# THE EDFU PYRAMID PROJECT



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### **NEWS & NOTES**

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#### COVER ILLUSTRATION:

Views of the step pyramid at Tell Edfu, Egypt

#### RIGHT:

Men at work at the southeast corner

# FROM THE DIRECTOR'S STUDY

One of the most exciting aspects of doing archaeology lies in recognizing patterns in the past. Often it takes years of painstaking work at multiple sites — each one a single data point. Eventually, enough of these observations accumulate to allow us to see that they form a pattern that can explain a fundamental aspect of an ancient civilization. The article by Gregory Marouard and Hratch Papazian in this issue of News & Notes describes an exciting new project that is exploring a long known but poorly understood pattern in the past — the series of at least seven small, almost miniature pyramids strung out along the Nile in Middle and Upper Egypt as far south as Elephantine. The Provincial Pyramids project has grown out of the Oriental Institute's Tell Edfu excavations, where one of these small stepped pyramids is located. What was the function of these pyramids, and what explains their location? These small stepped pyramids date to the Fourth or possibly late Third Dynasty and are located in the provinces, far from Memphis, the political capital of the Old Kingdom. They do not seem to have been used for burial. By drawing together the evidence from old excavations combined with their new investigations of the small pyramid at Edfu, Marouard and Papazian have been able to document the shared characteristics of these monuments — and to see the pattern more clearly. The pyramids are contemporaneous, and almost all are located near provincial capitals. Their locations, combined with their canonical form, suggest that these pyramids were used to project royal power southward and maintain ideological control over

the outlying areas, most likely through their having served as a ritual focus for a royal cult. Seen in this perspective, these formerly ignored small stepped pyramids suddenly make sense as part of a deliberately constructed "political landscape" — a pattern that helps us understand in a new way how the enormous expanse of Old Kingdom Egypt was knit together into a single, unified state. It took more than a century of discovery to identify the pieces before scholars could recognize the significance of this pattern. This is a wonderful example of the ways that the often slow processes of research and documentation can yield, in the aggregate, new and fascinating results.



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# THE EDFU PYRAMID PROJECT

### RECENT INVESTIGATION AT THE LAST PROVINCIAL STEP PYRAMID

Gregory Marouard & Hratch Papazian, Oriental Institute Research Associates<sup>1</sup>

The small step pyramid at South Edfu is one of seven such structures from the Old Kingdom to be situated outside of the royal cemeteries (in the Memphis area). It belongs to a group of identical constructions that have been found in close proximity to important settlement sites in Middle Egypt (at Seila and Zawiet al-Meitin) and Upper Egypt (at Sinki-Abydos, Nagada, al-Kula-Hierakonpolis, al-Ghonemiya-Edfu, and

Elephantine). Up to now no example of such a provincial pyramid has been found in the Nile Delta region (fig. 1).

This phenomenon of provincial pyramids has been well known since the late nineteenth century, and several monuments were first reported by G. Maspero and H. Naville (al-Kula in 1882 and Sinki in 1883) as well as F. Petrie and J. Quibell (Seila in 1888 and Nagada in 1896). Determined to find a funerary chamber under these monuments, early Egyptologists had cut large trenches or deep tunnels through the faces to no avail, save for contributing to the irreversible degradation of most of the monuments.

However, the location of small step pyramids in considerable distance to the established Old Kingdom royal cemeteries bestows upon these structures the character of non-funerary monuments that did not nor were intended to serve as a burial place of any kind. Using the symbolic form without any trace of a funerary chamber or underground structure, it appears to have acted as

a monument dedicated to the worship of pharaoh.

On a purely architectural plan, these provincial monuments are very similar to the famous step pyramid of Djoser at Saqqara, to the two pyramids at Zawiet el-Aryan, or to the Meïdoum pyramid, all built in the construction method called "accretion layer." Typical for the reigns of the Third Dynasty, from kings Djoser to Snofru, this method of

Zawlet al-Meitin Elephantine 68 Au

Figure 1. Distribution of the provincial step pyramids in Egypt

construction precedes, from a technical standpoint, the appearance of the "true pyramid" with flat faces.

Based on their shared design, similar dimensions, and construction techniques, the small step pyramids are contemporaneous to one another and date to the very beginning of the Fourth Dynasty, although an earlier date at the end of the Third Dynasty might also be very likely and should not be discarded.

They are traditionally attributed to the reign of Huni or even his successor Snofru (2600–2575 BC).

