Zeichen aus dem Sand

Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer

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AN AERIAL VIEW OF THE LAYER MONUMENT OF *SNFRW* AT SEILA[1]

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In October 1977, the Director of the German Institute of Archaeology in Cairo, Professor Werner Kaiser, introduced two young enthusiasts of the early Old Kingdom to each other. From that time Günter Dreyer and I have been in friendly contact both personally and professionally.

Working at Sinki under his leadership in winter of 1980/81 he taught me much about excavations. Shortly after, during research for my PhD, he generously helped with references. In autumn of 1988 I pleasantly recall memorable evenings in Berlin watching the slides of his excavations at Umm el-Qaab. Year after year we met, discussed or argued matters of interest.

Thanks to Günter, the Zentraldirektion elected me a corresponding member of the German Institute of Archaeology. I received the honour on the anniversary of J.J. Winckelmann at the DAIK, December 9, 1999. To my dear friend Günter Dreyer, who is the present Director of the DAIK, I present this short study on an aerial view of the layer monument of Snfrw at Seila.

The geographical position of the layer monument at Seila is (at the centre of the monument) 29º 22/ 57.26// N, 31º 03/ 13.26// E[2].

The importance of the isolated site is unknown as well as its functions, although remains of religious rituals have been found. It can be seen from far distances at El Fayum and with difficulty from the pyramid of Meidum, which is 10km bearing approximately west. The north side was covered by a great mound of rubble, like the one at mastaba K1 at Beit Khallaf. These mounds were the result of destructive treasure hunting.

The edifice was founded on a Pliocene conglomerate formation topping Djebel El Rus where five wadis descended to the Nile Fayum Divide to the east and the Fayum

1 I was invited for two seasons, 1986 and 1987, by the Brigham Young University to investigate the Seila monument while their expedition was under way at the early Christian cemetery at Fag el Gamous. The head of that expedition was University Professor Wilfred Griggs; who, later, carried out further work at Seila independently. During my two seasons, I was assisted by Mr. George Homsey FAIA, of "Esherick, Homsey, Dodge and Davis" in San Francisco who carried out the necessary surveying, drew two elevations and three profiles of the monument with the help of M. Harris and J. MacLane. A few years later he hosted me in San Francisco where we discussed our results. Dr. R. Phillips (BYU), began work on a map of the site. An aerial view of this monument was partly drawn by P. Bikai in 1981 and published by LESKO, *Seila 1981*, Fig. 22. Mr. and Mrs. J. Dobrowolski (ARCE) helped me drafting the aerial view in this article, Joel Irish corrected its English.

2 From Google Earth.

depression to the west. The irregular levels of the building area had been worked into stepped terraces above and below a chosen 'pavement' level; to the east an artificially filled platform was supported by an embankment across the eastern wadi. The stepped terraces were increasing in height towards the east, south, and core, and decreasing to the pavement level and below it at the opposite sides. Some of these terraces were low or narrow and masonry was added to increase their height or width. The lowest terraces were at the northwest corner.

Building masonry was brought from an Eocene limestone formation and mortar from the sediment of a prehistoric lake on the west side of Djebel El Rus. When complete, the monument was a cased layer construction with a core and three layers oriented 3.5° west of north, with a pavement of 9 cubits surrounding a square base of 60 cubits and a side angle of 14°, seked of 7, at a level of 92.50 - 92.70 meters above sea level.

Today, the layer monument (see plan) preserves 30 courses of masonry from the lowest foundation course at a level of 89.70 meters, to the highest preserved course at a level of 100 meters, i.e. 10.30 meters above the foundation and 7.50 meters above the pavement. The original height would have been 16.5 meters[3].

By calculation, had the core been built on a flat foundation at pavement level (although it was not), it would have measured 30 cubits square -- which equals half the base length. Accretion layers were planned to measure 5 cubits (2.6 meters). The layers and core were built in courses of limestone inclined backwards. The fine outer facing blocks were set in Layer 3 by headers and stretchers which had totally been removed. Several fallen ones were found: stone objects C, D, and H. By removal of the outer facing, the backing blocks were exposed in alternative courses: projecting headers and receding stretchers. Flakes from erosion of the naked nucleus during the Middle, the New Kingdoms and later, built up a mound of spalls on the pavement all around the monument reaching up to 2 meters in height.

