

HEBENU

A BRIEF HISTORY OF THE LAYER MONUMENT HEBENU

Construction

Unlike Seila, which stands in isolation, Hebenu is on the edge of an ancient cemetery close to the river. The remarkably well preserved outer facing reaches 5 courses on the south side. This could suggest that the nucleus had been built and that the facing had been installed after. We can never find out how high the outer facing was. At any rate this evidence points to a degree of completeness of the monument.

Destruction

In ancient times the pavement was probably the first to be removed. The following phases of destruction will probably never be known. The rubble yielding the history of destruction had been cleared on all sides. This destruction however did not go beyond the level of the preserved facing of layer 3, and some 10 courses of layer 2 above that level. It is not difficult to imagine that the mound of rubble went any higher.

In modern times however, R. Weill in search of a burial chamber forced a trench through the nucleus along the NS axis and found nothing. A sounding on the north side resulted in the destruction of the foundation of layer 3 of the outer facing and in some of its blocks falling out, figure *20/4.

Investigations

The first investigation of this layer monument was in 1911, by R. Weill.¹ In his short report he did not provide a plan or a section. In 1962 J. Ph. Lauer investigated Hebenu and noticed its similarity to the layer monuments of el Kula and Nubt. He made a sketch of a section combining the architectural composition of this monument to the left and of the one of Nubt to the right, figure *9/6a. In 1963 V. Maragioglio and C. Renaldi made their investigation and provided an elevation, figure *9/6b. W. Kaiser and G. Dreyer published an account of this monument in 1979. In 1993, P. Piacentini published a monograph on this site including a chapter: La piramide.²

In 1911 Raymond Weill in search of a burial chamber at his layer monument forced a trench through the nucleus along the NS axis and found nothing.

Kaiser and Dreyer visited and published their observations on it in 1979.

¹ Weill R., *CRAIBL*, (1912) p, 484-490 (Zewiyet El Meyiteen)

² Piacentini Patrizia, *Zawiet El-Mayetin Nel III Mellennio A.C.*, (Pisa1993) 37-44



North side of Hebenu



South side of Hebenu



East side of Hebenu



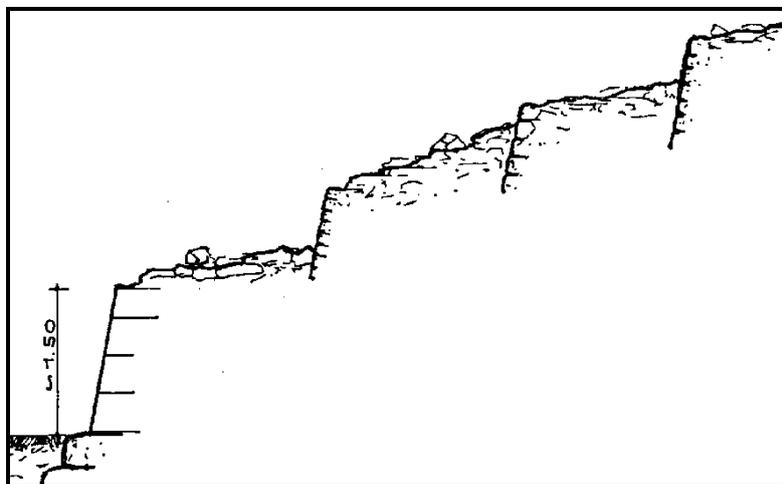
West side of Hebenu

At Hebenu we have no profile of the monument; In Lauer's drawing fig *** half a section of Hebenu is accompanied with half a section of Nubt; taken from Petrie fig ***. It quite impossible for either scholar to have copied an actual section because there were no such sections reviled and consequently what we see is a sketch of how Petrie and Lauer imagined the section would have looked like.

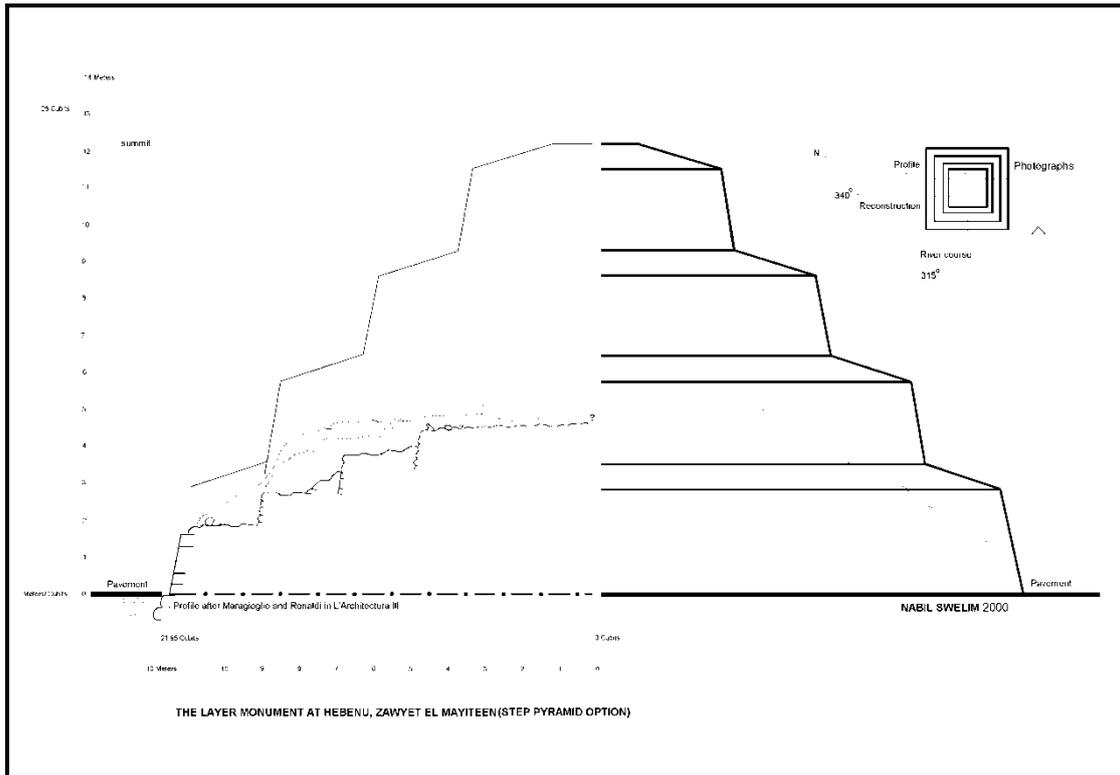
The measurements made have helped in the reconstructions presented here. They have been applied to a profile-sketch of the northern half of the monument drawn by Maragioglio and Renaldi in 1963 as a *Sesione dimonstrativa*; fig.***. This drawing can be identified with an area on the north side of the monument to the east of Weill's destruction and some missing blocks from the foundation and outer facing, plate **. The outer facing on the southern extension of this profile and the rising ruins in-between were copied from photographs.

