

ABYDOS RESEARCH PROJECT

Report of the Season, September, 2004

By James S. Westerman

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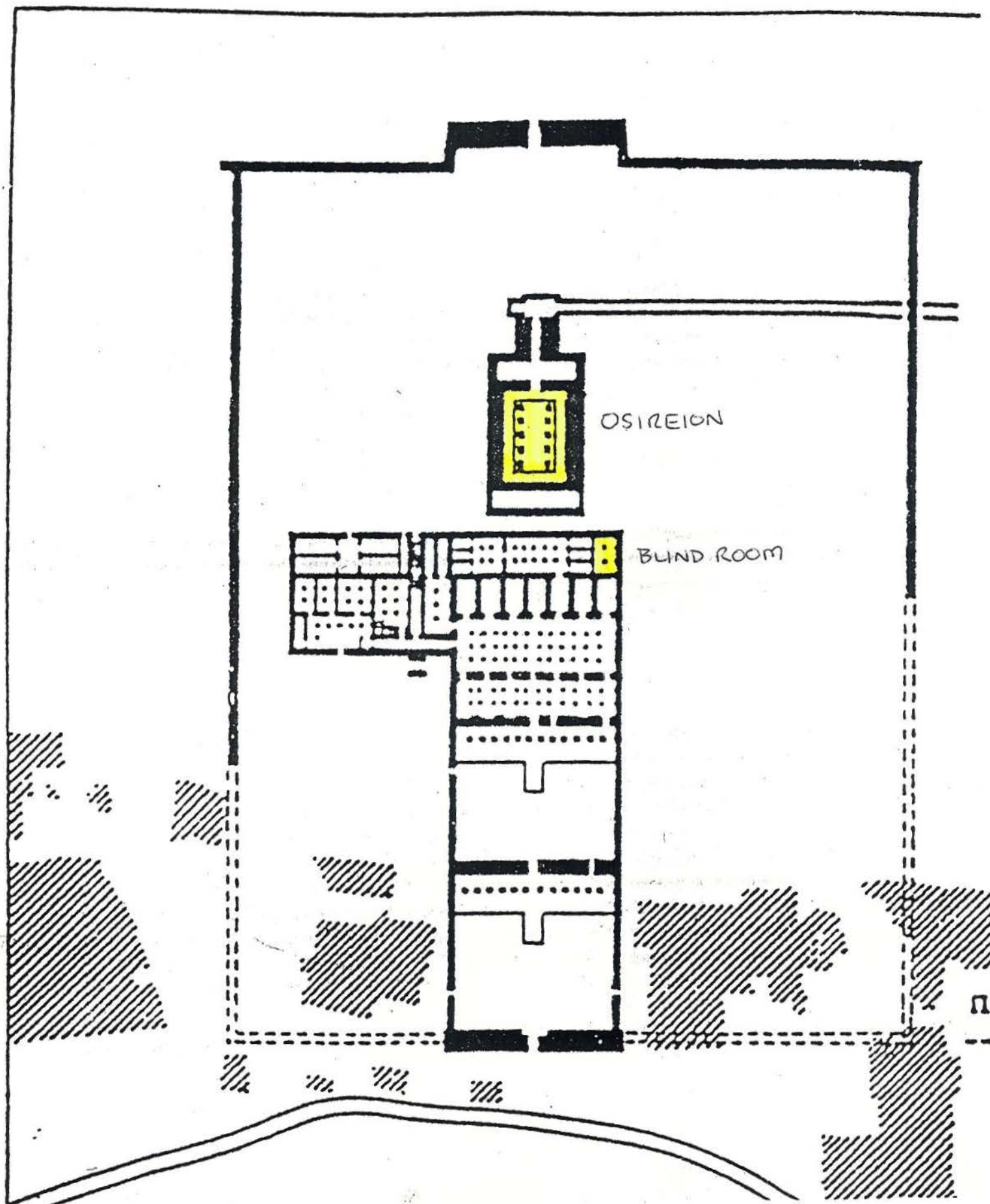
Introduction

