

## WHY DID TAHARQA BUILD HIS TOMB AT NURI?<sup>1</sup>

It has always seemed mysterious why Taharqa chose Nuri as his burial site. Before his pyramid was built there, Nuri appears to have been as vacant as it was remote. It is 9.7 km upstream from Jebel Barkal on the opposite bank of the Nile; it is 13 km upstream from Sanam on the same bank; and it is 26 km upstream and on the opposite bank from the old dynastic cemetery at el-Kurru, where all the other members of his family were buried, including his successor Tanwetamani. It was only with Taharqa's second successor Atlanersa that other kings felt inclined to follow him to Nuri, and there, for the next 360 years, nineteen of the next twenty kings of Kush and some fifty-four queens built their pyramids [Fig. 1].

The Nuri necropolis was excavated by George A. Reisner of the Harvard University-Museum of Fine Arts, Boston Expedition between 1916 and 1918, but his work was not fully published until 1955 when the task was completed by his assistant Dows Dunham (1955; Reisner 1918a; Reisner 1918b, esp. 70-73). According to Dunham, Reisner always suspected that Taharqa chose Nuri and shunned el-Kurru because he was not of the direct royal line and may have wished to distance himself from the other members of the dynasty. Dunham, for his part, always believed that the king chose Nuri because el-Kurru was too crowded with smaller, older tombs and had no room for a pyramid of the scale and grandeur he desired.<sup>2</sup> Neither scholar published these thoughts, however, probably because

neither felt quite convinced by them. Neither could explain why Taharqa's tomb was so much larger or so completely unlike any other royal tomb built before or after it, or why, of all sites that could have been chosen as an alternative to el-Kurru, Nuri was selected.

László Török has recently noted that the distance between the old necropolis of el-Kurru and the Amun sanctuary at Jebel Barkal on the right bank is virtually the same as that between Nuri and the Amun sanctuary at Sanam on the left bank – but with the directional relationships reversed. Such an oppositional relationship of the two royal cemeteries, he suggests, may have had to do with a cultic link between the two sanctuaries of Jebel Barkal and Sanam based on the metaphorical implications of the local reversed direction of the river, where “east” became “west” and *vice versa*.<sup>3</sup> Attractive as this theory may appear at first glance, the data presented below will show that this supposed mirrored relationship of the two necropolises is probably only coincidental.

Taharqa's pyramid, designated “Nuri I” by Reisner, was the largest ever built in Sudan. Reisner calculated its base as 51.69 m<sup>2</sup>, which suggests that it may actually have been planned at 52.30 m<sup>2</sup> or 100 Egyptian cubits square (Reisner 1918a: 24).<sup>4</sup> Its angle of 69° meant that it had a total original height of approximately 63 m. When the first Europeans visited the site in 1821, they found this pyramid, built of red sandstone, to be partly pulled down, exposing inside a much

<sup>1</sup> I would like to express my deep thanks and appreciation to Hassan Hussein Idriss, Director General of the Sudan National Corporation for Antiquities and Museums (NCAM), for his constant support of my research at Jebel Barkal; thanks also to Drs. Robert Hall and Ronald Bailey of the African-American Studies Department, Northeastern University, Boston, for lending institutional support. For making funds available that have allowed my work to continue I am also deeply grateful to Alan M. May and the Trustees of the Schiff Giorgini Foundation, to Dr. William Kelly Simpson and the Marilyn M. Simpson Foundation, and to Barry Harris, Sue McGovern, Thomas Woodruff, Charles Fritsch, and Cynthia Walpole.

<sup>2</sup> Dunham, personal conversations during the late 1970s.

<sup>3</sup> Török 2002: 39. Noting that the bark of Amun of Napata at Jebel Barkal must periodically have been ferried to Sanam and the “west” bank, Török postulates a relationship between these temples that corresponds to the relationship between Luxor Temple and the Small Temple of Medinet Habu at Thebes. He writes: “As determined by the Egyptian theological model ..., the building of the temple at Sanam (by Taharqa) must have been conceived concurrently with the plan of a new royal cemetery associated with it on the ‘west’ bank. Similarly to the Amun temple at Medinet Habu, the Sanam temple was also associated with the royal mortuary cult as suggested by the *shawabti* figures ... and the moulds for royal *shawabti* discovered in the temple”.

<sup>4</sup> Dunham 1955: 7 records the pyramid base as 51.75 m<sup>2</sup>, Reisner 1918b: 68 describes the pyramid as “52 meters square”.

smaller, earlier pyramid of white sandstone, which could still be seen standing to its full height (Dunham 1955: 7-8. See also Shinnie 1958: 44; Usick 2002: 166, 179, Fig. 90; Waddington and Hanbury 1822: facing 176) [Fig. 2]. By Reisner's time, a century later, the destruction of the monument had continued to such an extent that neither pyramid was visible, and Nuri I appeared only as a large rubble mound. By clearing the top, however, Reisner located the upper sides of the inner pyramid, and by identifying its angle he was able to estimate its base at  $28.50 \text{ m}^2$  – which was probably more likely  $26.60 \text{ m}^2$ , which would have made the pyramid 50 cubits square, or half the size of the outer pyramid. Its slightly reduced angle of  $65^\circ$  gave it a height of about 28 m.



Fig. 1. Southeast view of the Nuri pyramids from the air, showing the ruined pyramid of Taharqa (Nuri I) at right center (Photo E. Ferorelli, 1989)



Fig. 2. Taharqa's pyramid as it appeared in 1821, revealing an original small pyramid encased within the ruins of a much larger pyramid (From Waddington and Hanbury 1822: facing 176)

Reisner observed that Taharqa's large outer pyramid had neither a chapel nor foundation deposits associated with it. He also noted that the stairway leading down to the tomb was centered on the southeast side of the smaller pyramid, but 3 m off-center on the same side of the outer pyramid. This led him to conclude that the outer pyramid was a posthumous addition that entirely encased the original pyramid, its chapel and foundation deposits [Fig. 3]. That a chapel had indeed once been associated with the tomb was clear from Reisner's discovery of several carved relief blocks and an offering stand that had fallen into thieves' debris at the bottom of the stairway.<sup>5</sup>

Given the regularity of pyramid sizes at el-Kurru and Nuri, we may justly wonder if Taharqa's pyramid was actually built in three stages rather than two. A first pyramid somewhat less than one quarter the size of the final pyramid,  $8\text{-}13 \text{ m}^2$ , would have duplicated those of Taharqa's predecessors and his two successors (Reisner 1918a: 24-25).<sup>6</sup> The second pyramid, at about 50 cubits square, would have doubled the standard size of the el-Kurru pyramid and set the norm for the later Napatan kings starting with Senkamanisken. The final stage, at 100 cubits square, gave Taharqa's pyramid nearly four times the height and mass of the pyramid of any other Twenty-fifth Dynasty king

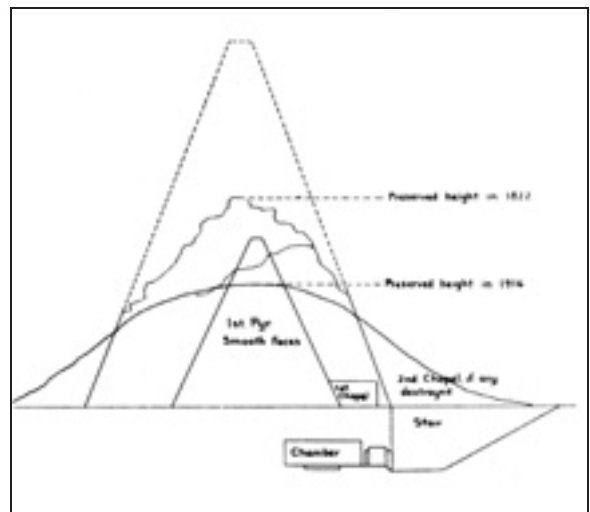


Fig. 3. Cross-section of Taharqa's pyramid and tomb, showing the different stages of construction and the chronology of modern degradation (From Dunham 1955: 6, Fig. 1)

<sup>5</sup> See the Reisner diaries for Nuri, conserved in the Egyptian office library, Museum of Fine Arts, Boston: entries for Dec. 9, 12, 1916.

<sup>6</sup> The pyramids of el-Kurru and the smaller pyramids at Nuri ranged from  $9.70$  to  $12.50 \text{ m}^2$ ; the larger pyramids at Nuri ranged from  $26.60$  to  $32.50 \text{ m}^2$ . Hintze 1981: 96, Tabelle A 1, lists Kashta's pyramid (Ku. 8) at  $9.85 \text{ m}^2$ ; Pi(ankh)y's (Ku. 17) at  $8.00 \text{ m}^2$ ; Shabaqo's (Ku. 15) at  $11.00 \text{ m}^2$ ; Shebitqo's (Ku. 18) at  $10.70 \text{ m}^2$ ; Tanwetamani's (Ku. 16) at  $8.25 \text{ m}^2$ ; and Atlanersa's (Nu. 20) at  $12.09 \text{ m}^2$ .

and nearly twice the height and mass of the pyramid of any later Napatan king. The great pyramid, which was clearly built some time after the king's death and burial, was obviously intended to memorialize him in some special way, but what was it?

The subterranean tomb of Nuri I could hardly have been more different from the tombs of Taharqa's predecessors and successors, which, respectively, had either two or three interconnecting chambers cut in the rock in line with the stairway. From ground level, a stairway of 51 steps descended 10 m to a landing 9 m in length. A formal doorway led into a small antechamber (3.30 x 3.10 m), which opened onto a large vaulted hall (12.60 x 13.30 m), supported by two rows of three massive columns [Fig. 4]. At right angles to the entrance doorway there were two other doors, each with flights of seven steps ascending into a barrel-vaulted corridor, 2 m high, cut in the rock and completely encircling the central chamber. This corridor gave direct access to the tomb chamber through another door and a descending stairway in the rear. The floor of this corridor was uniformly 1.50 m higher than that of the tomb chamber. In the central aisle of the main crypt Reisner found a sunken, rectangular depression, approximately 2.45 by 5.90 m, containing burial debris.<sup>7</sup>

When Reisner excavated Nuri I, between November 1916 and March 1917, he found it flooded by groundwater and theorized that the water table had risen since antiquity. Opening the tomb in mid-December, he left it open for two

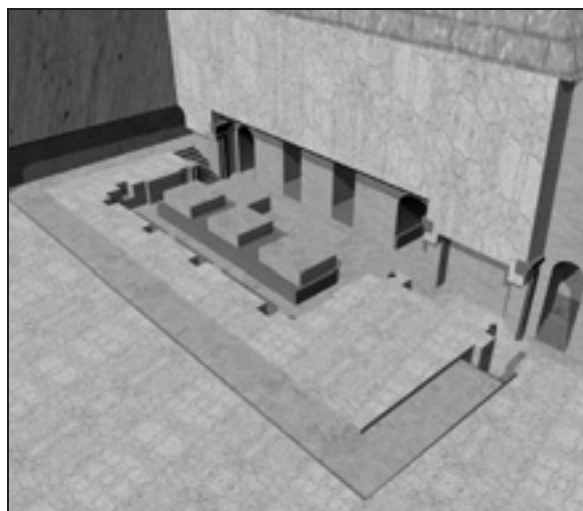


Fig. 4. Plan of Taharqa's burial chamber, with the left half partly cut away to reveal the floor of the crypt and surrounding corridor (Computer reconstruction N. Reshetnikova)

months, hoping the water level would fall, but it did not. In February, he organized a bailing operation, which reduced the water enough by day so that he could excavate the tomb floor small areas at a time. Each night, however, the water returned. He speculated that the original builders of the tomb had intended to go deeper underground, but when they struck water, they simply paved the room and left it at that level (Reisner diary, Nuri, Dec. 12-17, 1916; Feb. 12-26, Mar. 4-7, 1917).

