ACADEMY OF GLASGOW FOR CULTURE& SCIENCES

Master of archaeoacoustics

Investigating the Enigmatic Osirian: Structural Analysis, Water Dynamics, and Uranium Deposits in Egyptian Sandstone

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Introduction

Archaeologists Flinders Petrie and Margaret Murray uncovered the Temple of the Osirians while excavating the site between 1902 and 1903. The date of its construction remains uncertain. In his 1998 AD thesis on Seti I, Peter J. Brand, citing primarily the numerous cartouches of Seti discovered engraved at the site, asserts that it "can be confidently dated to the reign of Seti." It is a significant feature of the burial complex of Seti I and was most likely constructed to replicate the 18th Dynasty Valley of the Kings Cemetery[1].

Until recently, the Temple had been constructed. There is ongoing debate regarding the building's actual date due to its depth, unusual architectural style, and mythological background. It was originally situated at a significantly lower level than the foundations of the Temple of Seti. Researchers are investigating the possibility that the building served multiple functions over time as it evolved to accommodate changing political and religious contexts.

1. The utilization of granite, sandstone, and limestone in architectural construction proximal to a water source prompted an investigation into the parallels between this construction and the Oklo reactor, a naturally occurring water source that also contains granite, sandstone, and limestone. This observation served as the impetus for our research. Through our investigation:
2. The natural reactor materials of Oklo and the building materials of Osirian exhibit similarities.
3. Comsol was employed to elucidate the operational mechanisms of Osirian, assuming it functions as a nuclear reactor. Light water was utilized in an attempt to ascertain the occurrence of nuclear reactions.
4. A novel approach to the study of Egyptian antiquities was established through the application of modern technologies to comprehend the characteristics and composition of ancient Egyptian materials.

- ## Methodology
- This research employs historical, descriptive, and analytical methodologies to examine the architectural configuration of the Osirian structure and compare it to the natural formation of the Oklo nuclear reactor from its inception to the Nile water level.
- The study analyzes the materials, characteristics, and elemental compositions of the Oklo reactor in relation to the construction materials and elements of the Osirian. A theoretical approach is adopted to investigate these aspects, considering the hypothesis that the Osirian may represent the earliest human-constructed nuclear reactor, utilizing pure PH. The investigation incorporates quantitative data analysis techniques.

[1] Murray, Margaret A. The Osirion at Abydos, British School of Egyptian Archeology n°1, London, 1904.

One of the main reasons that ancient Egyptian culture was preserved from the beginning is its architecture, which is often considered to be the most important type of ancient art. The artifacts of that civilization have been preserved and guaranteed to survive thanks to architecture. Ancient Egyptian architecture was based on a basic idea that was very significant: immortality after death. As a result, building came to represent survival and immortality. Because of the ancient Egyptians' mastery of engineering, mathematics, and astronomy, construction operations in that country were based on highly skilled and scientific concepts.

Ancient Egyptian architecture exemplifies the sophisticated technologies used in building and construction throughout a range of engineering designs. Wheels were used in ancient Egyptian building. According to Egyptian historians, the ancient Egyptians were the first to construct knowledge, who laid the groundwork for civilization and taught humanity how to design structural construction. The Egyptians achieved previously unheard-of levels of proficiency in construction engineering and architectural design. It is still difficult to understand how these structures, which exhibit a remarkable degree of accuracy and perfection, could have been built with minimal instruments of unparalleled simplicity.

A historical overview of the OsirianTemple

Abydos was a thriving metropolis by 5400 BC, and two thousand years later, pre-dynastic pharaohs kept building temples, shrines, and burial grounds. Seti I produced his own architectural masterpiece in the thirteenth century BC. It was a graceful temple with a network of interconnecting halls and ancillary chambers that were covered in beautiful friezes, murals, and hieroglyphic inscriptions from floor to ceiling. However, people had long been attracted to this site to witness another important phenomenon.