This report is to document the research done in the building commonly referred to as the Osireion or The Cenotaph of Seti I at Abydos which lies directly to the west of the Seti I Temple, and also in the space commonly referred to as "The Blind Room" in the northwest corner of the Seti I Temple (Fig 1). This work was under the direction of James Westerman, with participation by Bahay Issawi, Yahia El Masry, Thomas A. Heinz, Ali Asaad Mazhar, Adly A. Omer, Ahmed A. Abdel Moneim, Abdu Mohamed Zidan, Hanny Mahmoud Kaleed, Nasser Ahmed Abraham and Absalom Mohamed Ali.

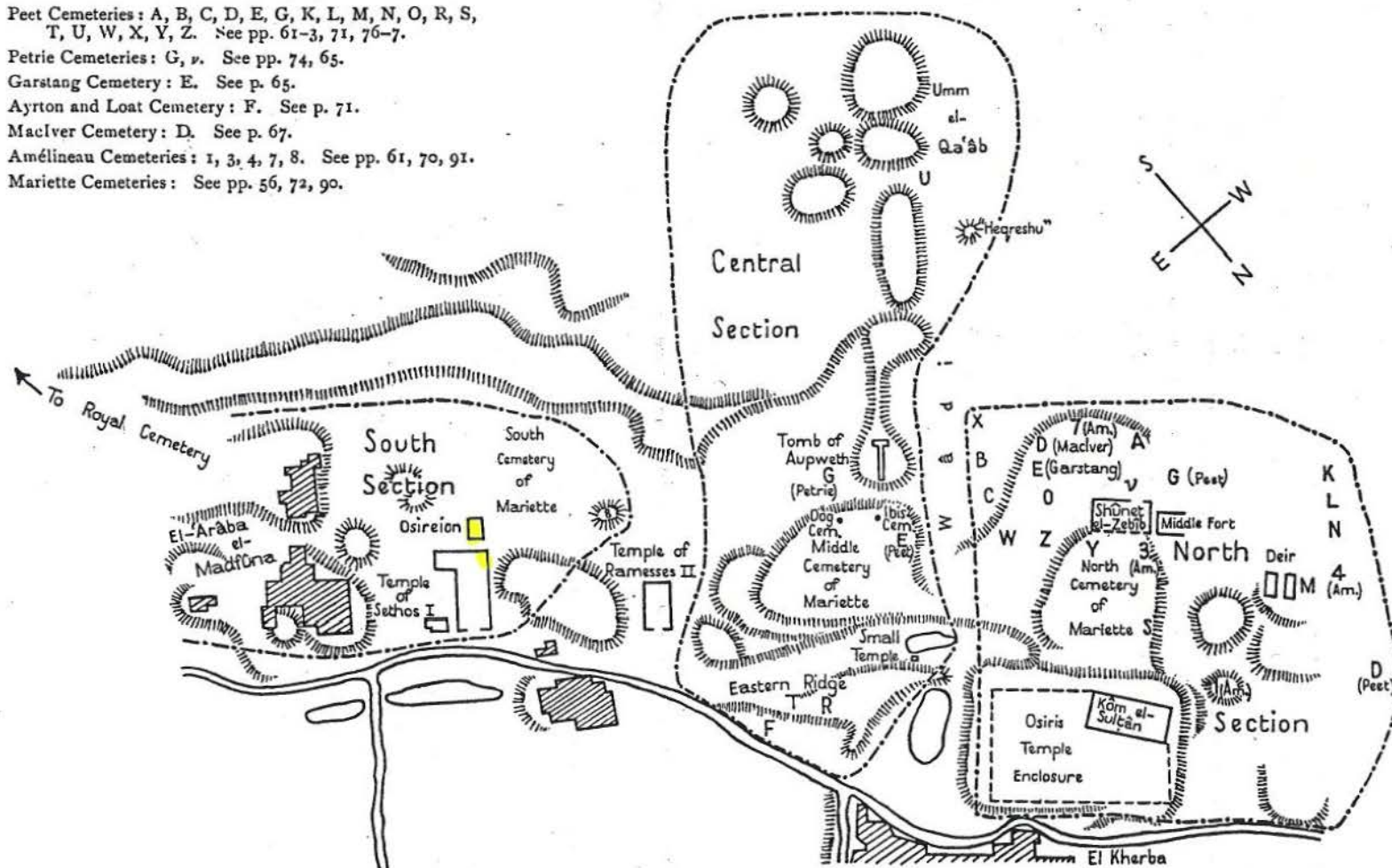
Our local inspector was the very helpful Ashraf Okasha, and we must thank all the Supreme Council of Antiquities people, most notably Aziza El Sayed Hassan, Zein El Abdin Zaki and Zahi Hawass who helped make this season's work so successful.