The pavement has been suggested just below the first course of the outer facing at the level of the foundation top where the base of the monument was measured. Taking into consideration: a base length of 22.5 meters, a core of 10 meters, a layer width of 2 meters and a rising angle of the outer facing of 10° (43, 19, 4 cubits and 5 seked). One can reconstruct a step pyramid option in 4 steps reaching a height of 12.8 meters (24-25 cubits). Or a benben of a height of 13.2 meters (25-26 cubits).

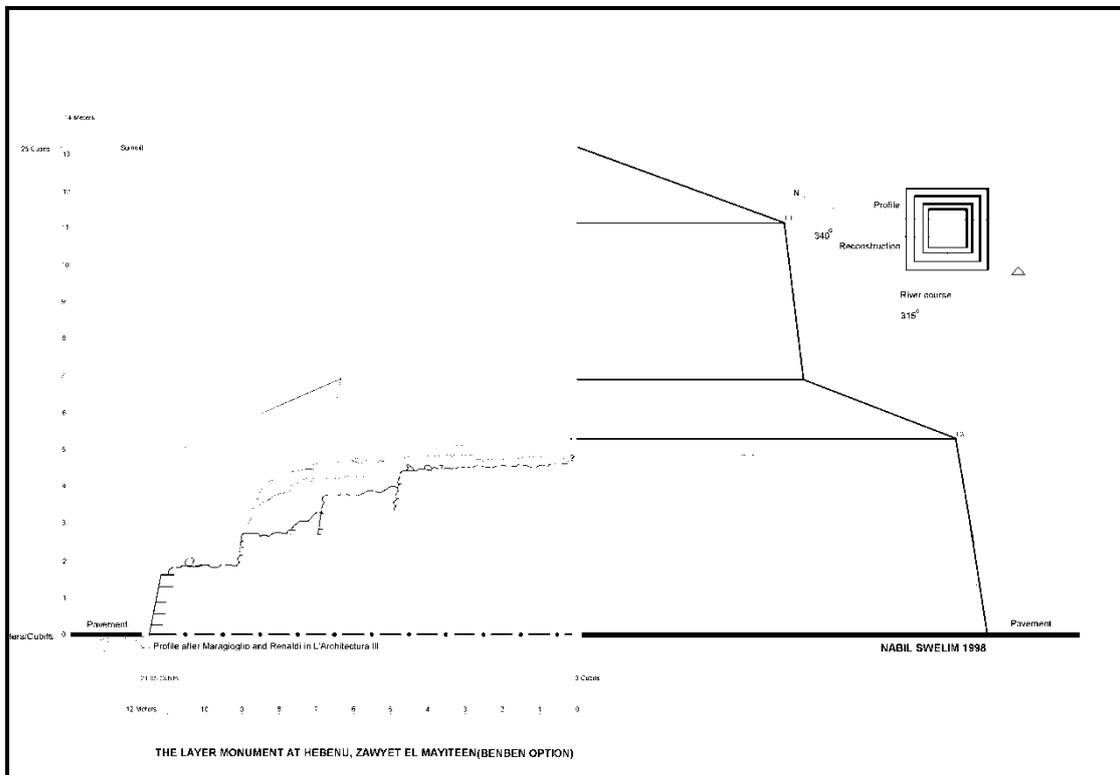
The result is similar to the other monuments with layers of 4 cubits, with small differences in height and in the area of a square platform over the summit. We can consequently say that elephantine, el kula, nubt and hebenu are very similar; but differ from sinki and seila. Though we cannot claim it with certainty, the layer monument at el ghenimiya may fall in the first category



Profile by Maragioglio and Renaldi 1963, on which my reconstruction was made



Reconstruction of Hehenu (step pyramid option)



Reconstruction of Hehenu (Benben option)



Hebenu on Google earth

BASIC DATA ON HEBENU

It is located at the 16th nome Hieraconpolis.

The monument was built on the edge of a very narrow strip of the eastern cultivation.

It is at distance of 200 metres from the river and 8 kilometres south of the city of Minya.

The site can be identified from long distances by a conspicuous ruined tower standing over the highest point of the eastern mountain.

To the north of the site is the spectacular cemetery of Zawyet Sultan Pasha, which is characterized by hundreds of small domed buildings. It is referred to as Zawyet El Mayiteen and Zawyet El Amwat.

To the east is a vast archaeological site with Predynastic, Old, Middle and New Kingdom tombs, and the massive ruins of Hebenu.

The mausoleum of Sidi Sharaf is to the east beyond the ruins of Hebenu and the mausoleum of Sidi Yaseen is on the riverbank.

To the northwest and passing to the southeast is a paved road; the riverbank is beyond this road. At this point the channel narrows in a similar manner to the sites of the layer monuments of El Kula and Sinki.

