

# The Archaeology of North Kordofan State; Comprehensive Archaeological Survey of the Kordofan Mountains

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## Abstract

*Work on the Integrated Archaeological Project in North Kordofan, which is managed by the Department of Archeology - faculty of Arts -University of Khartoum, began in 2008 and included a number of seasons. The work was particularly focused on the 2014 and 2016 seasons in the Kordofan Mountains area, which is located east of the city of El Obeid and at its main entrance. The highway linking the city of El Obeid to the country's capital (Khartoum) divided the mountains into two northern and southern parts, each of which includes a number of mountains, all of which were surveyed over two consecutive seasons, where the southern part was surveyed first in the 2014-2015 season, and the northern part secondly in the 2014-2015 season. 2015 -2016. The results of the survey revealed many sites representing various periods and several types of sites. It is certain that this mountainous region, despite its rugged terrain and environmental conditions, contains important archaeological sites that should be included in the map of Sudanese antiquities. Archaeological work must also continue until the region gains its archaeological importance and identity, especially since this national wealth is vulnerable to disappearance due to human and natural factors.*

Keywords: North Kordofan, Kordofan Mountains, El Obeid, Archaeology

## المستخلص

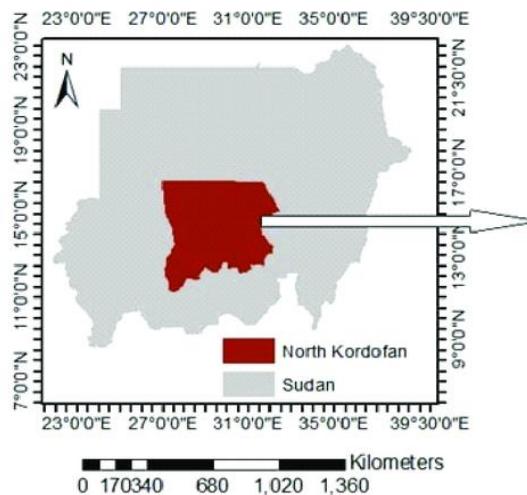
بدأ العمل في مشروع الأعمال الأثرية المتكاملة بشمال كردفان الذي يديره قسم الآثار - جامعة الخرطوم عام ٢٠٠٨م. وقد شمل عدداً من المواسم حيث تركز العمل بشكل خاص في موسم ٢٠١٤ و٢٠١٦م في منطقة جبال كردفان التي تقع شرق مدينة الأبيض. وعند مدخلها الرئيسي قسم الطريق السريع الذي يربط مدينة الأبيض بعاصمة البلاد (الخرطوم) الجبال إلى قسمين شمالي وجنوبي، ويضم كل منها عدداً من الجبال، تم مسحها جمياً على مدار موسمين متتالين، حيث تم مسح الجزء الجنوبي أولاً في موسم ٢٠١٤-٢٠١٥م. والجزء الشمالي ثانياً في موسم ٢٠١٥ - ٢٠١٦م. وقد أسفرت نتائج المسح على العديد من المواقع التي تمثل فترات وأنواعاً مختلفة، ومن المؤكد أن هذه المنطقة الجبلية، على الرغم من تضاريسها الوعرة وظروفها البيئية، تحتوي على موقع أثري مهم يجب أن تدرج ضمن خريطة الآثار السودانية. كما يجب أن يستمر العمل الأثري حتى تكتسب المنطقة أهميتها وهويتها الأثرية، لاسيما وأن هذه الثروة القومية معرضة للزوال بسبب العوامل البشرية والطبيعية.

الكلمات المفتاحية: شمال كردفان، جبال كردفان، الأبيض، الآثار

The basic survey rules for working on the North Kordofan project initially focused on selecting areas from different directions of the state so that we could obtain a comprehensive preliminary knowledge of the types and periods of sites throughout the state, especially since the state's area is vast (Adam. H. A). This plan may also help us focus on conducting other studies, such as social, environmental, folkloric, and other studies. In addition to knowing the areas where work needs to be focused or saved if necessary. Another critical issue included in the plan is linking areas with similar archaeological phenomena to the Nile regions in order to open the door to comparative and other studies. This comprehensive concept in survey work will help us greatly to study the antiquities of Sudan as a single crucible, even if their locations or periods differ.