Discovered in 1909 in the southeastern rubble belonging to the pyramid at Elephantine, an isolated granite block naming the Son of Ra, Huni has provided good evidence in favor of the last ruler of the Third Dynasty. Nevertheless, the excavations led by N. Swelim in 1987-1988 at the pyramid of Seila have also been very significant.2 Test trenches dug along two sides of the pyramid indicate a possible offering area or chapel on the eastern face, where two stelae have been discovered, one naming Snofru, the successor of Huni and first king of the Fourth Dynasty.

The seven examples actually known are not quite numerous enough to draw any firm conclusions about the exact date and function, but it is possible to make several observations.

From the earliest phases of the Early Dynastic period (ca. 3000 Bc), the celebration of pharaoh's divinity appears to

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have taken precedence in the religious realm of Egypt. Being devoid of any funerary function, the ephemeral phenomenon of provincial step pyramids appears congruent with the evolution exhibited by the royal cult in the Old Kingdom, and they may have served as locales for that cult.

This should pertain not only to funerary aspects, but more significantly perhaps to the adoration of the living pharaoh. The tradition of worshipping pharaoh at multiple stand-alone sites across Egypt may have been put into effect as early as the Firsty Dynasty, was expanded during the Second Dynasty, and appears to have made use of the step pyramids.

But perhaps more notably, the cultic function proffers an economic dimension to these pyramids, a characteristic that emphasizes the symbiotic association that existed between the religious and socioeconomic spheres in ancient Egypt. As such, the provincial pyramids may have constituted parts of an elaborate system of cultic domains (some of which may have been connected to agricultural foundations) that represented essential components of the operating system of the local economy and national/royal economic organization.

Six of them are situated in relatively close proximity to large regional settlements of the Predynastic and Early Dynastic periods. The dispersal of these pyramids follows a certain geographical organization being situated near regional capitals in a system of provincial administration under development since the First and Second Dynasties, depending on the location. This geographical distribution cannot be a coincidence, particularly in Upper Egypt, and a connection to the administrative division into nomes seems conceivable. as Stephan Seidlmayer has already suggested.3 Such a hypothesis can be supported in the cases of Elephantine lying at the southern frontier of Egypt and probably established under the reign of Huni, as well as Edfu and Hierakonpolis, all three of which were the respective

capitals of the First, Second, and Third Upper Egyptian nomes.

The construction of these monuments in that case might be essentially attached to the symbolic representation of the royal power, a deliberate political statement through which the king re-affirms the centralization in the Memphite region and his control of the whole country, using in the provinces a visible network of miniature step pyramids, strong symbols of the royal ideology since the reign of Djoser.

#### HISTORY OF THE DISCOVERY AND GENESIS OF THE FIELDWORK PROGRAM

The Edfu pyramid is located only 5 km south of Tell Edfu, and at 25 km south of the pyramid of al-Kula, which is linked to the major Predynastic site of Hierakonpolis. The pyramid is situated north of the modern village of al-Ghonemiya, between the edge of the desert and the cultivated areas of the Nile Valley (fig. 2).

The first reference to it dates back to 1894, when G. Legrain, who worked on a Predynastic cemetery situated farther south, indicated a "false" pyramid at the entrance of the Edfu–Kharga caravan road. In 1908 H. de Morgan mentions the structure again, and two years later A. Weigall mentions also the presence of this monument in his Guide to the Antiquities of Upper Egypt from Abydos to the Sudan Frontier. He recognized its

shape as a step pyramid and gave its correct dimensions but in feet instead of meters, which means that he probably never visited the site himself but deduced this information from a previous description.

The archaeological site is only marked on the 1928 map before it disappears again from later topographic maps. The site then remained largely unknown for decades until the chief inspector of the Edfu area, Mohamed A. Aly, showed the monument to W. Kaiser and G. Dreyer in 1979.4 Both included the site in their comprehensive study of the provincial pyramids complementing the previous studies conducted by J.-P. Lauer in 1962 and V. Maragioglio and C. Renaldi in 1963. No methodical excavation or cleaning of the pyramid superstructure was ever carried out before 2011 except for some holes made by the looting and pillaging of stone blocks in order to use them as building material.

Despite the protection by the Egyptian government, the site has become more and more endangered over the past forty years and is rapidly disappearing. Since the construction of the Aswan high dam in 1964, the region of Edfu has evolved significantly, especially the occupation along the desert edge. The al-Ghonemiya village stretches now more than 1.5 km farther north than forty years ago and today is in the immediate vicinity of the pyramid (fig. 2).