The course of the river is NW (= 315°) for 8 km till the city of Minya

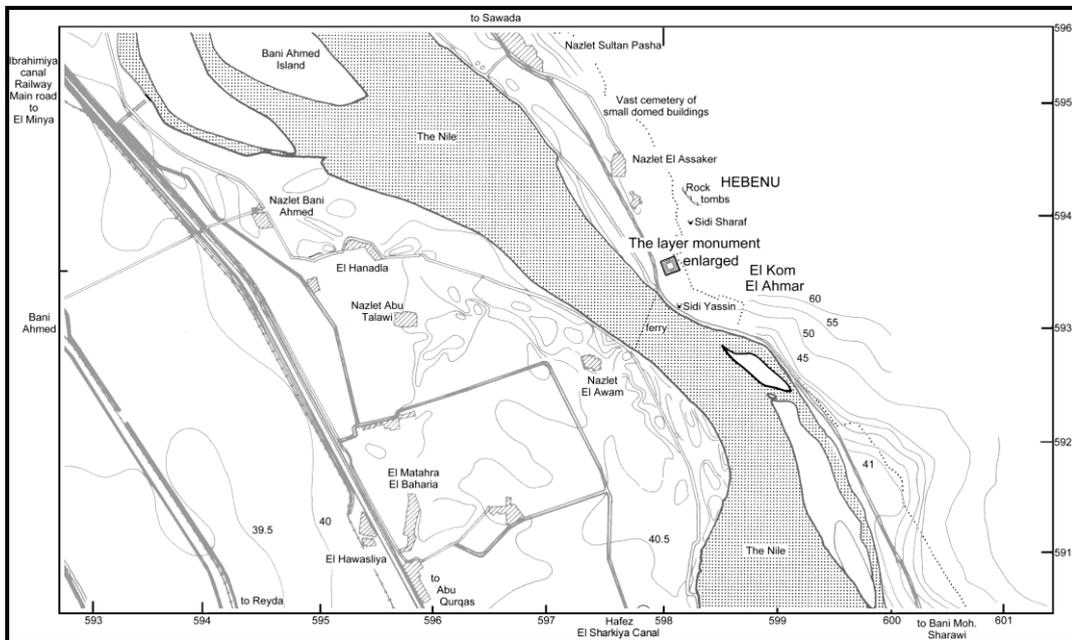
This monument is recorded as a small pyramid on the maps of Egypt

- Reference maps

(1:25 000) EL MINYA, portions of sheets: 59/585 and 59/600 of 1953

(1:100 000) EL MINYA, sheet 150, of 1956

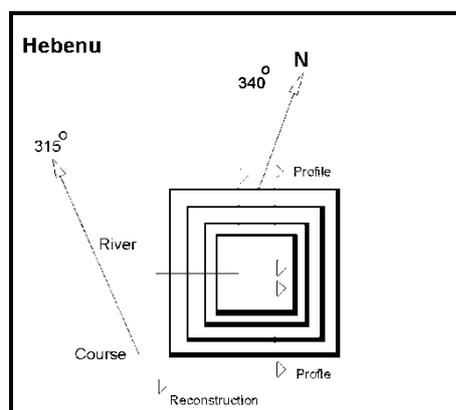
- The region of the monument



- Geographical coordinates by Google

28°	2'	45.17''	N
30°	49'	43.77''	E

- Icon of the monument and the river



- The axis is bearing: 240°
- The pavement would have surrounds the monument at the highest level of the foundation of layer 3

- The final monument (step pyramid option) would have had 4 steps
- At present the height is: 4.75 metres above the surrounding area
- A base length of 43 cubits, 22.5 metres
- The layer thickness is not uniform approximately 4 cubits, 2 metres
- The side angle of: Seked 5, 10° off the vertical
- Originally the height would have been 23.4 cubits, 12.25 metres above the pavement level, in the reconstruction
- Built on a roughly levelled desert surface

SINKI

A brief history of the layer monument Sinki

Construction

The layer monument Sinki was left unfinished. This conclusion was reached for the following reasons:

The construction ramps were found starting a few meters on the surrounding desert crossing over the foundation of layer 3 of the outer facing and reaching layer 2 which had been constructed. This layer may reach the level of the first or second step of the reconstruction figure */6. Consequently neither a pavement nor an outer facing were built. To what extent was the nucleus completed is not known.

Destruction

Sinki has suffered from much destruction

Investigations

Sinki was known to a few Egyptologists in the 1880 and 1900: Charles Wilbour, James Quibell, and Flinders Petrie. They mentioned it as the Abydos pyramid and the mastaba pyramid of el Amrah in their reports. These reports seem to have remained unnoticed until October 26 1977 when the monument was rediscovered.

C. E. Wilbour 1883³

Wilbour together with Maspero, Naville, and Brugsch, investigated the layer monument El Kula in January 31 to February 6, 1882 and visited Sinki on March 29, 1883. In a personal letter to his mother, Wilbour mentioned their similarity to one another. Jean Capart published these letters in 1936 and erroneously identified Sinki with an 18th Dynasty pyramid dating to king Ahmose of the 18th dynasty, today it is locally called 'Kom el Sheikh Mohamed'.⁴

"The Abydos Pyramid:

The Pyramid which is just in front of the south horn of the mountain as seen from Abydos turned out to be a miniature edition of the little pyramid we paid so much attention last year, and like the Pyramid of Koolah its north side turns so far west as almost to lose its north ness--in fact, 42 degrees. The highest stones remaining are only sixteen feet (4.88 meters) above the level and it is about sixty Feet Square (18.29 meters) rising in four well-defined steps. They have dug into the centre and down to the rock and found nothing, as we did last year at Mohameereeyeh. Two little brick walls either side the north entrance are puzzling. Maspero suggests they indicate an attempt at a temple, but I have thus far seen Pyramid temples only on the east side."⁵

³ J. Capart (Editor), *Travels in Egypt, December 1880 to May 1891 Letters of Charles Edwin Wilbour*, Brooklyn Museum (1936) 242-243.

⁴ Randall-Maciver D., Mace A. C., *El-Amrah and Abydos* (1899-1901) London 1902, 75-76.

⁵ The orientation of the monument by corners to the cardinal points is unique for El Kula and Sinki. The measurement of the side length is accurate for layer 2, the nucleus. We have no information on the level from which Wilbour worked. His measurement of the height is a little less than ours; is remarkable and may tell us that Sinki perhaps, suffered no loss in height in the last 120 years. The robber's trench and the two brick walls (a construction ramp) on the northwest side of Sinki were not buried in 1883 as they were in 1977. The four steps mentioned cannot result from layers; my reconstruction allows for only three. The first step is about 4.5 meters

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J. E. Quibell 1900⁶

In 1900, Quibell working on the Hieraconpolis temple at El Kom el Ahmar, describes the revetment on Pl. IV, reproduced here in figure */4, as follows: -

"Pl. IV. Revetment of temple basement. -The sides of this excavation are of undisturbed earth not yet removed: the stick in the foreground is two metres in length. At the back is the revetment of rough stones, which retained the earth upon which the temple was built. This revetment ran round in a curved or almost circular form. It is similar in the style of its material and construction to the rough stone mastaba pyramids of El Kulah, Nubt, El Amrah etc. which are now known to belong almost certainly to the IIInd Dynasty"

W. M. F. Petrie 1901⁷

Petrie followed this trend in 1901 in an architectural journal.