The mountainous survey area is located about 20 kilometers east of the city of El Obeid. These mountains enjoy a strategic location, environmental protection, tourism resources, and finally archaeological importance after the discovery of many sites there. The geological structure of the Kordofan Mountains is considered one of the oldest geological formations in the region, as its formation dates back to the Precambrian era (Whiteman, 1971: 772). It is a complex rock formation consisting of many types of igneous, rainwater, and metamorphic rocks. As for igneous rocks, they are formations of granite, feldspar, and transparent quartz, while metamorphic rocks include gneiss, schist of all kinds, mica, granite, quartzite, and crystalline limestone.

From an archaeological standpoint, this mountainous region has not been subject to any type of archaeological work, and what the mission did over two consecutive seasons represents the first work there. The work included a complete survey of all fifteen mountains located south of the city highway, and seventeen mountains located north of the road. In addition to conducting some test probes for some of them, such as Jabal Al Ain.



Map (1) Location of North Kordofan State, Reference:  
[https://www.google.com/search?sca\\_esv=b5b0e98525aa10be&sxsrf=0\\_170340\\_680\\_1020\\_1360](https://www.google.com/search?sca_esv=b5b0e98525aa10be&sxsrf=0_170340_680_1020_1360)

## **Survey techniques used:**

The method of scanning by foot using positioning and direction devices is considered one of the most accurate types of surveying, as it depends entirely on accuracy in determining the location and determining its boundaries, except in certain cases such as the area of the site being wide, or its location in rugged areas such as swamps.

The work team relied on this method to spread throughout the site, collect information, define its boundaries, and monitor its various phenomena. The survey included climbing the mountains themselves, except in some cases where the topographic nature of the mountain does not allow climbing it, such as Mount Elixir. The surveyor then uploads the location using a GPS device and takes some samples for study.

## **The Survey – field Work:**

The number of mountains in the region, both southern and northern, is fourteen, all of which were surveyed in two seasons. The southern side which we surveyed first contained five mountains which are:

### **1. Kordofan Mountain:**

The significance of the mountain stems first from its name (Hwida. M. A 2017: 43), which was given to the whole group. The mountain contains (6) sites, most of which are settlement and burials. Most burials sites contained two shapes of tombs, the first being oval and the second being circular, both surrounded by quartz and quartzite stones and devoid of middle. The settlement sites included a number of pottery sherds and grinding stones (upper and lower). The distinctive site is Site No. (6), which is located at the foot of the mountain and contains a water tank (they used an exceptionally an exceptionally large, hollow rock in the middle to store water, or perhaps it was hollowed out). Directly below is the foundation of buildings, and scattered around them are sherds of pottery decorated with geometric shapes, but they are poorly made.



Fig (1) Kordofan Mountains



Fig (2). Tanks of water in Kordofan Mountain

## 2. Al Ein Mountain:

This mountain is an extended chain separated by a number of depressions. This name was given to it because there is a hole in which water collects at the bottom of the mountain, and when viewed from the top of the mountain it looks like an eye. This mountain contains (16) sites. The sites surround the mountain on all sides (but most of them are similar in general description).

Settlement sites contain remains of the foundations of square buildings (possibly dating back to the Islamic period), pottery sherds (especially Neolithic), and grinding stones. It is noted that a large number of hammers are spread.

The burial sites contain oval-shaped tombs, empty in the middle and surrounded by medium and small-sized rocks.



Fig. 3. Al Ein Mountain

### **3. Al Ein Al Sefia:**

The mountain contains (7) sites, most of which extend over a wide area and are located in the western direction of the mountain.

The burials look like low mounds covered with quartz pebbles. To the south of it appears a building belonging to the cemeteries. It is the remains of a stone building containing a number of graves. It appears to belong to sheikhs or Sufis, called locally by the name *Banya*. Outside the buildings there are a number of graves, but their external appearance has disappeared due to the use of the area by shepherds.