This report is divided into two parts – the first detailing the work done in the Osireion under the direct supervision of James Westerman, and the second concerning the surveying and study of the elevations of the Seti I Temple as they relate to the floor level of The Blind Room which were supervised by Bahay Issawi.

FIG. 1



Peet Cemeteries : A, B, C, D, E, G, K, L, M, N, O, R, S,
 T, U, W, X, Y, Z. See pp. 61-3, 71, 76-7.
 Petrie Cemeteries : G, v. See pp. 74, 65.
 Garstang Cemetery : E. See p. 65.
 Ayrton and Loat Cemetery : F. See p. 71.
 MacIver Cemetery : D. See p. 67.
 Amélineau Cemeteries : 1, 3, 4, 7, 8. See pp. 61, 70, 91.
 Mariette Cemeteries : See pp. 56, 72, 90.



ABYDOS SITE. KEY-PLAN.
 Adapted from MARIETTE, *Abydos*, i, pl. 1.

It should be noted that cardinal points referred to in this report are the traditional local directional indicators used in Abydos (i.e., “West” or “Project West” is actually ‘true’ South-West) (Fig. 2).

The Osireion

Ever since its discovery by W.M.F Petrie and subsequent clearing and recording by successively M. Murray and H. Petrie (1902), E. Naville (1912-14) and H. Frankfort (1925-6) many aspects of the Osireion have puzzled Egyptologists and others who study ancient Egyptian constructions.

The Osireion is a very massive building presently resting in water with no clear understanding of its foundation (Frankfort Vol.I, p.19) or its water source (Brooks & Issawi, Moneim). Its eastern most subterranean construction is located a scant six meters from the western most side of the Seti I Temple (Frankfort Vol. I p.9). To answer the question of how the ancient architects and engineers constructed the foundations in this aqueous environment and placed the two buildings so close to each other was the goal of this season’s work.

James Westerman has been studying the relation between the Osireion and the Seti I Temple since 1986. In prior seasons he co-sponsored work done by The University of Pennsylvania to determine the source of water in the Osireion (Brooks & Issawi, 1992) (Snape, 1993) and to propose conservation measures for the Osireion (Carli and Price,

1997). He had also participated in archaeological excavations in the Seti I Temple (Snape, 1997 & El-Sawy, 2000). He had previously spent time during each of these projects physically in Abydos in the Osireion. Because of this depth of experience he was uniquely qualified to lead this season's work.

In Frankfort's 1933 report on the Cenotaph of Seti I he reported that during the 1914 season by using non-powered methods they were able to lower the water level to 4.30 meters below the surface of the island (Frankfort Vol I, p.7). During the 1925/6 season, using a 16 horsepower steam engine driving a 4 inch pump against a 70 foot head, they were only able to lower the water level to 3.80 meters below the ledge at which point the inflow from the ground exceeded the de-watering capacity of the pump. At this level however, they discovered in the east canal of the Osireion two "thrust beams" (1.10 m thick and 1.25m wide) connecting the island to the east wall. The top of these beams were 4.15 m below the island. (Ibid.).

Frankfort also says that there wasn't the slightest reason to assume that the water found in the Osireion was from a well or source other than the Nile (even though the water spouted up from directly beneath the eastern canal which would be a condition one would expect from an artesian well). He also questioned whether pumping out the water would be advantageous since it could weaken the foundations of the Osireion. (Ibid).