"It is probably, therefore, to the latter half of the Second Dynasty, 4350-4200 B.C., that a series of rough stone pyramids must be assigned which stand at El Amrah, Nubt, and El Qula. These are all built of unhewn blocks found loose on the desert cliffs (concretions). Each has successive faces of external finish, which have been coated over with added masonry. At Nubt the faces are still undressed, merely being selected for their flat fractures. At el Amrah (Sinki) the faces are moderately dressed. All of these are, however, built at the mastaba angle of four rises on one of base, and have and never had their successive coats covered with one uniform casing, like a pyramid. The chamber at Nubt was a mere hole in the soft sand."⁸

Discovery

In October 1977, I spent some memorable times with OMM SETI at Abydos and enjoyed the hospitality of Dr. HANI EL ZENI the director of the sugar refinery at Nag Hammadi. On the 26th of October 1977 he lent me a jeep, which took me on a desert track from Nag el Amrah to Abydos. Unexpectedly I noticed a few blocks of inclined masonry projecting out of the sand; these were the ruins of the layer monument Sinki. Shortly after that I announced the discovery of Sinki in a lectures arranged by the Hungarian Cultural Centre in Cairo and at the Archaeological Society of Alexandria. KAMAL EL MALLAKH, a journalist with interest in Egyptology, wrote about this discovery in the daily newspaper Al Ahram of ****.

above the site level. This is close to the total height estimated by Wilbour. The four steps were probably the outer appearance of some destruction in layers 2 and 3.

⁶ J. E. Quibell, *Hirakonpolis I*, Plates of Discoveries in 1898, (London 1900) 6.

⁷ W. M. F. Petrie, The sources and growth of Architecture in Egypt, *Journal of the Royal Institute of British Architects*, Vol. VIII, Third Series, No. 14, 25 May 1901

⁸ I do not know how Quibell and Petrie dated the layer monuments mentioned, to the second dynasty.

The excavation

In April 1979 on completing an excavation of the layer monument at Elephantine W. Kaiser and G. Dreyer, made their famous trip surveying the layer monuments. Kaiser and Dreyer drove from Aswan to Cairo and published their observations.⁹ Following that Kaiser realised the importance of excavating Sinki. Everything was set for a DIA (The German Institute of Archaeology in Cairo) excavation: starting on Nov. 12, 1980 until Feb. 5, 1981.¹⁰

At the beginning of the excavation, nothing was to be seen of its faces or base. The debris consisting of: fallen stones, mortar and blown sand reached the uppermost courses of masonry or even higher, except the southwest side which was covered with pebbles.

Building methods and evidence found later at the layer monument Seila have increased our understanding the other layer monuments. The suggestions presented here go beyond the unfinished ruins already standing, to the ultimate shape in the reconstruction. From our investigation on the site and the bird's view in the Pargätzi - Maurer plan, one can see that: Sinki was an accretion layer structure built in a pit of about 0.60 meters deep over a thick layer of mortar spread on the gravel at the bottom of the pit. The plan of the core, layer 1 and 2 appear to be composed of faulty squares, which are disoriented from the cardinal points in a clockwise direction. Layer three, has a fairly square plan with corners oriented close to the cardinal points. The plan, orientation and alignments of the monument were set by means of control points marked with brick settings. The brick markers were placed over the mortar lining in the initial pit every time its area was enlarged. The core, layer 1 and 2 were successively built by manual lifting of building material to achieve a small stepped structure. To continue building, when manual lifting was no longer possible ramps were introduced. A reconstruction was published with our archaeological report in 1982, which was disregarding layer 3. Here reconsiderations are presented,

In Egyptological literature C. Wilbour, J. Quibell and F. Petrie had vaguely mentioned literature the monument. In a personal letter in 1882, Wilbour mentioned a similarity of the Abydos pyramid (Sinki) with the pyramid of el Kula. J. Capart edited a publication of these letters and identified it with an 18th Dynasty mound believed to be a pyramid dating to Ahmose 1st, which is known locally as Kom el Sheik Mohamed. In 1900, Quibell working on the Hieraconpolis temple revetment saw that it had a similarity in style, material and construction with "the rough stone mastaba pyramids of El Kulah, Nubt, El Amrah (Sinki) etc. which are now known to belong almost certainly to the 11nd Dynasty"; it is not known to me how he dated these monuments. Petrie followed this trend in 1901 in an architectural journal. The monument did not receive any attention and Capart's mistake was most misleading. As a result Sinki was forgotten and was never considered in pyramid research. On 27 October 1977, Nabil Swelim discovered the layer monument Sinki, and in 1980,

⁹ G. Dreyer, W. Kaiser, Zu den kleinen Stufenpyramiden Ober-und Mittelägyptens, *MDAIK* 36 (1980) 43-59.

¹⁰ During the excavation of the layer monument Sinki: G. DREYER and N. SWELIM were doing the archaeological work. B. PARGÄTZI and B. MAURER did the plan drawing; the former fell ill and had to return to Cairo on Dec. 4 1980. D. JOHANNES was a part time photographer and U. KAPP was a part time photogrammeter. The inspectors of antiquities were the late RIFAT ABD ALLAH FARAG 1980 and AHMED MOHAMMED ALI 1981; and the following report was published: G. Dreyer, N. Swelim, Die Kleine Stufenpyramide von Abydos-Süd (Sinki) Grabungsbericht, *MDAIK* 38 (1980) 83-93.

excavated it jointly with Gunter Dreyer for the German Institute of Archaeology in Cairo.

Charles Edwin **Wilbour**, of the Brooklyn Museum together with Gaston Maspero, Edward Naville, and Emile Charles Brugsch (*Pasha*), visited Sinki on March 29, 1883. Erroneously Jean Capart who published this information identified Sinki with Kom el Sheikh Mohamed' an 18th Dynasty pyramid dating to king Ahmose 1st.¹¹

In 1900 Sinki was mentioned by James Quibell¹² as a rough stone mastaba pyramid at el 'Amrah, which belongs almost certainly to the 2nd Dynasty". In that respect he also mentions el Kula and Nubt.

In 1901 **Petrie** agrees with this dating to the latter half of the Second Dynasty, 4350-4200 B.C., and lists a series of rough stone pyramids which stand at el 'Amrah (Sinki), Nubt, and el Qula (el Kula)

Kaiser and Dreyer visited and published their observations on it in 1979.