The settlement sites contained a number of landmarks. At Site No. 3, there is a huge wall built of stones connecting two separate sections of the mountain. The width of the wall is 4.5 meters. It appears that its purpose is to reserve water for use during periods of drought (it may be a dam). Site No. (6), it contains the remains of rectangular buildings with a base made of the stones of the mountain itself. Site No. (7), it contains the remains of an ancient wall and a built-in room. Made of stone, there are also some parts of buildings in the corners of the wall, and they may have been the remains of watchtowers.

Site No. (4) contains the remains of square stone buildings (4.5 m long and 4 m wide), which were probably *Banya*, and contained two graves inside them. Oral narratives in the area suggest that they belonged to a man named Taqlawi, whose origins go back to the Sinnar state (1504 AD).

As for the rest of the sites, most of them contain many tools such as grinding stones and pottery pieces, but site no. (5) contains larger quantities than others.

### **4. Alixeer Mountain:**

The mountain contains (6) sites, most of which are located on its southwestern side, and it is a single smooth rock that is difficult to climb.

Site No. (1) is located to the north of the mountain and contains pottery sherds dating back to the Neolithic period, in addition to millstones made of quartzite and granite. There are also remains of stone tools, but they are poorly made.

Two types of burials have been identified:

The oval one is surrounded by white stones and white pebbles cover the surface of the tomb, while the second circular one is covered in the same shape as the oval tomb.

Sites No. 3 and 4 contain large quantities of remains of stone tool manufacturing and poorly made pottery fragments, in addition to stone hammers.

Sites No. 5 and 6 contain poorly made pottery remains, in addition to stone tools

and grinding tools.

It contains 6 sites and is located to the southwest of Mount Al Ain and Daghim, which is a single smooth rock that is difficult to climb.



Fig. (4). Alixeer Mountain

##### 5. Deghaim Mountain:

The mountain contains (7) sites, most of which are in the east, southeast, and west directions. The settlement sites contained large quantities of pottery fragments, grinding stones, ash, and some bones, in addition to holes drilled in a large number of mountain rocks. There are also many low mounds of small quartz boulders, which appear to be tombs, but have been damaged by erosion.

As for the two sites located east of the mountain, they are the remains of circular and oval burials surrounded by stones, some of which were filled with white gravel. The surface of the site is scattered with pottery fragments. Most of the sites date back to the Neolithic and Islamic periods, while a few are unknown.



Fig. (5). Deghaim Mountain

The north side of the high way contained nine mountains, which are:

## 6. Al Grawed Mountain:

It is one of the largest sites in the region, as it is located near the highway road and consists of (8) sites, including settlements and cemeteries.

The surfaces of the sites contain a large number of pottery fragments, and also contain a number of grinding stones carved on some of the rocks scattered around the mountain, in addition to hammers or so-called gang rocks.

The cemeteries contained a large number of circular shaped graves of variedvaried sizes, some of which were empty in the middle and surrounded by pebbles around them, while others were small hills covered with small pebbles. The circular type is also found surrounded by large, rough sandstones. This type was found on the western slope of the mountain. It is clear that many of these graves were washed away by rainwater, especially towards the north.



Fig. (6). General view Al Grawed Mountain

## 7. Al Gerawed East Mountain:

This mountain contains (7) sites, most of which are oval and circular burials surrounded by small quartz rocks, some of which are empty in the middle or filled with stones.

The site is full of hammers and pieces of decorative pottery dating back to the Neolithic period, in addition to grinding stones, especially the upper ones.



Fig. (7). General view of Al Grawed East

## 8. Tong Goldong Mountain:

The mountain contains (8) sites in which there are many burials, especially on the northeastern side, where the graves are either empty in the middle or surrounded by quartz stones, while the oval shape contains a lot of pebbles.

As for settlement sites, pottery fragments and pestles abound on their surfaces. What is different here is that the area north of the mountain contains a number of building foundations that were built of quartz stones and coarse sandstone. This part also contains large quantities of pottery shards, which are believed to be a kiln area for pottery making. Pottery pipes and a large amount of iron slag are also available in abundance.

The northern direction of the mountain contained a number of large hills, and after examining them, the foundations of buildings of different sizes and sizes were revealed.