The step or steps of the ultimate monument, i.e. perhaps a Benben or stepped pyramid, were not built level like phases E 1 and 2 of the pyramid of Meidum; rather, they slope 20° - 25° upwards like the Step Pyramid at Saqqara. This conclusion was determined by an important fragment -- stone object B found near the north chapel.

The pavement on the north side was confirmed by the remains of a brick wall. It was located at a distance of 4.40 meters from the outer facing. The limit of the outer facing to the east was not cleared; at the centre, it was a cut into the Pliocene conglomerate, and to the west over an artificial filling which covered the lowest terraces. This pavement was topped with powdered limestone mixed with sand. It seems that a chapel stood here, as suggested by fragments of a seated statue, probably of king *Snfrw*, a triple basin, outer facing (stone objects B, C, and H) and a

3 This figure is according to my reconstruction in SWELIM, *Seven Layer Monuments of the Early Old Kingdom*.

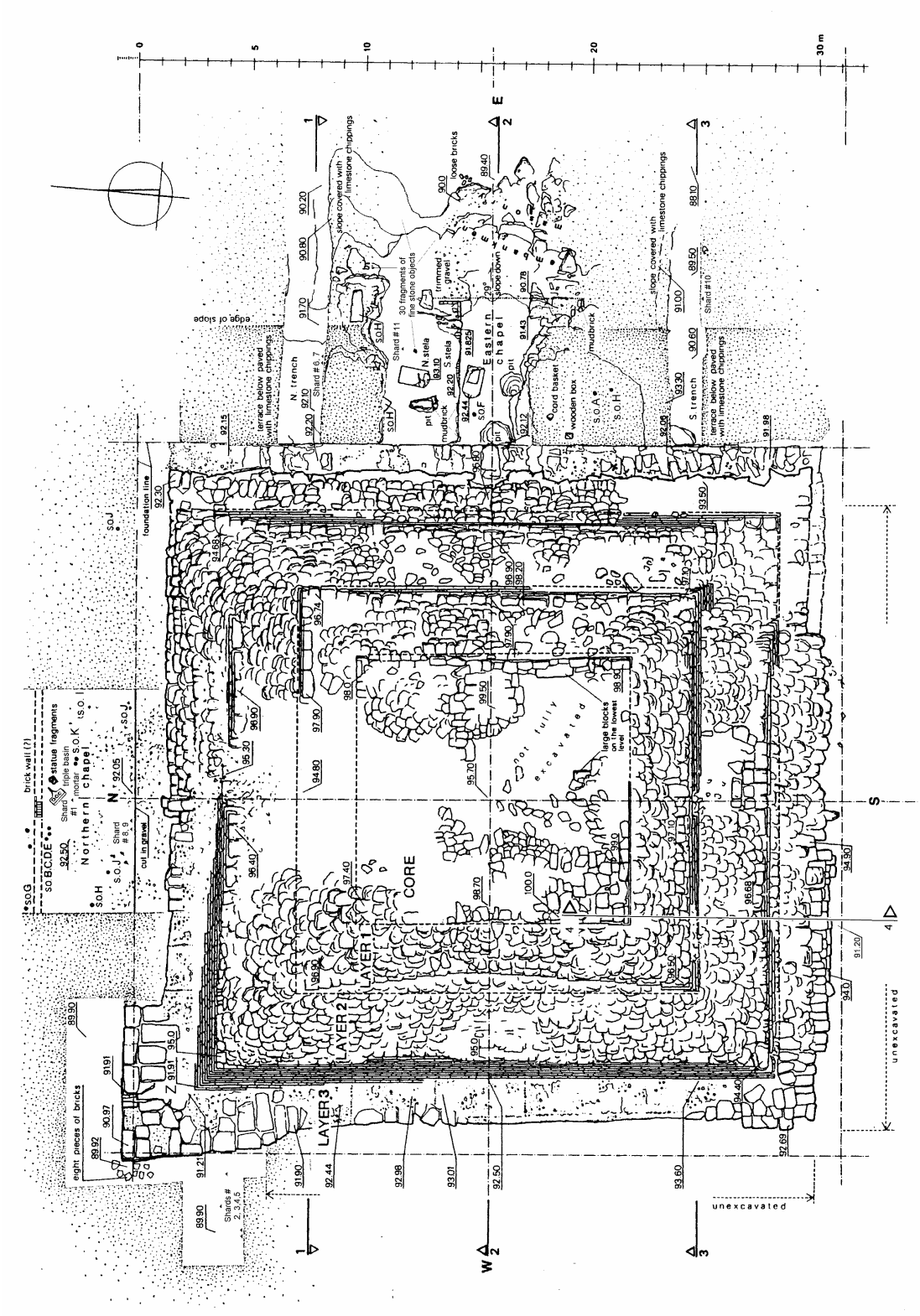

Fig. 1: Plan of Seila pyramid.

rough limestone table (stone object K). In the filling at the north-western corner was outer facing chipping of good quality, early Old Kingdom chards, cloth, organic matter and broken bricks. The bricks may have belonged to markers like those at Sinki. North east of the monument, 9 small pits filled with blown sand revealed nothing when cleared. They were strikingly similar to 15 pits west of the layer monument at Sinki[4].

The pavement on the east side was 9 cubits, measured from the outer facing to the embankment. This embankment rose across the eastern wadi with a slope of approximately 29° to the pavement level. The fill created an artificial platform paved with 0.45 meters of powdered limestone mixed with sand and bricks on edge. Another chapel stood at the centre.

At the middle of the east side, the outer facing was built on the Pliocene conglomerate terraces descending from the core. Near the north end, two courses of masonry broadened the terrace, and at the south end one course was added. The east pavement was partly built on an irregular and unleveled conglomerate. Here, the precise limit of the original outer facing was clear and would intersect with the line of the cut in the north Pliocene conglomerate, thus giving the exact point of the north east corner.