Sinki has revealed that brick markers were set to determine: the corners of the core, layers, and the outer facing, the horizontal decline of the building masonry, and the line of connection between layers.



The north corner of Sinki

¹¹ Randall-Maciver D., Mace A. C., *El-Amrah and Abydos* (1899-1901) London 1902, 75-76.

¹² J. E. Quibell, *Hirakonpolis I*, Plates of Discoveries in 1898, (London 1900) 6.



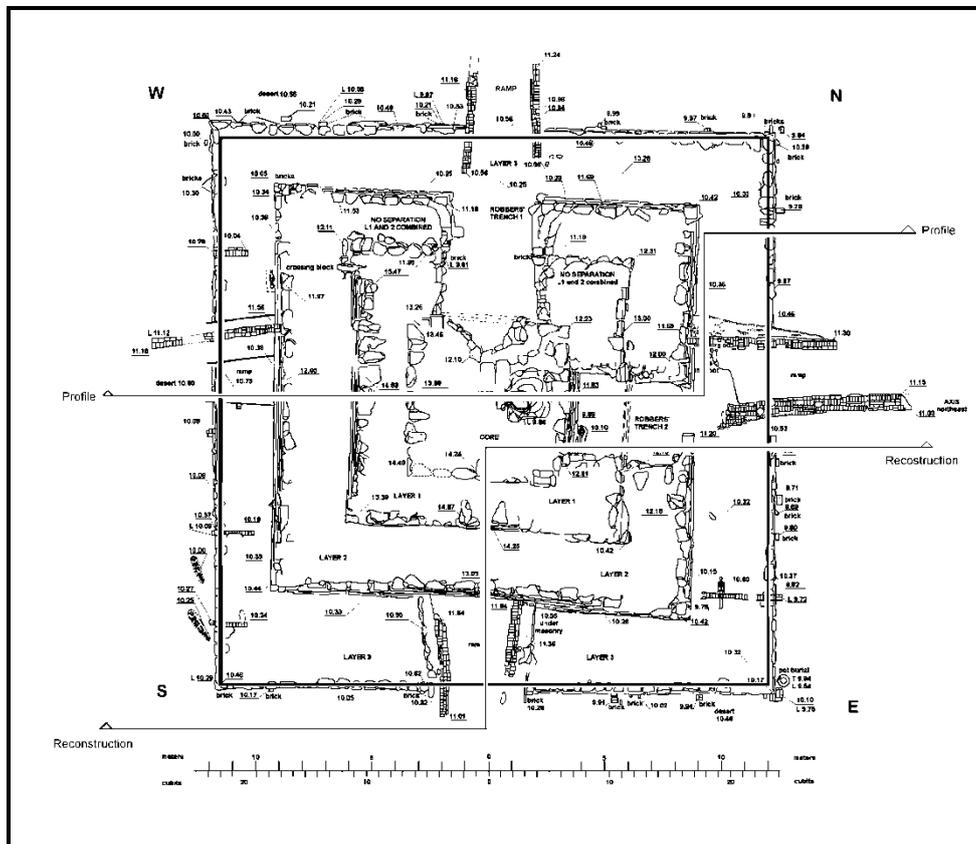
The east corner of Sinki



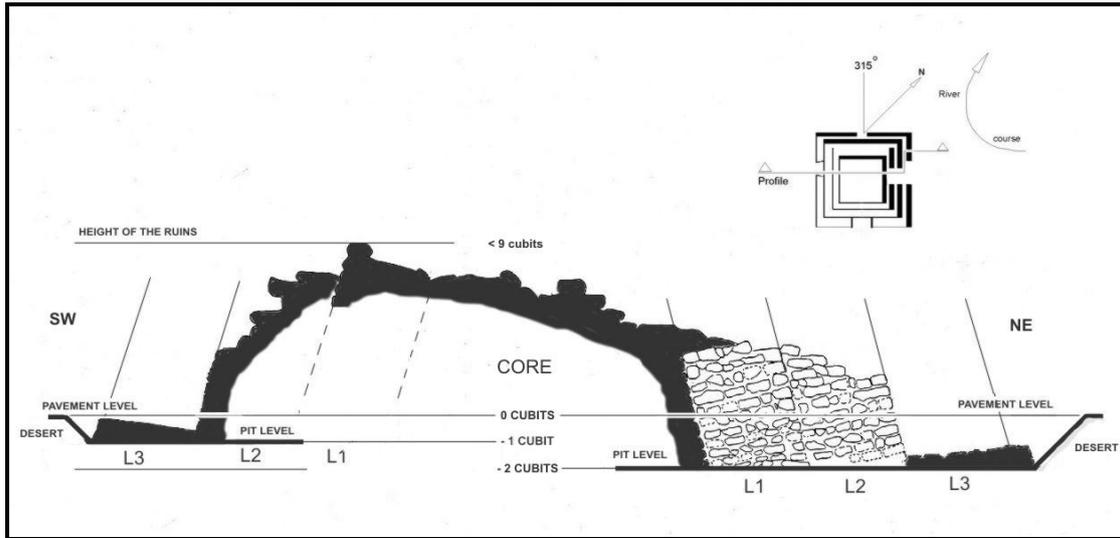
The south corner of Sinki



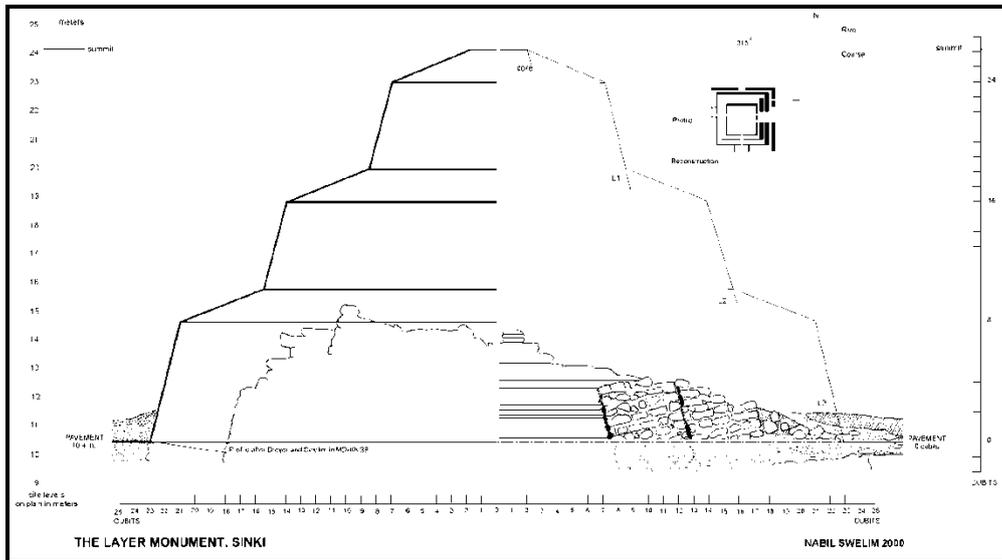
The west corner of Sinki



An aerial view of the layer monument Sinki



A profile of Sinki



A reconstruction of how Sinki would have looked had it been finished



Sinki on Google earth

BASIC DATA ON SINKI

It is located at the 8th nome Abydos

The monument is built on the edge of the western cultivation.