Fig. (8). General View of Tong Goldong Mountain

## **9. Arnika Mountain:**

The mountain contains (9) sites, which contain burial sites, which are circular and oval graves, some of which are topped with white pebbles and quartzite, while others are empty in the middle and surrounded by quartzite stones.

As for the settlement sites, they were buildings with circular shapes whose perimeter ranged from 4 m to 5.4 m, and square buildings whose sides ranged from 6 m to 6.10 m. The presence of remains of building walls helped in taking these measurements.

These buildings were built of quartzite stones and coarse sandstone. The tools included pestles, millstones, and pottery shards, from which the black color was found for the first time.



Fig. (9). General view of Arnika Mountain

## **10. Small Arnika Mountain:**

The mountain is a small mountainous hill and contains one site full of circular and oval burials, and also contains pottery shards and grinding stones.

## **11. Um Mareh Al Kabeer Mountain:**

The mountain was clearly full of grave sites, but it has been destroyed by concrete and earth-bearers and farmers. There are some scattered tools, such as pottery shards and grinding stones on the surface of the site.

## **12. Um Mareh Al Sageer Mountain:**

The mountain includes two settlement and burial sites; it concentrated in the

northeastern parts of it. The burial site contains circular tombs surrounded by rocks, while settlement site appears to be large in size, as it extends over wide distances, and its surface is filled with hammers, grinding stones, and pottery sherds.

### **13. Ali Wad Gomah Mountain:**

The mountain contains four sites. In the eastern part of it, a large rock was found, the edges of which contained a number of graves. The southeastern side also contained a number of circular and oval graves surrounded by rocks. What caught the attention of the work team was the presence of a number of modern graves that were buried over the old one. There were also no tools on site.



Fig. (10). General view of Ali Wad Gomah Mountain

### **14. Abu Khezan Mountain:**

The mountain contains (8) sites and tombs were found in the southwestern, northeastern, and eastern sides. They are oval-shaped tombs surrounded by quartzite rocks, and the surface of the tombs is spread with pestles, millstones, and pottery fragments, which date back to the Neolithic era and were found in large quantities.

As for the eastern side, a large building was found with a foundation made of mountain rocks, and its internal parts were exposed due to the presence of parts of its walls. The survey team believes that the building is a foundation, as its dimensions are (14.10 m \* 10.6 m), and its wall is one meter thick, and it is close to the building. A rock was found with a number of holes that may have been used as hammers.



Fig. (11). Abu Khezan Mountain

### 15. Al Ggedyat (Gerawees As Sara) Mountain:

The mountain contains two sites, one of which is a cemetery consisting of a number of large circular graves, and its surface contains a number of hammers and grinding stones. In the northwestern direction, there is a foundation for two buildings made of stone, and there may be other buildings, but the density of weeds prevented them from appearing, in addition to the presence of a number of rocks in which a number of holes were found.



Fig. (12). Al Ggedyat (Gerawees As Sara) Mountain

As for the Kordofan Mountains, they have been completely surveyed, and all their sites are either under environmental, demographic, or urban threat.

- More than half of them are burial sites (about 52%), while the settlement sites in them amount to 32%, and those shared by more than one type amount to about 7.5%

(most of them are settlements and burials), and the next percentage is for quarry, tank, and workshop sites, and the lowest percentages of sites Which we don't know.

The sites periods were concentrated between the Late Neolithic period (7 sites), the Islamic period (23 sites), and the Christian period (two sites), while the region was completely devoid of what remained of the civilizational sequence of Sudanese archaeology.

About half of the sites (40) did not know their exact periods for a number of reasons, including the exposure of these sites to a lot of destruction by humans, and climatic factors.

There are a number of (9) composite sites (whales of more than one period), most of which are collected between the late Neolithic and Islamic periods.

- Most of the types of sites that were surveyed were concentrated in the Kordofanian mountains between are Stone Age and the Islamic periods, and Few of them are Christian, and there were no intermediate periods in between.
- Most of these sites are either residence or burial sites, which are not far from each other
- Most of these sites are located below the mountains or between their joints, and the mountain tops are devoid of them except in two sites where they are linked to the presence of water sources at the top of the two mountains.
- The artifacts varied between stones, grinding tools, pottery shreds, bone tools, shells and some other few tools.
- Through historical writings, this region was entered by scattered Arab tribes who exploited it by various means that led to the disappearance of many of its features.
- The heavy rain along with the slope of the area led to the washing away of many tools
- The residents practice the professions of grazing and agriculture in abundance
- In addition to other reasons related to the specialization of archaeology, it can be determined later after excavations.