During excavations at Sedeinga in 1963-64, Michela Schiff Giorgini and her team discovered the remains of a small ruined pyramid comparable in size and form to the royal tombs at el-Kurru (Schiff Giorgini 1965: 112-130, Figs 2-6, Pl. 31, esp. 116-123, and see note 6, above). This pyramid (WT1) was 9.80 m<sup>2</sup> with a stairway of 22 steps leading down 5 m to a rock cut tomb consisting of two chambers in line. The inner chamber, with a raised coffin bench, contained many bone fragments, gold leaf and ample traces of a burial. The bone fragments suggested a male individual about fifty years of age. What made the find so sensational at the time was that blocks bearing fragmentary texts and reliefs inscribed for Taharqa were recovered in the stairway. Since this tomb seemed to fit perfectly the size and type of tomb that one would have predicted for Taharqa at el-Kurru – had there been one – and since it clearly contained male human remains of about the right age, Schiff Giorgini and her colleague Jean Leclant proposed that it was Taharqa's real tomb. Since Nuri I was so unlike any other tomb in the Kushite royal sequence and since Dunham had written carelessly in one place that it had contained "no trace" of a burial (i.e., "human remains") (Dunham 1955: 9), they concluded that Nuri I had likely been built only as a cenotaph for the king. Recognizing the remarkable parallels

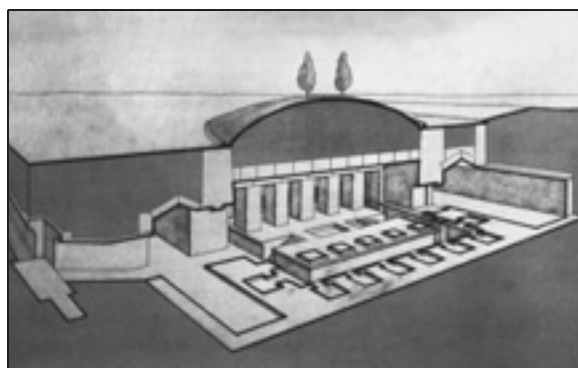


Fig. 5. Plan of the Osireion at Abydos (From Aufrère et alii 1991: 44)

<sup>7</sup> Reisner diary, Nuri, Feb. 21, 1917: "In the debris in the hole below the floor level, there was some gold foil mixed with black organic matter (decayed wood?). There were also a few inlay pieces and a few scattered *ushebtis*".



between the underground plan of Nuri I and the Osireion at Abydos, they proposed that Nuri I had been built as an “Osireion” for Taharqa (Schiff Giorgini 1965: 123; Leclant 1986: 159 and references).

The Osireion at Abydos, built by Seti I as a symbolic tomb for Osiris and a cenotaph for himself (Kemp 1981; Murray 1904; Frankfort *et alii* 1933), is a subterranean complex on the west side of Seti’s Osiris temple at Abydos. Its main feature is a tomb chamber with ten massive square pillars set in two rows of five [Fig. 5]. The central floor, between the columns, was raised above the surrounding floor, which lay below the water table and was permanently flooded. As in Nuri I, there was a rectangular sunken pit in the center of the floor. This had obviously contained a burial – perhaps a mummiform effigy of the god, of which all traces had disappeared. The raised floor apparently re-created underground the “Primeval Mound” of Egyptian mythology on which the Creator god Re-Atum was said to have raised himself at the beginning of time, surrounded by the watery “Nun” – a motif, symbolic of generation and regeneration, which was also shared by Osiris (Frankfort *et alii* 1933: 27-31).<sup>8</sup> As an alter-ego of Re in the Underworld, Osiris, too, was thought to be able to renew Creation annually by bringing forth the inundation and the fertility of the earth (Gwyn Griffiths 1980: 150-163). Above ground, the Osireion was covered by a mound of earth on which trees were planted. The trees would have offered visible proof of the magical generative power of the subterranean structure.

Since Osiris was a god of vegetative fertility as well as the perceived divine progenitor of kingship through his son Horus, the Osireion at Abydos, in the Nineteenth Dynasty, must have been intended to guarantee not only the annual rise of the Nile, the fertility of the land, and the god’s own regeneration, but also the renewal and continuity of the royal line, of which the god, here incarnated as Seti, was believed to be the founder.

Unknown to Schiff Giorgini and Leclant in the early 1960s, traces of human remains had indeed been found in Nuri I; there were at least three bone fragments, not mentioned by Dunham, as well as dozens of colored cut stone inlays,

hundreds of scraps of gold foil and three pairs of inlay eyes from a set of nested, gilded, wooden anthropoid coffins.<sup>9</sup> Nuri I also contained a fragmentary set of canopic jars and 1070 *shawabtis*, all inscribed for “Osiris Taharqa” (Dunham 1955: 10, 16; see also Kendall 1982: 35-36). These meant that Nuri I must indeed have been the king’s burial place and suggested that WT1 at Sedeinga belonged to someone else. In January 1983, a late Meroitic pyramid was found at Sedeinga which utilized stones similar to WT1, which seemed to prove that the latter was only a later pyramid in which stones of Taharqa had been reused (Leclant 1986: 160).

Even though all kings (and all mortals) were thought to unite with Osiris in death, Nuri I – like Seti’s Osireion – seems to have been designed to assert that Taharqa had truly and literally become the god, and that primeval kingship, fertility, and the continuity of the state emanated from the sainted being of this king, who had become the eternal king.

An important difference between the Osireion and Nuri I is that the central floor of the latter was not elevated in the manner of a “Primeval Mound”. It lay below the water table, while the floor of the surrounding rock-cut corridor was raised above it, allowing dry access to the flooded crypt from front and rear. It seems hard to believe that the king’s mummy and coffins would actually have been laid in the water flooding the tomb or burial pit, but no other explanation seems possible. An important hymn to Osiris, recently recognized at Jebel Barkal and discussed below, bears the following lines, which suggest that the king’s mummy may indeed have been laid in the water!

Shining youth, who is in the primordial water, born  
on the first of the year ...  
From the outflow of his limbs both lands drink.  
Of him it is arranged that the corn springs forth  
from the water  
In which he is situated (Priese 2005: 143-144).

During the Ninth International Conference of Nubian Studies in Boston in 1998, I orally presented data (never published) to suggest that Taharqa’s pyramid was situated at Nuri because it lay at or near the point on the horizon where the

<sup>8</sup> For a convenient summary of the voluminous data and relevant texts pertaining to the Creation myth and Primeval Mound, see Rundle-Clark 1991: 35-67. For Osiris and the Primeval Mound, see Piankoff and Rambova 1957: 59-61, Pl. 2, and Figs 44-46.

<sup>9</sup> All examined by me in storage of the Museum of Fine Arts, Boston. As Reisner stated originally (1918b: 72): “Finally we got the tomb temporarily dry. The coffin which had been made of wood, the mummy cases, and the mummy had been torn to pieces by thieves looking for gold, and had decayed except for a few fragments of bones, three pairs of inlaid eyes, and some bronze trappings. These remains were found partly in the antechamber and partly just outside the main entrance”. See also the inventory in Dunham 1955: 9-16, Pls 3-4.

sun rose on what would have been the ancient Egyptian New Year's Day when that sunrise was observed from the summit of Jebel Barkal. As is well known, New Year's Day in the ancient Egyptian civil calendar occurred when Sirius ("Sothis"), the brightest star in the sky, made its first appearance – its "heliacal rising" – just before dawn, about a month after the summer solstice (see, e.g., Parker 1950: 7; Bell 1997: 157-158). According to P.J. Clark, Sirius needs to be 7° in advance of the sun at sunrise in order to become visible before sunrise (i.e., before being obscured by the light of the rising sun).<sup>10</sup> At present, as will be explained below, this event occurs in the district of Napata on July 24.

The Egyptians considered the first pre-dawn appearance of Sirius in mid-summer more important than the solstice, because it coincided very closely with the moment when the Nile began its annual rise. Since the Egyptians saw the Nile flood and the ensuing fertility of the crops as evidence of the renewed life of Osiris, they celebrated New Year's Day – the official start of the inundation – as the god's birth- and rebirth-day (Gwyn Griffiths 1980: 155-158). The above-quoted hymn makes this clear by addressing Osiris as "shining youth ... born on the first of the year ...".

Because in mythology Re and Osiris were both fathers of Horus, and because they were viewed as separately deified, endlessly repeating day-night/life-death/present-past aspects of the same mysterious divine being, the Egyptians considered New Year's Day to be the birthday of both Osiris and Re, and they celebrated it as the anniversary of the Creation of the world, when Re (as Atum) came forth from the watery Nun, lifted himself up on the Primeval Mound

and engendered the first gods and the first sunrise.<sup>11</sup> In the human sphere, the ceremonies held on this day and performed by the royal family mirrored these same events of the Creation myth. New Year's Day, thus, was the day on which the king (heir and earthly embodiment of the Great God) made his own "rising" (*ḥꜣw* = coronation) like his celestial parent – an act which symbolized the rebirth and regeneration of the state through the rebirth of the kingship (see Daumas 1982; Žabkar 1988: 120-123; Kendall 1997: 324-332, Pls 4-10; Török 2002: 18 and references). Like mythical Creation, these events were also tied symbolically to the first surge of the life-giving waters of the Nile.

From the summit of Jebel Barkal, Nuri I, as well as the other Nuri pyramids, can clearly be seen just below the northeast horizon. When viewed specifically from the south corner of the mountain, from the cliff edge directly opposite the peak of the mountain's pinnacle, the azimuth angle of Nuri I is 70.5°, while the Nuri pyramids as a group occupy an azimuth arc of 70° to 72°. From the summit of Nuri I, Jebel Barkal appears as a lone, dark mass on the southwest horizon, having an azimuth arc of 250.5° to 252.5°. The spire-like pinnacle is conspicuous in profile at azimuth 250.5°. Why I use the mountain's pinnacle rather than its summit as my sighting point, I will explain below. I should note here that almost identical sight lines are also encountered in the megalithic calendar circle of Nabta Playa, dated to the late 5th millennium BC.<sup>12</sup>

A number of software packages are presently available that make it possible to observe astronomical events on the computer at any given latitude and longitude in any given year in the

<sup>10</sup> Clark: "As is true of any star, Sirius is only visible between the time of its heliacal rising and setting. Conversely, it is invisible from the time of heliacal setting until its heliacal rising. The 'heliacal rising' is the first day when the star rises and the Sun is far enough below the eastern horizon to make it visible in the morning twilight ... In the same way, the 'heliacal setting' is the last day when the star sets and the Sun is far enough below the western horizon to make the star visible in the evening twilight. Because the magnitude and brilliance of stars differ considerably, their heliacal risings and settings occur with different altitudes of the Sun below the horizon (this is called in Latin '*arcus visionis*' of the star). For example, the Sun's altitude which makes Sirius visible (-7°) is quite smaller than the altitude (-11°) that allows Antares to be visible in the early dawn or twilight sky. This is because Sirius is brighter than Antares and can therefore be seen in a lighter sky. The approximation in calculations of these heliacal rising and setting times over the centuries is unavoidable" (see Meeus 1997: 289-296).