It is located 5.5 km, SE of the Temple of Seti the 1st, west of the village of Nag Ahmed Khalifa; and now only a few tens of meters from the expanding cultivation.

The Predynastic site of el aAmrah lies 4 km south east of the layer monument. At this point the western mountains are at the closest distance (1 kilometre) to the cultivation then they retreat to the SW into wadi Beni Hemil. The shortest distance between this monument and the river is 5.5 km in a NW direction. The course of the river at this area between the islands of Naqnaq and Nasirat flows in semicircular way: SW, NW and N for a distance of 16 km. the layer monument Sinki, however, is west of the area where the river alters course from SW to NW.

This layer monument is not recorded on the maps of Egypt

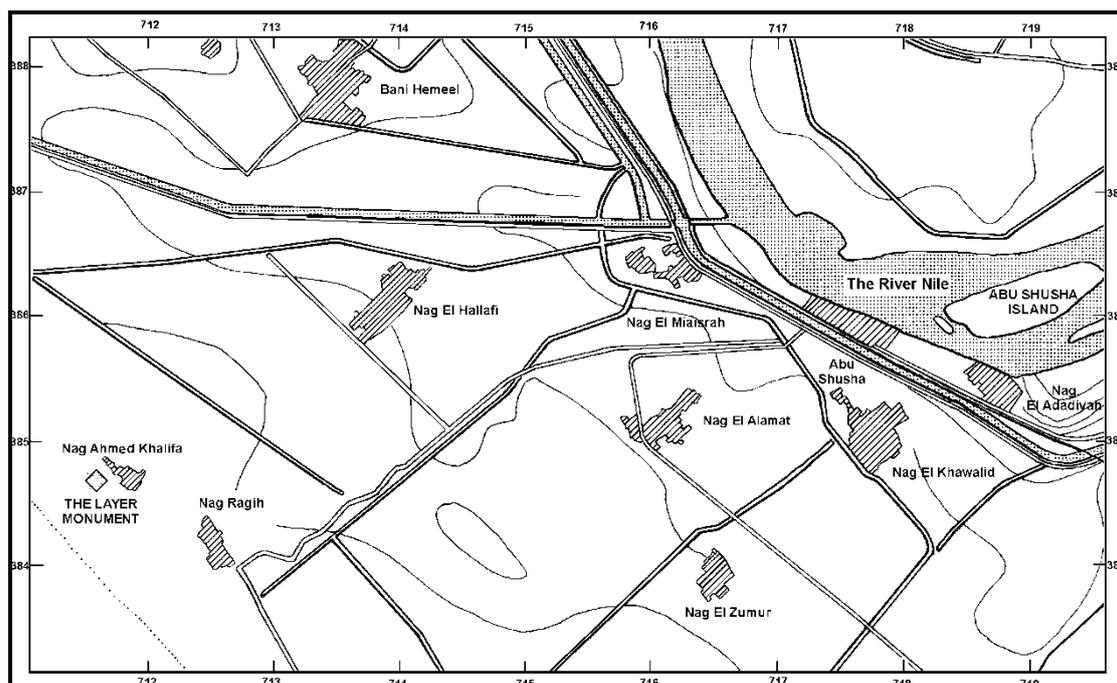
Sinki because of being left unfinished has revealed many details which were not found at the other monuments. We have learnt faults in building have been corrected.

- Reference maps

(1:25 000) ABU SHUSHA, portion of sheets: 38/705 and 38/690 of 1982.

(1:100 000) NAG HAMMADI. Portions of sheets: 36/66 and 36/72 of 1938.

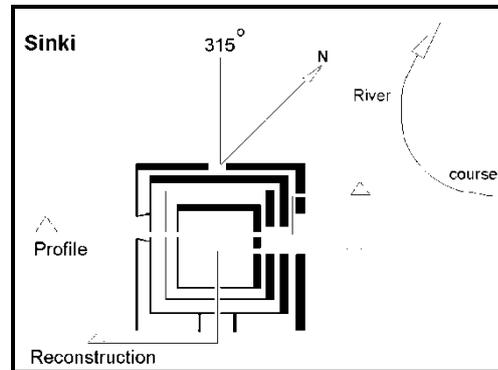
- The region of the monument



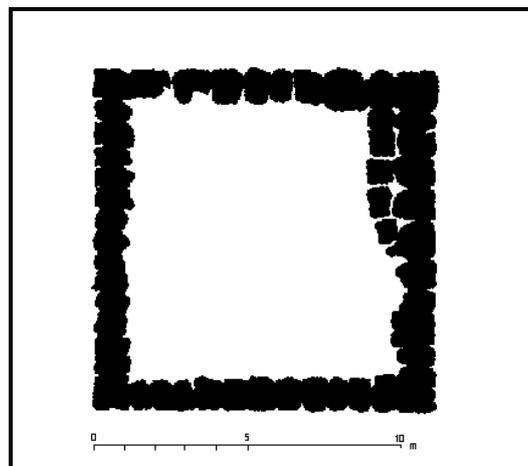
- Geographical coordinates by Google

26°	09'	28.10"	N
31°	57'	58.91"	E

- Icon of the monument and the river



- The axis is bearing: 315°
- The pavement would have surrounds the monument at the highest level of the foundation of layer 3 if the monument was completed with an unknown width
- The final monument (step pyramid option) would have had 3 steps
- At present the height is: 5.7 metres above the surrounding area
- The base length is: 47.9 cubits, 25.9 metres
- The layer thickness is not uniform approximately 5 cubits, 2.36 metres
- A side angle of: Seked: 5 – 7, 10 - 14° off the vertical
- Originally a height would have been: > 26 cubits, > 14 metres above the pavement level, in the reconstruction
- Built on a rough desert surface



NUBT

A brief history of the layer monument Nubt

The layer monument of Nubt was partly excavated and recorded by Petrie in 1896, the clearance was concentrated within the nucleus, and nothing seems to indicate that the rubble around it was removed. J. Ph. Lauer saw the similarity of its nucleus with that of the layer monument of Hebenu and made a reconstruction sketch combining half of each monument in one pyramid in 1962. Maragioglio and Renaldi considered it in their great work. Kaiser and Dreyer visited and published their observations on it in 1979.