### **Analysis:**

The Kordofan Mountains region is considered one of the richest archaeological regions, although work on it began late.

The number of mountains in it reached about (80) sites, varying between settlement and burials. As for their periods, most of them were limited to two periods: the Neolithic, and the Islamic period.

### **Settlement Sites:**

The settlement includes two types of sites:

The first, its surface contained archaeological artefacts and extended over large

areas, the smallest of which reached 1 km, and the widest to 4 km.

The second contained the foundations of the buildings with the presence of archaeological artifacts around it. The buildings included two forms of construction: the first was circular, whose perimeter ranged from 5 to 8 m, and the second had an organized shape (rectangular or square), whose dimensions ranged between (6 m - 4 m for the rectangle). And (4 square meters - 4 square meters per square).

What remains of these buildings are their foundations or part of their walls, and they were all built from stones from the mountains that are located near them.

In addition to historical monuments, it seems that prehistory constituted a significant proportion of the sites that were surveyed. Through the excavation conducted by M. A. Hayati, it became clear that this region is full of sites of the prehistoric Period, especially the Neolithic one, and this is evident from the multiplicity of its tools. Hayati, through the excavation he conducted in the Jabal al-Ain, linked the people of that period to the Middle and Late Holocene era (Hayati, 2017: 44).



Fig. (13). Remains of a wall and rooms of stone – Jebal Al Ain Al Sifia



Fig. (14). Foundation of a circular stone building – Jebal Arnika



Fig. (15). One of the old hafeer in the Tong Qaldang area that was reused

## Burial Sites:

The area was dominated by two types of burials: -

The first is the circular shape.

The second is oval shape.

Both of them varied, including the upper cover, whose types varied between: -

- Covered with gravel and slightly above the ground
- Surrounded by quartzite stones and devoid of a middle
- Surrounded by quartz or quartzite stones and stuffed with pebbles
- Topped with pebbles.

The sizes of these graves also varied, whether round or oval, ranging from medium to small.



Fig. (16). Circular tombs Empty from the middle and surrounding with quartzite stones – Al Ain Mountain



Fig. (17). Circular tombs surrounded by quartzite stones and filling with white gravels



Fig. (18). Small circular tombs surrounding and filled with quartzite stones



Fig. (19). Tomb covered with white pebbles



Fig. (20). Ancient and Modern toms – Jebal Ali Wad G

## The Artifacts:

The artifacts varied and included:

- 1/ Pottery pieces, which varied in their periods between Neolithic pottery and Islamic pottery. In one of the sites, they were found in large quantities, so it is likely that it was a site for its manufacture.
- 2/ Grinding stones (upper and lower): - Found in most sites, they are found in three forms:
  - Made of rough sandstone
  - Made of fine sandstone
  - Carved on mountain rocks
- 3/ The hammers stones also vary in size, ranging from medium to small, and their shapes range from round to oval.
- 4/ Stone artifacts, although they were found in small quantities, were clear evidence of their period
- 5/ Iron scraps were found in one of the sites along with the presence of pottery pipes.



Fig. (21). Iron Slag -Tong Goldong Mountain



Fig. (22). Scattering Pottery sherds – Deghaim Mountain



Fig. (23). Scattering of archaeological artifacts in the surface of Al Ggedyat (Gerawees As Sara) Mountain



Fig. (24). Pottery Sherds- from Jebal Alixeer



Fig. (25). Pipe pottery sherd - Goldong Mountain



Fig. (26). Grinding drilling on rocks – Jebal Deghim



Fig. (27). Rocks used for grinding – Al Graweed Sherg



Fig. (27). Different holes in one rock of Al Graweed (1)

### Conclusions and Results:

Although mountains are landforms that rise above the surface of the earth at varying heights, they are considered symbolic and of utmost importance in archaeology. Archaeologically, mountains are the ground for many kinds of sites, such as inscriptions, murals, quarries, caves, and sometimes sculpting temples.