<sup>11</sup> See, for example, the discussion by Piankoff 1960: 10-21. The Egyptian concept of the deity embodying Re and Osiris simultaneously is plainly revealed by the mummiform ram-headed god depicted in the tomb of Nefertari. The god, identified as Re, is attended, as if Osiris, by the goddesses Isis and Nephthys. A text on the god's right says "This Re rests in Osiris", while another on his left says "Osiris rests in Re" (pictured in Piankoff and Rambova 1954: 34, Fig. 5). The fact that this god, in which Re and Osiris (i.e., present and past) are united, is ram-headed may provide clues about the peculiar nature of the Nubian Amun, who appears to be a chthonic sun god, associated with the waters of Creation, who also personifies primeval kingship through the medium of Osiris and the royal *ka*. On Atum, Osiris and the creation of the world, see also notes 8 and 39.

<sup>12</sup> In the calendar circle at Nabta Playa, two pairs of upright stones indicate a north-south line, while two others mark a line roughly "between 65°-70° and 245°-250°", providing, as the excavators note, an approximate indication of the point of the summer solstice (65°) and that of sunrise when the Nile began to flood or when the summer rains commenced (70°; see Wendorf *et alii* 1992-1993: 7-16, and Wendorf *et alii* 2001: 463-467.

past, present, or future.<sup>13</sup> I have recently acquired one of these, entitled “Distant Suns”, designed by astrophysicist R.M. Smithwick. With this tool, one can set the viewpoint to the south corner of Jebel Barkal to observe that in current years Sirius and the sun rise simultaneously on July 16 at 5:28 AM [Table 1]. Sirius rises at azimuth 107.2° and the sun rises at azimuth 66.8°. On each following day Sirius rises from the same point on the horizon four minutes earlier than the sun and gains on it nearly one degree of altitude. The rising sun, for its part, moves rightward each day on the horizon about a third of a degree – moving ever closer to the pyramid, which, as stated, lies at 70.5°. Assuming Clark’s *arcus visionis* of 7° for Sirius is correct, the star would first be visible at Jebel Barkal on July 24, rising 32 minutes before the sun and having an altitude at sunrise of 7.2°. We would assume that this same day in antiquity marked the local start of the New Year. What is problematic for us is that on this day the sun rises at 68.8°, nearly 2° to the left of Taharqa’s pyramid [Fig. 6]. It does not rise over the pyramid until July 31, seven days later.

If we set the software back to July of the presumed year of Taharqa’s death and burial, 664 BC [Table 2], we find virtually the same astronomical relationships in effect, except that they occurred eight days later in our own calendar. For example, the sun and Sirius rose simultaneously at 5:21 AM on July 24. The first visibility of Sirius occurred on August 1. The sun did not rise over Nuri I until August 7, six days later.

I was initially puzzled by these discrepancies and first wondered if they were a factor of the difficulties faced by the ancient surveyors to achieve precision. It seems that they could have established the tomb site quite easily by using lines of vertical poles or “gnomons” that, by means of the shadow cast by the sun’s first appearance, could have located the pyramid exactly between the sunrise and the desired point on the mountain (Isler 1991). But establishing exactitude would probably have required a series of observations performed over several years. The matter would have been complicated on the one hand by darkness and on the other by the fact that on many mornings the sun is obscured by haze until it has risen well above the horizon. Another consideration is this: even if the ancients had been able to place the pyramid exactly at the point of sunrise on New Year’s Day, what point would they have deemed most appropriate? After all, the sun (with a disk width of 1.27°) rises on a rightward angle of 84.5°, so that between the

moment of its first visibility on the horizon and the appearance of its full orb, the center of the sun would have shifted visibly to the right. Although I felt confident of the relationship between the pyramid and the New Year sunrise, the imprecision was troubling.

When the solution to this problem finally occurred to me, it seemed embarrassingly obvious. This was that the authorities responsible for fixing the site of Taharqa’s pyramid would not have used a calendar whose New Year’s date was set by the rising of Sirius at Napata; they would have used the date as it was set by the Egyptian civil (national) calendar, which would have been determined by a heliacal rising of Sirius observed somewhere in Egypt – in a higher latitude. To determine where this observation might have been made, I needed only to set the software to the coordinates of the main ritual centers in Egypt – but I found that I needed to look no further than Thebes.

If Table 2 reveals that the sun rose over Nuri I on August 7, 664 BC, Table 3 reveals that on the same morning at Karnak Sirius was 7.7° high at sunrise, which, by Clark’s reckoning, would have been the first morning the star would have been visible there. Our conclusion must be, therefore, that the Egyptian New Year’s day of the mid-7th

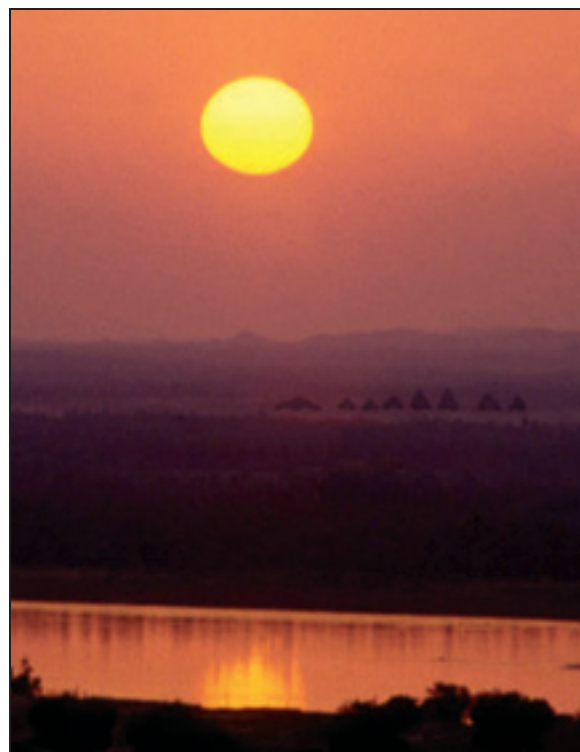


Fig. 6. View of the Nuri pyramids from the summit of Jebel Barkal, shortly after sunrise on July 28, 1998 (Photo Mohamed Nour ed-Din Abdalla)

<sup>13</sup> For a list and description of various packages, see <http://www.midnightkite.com/software.html>; <http://astro.nineplanets.org/astrosoftware.html>.

Table 1. Sunrise over Nuri I (azimuth 70.5°), viewed from Jebel Barkal, with heliacal risings of Sirius: AD 2007  
Jebel Barkal N 18°33' E 31°40'

DATE	SUNRISE	SUN: AZIMUTH	SIRIUS RISE	AZIMUTH	ALTITUDE	MINUTES BEFORE SUNRISE
7/16/2007	5:28 AM	66.8°	5:28 AM	107.2°	0°	0
7/17/2007	5:28	67°	5:24		0.9°	4
7/18/2007	5:28	67.3°	5:20		1.8°	8
7/19/2007	5:28	67.5°	5:16		2.7°	12
7/20/2007	5:28	67.7°	5:12		3.6°	16
7/21/2007	5:28	67.9°	5:08		4.5°	20
7/22/2007	5:29	68.2°	5:04		5.4°	24
7/23/2007	5:29	68.5°	5:00		6.3°	28
7/24/2007	5:29	68.8°	4:56		7.2°	32
7/25/2007	5:30	69°	4:52		8.1°	36
7/26/2007	5:30	69.3°	4:48		9°	41
7/27/2007	5:30	69.5°	4:44		10.8°	46
7/28/2007	5:31	69.8°	4:40		11.7°	50
7/29/2007	5:31	70°	4:36		12.6°	54
7/30/2007	5:31	70.3°	4:32		13.5°	58
7/31/2007	5:32	70.5°	4:28		14.4°	62.

Table 2. Sunrise over Nuri I (azimuth 70.5°), viewed from Jebel Barkal, with heliacal risings of Sirius: 664 BC  
Jebel Barkal N 18°33' E 31°40'

DATE	SUNRISE	SUN: AZIMUTH	SIRIUS RISE	AZIMUTH	ALTITUDE	MINUTES BEFORE SUNRISE
7/24/664 BC	5:21 AM	66.8°	5:21 AM	107.3°	0°	0
7/25/664 BC	5:21	67°	5:17		0.9°	4
7/26/664 BC	5:22	67.2°	5:14		1.8°	8
7/27/664 BC	5:22	67.4°	5:10		2.7°	12
7/28/664 BC	5:23	67.6°	5:07		3.6°	16
7/29/664 BC	5:23	67.8°	5:03		4.5°	20
7/30/664 BC	5:23	68°	4:59		5.4°	24
7/31/664 BC	5:24	68.2°	4:56		6.3°	28
8/1/664 BC	5:24	68.5°	4:52		7.2°	32
8/2/664 BC	5:24	68.8°	4:48		8.1°	36
8/3/664 BC	5:25	69.1°	4:44		9°	42
8/4/664 BC	5:25	69.4°	4:40		10.8°	46
8/5/664 BC	5:26	69.7°	4:36		11.7°	50
8/6/664 BC	5:26	70.1°	4:32		12.6°	54
8/7/664 BC	5:26	70.4°	4:28		13.5°	58
8/8/664 BC	5:26	70.7°	4:24		14.4°	62



century BC was determined by the heliacal rising of Sirius at Thebes, and that it was the point of sunrise on this day at Napata, when viewed from Jebel Barkal, that determined the siting of Taharqa’s pyramid at Nuri.

In all these calculations, the sighting point I have used to observe the Nuri sunrise has been the Jebel Barkal pinnacle – or, more precisely, the cliff edge directly opposite the pinnacle. If I had used the actual summit of Jebel Barkal, the azimuth angle of Nuri I would have become 72°, which would have skewed the correlations. If the tomb design and location of Nuri I were indeed connected with Osiris and his imagined revival at sunrise on New Year’s Day, and if the sighting point for this sunrise was the pinnacle, then we now must ask what significance the pinnacle had in the ancient mind.

Jebel Barkal is a roughly triangular sandstone hill, 104 m high and approximately 1.5 km in circumference. It faces the Nile with a sheer cliff, 200 m long and between 85 and 95 m high. One of its corners is sharply angled to the south, and it is at the tip of this corner that the pinnacle stands: a towering natural column with conical apex nearly 75 m high. It is the mountain’s most unusual and conspicuous feature, distinguishing Jebel Barkal from all other mountains in the Nile Valley. When the mountain is viewed from east or west, the colossal rock shaft stands out in profile as a distinct, statue-like presence. When one lives

in its vicinity for any length of time, one becomes aware that the sun and moon seem to rise from it or set over it – and if one were superstitious, one might even imagine that these heavenly bodies were somehow regulated by it. One also becomes aware that the pinnacle acts as a kind of gigantic sundial, for at sunrise during certain months of the year, it casts a long shadow to the west, which sweeps across the Barkal cemetery and draws closer to the mountain as the sun rises higher. As the sun sets, it casts a lengthening shadow to the east. According to F.H. Osman, the Barkal Village elders still recall a time when their forefathers used the pinnacle to tell rough time, since they used the movements of its shadow to apportion irrigation time among themselves for use of a local *saqiya* (water wheel).<sup>14</sup>

Jebel Barkal lies approximately 1150 km upriver from Thebes at the approximate mid-point of the Nile’s great bend. In the Eighteenth Dynasty it became the site of Napata, the southernmost town and religious sanctuary in the Egyptian Nubian empire. From at least Year 47 of Thutmose III (c. 1428 BC) – and probably, in fact, even from Year 2 of his grandfather, Thutmose I (c. 1502 BC) (Kendall 2007) – the Egyptians identified Jebel Barkal as an important center of Creation and the birthplace of Amun. Naming it “Pure Mountain” (*ḏw Wꜥb*), they identified it as the original “Karnak” (i.e., “Thrones of the Two Lands”, [*Nswt T3wy*]),<sup>15</sup>

Table 3. Sunrise viewed from Karnak, with heliacal risings of Sirius: 664 BC  
Karnak N 25°43’ E 32°41’

DATE	SUNRISE	SUN: AZIMUTH	SIRIUS RISE	AZIMUTH	ALTITUDE	MINUTES BEFORE SUNRISE
7/30/664 BC	5:06 AM	67.1°	5:06 AM	108.6°	0°	0
7/31/664 BC	5:07	67.4°	5:03		1°	4
8/1/664 BC	5:07	67.7°	4:59		2°	9
8/2/664 BC	5:08	67.9°	4:54		2.9°	13
8/3/664 BC	5:08	68.1°	4:50		3.8°	18
8/4/664 BC	5:09	68.4°	4:47		4.7°	22
8/5/664 BC	5:10	68.7°	4:43		5.6°	27
8/6/664 BC	5:11	68.9°	4:39		6.6°	31
8/7/664 BC	5:12	69.1°	4:35		7.7°	37

<sup>14</sup> Faiz 2004: 367 states that there were “two rotations of irrigation ..., i.e., *el-Fajrawi* (the dawn watering) and *el-Ashawi* (the evening watering). When the sun was vertical on the pinnacle, the first watering ended and the second one began”. See Addenda at end of this paper.