At the east chapel two stelae stood; one bears the name of *Snfrw,* whereas the other was destroyed. Stone object F was probably the roof of a small shrine for a model boat; stone object H (an outer facing header) and 30 small fragments of fine stone were found. In the Late Period part of this area was heavily disturbed and two pits were dug at the original position of the stelae. The chapel extended approximately 12 cubits east of the layer monument and was, thus, three cubits wider than the pavement.

North and south beyond the embankment construction, the sides of the wadi were trimmed to correspond with the slope. The remains of a brick wall were found by the trimming. Investigating the extent of the trimming, two trenches tell us that the Pliocene conglomerate was worked and covered with limestone chapping to agree with this angle for a distance of approximately 3 and 6 meters at the north and south sides of the wadi, respectively. It is difficult to tell at present how the sides of the embankment masonry and the conglomerate joined; the material used for the final facing of the embankment is also unknown, and a stairway may or may not have been present. A preliminary examination of the embankment shows that the method of construction is similar to the revetment of the archaic temple at Hierakonpolis[5], the Fourth Dynasty dam at Wadi Garawi[6] and the revetment of the terrace of the sun temple of Niuserra[7].

4 DREYER/SWELIM, *Die kleine Stufenpyramide von Abydos-Süd (Sinki)*.
5 QUIBELL, *Hierakonpolis* I, Pl. IV.
6 GARBRECHT/BERTRAM, *Der Sadd-el-Kafara*, Abb. 49ff.
7 BORCHARDT, *Der Bau,* Bl. 1-4.

The face of the embankment was partly cleared for a distance of 6 meters beyond the platform by a repeated process of pulling the rubble down the slope one meter at a time. This process was done carefully in order to examine the rubble for potential finds. We were rewarded by the discovery of an oar of a model boat, many small fragments of the second libation table or tables and several coins.

Checking the possibility of an approach to the layer monument from the Nile Fayum Divide along the eastern wadi, three soundings were made on the centre line[8] at a distance of 25[9], 60 and 120 meters. None of them are indicative of an eastern approach.

South of the east chapel, during partial removal of the mound of spalls, a cord basket and wooden box with a sliding lid were found, which could be dated to the Middle Kingdom.