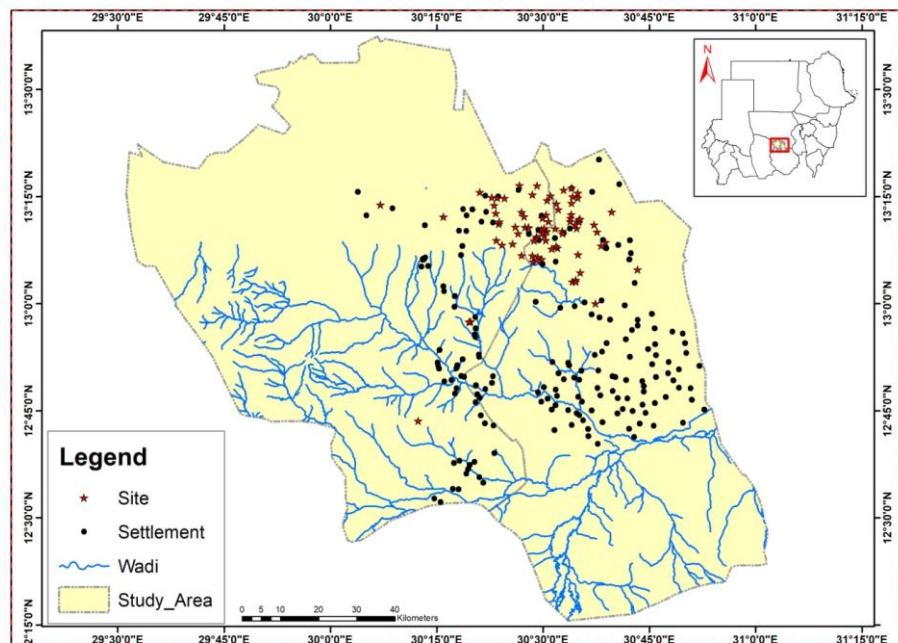
In the intellectual concept of ancient mankind, mountains are symbolic of the rise, loftiness, and advancement. The evidence for this is that most archaeological sites, whether settlement or burials, have been built near or around them. The idea of settlement depends on taking advantage of the resources around it. The mountain is physically dependent on it for the provision of building materials, etc., and morally, it is natural protection for everything that is harmful.

The importance of the Kordofan Mountains geographically lies in its distribution of various rainwater resources from khiran, small valleys for large parts of the region, as well as an essential source of wind movements, as well as its security protection for the city of El Obeid, especially in the eastern part of the region (Ahmed I. Alfaig, 2011;12).

After the survey conducted in the seasons 2014-2015 and 2015-2016, the

archaeological importance of these mountains became apparent, which may change many concepts related to Sudanese culture and civilization and expand the scope of their sites.

The survey results revealed 80 sites of varying types, including settlements, burials, or a combination of both, in addition to the site of the water tank, quarries, pottery workshops, and others. There are also a few sites whose types could not be identified due to their destruction and devastation by a number of factors.



Map No. (2) Surveyed Area of By The researcher 2022

Site	Settlement	Burial	Workshop	More than one types	Un known	Others	Total
<b>Jebal Kordofan</b>	4	2	-	1 (settlement + burial)	-	-	7
<b>Jebel Al Eain Al</b>	5	1	-	-	-	-	6
<b>Jebel Al Eain Al Sefia</b>	2	1	-	1 (settlement + burial)	1 (Tank)	1	5
Jebal Elixir	4	1	1	-	-	-	6
<b>Jebal Deghaim</b>	4	2	-	1 (Settlement+ Workshop)	-	-	7
<b>Jebal Al Gerawed</b>	1	5	-	-	1	1 (Quarry)	8
<b>Jebal Al Gerawed</b>	2	5	-	-	-	-	7