<sup>15</sup> Klug 2002: 201-202; Cumming 1982: 4, 1238; Reisner and Reisner 1933a: 35 (ll. 33-35). Here Thutmose III addresses the native residents of Jebel Barkal by saying, “O ye people of Pure Mountain, which was called Karnak (“Thrones of the Two Lands”) before it was known”. See also Davies and Gardiner 1926: 11, where Huy states that his authority over Kush extended “from Nekhen to ‘Thrones of the Two Lands’”. Again, in Fig. 8, left of this article, note that Amun-Re “Lord of the Thrones of the Two Lands, foremost of Ipet-Sut (i.e., Karnak)” is pictured seated within Jebel Barkal.



and as a southern manifestation of “Heliopolis” (*Iwnw* = lit. “Pillars”).<sup>16</sup> They thus considered it to be the main residence of a mysterious southern aspect of Amun, merged with Re-Atum, who was called variously “great god of the *sp-tpy* (i.e., ‘first moment [of Creation]’), *p3wty* (“Primeval One”; Klug 2002: 204; Cumming 1982: 5, 1241)<sup>17</sup> and “*ka* (of Amun of Karnak)” (Klug 2002: 195; Cumming 1982: 1227). Also incorporated within the hill were Ptah of Memphis and Dedwen (both called “Foremost of Nubia”), as well as all the gods and goddesses associated with the myth of the sun god’s uraeus, which was known as the “Eye of Re”.<sup>18</sup>

Over time an extensive sanctuary was built at the foot of the cliff, in which the various temples were arranged around the base of the pinnacle (for a Jebel Barkal site map, see Kendall 1997: Fig. 1). On its west side were built temples exclusively for the goddesses of the “Eye of Re”. The earliest of these (now preserved only in foundations) was a tripartite shrine, called by Reisner “B 300-sub”, which can now be dated securely to Ramses II.<sup>19</sup>

This temple was later replaced by the rock-cut shrines B 200 (dedicated to Hathor, Tefnut, and a third goddess whose name has been lost) and B 300 (dedicated to Mut-Sekhmet, merged with Hathor-Tefnut), both built by Taharqa (Robisek 1989; Bosticco 1988: 217-221).<sup>20</sup>

Other temples, now badly ruined, stood directly in front of the pinnacle with the Napatan palace B 1200 lying about 100 m in front of them. These, numbered B 1100 and B 1150, were evidently the shrines called “Great House” and “House of Flame”, which are named on a stone doorway in B 1200. This doorway opened onto a corridor that aimed directly at them. If I have correctly linked these temples to these names, they were the shrines of the goddesses of the royal crowns and uraei: Nekhbet, Wadjet, and Weret-Hekau. It was to these temples that the king went from his palace during the coronation ceremony to receive his crowns from these goddesses, who, in contradistinction to those of the god’s uraeus (the “Eye of Re”), were known collectively as the “Eye of Horus”.<sup>21</sup> Although B 1100 was used

<sup>16</sup> The Jebel Barkal stele of Seti I speaks of “[Amun, Lord of the Thrones of the Two Lands, who is in] the Pure Mountain; Ptah, South of His Wall, Living Lord of the Two Lands; Atum, Lord of the Two Lands, of Heliopolis” as if they were all present at Jebel Barkal (see Reisner and Reisner 1933b: 73-78, l. B-3). The latter two gods are also named on abaci in B 500 as resident deities (Ptah is described as “Foremost of Nubia”; see Dunham 1970: 55, Fig. 40). In line C-4 of the Seti stele, we also find the phrase “in the House of the Benben in Heliopolis” as if the king were speaking of a version of the Heliopolitan shrine at Jebel Barkal. Since by the early Eighteenth Dynasty Karnak was called “Southern Heliopolis,” since Jebel Barkal was called “Karnak,” since the pinnacle would surely have been recognized as a “benben,” and since it and the three other great projections on the Barkal cliff face would have been recognized as “Pillars” (*Iwnw* = Heliopolis), it seems evident that a wholesale transfer of the Heliopolitan cosmogony was made simultaneously to Karnak and to Jebel Barkal, perhaps as early as Hatshepsut’s reign (see Roth 2005: 151, note 19). The huge number of *talatat* blocks visible among the temples at Jebel Barkal also suggest that Akhenaten may have built duplicates of his Karnak shrines to the Aten at Jebel Barkal (i.e., Karnak’s southern manifestation). Among his Karnak shrines to the Aten was a “House of the Benben” (see Redford 1984: 72-75).

<sup>17</sup> Aspects of Amun with these same epithets appear in the rear (western) chambers of the Ramses III temple at Medinet Habu. One aspect, called Kamutef, is mummiform, ram-headed, and sun-crowned, much like the Amun of Jebel Barkal. Another is mummiform with a Ptah-like head to which two plumes have been attached; this is the type of Amun who appears in the lunette of the Pi(ankh)y Victory Stele (see Grimal 1981: Pl. V). The third form is a lion-headed man (see Epigraphic Survey 1964: Pls 512, 513, 527). We must conclude, thus, that Jebel Barkal was conceived to be the residence of this same Amun “of primeval times” who was venerated in western Thebes (see also note 11).

<sup>18</sup> For the gods listed on the abaci in B 500, see Dunham 1970: 55, Fig. 40. Among these we find “Eye of Re”, “Daughter of Re”, Isis, Bastet, Shu, “Onuris who is Nubia”, Horus the Protector, Montu-Re Lord of Thebes, Horus the Strong, with at least nine gods’ names lost. Also named are Amun of Pnubs (Kerma) and Amun of Gem-Aten (Kawa), two of the other chief Nubian manifestations of Amun. For the god Ptah in Nubia, see Török 2002: 89-92. Another vital source listing the gods of Jebel Barkal is the relief decoration in B 300, where the Nubian deities on the upstream walls are mirrored by their Egyptian counterparts on the downstream walls. See note 20, below, and Kendall 1997: 324-332, and Figs. For the myth of the Eye of Re, see note 27, below.

<sup>19</sup> The remains of this temple were fully mapped and studied during our 2005 campaign. The blocks are all of the *talatat* type and a few bear the cartouches of Ramses II. The masonry and size of the flooring stones are similar to other works of Ramses on the site, such as the Ramses chapel in B 500 (rooms 508-511).

<sup>20</sup> And see also the full discussion of B 300 by Török 2002: 75ff.

<sup>21</sup> On the names and function of these two temples, see Arnold 1982a; 1982b. For photographs of the inscribed doorway in B 1200, see Dunham 1970: Pl. 62. This door leads from anteroom 1234 (and from a throne room 1233) to corridor 1238 (see map in Kendall 1997: Fig. 2). The text on the right jamb reads ... *w.tw* [*verb of going*].*tw r pr wr ḥd nt ḥns.tw pr nsr* (“... one does [x]; one goes to the Great House of the white and red crowns; one traverses the House of Flame”). The second line continues: ... *ś m ḥtp sp-sn(?) .tn wd3.t wd3 wd3t R’ ts-phr wd3.t wd3 wd3t Ḥr ts-phr* (“... in peace, in peace ... your (fem. s.) wholeness is the wholeness of the Eye of Re and *vice versa*; your wholeness is the wholeness of the Eye of Horus and *vice versa*”). The second line appears to be addressing a lady of the royal family, who accompanies the would-be king as

throughout Napatan and Meroitic times, its earliest remains can be dated to Horemheb, whose name was found beside its lowest (*talatat*) foundations.<sup>22</sup>

The east side of the pinnacle seems to have been reserved for temples dedicated exclusively to gods or particular forms of Amun. Unfortunately their ruined state leaves the identification of some uncertain. The most important was B 500, dedicated to the local Amun (“resident within Pure Mountain”), who incorporated within himself all aspects of the sun god: Re, Atum, Horakhty, and Khepri.<sup>23</sup> The earliest visible remains of this temple date from the late Eighteenth Dynasty.<sup>24</sup> B 800/900, built in the early Napatan period, was apparently dedicated to Amun of Karnak at Thebes – of whom the local Amun was said to be his *ka* (Reisner 1920: 247ff.; Klug 2002: 195; Cumming 1982: 1227). The other two temples, B 600 and B 700, are more enigmatic and are described below. These two were much smaller, were built side by side against the cliff behind and between the two larger Amun temples, and B 700 was placed directly beside the pinnacle on its east side (Reisner 1918c: 99ff.).

It is clear from an overwhelming variety of evidence that the ancients recognized in the natural form of the pinnacle a number of suggestive shapes which they associated with

particular deities, and they took these shapes as confirmation of the presence of these deities within the mountain. It is also clear that they built temples to these deities around the pinnacle at the points from which the shapes or profiles of the gods of those sanctuaries could most clearly be perceived within the rock. Let me briefly summarize the evidence.

A substantial body of evidence indicates that the pinnacle was recognized by the Egyptians to be a uraeus crowned with a sun disk.<sup>25</sup> The uraeus with disk was the serpent form of any number of great goddesses in their role as the sun god’s uraeus, which, as we have seen, was known as the “Eye of Re”.<sup>26</sup> This was the aspect in which all goddesses could manifest themselves singly or in which they could all appear combined as a single being. The Eye-Uraeus was most commonly associated with Hathor, Tefnut, Mut, Sekhmet, Bastet, Isis, Nephthys, Ma’at, Weret-Hekau, and others, who were all thought to be the god’s daughters, mothers, and protectors (Walker 1991: 185-191). We must assume, therefore, that when the pinnacle on Jebel Barkal was represented this way, it symbolically confirmed the presence within the mountain of each and every goddess associated with the Eye of Re. Conversely, it would have identified the mountain as the mythical place in Nubia where the Eye of Re was said to have dwelt.<sup>27</sup>

he exits the door – and the palace – to enter the temples to receive his crowns. By the act of passing through this door, this lady apparently magically transformed into a goddess that could become either uraeus goddess (“Eye of Re”/“Eye of Horus”) at will, just as they magically transformed into her. Kendall 1997: 338-343. On the meaning Eye=Uraeus, see note 26, below.