Less attention was paid to the south side, as the priorities on the north and east sides consumed my two seasons. This side, however, was partly cleared by L. Lesko in 1981, six years before[10]. Layer 3 is best preserved and Layer 1 protrudes above the other layers. The backing blocks are in alternate courses of projecting headers with well preserved gypsum on their upper surface and receding stretchers. The remarkable state in which the backing blocks were preserved indicates that the outer facing on this side was removed systematically and carefully. The south wadi is very close, and leads to the Fayum cultivation where the extracted blocks could have been reused.

Before all of the known excavations, only Layer 2 at the North West corner could be seen. Point 'Z', the main reference point of the excavation, was chosen at the lowest block -- at a level of 91.91 meters above sea level. We removed the top layer of the close rubble and the foundation of Layer 3 appeared at a level of 92.46 meters. The west face was 2.60 meters from 'Z'. Traces of gypsum on the uppermost course indicated that the outer facing was built over it.

In the filling under the west pavement were 0.40 meters of mortar chunks over chipping and 0.10 meters of powdered limestone over loose conglomerate. From the section, it shows that there were successive ramps reaching the top of the 4th, 6th and 7th courses of the foundation masonry. Thin layers of powdered limestone were level with the top of these courses.

Unknown efforts were made to clear the North West corner. On the west side, Lesko observed and partly recorded a stepping into the Pliocene conglomerate on which Layer 3 was built. Further clearance showed that along the west side of the monument, the Pliocene conglomerate terracing rises 3.5 meters in approximately

8 On a line approximately NE.

9 W. Griggs supervised the first of these soundings. His report to the EAO from January-March 1988 mentions that "Trial trenches and soundings were made in some areas of the east wadi to determine the extent of previous disturbance, if any. A few pieces of pottery were found, but little other indication exists that the wadi had been worked in connection with the pyramid".

10 LESKO, *Excavation Report*, 275; LESKO, *Seila 1981*, 223-235.

eight steps; the remains of six foundation courses can be recorded on the west side. On the north side seven courses were discovered.

The face of layer 1 is not evident from the west side, but the separation gap with Layer 2 can be seen from the top. In Lesko's report, Pierre Bakai has drawn Layer 2 to cave inwards for 1 meter on the east-west axis.

Of the core face, the two uppermost courses can be seen from the west side. The upper one exhibits three stretchers which reach the highest point of the monument at 100.00 meters. Only seven headers are visible on the course below.

A robber's trench was dug on the north side. It destroyed and removed the masonry of Layers 3 and 2 to the stepped Pliocene conglomerate on which they were placed. The destruction reached Layer 1 and the core, exposing the descending steps in the conglomerate. The conglomerate terracing seems to reach its highest level on the east-west axis, and then begins its downward course. A large pit was ultimately dug in the southeast quarter of the core. In our preliminary cleaning, two comparatively large blocks of masonry were found in situ, set on edge a few meters apart. They are neither in line nor at the centre of the monument. Their bedding was inclined, and the east one measures 2.0 x 0.80 x ? meters (the west one could not be measured). Between these large blocks, the Pliocene conglomerate went much deeper but we did not continue.

A seismometer test by Lesko in 1981 showed no anomalies. I had a consultation with Tomasz Herbich[11] on the reliability of this method in the geological conditions of the layer monument of Seila, i.e. the Pliocene conglomerate; he stated the following:

> "The seismic method is based on the frequency and amplitude observation of the seismic waves. Therefore the reliability of the method depends on the quality of the bedrock as the wave's conductor.
>
> The resilience of the bedrock is the factor, which decides upon the efficiency and reliability of the seismic method. The more the bedrock is resilient, the better and more reliable is the result of the seismic survey. The homogeneity of the bedrock is an important factor. In this case, the Pliocene conglomerate is neither homogeneous nor does it have good resilient characteristics.
>
> Consequently, to make the result of a geophysical survey more reliable in non-favourable geological conditions, one should apply at least two different survey methods. When tracing cavities, a seismic method should be supported both by resistivity and gravity methods"

To verify the possibility of a substructure in the future, I believe that any further investigations should be made with great caution.

11 Dr. Herbich is a member of the Institute of Archaeology and Ethnology, The Polish Academy of Sciences; he was the Director of the Polish Centre of Mediterranean Archaeology in Cairo-Heliopolis.

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