The layer monument of **Nubt** was partly excavated and recorded by Petrie in 1896, the clearance was concentrated within the nucleus, and nothing seems to indicate that the rubble around it was removed. J. Ph. Lauer saw the **similarity** of its nucleus with that of the layer monument of Hebenu and made a reconstruction sketch combining half of each monument in one pyramid in 1962. **Maragioglio** and Renaldi considered it in their great work. **Kaiser and Dreyer** visited and published their observations on it in 1979.



North east corner of Nubt



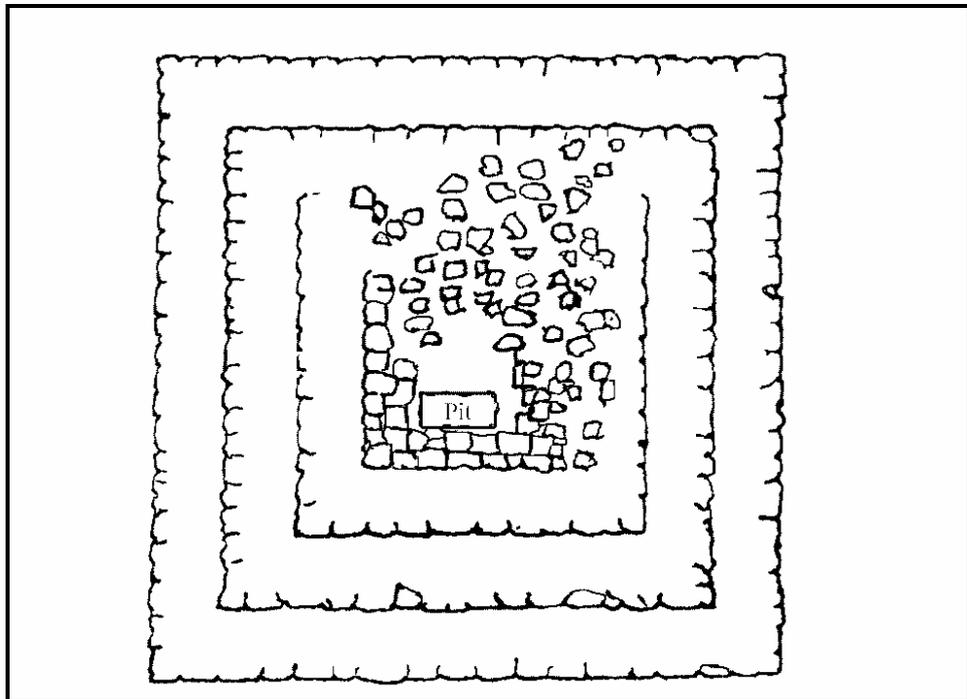
East side of Nubt



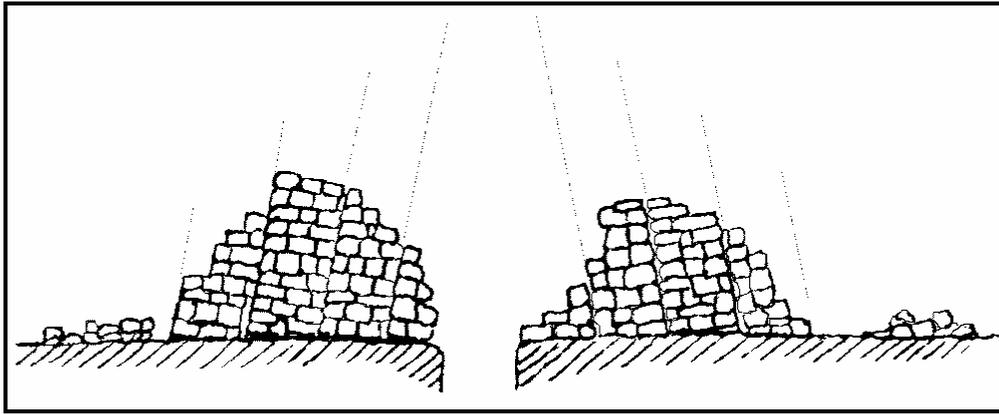
North-west corner of Nubt



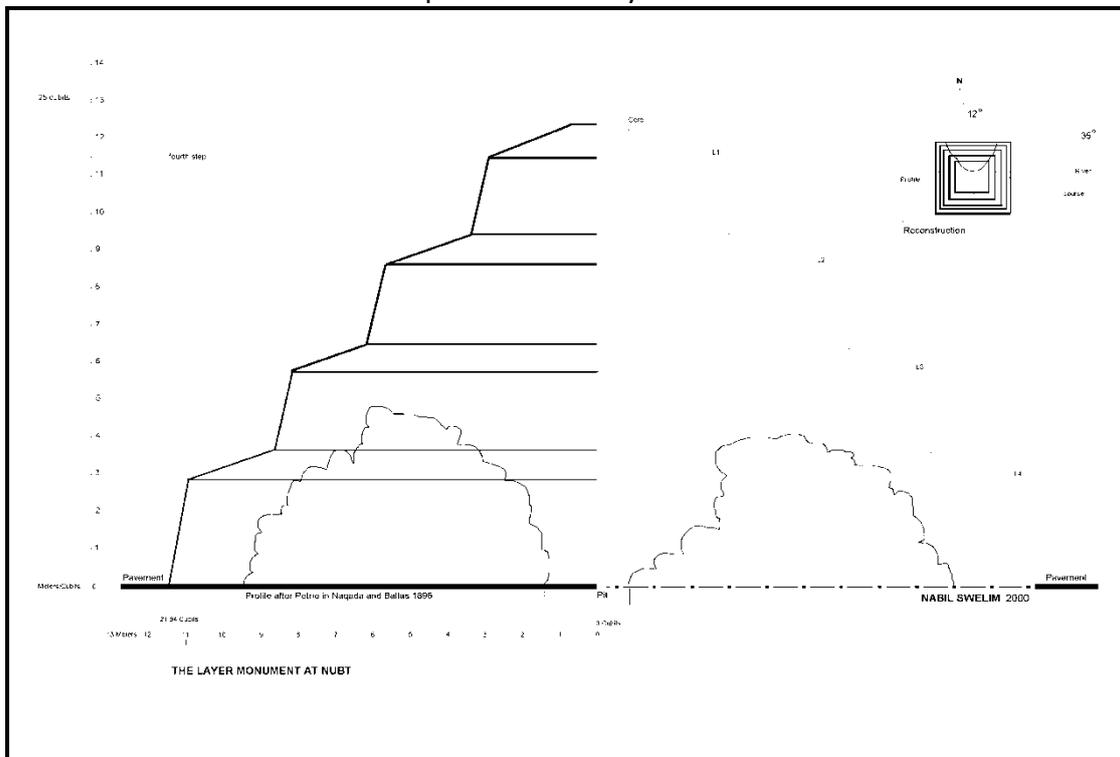
West side of Nubt



Aerial view of Nubt by Petrie



A profile drawn by Petrie



A reconstruction of Nubt based on a profile by Petrie where the ground is level



Nubt on Google earth

BASIC DATA ON NUBT

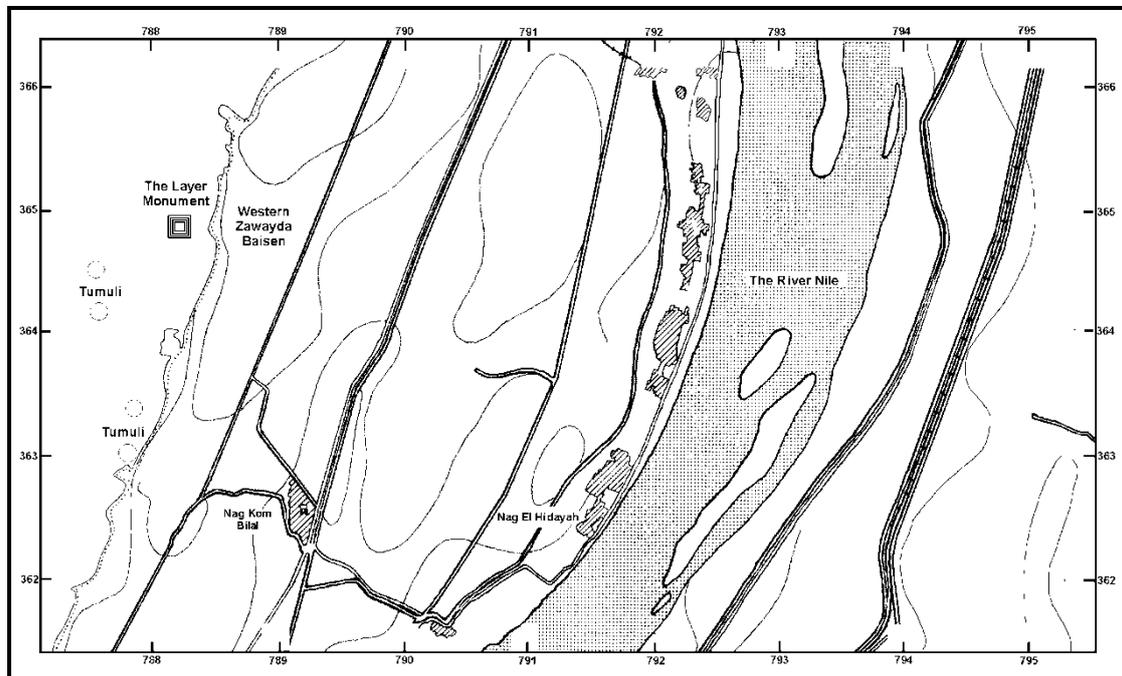
It is located at the nome: Typhonia, opposite the 5th nome of Coptos.

The monument was built on the edge of the western cultivation.

To day a modern road has been constructed to the west of this monument, which gives easy access to the site. Land reclamation projects have constructed divisions by irrigation means. The layer monument of Nubt is located 200 west of the cultivation at Ezbet Ibrahim Qaraqir in Hod (basin) El Zawayida el Gharbi (western). The course of the Nile in this area between, south of Naqada and el Zawayida is 35° for 11 km. It is recorded on the 3 maps by its local name Gorn el Shair.