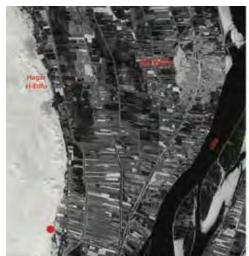




Figure 2. Aerial views of Edfu in (left) 1969 (Corona) and (right) 2009 (Google Earth)

During the early 1990s, the construction of a new access road to the desert highway between Cairo and Aswan led to the destruction of the whole southern part of the archaeological site. This road now lies 50 m from the pyramid and is responsible for the continuous deposit of rubbish and waste on the site.

A modern cemetery surrounds the northern part of the site. It has been marked on the maps since 1906 and has been advancing quickly toward the archaeological area over the past five years, as can be seen on satellite images (fig. 3). The construction of a mosque in 2005 led to a faster development of the cemetery toward the west and the south, and the daily circulation on the site has clearly increased.

In addition, a new gas pipeline will be built along the asphalt road in the next few months, severely threatening the southern part of the site (fig. 4). These problems encouraged us in 2009 to start a rescue excavation and conservation project in close collaboration with the local antiquities inspectorate in order to protect this last provincial pyramid. The monument at Edfu indeed offers a final opportunity to increase our knowledge about this peculiar phenomenon, to refine the dating, and to verify our hypothesis concerning the potential existence of further related installations that had





Figure 3. Aerial views of the pyramid area in 2005 and 2009 (Google Earth)

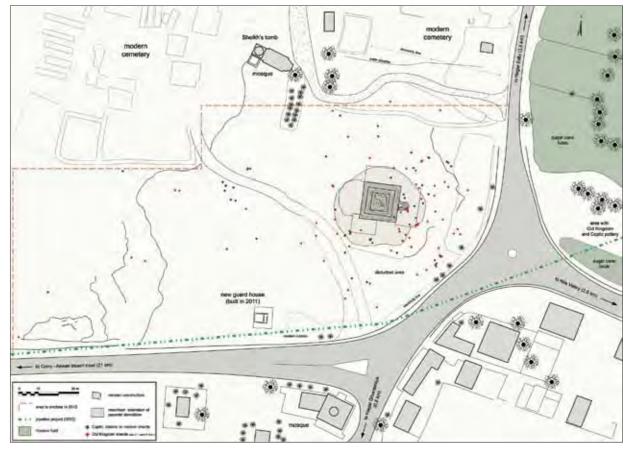


Figure 4. General map of the archaeological area

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been built against the monument or in the surrounding area. This project is also closely connected to a new stage of the excavation program at Tell Edfu, which is focusing on the exploration of the Old Kingdom settlement remains and the origins of this town, which certainly dates back to the same time as the pyramid. The presence of a provincial pyramid south of Edfu indicates that the town already played an important role on a regional and national level at the end of the Third Dynasty.

In 2010 a preliminary survey was conducted in order to establish a first contact and to mark our presence on site, as well as to evaluate the state of preservation of the superstructure. A general map was drawn in order to define and to protect more clearly the archaeological zone (fig. 4), now reduced to an area stretching 220 m east—west and 120 m north—south (about 6 acres).

The sand accumulation and the absence of structural remains apart from the pyramid itself permitted a systematic collection of pottery fragments in the whole area to acquire more information about its precise date. Due to the presence of only a few sherds on the surface, it was possible to systematically register their position with a total station (fig. 4).

Sixty-eight percent of the collected surface pottery dates to the Old Kingdom. The identified shapes, mainly large storage vessels or beer jars and fine wares, clearly belong to the tradition of the Third Dynasty and the early Fourth Dynasty. There is no sign of any other pharaonic-period activity, particularly from the Middle or the New Kingdom, an observation that underlines the limited duration of activity at this monument. The remaining 32 percent of sherds date exclusively to the late Coptic and early Islamic periods, when the first plundering of stone material seems to have occurred.

Another important result of the systematic pottery collection is that more than 60 percent of the Old Kingdom sherds were found along the eastern part of the pyramid, which indicates that this was the side where the cult activities took place and where remnants of simple installations such as an offering area or chapel might have been situated.

# ARCHAEOLOGICAL & ARCHITECTURAL RESULTS FROM THE 2011 SEASON

A first season of fieldwork was carried out during fall 2011 with the help of Aurelie Schenk and a team of forty Egyptian workers from Luxor and Edfu. In less than three weeks, it was possible to expose the nearly complete pyramid superstructure, which previously

resembled a kind of tumulus about 30 m in diameter being covered by a thick layer of sand, smaller stone blocks, and demolition debris (fig. 5). Extensive cleaning was also carried out in the entire archaeological area in order to remove the modern rubbish.