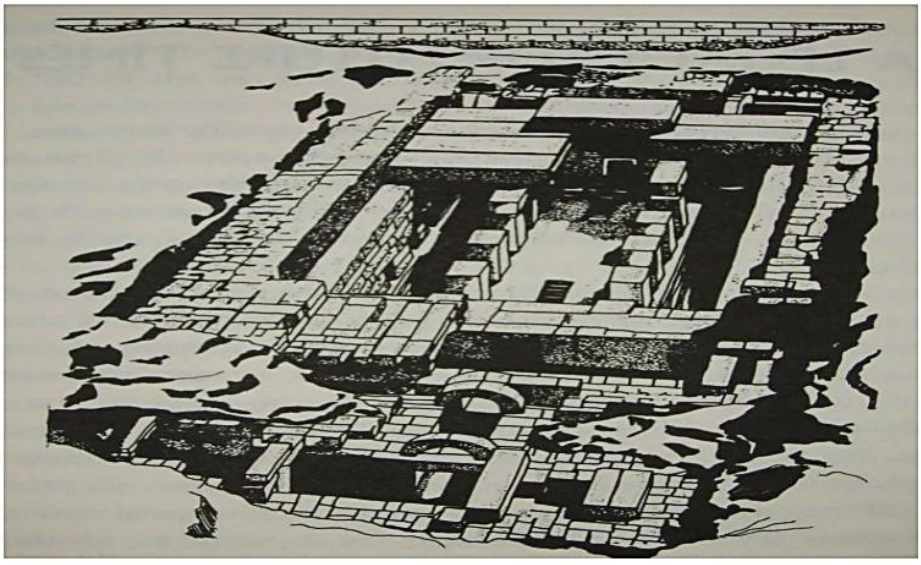

Fig 1 View of the Osirian at Abydos (Annual Report from the Smithsonian Institute, 1914, pp. 579-585)

The features of the area were very different twelve thousand years ago than they are today. Where a more humid environment historically supported a fruitful landscape, there is now a large desert. Seven kilometers closer to the city, the Nile's path led to a unique temple called Osirian, which was named for the Egyptian god of resurrection, Osiris. The Temple of Seti and this one are very different in terms of appearance and style. Large, red granite blocks that were hauled from a quarry two hundred miles distant were used in its construction, making it a stunning yet attractive example of simple, cost-effective design. Even if modern engineers still find it difficult to understand the logistics of construction, Osirian was built in antiquity with the specific goal of lasting past its time.

The Temple of Osiris is located just behind the Temple of Seti in the heart of Al-Balina in the Sohag Governorate (the Abydos region). In 1902-03 AD, archaeologists Margaret Murray and Flinders Petrie made the discovery while excavating the site. There is still disagreement on when it was built. Citing mainly the several cartouches of Seti discovered engraved at the site, Peter J. Brand claims in his 1998 AD thesis on Seti I that it "can be confidently dated to the reign of Seti." It was probably created to resemble the Valley of the Kings (Kitab) Cemetery from the 18th Dynasty and is an important part of Seti I's burial complex[2].

The Osirian was thought to be an extension of the Temple of Seti, a type of subterranean chamber built into the hollow bedrock until recently. Should this be true, it would be a radical break from conventional structural design. Geological analysis, however, runs counter to this viewpoint. The Nile's waters reached Osirian in antiquity, when it was fifty feet lower than it is today[3].

[2] The Osirion. A freestanding temple in 10,5000 BC (invisibletemple.com)

[3] Osireion - Madain Project (en). -JOURNAL ARTICLE The Festivals of Osiris and Sokar in the Month of Khoiak: The Evidence from Nineteenth Dynasty Royal Monuments at Abydos Katherine J. Eaton - Studien zur Altägyptischen Kultur

Through comparative analysis, we examine the strengths, weaknesses, advantages, and disadvantages:

Strengths:
Notwithstanding the absence of empirical evidence or quantitative analysis indicating the presence of uranium traces, the geographical proximity of Upper Egypt or the Abydos region to the primary uranium source in Egypt, specifically the Red Sea, warrants consideration, as depicted in the geographical representation.

Opportunities:
This presents a novel avenue for research on Egyptian antiquities from an alternative perspective, expanding beyond the conventional focus on religious and funerary artifacts to potentially encompass energy-related investigations..

Challenges:
The analysis of the towers for potential uranium deposits is impeded by several factors. Firstly, the composition of materials utilized in the construction of the Osirian Temple remains undetermined. Furthermore, the provenance of the sandstone employed in the Osirian Temple is challenging to ascertain, whether it originates from the Sahl generation or elsewhere, due to the paucity of available information. This uncertainty persists despite the utilization of similar materials in other temples, notwithstanding differences in architectural design and variations in raw material extraction sites.

Weaknesses:
The absence of substantiated sources, research, and information regarding the Azorean temple, as well as the fact that the research only presents hypotheses about the similarity between the temple's building materials and the raw materials comprising the Oklo core.

Amnesty International recommended conducting preliminary research and performing the requisite analyses of the adaptive building materials to determine their potential efficacy.

Through comparative analysis, we identify and examine the strengths, weaknesses, advantages, and disadvantages: Strengths: Despite the lack of empirical evidence or analysis demonstrating any effect on uranium, the proximity of Upper Egypt or the Abydos region to Egypt's uranium source in the Red Sea is noteworthy, as evident from geographical data.

Research points: Novel research perspectives on Egyptian antiquities, extending beyond religious and funerary artifacts, may reveal potential energy sources.

The final points of determination are: the challenges in conducting comprehensive analyses, including the presence or absence of uranium deposits, the unknown proportions of materials used in the construction of the Osirian Temple, the difficulty in identifying the specific sand utilized in the Osirian Temple and determining its

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