In a report filed by Osman R. Rostem it is stated that in approximately 1925, "Mr. E. Baraize, an engineer of The Department of Antiquities, excavating in the second court of

the temple revealed the fact that the temple was partly built on solid rock and partly on debris filling a deep ditch which was hewn out of the rock, for an obscure reason, in the central area (nearly the middle third of the width) all along the axis.” (Rostem, p. 67) (Fig. 3). Rosalie David also commented on this filled in ditch. (David, p.18, 125).

In Rostem’s 1950 report he also states that Abdel Salam M. Husein, in order to stabilize the rear portion of the Seti Temple from falling into the Osireion constructed a series of concrete reinforced pillars between the two buildings down to a depth of 14 meters below grade. In constructing these concrete pillars no connecting passageway was discovered between the two structures. (Omm Sety & El Zeini, p.21).

Rostem also states that Abdel Salam did some sample soundings and took some core samples along the central axis of the Seti Temple in the first court, and in one sample he discovered a construction consisting of two limestone layers, a void and another limestone layer which he inferred was a 90 centimeter deep conduit at a depth of about 10 meters below grade which he assumed was a conduit to bring water from the Nile to the Osireion. (Rostem, p. 70 and plate X) In 1992 a survey of the central axis by ground penetrating radar could not locate any indication of this conduit. (Grumman, pp.5- 7).

In 1992 in a report filed by James E. Brooks and Bahay Issawi it was stated that the ground water in the Osireion was in fact not flowing from east to west as had been supposed but in fact was flowing from west to east from out of a large heretofore unknown aquifer.

In 1994 Ahmed A. Abdel Moneim claimed that the source of the water in the Osireion was from the Nile and was a byproduct of the hydro-geology of this part of Egypt. (Moneim, p. 1).

So to summarize, prior to our work in this season what was known was that the surrounding walls of the Osireion had been built during the reign of Seti I (Frankfort Vol. I, p. 24); that the water in the Osireion could not be drained by a 16 horsepower steam engine connected to a 4 inch pump in 1925/6 below 3.8 meters from the top of the island; that Frankfort had reached a level with a probing stick of 7.8 meters below the island which he assumed was the foundation layer upon which the whole structure was resting (Ibid p. 19); that there were conflicting reports as to where the water in the Osireion originated (Brooks & Issawi, Moneim); that the center section of the adjacent Seti I Temple was built on a deep filled-in ditch, that there was no direct connection between the Osireion and the Seti I Temple and that there was a supposed conduit in the First Court of the Seti I Temple running from east to west towards the Osireion which could not be discovered using ground penetrating radar.

THIS SEASON'S WORK

In order to determine the depth of the foundations on which the Osireion rests the team had brought in two 24 foot (7.3 meter) extension poles, a 1.3 meter iron probing rod, two

.25 meter connectors, and an Aqua-Vu ZT underwater camera. The intent was to photograph the foundation level of the Osireion.

In the 1925/26 season Frankfort had drained the water level in the east channel of the Osireion down to a level of 3.8 meters below the island, and his schematic drawings of the walls show that he had cleared all debris in the east channel in parts down to greater than five meters below the island. It was hoped that the water in the Osireion was still clear down to this level and potentially even clear enough that the underwater camera could be projected down to a lower depth where at 7.8 meters the suspected foundation could be observed.

The first surveying we did consisted of taking temperature and depth readings completely around the canal surrounding the center part of the Osireion. (Fig. 4 and Table 1) We were looking to see if there were any temperature anomalies indicating a potential inflow point or outflow point of the water, and also to get readings of the actual depth of clear water in the canal.

The temperature readings were within 3 degrees Fahrenheit of each other throughout the entire canal, and the depth of the water ranged from .25 meters to 2.0 meters. The clear water was deepest in the eastern canal and also in the area where the present de-watering pump intake pipe exists in the southwest corner of the Osireion. This would be consistent with Frankfort having cleared this area (east canal) most extensively during the 1925/6