<sup>22</sup> A block discovered in 1997 during the excavations of B 1100 bore the throne name of Horemheb. The coronation complexes at Luxor, described in Horemheb’s coronation inscription, seems to mirror exactly the Barkal complexes B 1200, B 1100, and B 1150. The text tells us that the king went from his palace, in company with Amun, to the “Great House,” where the goddess Weret Hekau “fixed herself upon his forehead”. Next they went to the “House of Flame”, where the king met “Nekhbet and Wadjet, Neith, Isis and Nephthys, Horus and Seth, and the entire Ennead”, who acclaimed him in his kingship. The new king then traveled the length and breadth of the country – “from the Delta marshes to *T3-Sti*” – “refounding all the temples as they had been since the time of the first primeval age”. Obviously, as proven by archaeological evidence, the name *T3-Sti* here included all of Nubia as far as Jebel Barkal. See Gardiner 1953: 13-31; Kendall 1997: 338-343.

<sup>23</sup> A fragmentary relief of the god found in B 500 gives him all these names: Dunham 1970: Pl. 37.

<sup>24</sup> During the seasons of 2005 and 2006 our team carefully re-examined the early rooms of B 500 and realized that Reisner’s contention that rooms B 504a and b were Thutmosid is erroneous. These rooms, extensively paved with *talatat*, post-date the Seti chapel and seem to belong to Ramses II. The earliest rooms are the innermost, 514-519, which were entirely constructed with *talatat*, probably by Horemheb. See also note 22.

<sup>25</sup> Priese 1977: 361ff., was the first to notice and collect this iconography. The relationship of the uraeus (depicted in B 300) to the pinnacle on the mountain was recognized on site by my colleague Lynn Holden during our 1987 season.

<sup>26</sup> Discussed by Walker 1991: 109-117, 185-191. The words for “eye” (*wḏt*, *irt*) were puns on the words for “uraeus” (*wḏt*, *irt*) and thus they came to share each other’s meanings and symbolism. A vivid illustration of this is a pair of *udjat* eye amulets from el-Kurru (Dunham 1950: Pl. 53A), in which, in the space between eye and brow, pairs of winged uraei flank small *udjat* eyes. In the pendant elements, images of Khepri and Thoth are inserted. Here *wḏty* (“the two eyes”) are associated symbolically with *wḏty* (“the two uraei”), while the images of Khepri and Thoth remind us that the “Eye of Re” and the “Eye of Horus” were also the sun and moon – “the two eyes of god”. The amulet itself was called *wḏt*, which meant “protection”. It was also made of “green” (*wḏt*) faience. For an example of related verbal punning, see note 21. Note also PT 2206: “This king ... is the uraeus (*irt*) which came forth from the Eye of Re (*irt Rḥ*)”.

<sup>27</sup> The story of the Eye of Re, preserved in many variants, is a primary element of the Creation myth. The chief character is a goddess, the daughter of the Sun God, who left her father in a fit of rage shortly after the Creation and took herself to

The most important image of the pinnacle as “Eye of Re” appears on the east wall of the first rock-cut chamber of B 300, in which Taharqa, crowned as Shu-Onuris (the god who brought back the Eye to Egypt; see note 27), and his chief wife are shown making offerings to Amun and Mut enshrined inside Jebel Barkal, which is fronted by a large uraeus crowned with a sun disk (Robisek 1989: 52-54, Fig. 1) [Fig. 7, left]. The scene, carved on a wall cut directly against the west side of the pinnacle, depicts the mountain from the west. It is also from the west in reality that the pinnacle looks very much like the same rearing uraeus, crowned with a sun disc [Fig. 7, right]. It therefore appears that the temples to the goddesses of the “Eye of Re” (i.e., Hathor-Tefnut and Mut-Sekhmet) were located on the west side of the pinnacle because it was from this vantage (west) that the rock most resembled their common uraeus form.

A remarkable variant of this iconography appears on the south wall in the great hall of the south temple at Abu Simbel, which depicts Jebel Barkal from the east side. In this scene Ramses II makes offerings to Amun “of Karnak”, who sits inside a cut-away view of the mountain, which is topped by a row of uraei (symbolizing many different goddesses). From the base of the cliff, a single huge uraeus rises, now wearing the white crown, which identifies her as a royal

uraeus, specifically Nekhbet, goddess of Upper Egyptian kingship [Fig. 8, left].<sup>28</sup> Another example of this same iconography may have existed in a series of faience inlay plaques mounted in the earliest phase of B 600 (dated to Thutmose IV). The surviving plaque seems to show Amun and Mut within the same slope-fronted mountain (Dunham 1970: 63, Pl. 56, C).

Since the pinnacle has almost exactly the form of this royal uraeus when seen from the front and east [Fig. 8, right], we must conclude that the pinnacle had another meaning as one or both of the *royal* uraei, whose presumed temples, B 1100 (“Great House”) and B 1150 (“House of Flame”) were apparently built directly in front of it (Kendall 1997: 337-343). In the common parlance of the religious texts, as I have said, the royal uraeus goddesses were known, singly or combined, as the “Eye of Horus”.<sup>29</sup>

All the goddesses of the royal and divine uraei, and the two Eyes-Uraei themselves, could merge with each other and share identities.<sup>30</sup> We see, too, that they merge and share identities within the pinnacle, which obviously symbolized each of them and all of them combined. To the Egyptians the recognition of the uraei within the pinnacle gave the mountain profound religious and political import. Already in his Jebel Barkal stela, Thutmose III had spoken of a miracle in which his uraeus had come to life at Jebel Barkal

a far-away place in Nubia, where she assumed the form of a ferocious lioness (which is why her “unpacified” form is most often identified with the leonine goddesses Tefnut and Sekhmet). Because the Great God needed his daughter’s protection, he dispatched to Nubia his first-born son Shu (also called Onuris – “bringer of the Distant One”), accompanied by Thoth, to find and pacify the goddess and to bring her back to him. After succumbing to the magic of Shu and Thoth, and transforming through “pacification” into various gentler beings – Bastet, Hathor, Mut, and Ma’at, for example – the goddess finally took uraeus form, perched on her father’s brow, and became his “protection/uraeus/eye” (*wḏt*). See Junker 1911.

<sup>28</sup> Photo published in *National Geographic* 178, no. 5 (Nov. 1990), 123. The relief was first recognized as a representation of Jebel Barkal by Lynn Holden, who visited Abu Simbel early in 1988 and kindly brought it to my attention.

<sup>29</sup> For example, PT 900-901: “O King, the dread of you is in the intact Eye of Horus, (namely) the White Crown, the serpent-goddess who is in Nekheb. I provide you with the Eye of Horus, the Red Crown, rich in power and many-natured, that it may protect you, O King, just as it protects Horus” (Faulkner 1969: 157). Sometimes the two royal uraei are called the two eyes of Horus, as in PT 33: “Take the two eyes of Horus, the black and the white; take them to your forehead that they may illumine your face” (Faulkner 1969: 9, and see also PT 40+1, 71). The association of Weret-Hekau, Nekhbet and the Eye of Horus is made clear in PT 2285: “O Osiris the King, take the Eye of Horus ... for its magic is great on me. O Osiris the King, take the Eye of Horus, Great of Magic – a Great of Magic vulture” (Faulkner 1969: 318). See also note 21.

<sup>30</sup> A great many Egyptian religious texts make it evident that there were really no distinctions between the “Eye of Re” and “Eye of Horus”. Both these two uraei and the goddesses embodied in each eventually overlapped, merged and shared identities. Because the king was seen as an incarnation and youthful manifestation of the Great God, his uraeus was often said to be the same as the god’s, and *vice versa*; see Walker 1991: 141-143. The “Eye of Horus”, for example, was sometimes said to be on the brow of the Sun God (Walker 1991: 143). It was also said to protect Atum (Faulkner 1994: 238-239; CT IV: 98-109). Weret-Hekau was also called Ma’at, the “Eye of Re” (Walker 1991: 119). Mut is called the Weret-Hekau of Thebes (Walker 1991: 188). And Weret-Hekau is sometimes identified as both “Eyes” (Walker 1991: 142). In BD 164, Sekhmet-Bastet “Eye of Re” is said to be Weret-Hekau. See also Török 2002: 78. Note also the group of three identical amulets from el-Kurru (Dunham 1950: Pl. 53A, lower left). Each depicts a Hathoric (i.e., Bat) face with braids of twin uraei, surmounted by an *udjat* eye. On the reverse, however, one is inscribed with the double crown (=Weret-Hekau), one is inscribed with an *udjat* and Horus (=Eye of Horus), and the third is inscribed with an *udjat* crowned with the disk and twin plumes of Amun (=“Eye of Re”).



to demonstrate his royal power.<sup>31</sup> The Abu Simbel relief makes the meaning of this otherwise unfathomable tale quite clear: the Egyptians imagined Jebel Barkal to be a key residence of the royal uraeus, specifically of the Upper Egyptian uraeus, which meant that they saw the mountain as a primeval source of Upper Egyptian kingship, and its god, thus, the grantor of Upper Egyptian kingship. The Kushite monarchs of the Twenty-fifth Dynasty, who came from here, revived and embraced this tradition passionately



Fig. 7. Detail of the east wall in chamber 303 of B 300, showing Amun and Mut inside Jebel Barkal (left). The pinnacle is represented as a uraeus wearing a sun-disk crown – a shape that the rock actually possesses when seen from the same angle. My colleague Lynn Holden first made the association during our 1987 season

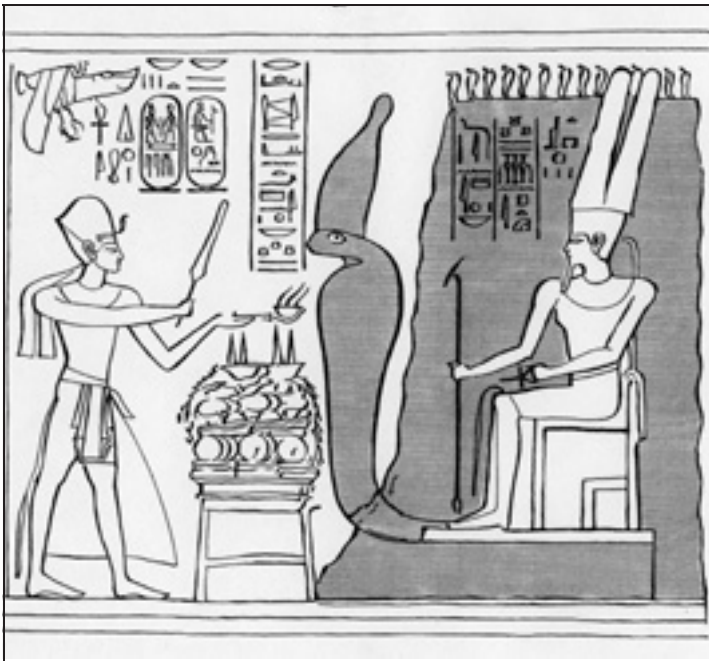


Fig. 8. Detail of the south wall of the great hall of the south temple at Abu Simbel, showing Ramses II offering to Amun “of Karnak”, seated within Jebel Barkal (left). The pinnacle appears as a royal uraeus wearing the white crown – a shape assumed by the rock when viewed from the east (Drawing P. Der Manuelian)

<sup>31</sup> Cumming 1982: 4, 1238: “Listen, O people of the southern land, who are in the Pure Mountain called ‘Thrones of the Two Lands’ among men (though) it was unknown; thus you may know the miracle of Amun-Re, in the presence of the Two



and used it to justify their own claims, first, to Upper Egyptian kingship, later to full Egyptian kingship, and to promote themselves as the heirs of the New Kingdom pharaohs.