East							
<b>Jebal Tong Goldong</b>	-	6	-	1	-	1	8
<b>Jebal Arnika</b>	2	7	-	-	-	-	9
<b>Jebal Arnika</b>	-	1	-	-	-	-	1
<b>Jabal Um Mareh Al Kabeer</b>	-	-	-	1 (Burial + Settlement)	-	-	1
<b>Jabal Um Marah Al Sageer</b>	-	1	-	-	-	-	1
<b>Ali Wad Gomah</b>	-	3	-	-	-	-	4
<b>Abu Khezan</b>	1	6	-	1(Burial + Settlement)	-	-	8
<b>Jebal Al Ggedyat (Gerawees As Sara)</b>	1	1	-	-	-	-	2
<b>Total</b>	26	42	2	6	1	3	<b>80</b>

Table No. (1) Types of Sites of Gebal Kordofan

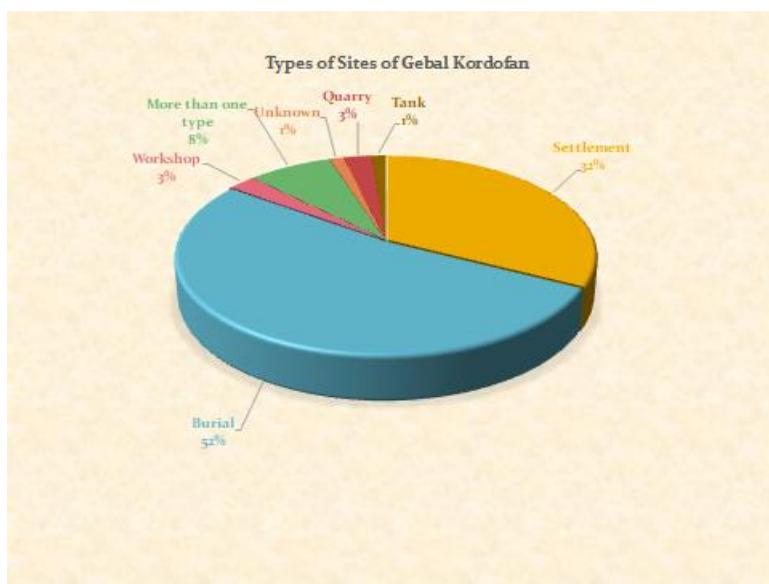


Fig (28) Types of Sites of Gebal Kordofan

The periods of the mountain sites also varied, but most of them were centered around the Neolithic and Islamic periods. There may have been a number of reasons for this long gap, but future excavations may reveal this explanation gap. There are some sites whose periods have not been revealed due to their destruction or the lack of features of their tools.

Sites	Prehistory (Neolithic)	Christian	Islamic	Unknown	Joined	Total
<b>Jebal Kordofan</b>	-	-	7	-	-	7
<b>Jebel Al Eain Al Sefia</b>	-	1	3	1	-	5
<b>Jebel Al Eain</b>	-	-	2	1	3 (Neolithic+ Islamic)	6
Jebal Elixir	4	-	-	1	1 (Neolithic+ Islamic)	6
<b>Jebal Deghaim</b>	-	-	5	1	1 (Neolithic+ Islamic)	7
Jebal Al Gerawed	1	-	1	5	1 (Unknown + Islamic)	8
<b>Jebal Al Gerawed East</b>	1	1	-	4	1 (Neolithic+ Islamic)	7
<b>Jebal Tong Goldong</b>	-	-	3	5	-	8
<b>Jebal Arnika</b>	1	-	1	7	-	9
<b>Jebal Arnika</b>	-	-	-	1	-	1
<b>Jabal Um Mareh Al Kabeer</b>	-	-	-	2	-	2
Jabal Um Mareh Al Sageer	-	-	-	1	-	1
Ali Wad Gomah	-	-	-	4	-	4
Jabal Abu Khezan	-	-	1	5	2 (Neolithic+ Islamic)	8
<b>Jebal Al Ggedyat (Gerawees As Sara)</b>	-	-	-	2	-	2
Total	7	2	23	40	9	80

Table No. (2) Period of Sites of Gebal Kordofan

There are many reasons that may lead to the disappearance of many of these sites in the near future, and this may be due to a large number of negative factors:

- Urban sprawl, and agricultural encroachment towards the mountainous area
- The use of the area by the army for training
- Confusion in policies and failure to activate the antiquities law in the state's public departments
- Other problems related to environmental and climatic factors such as erosion, desert encroachment, and winds.

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