This monument was not investigated since 1898. While all the other monuments have a core and 3 layers, Nubt has a core and 4 layers, including the outer facing. And Nubt is the only monument to be built in a pre-dynastic cemetery.

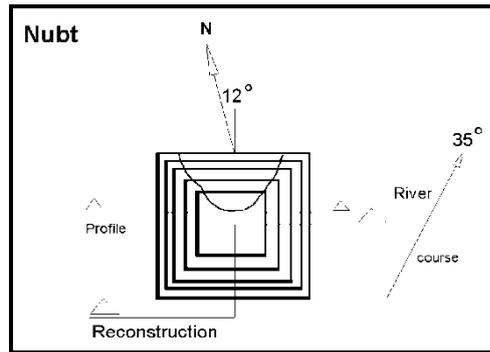
- Reference maps
 - (1:25 000) QIFT, portions of sheets: 36/780 and 36/795 of 1954.
 - (1:100 000) QENA, portions of sheets: 36/72 and 36/78 of 1934.
- The region of the monument



- Geographical coordinates by Google

25 ^o	58'	35.58''	N
32 ^o	43'	59.05''	E

- Icon of the monument and the river



- The axis is bearing 12°
- The pavement would have surrounds the monument at the highest level of the foundation of layer 4 (if it exists) with an unknown width
- The final monument (step pyramid option) would have had 4 steps
- The square core has a side length of: 11 cubits, 5.8 metres
- At present the height is: 4.5 metres above the surrounding area
- The base length is 45 cubits, 22 metres, in the reconstruction
- The layer thickness is not uniform approximately 4 cubits, 2 metres
- The side angle is: Seked 4 – 7, $20 - 8^\circ$ off the vertical
- At present the height is: 5.1 metres above the surrounding area
- Originally a height would have been: 23.3 cubits, 12.25 metres above the pavement level, in the reconstruction
- Built on a roughly levelled desert surface