Such scenes as the foregoing at least represent a kind of visual reality. More strange are the representations of the pinnacle where it has been pictured as the god Amun-Kamutef in uraeus form, apparently to mask the phallic significance of the rock. A graffito engraved in a grotto high on the western cliff of Jebel Barkal depicts a god (Amun or Re) seated inside a box-like Jebel Barkal, which is preceded by a ram-headed uraeus with arm upraised supporting a flail [Fig. 9]. Here the uraeus depicts the god Kamutef in transformation from mummiform man with erect phallus (his conventional form) to rising ram-headed serpent.<sup>32</sup> This image apparently informs us that the pinnacle can be “read” not only as female (=uraeus/Eye goddess), but also as male (=uraeus =phallus= god). The pinnacle, in other words, must have been seen as visible proof of the Creator god in all his procreative or chthonic forms: Amun-Re-Atum, Shu, Geb, Osiris, Tatanen and Min. This serpent iconography of Amun, while abnormal, is not unique and is known also from a small bronze figurine of a rearing ram-headed uraeus found in temple B 700 (Wildung 1997: cat. 225) and a large granite statue of a uraeus dedicated by Taharqa and found in the Luxor cache (El-Saghir 1991: 52-54) [Fig. 11]. The latter is identified as Amun Kamutef on one side and Amun “Lord of the Throne/s of the Two Lands” on the other, showing us by its curious spelling of “thrones” that it referred both to Amun of Thebes (“Lord of the *Thrones* of the Two Lands”) and to Amun of Jebel Barkal (“Lord of the *Throne* of the Two Lands”, as the mountain was then popularly called, see, e.g., Török 2002: 21, note 76) [Fig. 11, right]. The fact that the the god of Jebel Barkal and the god of Luxor Temple were associated in this statue, and that this criocephalic god, who could take uraeus-phallic-pinnacle form, was also the self-engendering Kamutef who created the royal *ka*, strongly suggests that Luxor and Jebel Barkal were closely related ritually and conceptually (see Traunecker 2001:

221-222).<sup>33</sup> I will come back to this point in a moment.

From the foregoing data, we must recognize that the ancients conceived the pinnacle on Jebel Barkal as a natural statue having many meanings and many divine identities, both male and female. This is confirmed again by a relief on the north wall of the chapel Beg. N. 7, where King Arkamani is shown venerating four deities seated atop a mountain (see, e.g., Chapman and Dunham 1952: Pl. 4E) [Fig. 12, left]. From left to right, the deities are: a uraeus, a goddess wearing a Hathoric crown, a goddess wearing the *shuty* crown of Weret-Hekau, and a falcon-headed god in the guise of Re, whom the abraded text identifies as Atum. Although the mountain is not specifically named in the preserved text, it is remarkable that the deities represented are the very ones housed in the temples arranged around the pinnacle – and in the very same order! For example, the rearing uraeus clearly evokes the pinnacle. Hathor would symbolize the many goddesses of the Eye of Re, represented in temples B 200, B 300, and B 300-sub. Weret-Hekau, the goddess of the crowns, would symbolize the goddesses of the royal uraei (Eye of Horus), represented in temples B 1100 and B 1150. And the god Re-Atum would be the alter-ego of the primeval Amun of B 500. If there remains doubt about the correctness of the identification of this scene, let us note that when



Fig. 9. Drawing of a graffito carved in a grotto high on the western cliff of Jebel Barkal, showing the god (Amun? Re?) seated inside the mountain and the pinnacle represented as a ram-headed uraeus with the upraised arm of Kamutef

Lands, the like of which had never been ... the guards were just in the process of coming in order to meet in the night to carry out the regular watch. There were no skywatchers. A star came approaching to the south of them. The like had never occurred before. It shot straight at them and no one among them could stand. It slew as if they had never existed, they being prostrate in their blood and falling down prone. Now the uraeus was behind them with fire in their faces; no single man among them could retaliate; no one looked round. They had no more teams of horses, those having bolted in terror to the mountain. Such is the miracle that Amun did for me, his beloved son, in order to cause the inhabitants of the foreign lands to see the power of my Majesty”.

<sup>32</sup> The graffito was discovered by my colleague Nathalie Beaux during our 1987 season. Note that the god appears in an intermediate stage of transformation – as a ram-headed mummiform man with arm upraised, supporting a flail – in the western chambers of the Great Temple at Medinet Habu. See note 17, above.

<sup>33</sup> The link between Luxor and Jebel Barkal was first noted by Pamminger 1992: 93-140. See also Bell 1997.

the pinnacle is viewed from the west in the late afternoon light, it takes on the highly suggestive form of a seated god, just like those pictured here [Fig. 12, right]. If this sort of “evidence” may not be strictly admissible in the “court of Egyptology”, I think anyone should be able to see by now,

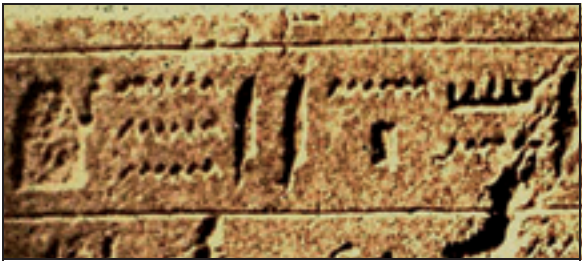


Fig. 10. Hieroglyph of Jebel Barkal in the shape of a dome with uraeus, used as a determinative in the writing of the name “Amun of Napata” (From the Stele of Nastasen, Berlin Museum)



Fig. 11. Statue of Amun-Re Kamutef in the shape of a rearing uraeus, dedicated by Taharqa and found in the Luxor cache (left). Detail of the statue’s left side in which the name of the god is rendered “Amun-Re, Lord of the Throne/s of the Two Lands (i.e., ‘Karnak’)”. The odd split-plural of the spelling of the word “Thrones” indicates that the name “Throne of the Two Lands” (i.e., Jebel Barkal) was also intended (Courtesy of the Luxor Museum)



Fig. 12. Image of Jebel Barkal on the north wall of the chapel of Beg. N. 7, in which Arkamani makes offering to four gods seated on its summit (From C.R. Lepsius, *Denkmaeler aus Aegypten und Aethiopien*, Abth. V, Berlin 1842-45: Bl. 36). In the afternoon light, the pinnacle assumes the shape of just such a seated deity (right).





given all the preceding examples, that this is exactly the sort of visual game that the Egyptians and Kushites were playing here. Consequently, in order for us to fathom what the mountain meant to these people, we must be prepared to play this game, too – albeit cautiously. Fortunately, there is still much more evidence of the conventional sort than can carry us forward.

In several Napatan texts, we find a hieroglyph picturing Jebel Barkal in a stylized manner as a dome from which rises a uraeus crowned with a sun disk (Priebe 1977) [Fig. 10]. The sign clearly signifies Jebel Barkal, since it usually appears as a determinative in the spelling of the name “Napata” and is used as a substitute for the more conventional “mountain” determinative in the same text and in variants of the same spelling.<sup>34</sup> This same hieroglyph, we find, has also become the head of a strange deity depicted on the north wall of the chapel Beg. N. 11, suggesting that the figure, of indeterminate sex, is a deified anthropomorphic Jebel Barkal [Fig. 13]. He/she appears standing in front of a funerary shrine inside which the ruling queen Shanakdakhete and her son sit

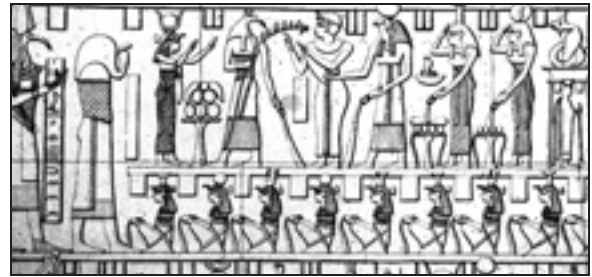


Fig. 13. Deity with a head in the shape of the Jebel Barkal hieroglyph (left) suggests that the figure represents a deified Jebel Barkal. The god confronts two registers of deities, whose gods are all familiar residents of the mountain (From C.R. Lepsius, *Denkmaeler aus Aegypten und Aethiopien*, Abth. V, Berlin 1842-45: Bl. 31)

<sup>34</sup> The name of Napata is written 35 times in the Nastasen stele, but its determinatives vary. In every case, its phonetic spelling is followed by the water sign (=Nile). In 23 cases, “water” is followed by a horizontal rectangle (“block of stone”, or block-like “mountain”) and a city sign. In three cases, the land sign (*t3*) is substituted for the block. In two cases, it is replaced with the normal “mountain” determinative. In three cases (in the main text), it is replaced with the dome-shaped hieroglyph with uraeus. The correlation between “land/headland”, “block”, “mountain” and “dome with uraeus” makes it fairly obvious that the latter represents the specific mountain of Napata – Jebel Barkal. Török’s charge (2002: 22, note 78) that my interpretation of the sign “disregards” the context of the stele is nonsense. All the determinatives in this correlation are natural features of earth. It is thus unlikely that the dome-shaped hieroglyph with uraeus represents an African hut, as he suggests. The “omphalos” shrine from Barkal was also once identified as an African hut (see Wenig 1978: 209-210, cat. 101, and references; Dunham 1970: Pls 35-36), but it, too, must be linked to the mountain, first, because of its provenance in B 500, second, because of its similarity to the dome-shaped inlay plaque from Barkal, showing Shu and Tefnut inside it (Wildung 1997: Cat. 287), and third, because its sides are carved with goddesses, both human-headed and leonine (=Eye of Re) of the type associated with the pinnacle and represented inside temples B 200 and 300 (see above, notes 26, 27, 30). The same iconography is also clearly related to that in Figs 7, 8, 13-17. Unfortunately the panel (with uraeus?) that concealed the god in the “omphalos” is missing, leaving its interpretation ambiguous. In the lunette of the Nastasen stele, the Jebel Barkal hieroglyph appears one more time as the determinative of the word *k3* (“image, essence”), which Török prefers to read as *k3[r]* (“sanctuary”), preceding the phrase: “of the crown of Re-Horakhty.” From the context we can understand either that Jebel Barkal, with its uraeus, was the “image/essence of the crown of Re-Horakhty” or that it was the “sanctuary of the crown of Re-Horakhty”. Both meanings are possible – and both may have been intended. Naturally, nothing here *negates* the possibility of a symbolic association between “African hut”, “Primeval Mound”, and Jebel Barkal (or, for that matter, any other sanctuary of the primeval god). See Bonnet 2000: 105-111.



