnoarchaeology and pottery studies.

## Recommendations

- The site should be fenced because it is important to understanding a lot of the cultures in the region and particularly in Lower Nubba, Batn elHajar, the Third Cataract, and Old Dungla.
- Protection of the church's walls should be done by covering them with animal dung and mud.
- The site should be protected from sand encroachment and strong winds by windbreaks (cultivating trees).
- Excavations should continue at the site to try to identify the history of the people who lived there and to identify whether they were or were not Nwabia people mentioned by Alidrisi and Ibn Alwardi.
- Explorations should be extended to other

Christian sites in Ga'ab area to know El- Mirabiet's relations with other sites.

- Excavation should continue to determine whether El- Mirabiet site was a separate wine manufacturing place or if there were other such places.

To complete the site management process, all these steps should be carried out in addition to cooperation with the people in the area to protect the site. Then it can be opened for the public for tourism.

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