The cleaning operation of the pyramid itself revealed the original appearance of the monument (figs. 6–7), much to the astonishment of the locals, who were ignorant of the existence of a pharaonic monument here. Indeed, during the 2010 survey, the collective memory of the local inhabitants still testified to the presence of a sheikh's tomb here, the burial of a local Muslim

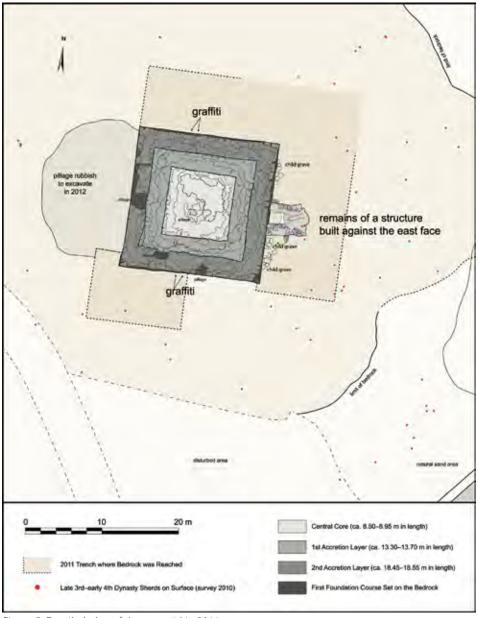


Figure 5. Detailed plan of the pyramid in 2011





Figure 6. Southwest corner of the pyramid (far left) in 2010, before cleaning, and (left) in 2011, after cleaning







saint, which is a factor that has certainly contributed to the encroachment of the modern cemetery toward the pyramid. Some child burials identified along the southern and eastern faces of the monument seem also to correspond to its relatively recent assignment as a holy place.

The southern and especially northern sides of the pyramid are the best-preserved areas, with six to seven courses of blocks still visible on the external face. The western and southern sides of the monument as well as its top have seen seven isolated attempts of pillaging; the western face is the most damaged one, and the large pile of rubble on that side could not be removed completely during our first season of work.

The pyramid had been built directly on the sandstone bedrock and was made exclusively of sandstone and some calcareous sandstone blocks. The structure is orientated toward the cardinal points by its faces. It was originally made of three steps, two inclined layers leaning against a central core. Its internal structure and the use of the "accretion layer" technique can be easily seen on

the northern and southern faces (fig. 8). The central core (fig. 9) measures 8.50–8.95 m at its current level of preservation, and the first layer has a length of 13.30–13.70 m. Along its base the monument measures about 18.45–18.50 m, which corresponds to about 35 royal cubits. Except for the case of Seila in the Fayyum Oasis (31 m in length), the other step pyramids show very similar dimensions, which lie between 18.30 m (Zawiet al-Meitin), 18.40 m (Elephantine and Nagada), and 18.60 m (al-Kula and Sinki).

The height reaches only 4.90 m today mainly because of the reuse of the blocks for private construction. With a length of approximately 50 cubits in the diagonal direction through the center, a simple geometrical link between triangles can be used for evaluating the original elevation of the monument, which can be estimated to have been about 13 m (25 royal cubits). This means only less than a third of it remains today.

The dismantling of the structure is difficult to date, but the presence of post-seventh-century AD pottery sherds in the lowest levels of demolition suggests that the dismantling occurred at

a relatively late phase of the life of the monument.

Furthermore, some post-Old Kingdom hieroglyphic graffiti have been found on the northern and southern lower courses (figs. 10 and 11), and

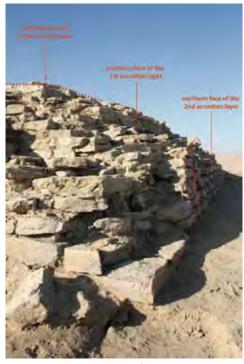


Figure 8. Northeast corner of the pyramid showing the two accretion layers

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Figure 10. South face elevation and graffiti position

this may indicate that the monument had kept its symbolic form and significance throughout a large part of the pharaonic period.

The construction itself reflects a certain care and a real expertise in the mastery of stone construction, especially for the adjustment of the most important blocks. The stones had been cut roughly into shape by percussion without any further refinement, but they are all relatively similar in size with standardized dimensions of 65-80 cm in length for the upper part. In the lower part, some blocks regularly exceed 1.0-1.5 m in length and more than 2 m for some large slabs of very hard brown sandstone, which was mainly used for the external courses and for producing a solid foundation layer. The blocks are held together by a large amount of clay mortar that contains a considerable amount of river sand.