Fig. 14. Amun of Jebel Barkal represented in the impression of one of the gold rings from the Ferlini Treasure, Beg. N. 6 (From C.R. Lepsius, *Denkmäler aus Aegypten und Aethiopien*, Abth. V, Berlin 1842-45: Bl. 42, no. 103)



Fig. 15. Amun of Jebel Barkal depicted in a Meroitic graffito on Jebel Suweigat, about 10 km from Jebel Barkal on the right bank, directly opposite the Nuri pyramids (After Abdel Rahman and Rilly forthcoming)

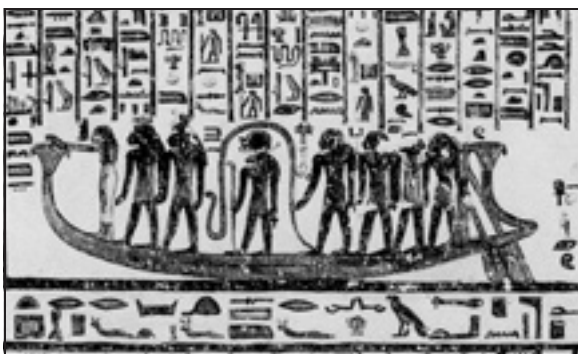


Fig. 16. Atum on the Night Bark, sheltered by the serpent god Mehen, who takes the shape of a Primeval Mound (From Piankoff and Rambova 1954: Pl. 91)



Fig. 17. The god "Flesh of Osiris" (with Amun plumes) inside a serpent-shaped "Mound", accompanied by a large uraeus and a lion-headed goddess ("Eye of Re"?). (From Piankoff and Rambova 1954: Pl. 91)

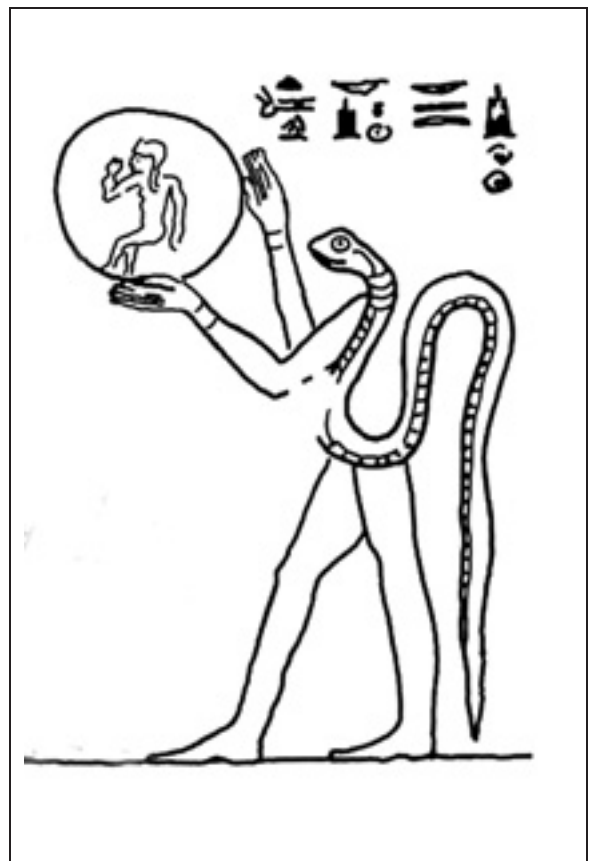


Fig. 18. The god Atum "of Heliopolis" as a rearing serpent, grasping the rising sun as a newborn king. In this shape does he represent the Primeval Mound – or the S-shaped Nile of the northern Sudan, source of Creation and the inundation? (From Ogdon 1985/6: 38, Fig. 3)



enthroned, enveloped by the protective wings of the goddess Hathor (or Isis). The dome-headed deity, accompanied by Thoth, looks forward, away from the enshrined queen, to greet two registers of oncoming figures, who are ushering a small image of the great lady forward. In the upper register we again see the deities most familiar at Jebel Barkal: Hathor, Re, Weret-Hekau, Ma'at as "Eye of Re" (who is the "pacified" Tefnut), a stand with a rearing uraeus, and Kamutef. At far right, the queen again appears as a small figure venerating a sphinx of Mut (symbolizing B 300?), whose stand is adorned with three seated deities adoring a rearing uraeus, crowned with a sun disk (=Eye of Re). The register below contains a row of eighteen seated goddesses, who, I would suggest, symbolize the multitude of goddesses thought to be embodied within the Uraeus-Eye-Pinnacle.

Since the small figures of the queen seem to be approaching the Jebel Barkal deity, and since the main figure of the lady sits behind this god, and since her funerary shrine is fronted by a large rearing Eye of Re, as in *Fig. 7, left*, and since it is also surmounted by a row of winged uraeus goddesses, most of whom are identifiable by their crowns as those linked to Jebel Barkal and its pinnacle – Nekhbet, Hathor, Nephthys, Mut, "Eye of Re" (Tefnut/Sekhmet?), and Nephthys again – I would suggest that this scene (on the *north* wall of the queen's chapel) pictures the deceased Shanakdakhete inside Jebel Barkal, united with its gods (or, put another way, that her funerary chapel and Jebel Barkal have symbolically merged). On her head she wears the emblem of Selqet, which reminds us of the black diorite uraeiform statue of Selqet found by Reisner in B 500 (Dunham 1970: 28, Pl. 26 [MFA 21.11.699]). If the deceased queen and deceased royalty in general were imagined to reside within Jebel Barkal (an argument perhaps strengthened by the Meroitic pyramids of this era built there), then we must recognize that they were thought to have joined the gods as Osiris – which requires the obvious conclusion: namely, that Osiris himself, as an aspect of Re, resided within the mountain.

Closely related to the iconography of Jebel Barkal as a dome with uraeus is another type of

image in which the hill is drawn in profile as a great serpent, forming an arch over the god who sits or stands under it. The snake always rears its head before the god, as if to protect him (Priese 1992: 34-35, Fig. 31a; Abdel Rahman and Rilly forthcoming) [*Figs 14, 15*]. This type of motif, we find, was used to represent not only Jebel Barkal but other mythological mountains as well, whose identity with or relationship to Jebel Barkal is ambiguous but whose symbolism and whose divine occupants seem to be identical. We would thus perhaps not be in error to think that these images and Jebel Barkal all shared much the same significance in the ancient mind.

One sort of image depicts a great serpent overarching the god Re or Atum on board the "Bark of Millions of Years" [*Fig. 16*].<sup>35</sup> In these examples, we would probably never suspect that the serpent represents a mountain were we not specifically told so in occasional texts, where the allusion is to the Primeval Mound.<sup>36</sup> In other passages concerning the bark we are told that the god travels to the west and sunset (i.e., death) in the night bark by going *south*, where he finds his place of *sp tpy* and rebirth and then returns *north* in the morning bark.<sup>37</sup> Here we have the powerful associations of South (from which the Nile inundation and the waters of Creation emanate), the Serpent, who is always in the pose of a sideways S (like a rearing uraeus), the Primeval Mound (and place of *sp-tpy*), and the chthonic sun god Atum in the guise of a ram (=Amun/Re/Osiris) (see note 11). Would we be wrong to assume an association with Jebel Barkal, whose location, cult and imagery include all of these motifs and meanings?

In the Book of What is in the Underworld we find another serpent "mountain" sheltering a god who wears the double plumes of Amun, but whose name is given as "Flesh of Osiris" [*Fig. 17*].<sup>38</sup> Here the serpent overarching the god is followed by an oversized uraeus (sometimes with human [male] head), and a leonine goddess (=Eye of Re), both figures of which point to an association with Jebel Barkal. If the overarching serpent symbolized the Primeval Mound, and if Jebel Barkal was imagined as a realization of this Mound, then it is plain from this figure that Osiris must have been

<sup>35</sup> Such scenes are common in the great religious texts of the royal tombs, such as the Book of Am-Duat or What is in the Netherworld, the Book of Gates, the Book of Caverns etc. See, for example, Piankoff and Rambova 1954: 145, 150, 158, *passim*, Fig. 80 (opposite 277).

<sup>36</sup> For example, BD Spell 15 B 1 2: "I shall establish for him a Mound in the Bark of Millions of Years ..." (Allen 1974: 12).

<sup>37</sup> For example, CT I 185: "May you sail southward in the Night Bark and northward in the Day Bark"; see Faulkner 1994: 36. See also Thomas 1956: 77-78. Walker 1991: 56-57, notes that Amun-Re of Karnak, when he travels to Luxor during the Opet Festival, is associated with the sun god who travels beyond the west and is thus a dying god. When he arrives at Luxor (by traveling south) he reaches his place of *sp-tpy*, returning to the beginning of time to rejuvenate. There he "rises" as the new sun and travels north again in the morning bark.

<sup>38</sup> This image regularly appears in the Book of Am-Duat or What is in the Netherworld beginning with the decoration in the tombs of Thutmose III and Amenhotep II. See Piankoff and Rambova 1957: 278-280, Fig. 80, Pl. 91.

thought to exist within Jebel Barkal as an aspect of Amun, Re, and Atum. Of course, as we have already seen in relation to Shanakdakhete, this would be obvious anyway, since Spell 17 of the Book of the Dead (and countless other texts) makes the conjoined relationship of all these gods very explicit.<sup>39</sup> Not surprisingly, we find that Spell 17 is sometimes illustrated with yet another serpent “mountain”, this time sheltering a seated image of Re. The snake symbolizing the mountain takes the form of the Eye of Re: a huge uraeus crowned with a sun disk (Faulkner 2005: 48, from the Book of the Dead of Amenemsauef).

In these serpent-mountains, the great snake overarching the god is identified by various names – Mehen (“Encircler”), Wer (“Eldest”), Nehaher (“Fearful of Face”), or Nehebkau (“Combiner of *Kas*”) (Rundle-Clark 1991: 167, also 50). In the Edifice of Taharqa, Nehebkau is said to be a form of Amun and is described as “the god of those who are in their mounds”. In PT 1146, on the other hand, he is said to be a form of Atum, as the essence of the “outflow of the Primeval Flood ... who emerged from the waters” (Parker *et alii* 1979: 73, and Rundle-Clark 1991: 50). Such poetic imagery seems to be rendered iconographically by depicting the Great God as a serpent in the form of a sideways-S [Fig. 18]. Since we know from the preceding that this iconography represents the serpent as Mound, we can perhaps safely assume that when the god takes the form of such a serpent, he represents the Mound. But we are also told that Atum in snake form is the water, the river. Dare we conclude that this serpent also symbolizes the S-shaped Nile of the northern Sudan? Would this not be a symbolic acknowledgement of the location of the source of Creation (the Nile inundation), the locus of the Primeval Mound, and the place where the god’s evening form unites with his morning form to achieve rebirth? After all, it is the upper Dongola Reach where the “west” bank first becomes the south (to which the god must travel) and ultimately the east, whence he is reborn. If we imagine the Nubian Nile as the Egyptians would have mapped it – with south up – it takes just the form of the great serpent (as in Fig. 18, see also Figs 10, 20), with the Hagar el-Merwa, its head, its body over-

arching Jebel Barkal (i.e., “the Great God”), and its tail leading a trail of fertility down into Egypt.

Strangely, among all the extant identifiable images of Jebel Barkal, we find none that depicts the pinnacle as a standing king or god wearing the white crown but it is just such an image that has the strongest pull on our senses [Fig. 19]. Does the absence of such an image in art mean that the Egyptians did *not* see this very obvious form in the pinnacle? Or does it simply mean that for religious reasons, they chose to keep it “hidden – since “Hidden” (*Imn*) was the very name and essence of Amun. Let us examine the evidence.

I have noted above that all the temples to Amun in his various forms are clustered below the pinnacle on its right (east) side. It is this side that might be called the “male” side, since it is from this vantage that the pinnacle, to our eyes, takes phallic shape and also most resembles a standing king or god wearing the white crown. Nearest the pinnacle on this side is the pair of temples called B 600 and B 700 (the latter being the closest to the pinnacle).