Five to six varieties of local sandstone can be distinguished and must have been acquired in the close vicinity of the monument. The quarry area has been discovered only 800 m north of the site during an extensive preliminary survey conducted on some of the small hills that mark the desert edge in this area (fig. 12). A more systematic exploration and mapping of this extraction site will be undertaken next season in order to gain more information about the chronology, the organization of the construction work, and the supply of the raw materials for the pyramid.

The most significant detail that appeared this season concerns the clear evidence of an additional installation on the eastern side, maybe an offering place (fig. 13). The 2010 survey revealed the largest concentration of pottery sherds here, and a diagnostic trench was dug in 2011, exposing the remains of two parallel walls surrounding a square negative left by the removal of a kind of structure that was regular in shape and measuring almost 1 sq. m. In all likelihood it marks the position of a totally dismantled installation, and many pieces of fine white limestone (a non-local stone!) have been found in this area.

This could highlight the nature of this construction that had been



Figure 11. Hratch Papazian producing a facsimile of the southern graffiti



Figure 12. Quarry area with the pyramid in the background







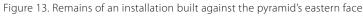




Figure 14. Sign in Arabic at the northern entrance of the site



Figure 15. New shed for the guards, built in 2011

originally erected on the bedrock and placed against the center of the eastern face of the pyramid, which under the reign of Snofru became the typical location for the funerary temple attached to the traditional pyramids.

### THE SITE MANAGEMENT PROGRAM FOR 2012

The Edfu Pyramid Project is primarily a rescue program, with the principal aim to save and preserve the last monument of this kind from the development of the modern village, the modern cemetery progression, and the construction of a new gas pipeline.

The cleaning operations carried out this year were mainly a first step in this direction, and the future work will focus more on the conservation aspects. In order to protect the site from more looting attempts and to prohibit the daily circulation of people and vehicles through the archaeological area, two temporary panels in Arabic have been placed near the pyramid (fig. 14). We also built a small house last season (fig. 15) for maintaining guards on the site in order to stop the continuous dumping

of trash and to control the work and the traffic during the construction of the planned pipeline.

If funding allows it, the consolidation and conservation of the superstructure will also be started next season, focusing on a minimalist and non-invasive restoration (patching the looting attempts, strengthening the external faces, restoring and maybe reconstructing the "accretion layer" technique). To reduce some problems of water infiltration, particularly harmful for a sandstone construction built on sandstone bedrock, sanitation work and the replacement of some water pipes will be necessary.

The panels will be replaced next season with more complete information boards in both Arabic and English, to provide information for the local inhabitants about their heritage with a proposal to open this site for sightseeing from 2013 onward.

The ultimate goal is to enclose the area, without disfiguring the entire site, with a light but solid barrier providing a sufficiently clear limit to avoid the risks of traffic, illegal dumping, and plundering in the long term.

#### **NOTES**

<sup>1</sup> The Edfu Pyramid Project is a side project of the Tell Edfu Project, directed by Dr. Nadine Moeller and funded by a National Endowment for the Humanities (NEH) grant. Support from the Oriental Institute this season permitted us to bring together a team of workers sufficient to ensure the first step of this project. We would like to thank all the US and Egyptian members of the Tell Edfu Project, particularly the participation of Aurelie Schenk (archaeologist, Roman Museum of Avenches, Switzerland). We sincerely thank our inspectors Osama Ismail Ahmed and Alaa Ahmed Kamal for their excellent collaboration. Special thanks go to the Chicago House team and Ray Johnson for their generous hospitality and precious support.

A special award from the ARCE Antiquities Endowment Fund and USAID and the outcome of several ongoing grant applications could help us to continue this site-management project and to support the limited cost of the conservation work. Of course, this project is still available for adoption!

- <sup>2</sup> N. Swelim. "Reconstructions of the Layer Monument of snfrw at Seila," pp. 39–56 of Echoes of Eternity: Studies Presented to Gaballah Aly Gaballa, edited by Ola El-Aguizy and Mohamed Sherif Ali (Wiesbaden: Harrassowitz, 2010).
- <sup>3</sup> S. Seidlmayer, "Town and State in the Early Old Kingdom: A View from Elephantine," pp. 108–27 of Aspects of Early Egypt, edited by A. Jeffrey Spencer (London: British Museum Press, 1996).
- <sup>4</sup> G. Dreyer and W. Kaiser, "Zu den kleinen Stufenpyramiden Ober– und Mittelägyptens," Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo 36 (1980): 43–59.