B 600 is a small two-roomed temple once fronted by a columned portico, (Reisner 1918c: 99-100). Since its floor is elevated almost 3 m above ground level, worshipers had to mount a staircase (now destroyed) to enter it. Although founded by Thutmose IV, the existing building appears to be a late Napatan or early Meroitic restoration following a cliff collapse – which suggests that the original Egyptian temple was still standing in early Napatan times. If B 600 was still in use then, we must wonder what cult it served. The interior walls and columns of the restored structure bear no trace of relief or inscription. Against the back wall in the inner chamber, there is a low plastered podium, raised above floor-level and fronted by two steps. As is evident by four large holes in the floor, fully enclosing this platform, it was sheltered – within the temple itself – by a kind of tent shrine or canopy. B 600 in fact seems reminiscent of the royal kiosks, fronted by steps, in which the kings sat during their Sed festivals and other ceremonies.<sup>40</sup> Because the axis of the temple passes through the middle of the open space between the two large Amun temples B 800/900 and B 500,

<sup>39</sup> BD Spell 17 S 2-3: “I am the great god who came into being of himself [Who is he, “the god who came into being of himself”? (He is) water; he is the Deep, the father of the gods. (Variant): He is Re] who created his names, lord (of the Ennead) [Who is he? He is Re when he created the names of his members. So came into being these gods who are in his Train] (most) irresistible of the gods. [Who is he? He is Atum who is in his Disk. (Variant): He is Re when he rises from the eastern horizon of the sky.] Mine is yesterday, and I know tomorrow. [Who is he? “Yesterday” is Osiris; “tomorrow” is Re ...” (Allen 1974: 27).

<sup>40</sup> See Kemp 1993: 58-60, 95. A fragmentary image of just such a shrine appears on the “south” (=upstream=northeast) wall in B 501, in which Pi(ankh)y (feet only preserved) was shown enthroned on a podium under a canopy at the top of a staircase of four steps, being mounted by a servant bearing a bowl of fruit. Such a stepped platform was itself a symbol of the Primeval Mound and would have linked the king, as Atum, to the Creation myth. See note 8, above.

one can easily imagine it as a building in which the king sat, during ceremonies at Napata, to accept the adulation of the public.<sup>41</sup> The lack of decoration in the temple may suggest a rotating occupant, just as the lack of inscribed cartouches in the Nuri funerary temple (Nu. 400) did as well (Dunham 1955: 271, Pl. 64 D).

Continuing the theory that a given temple was positioned with respect to the pinnacle in order to honor the divinity which the rock most resembled from that angle, I would propose that B 600 honored the living king, perhaps in his deified aspect as royal *ka*. If this were so, then the pinnacle would have been thought to represent and personify living kingship – or, in other words, Atum (Walker 1991). Although this may seem highly speculative, the case for this interpretation will become stronger as I continue.

If B 600 looks like a royal pavilion, B 700, to its left, clearly had something to do with deceased kings. As Reisner realized when he excavated it in 1916, the temple was founded by Atlanersa, who decorated both inner chambers, and it was completed by Senkamanisken, who decorated the pylon and outer columns after the former's death (Reisner 1918c: 101-112).<sup>42</sup> Originally, the temple had only two inner rooms, but after a rock fall destroyed the rear chamber, a small sanctuary was added when the temple was restored. What survives of the original decor suggests it was built as a conventional Amun temple, with the chamber endowed with a superbly carved granite stand for the bark of "Amun of Napata" and scenes of Atlanersa's coronation. Most strange is that, scattered throughout the temple or reused in later walls, are some seventeen fragments of a large monument or shrine of Atlanersa, which was dedicated to the god Osiris-Dedwen and inscribed with a long hymn to Osiris (discussed below). The blocks may have comprised the rear wall of the

original second chamber. Several blocks belong to a massive false door and bear images of the canopic gods. These convey an unmistakable funerary purpose.

When Reisner cleared the small rear sanctuary (704), he found it to contain several Meroitic royal statues, a statue of Amenhotep III wearing the white crown, and a granite ram-headed statue of Amun, as well as a group of small bronze figurines of Osiris buried under the floor. One can only assume that this temple was dedicated to Amun – but in a merged relationship with Dedwen and Osiris. Pursuing the theory of temple placement, stated above, I believe we must conclude that the pinnacle was viewed from here as an effigy of past kingship, namely Osiris. From this angle, in fact, the pinnacle looks most like Osiris, wearing the white crown.

Neither Amun nor Dedwen are ever represented wearing the white crown, but since they must be merged with Atum and Osiris, and since Atum and Osiris possess the image of the living and deceased kings, we must suspect that the pinnacle is, among other things, the personified image of kingship – past, present, and future [cf. *Fig. 19*].<sup>43</sup> If we are troubled by the fact that Atum wears only the double crown in art while the pinnacle summit to our eyes has the visible shape only of the white crown, this apparently did not trouble the Egyptians, for Walker notes a group of passages from Thebes that describe the king as "beautiful of face in the white crown like Atum", and in the Roman vestibule of Luxor Temple he cites a scene in which Re-Horakhty hands the double crown to Amenhotep III, while the text calls it "the white crown" (Walker 1991: 18, 153).

The inscribed fragments of the Osiris-Dedwen monument in B 700 immediately remind us of the statement in the coronation stele of Aspelta that the king went to the temple of Dedwen to

<sup>41</sup> At Jebel Barkal during February and March 2007, my team examined B 600 more closely, excavating the sanctuary (603) and cleaning the floor and podium (which is 2.02 m wide, 2.30 m long, and 0.32 m above the floor). Besides the large canopy supports found in the floor, we also found two sets of four smaller holes cut on the podium surface. These indicated that two pieces of apparatus, each with four legs, had been set on its top. The larger, outer object, 1.23 by 1.72 m, had round legs, and the smaller, inner object, 1.13 by 1.48 m, had square legs. Since the podium surface was uneven and its stones carelessly fitted and laid, it did not appear to have supported a stone statue. It seemed that the four-legged object of smaller dimensions had been a wooden platform, whose legs had been inserted into the holes and whose surface was meant to conceal the underlying rough stone surface. Since the dimensions of this object were clearly human scale, one suspects that it was a throne dais. The round outer holes on the podium apparently supported a small canopy closely sheltering whatever rested upon the platform – I would suggest the enthroned king. Inside each of these eight holes we found flecks of gold foil, bits of bronze, and, in one, a feldspar inlay. One hole still contained a round bronze socket, embedded in cement, into which the leg of the canopy(?) had been fitted. The four large holes in the floor around the podium indicated that a second, much larger canopy had been raised over the whole.

<sup>42</sup> For a full description of B 700 through the published data relating to it, see Török 2002: 157ff. His conclusions about the cult of the temple, however, are premature. In B 702, fragments of a bark scene remain on the "north" (=southwest) wall, but his speculation that another existed on the "south" (=northeast) wall is incorrect. Although almost totally destroyed, the wall depicted the king (followed by his chief queen on the "west" [=southeast] wall) presenting registers of offerings – and two obelisks – to a seated god and standing goddess at the "east" (northwest) end – probably Amun and Mut of Napata.

<sup>43</sup> BD Spell 17 3: "Who is he? 'Yesterday' is Osiris; 'tomorrow' is Re" (Allen 1974: 27).



honor the deceased Anlamani (*FHN* I, 234). This text is confusing to us because it tells us, in one sentence, that the king was “beloved of Amun-Re ... foremost of Pure Mountain” and then, in the next, that “his Majesty’s army was in the town of Pure Mountain whose god is Dedwen, foremost of Nubia, the god of Kush, when the Falcon had settled on his throne”. This has led some scholars to believe that the name “Pure Mountain”, as used here, applied to two different places (see examples listed by Priebe forthcoming, and Bonnet and Valbelle 2005: 159). The confusion, however, is no different than what we find in B 700 itself, where the walls and bark stand suggest a temple to Amun but the many loose blocks suggest a temple to Osiris-Dedwen. Thus, it appears that here, as in the texts, Amun, Re, Atum, Osiris, and Dedwen were simply aspects of the same divine being, seemingly invoked by different names in the different contexts of the cult. The extremely close relationship between Amun and Dedwen is also revealed by the fact that both are shown crowning kings: Amun crowns the kings at Barkal, but Dedwen crowns the king (Thutmose III) at Semna – with the white crown, *which is again called the “double crown”* (Camino 1998: 73-74, 77-78, Pls 39-40). But when Dedwen is named he always seems to have some cultic relationship to deceased kings – in other words, Osiris.

From Reisner’s published drawings of two of the loose blocks from B 700, Karl Heinz Priebe astutely recognized key lines of an Osiris hymn that he knew from other, more complete copies at Musawwarat and Philae. He then asked me if he could publish all of the related blocks, to which I gladly agreed and sent him photographs of all the pieces I had recovered. From these, he was able to restore much of the text (Priebe 2005: 139-152).

For the purposes of this paper, the most important lines are these, which I render in English:

Greetings to you, Osiris, Lord of Eternity  
King of the Two Lands, Chief of both banks ...  
Youth, King, who took the white crown for himself  
...  
Who makes himself young again a million times ...  
What he loves is that every face looks up to him  
...  
Shining youth, who is in the primordial water, born  
on the first of the year ...  
From the outflow of his limbs both lands drink.  
Of him it is arranged that the corn springs forth  
from the water  
In which he is situated ....  
Who causes to be established [the years?] of  
eternity in this his name as ‘Pillar’ (*iwn*).



Fig. 19. Photos of the pinnacle in which the rock assumes the form of a standing royal figure wearing the white crown



These lines seem to be full of allusions to what could easily be understood as Taharqa in his tomb: “King of the Two Lands”, “Chief of both banks”, “who is in the primordial water”, “born on the first of the year”. But they could also be understood as allusions to a figure in the pinnacle: “who took the white crown for himself”, “every face looks up to him”, who “establishes [the years?] of eternity in this his name as Pillar (*iwn*)”. Would not “Osiris-Pillar” mean “Osiris-Pinnacle”?

I have demonstrated above that the Egyptians and Nubians viewed the pinnacle outwardly as a rearing serpent, a phallus, a squatting god, and depending on the direction from which it was seen, a form crowned with a sun disk or a white crown – perhaps even the double crown. All of these symbols conveyed potent meaning and gave evidence of the deities that resided in the mountain. As uraeus, the pinnacle evoked a myriad of goddesses. As male serpent and phallus, it evoked the Primeval Mound and the presence of the Great God in his many chthonic aspects. These symbols combined as One also indicated that the pinnacle was dual-sexed, like the Creator himself. The clear visibility of the white crown at its summit indicated that the pinnacle projected the aspect of kingship. If we read Taharqa’s description of Amun in his lament to the god at Karnak, it is very hard to imagine that he was not praying to the god’s essence at Jebel Barkal as he knew him through the pinnacle: “lord of all the gods ... (one) whose images are secret, whose appearances are numerous, whose true form is unknown ... through whose manifestations all manifestations manifest themselves, great solar disk ... first to come into existence ... the continuing, he who passes through eternity, father of fathers, mother of mothers ... king of Upper and Lower Egypt, Amun-Re” (*FHN* I, 180ff.).

The interpretation of the pinnacle as a standing “statue” containing one or more “hidden” human figures derives support from the so-called “Nubian chapters” of the Book of the Dead (162-165), which have recently been discussed by Leonard Lesko (2002: 314-318; 2006: 151-160). These texts are easily recognized as Nubian, first, since Amun is the principle god invoked, second, since Spell 163 makes reference to Jebel Barkal as “the *ipt*, headland/mountain of Nubia”, and third, since they employ untranslatable names and words, which Spell 164 specifically identifies as of “the Nubian speech of the tribesmen of Ta-Seti”. These texts, full of esoteric allusions, all seem to be describing a mysterious, not-quite-perceptible deity, closely linked to Osiris and through whom all the other

chief gods and goddesses were manifested. Of course, these texts need lengthy philological study, but I summarize them briefly here because they seem so fundamental to our understanding of the meaning of Jebel Barkal as well as the nature of the Nubian Amun.

The subject of Spell 162 is clearly Amun, even though he is not called by his proper name. He is a solar god; he is the father of Re; he is said to wear Amun’s “double plumes” (*šwty*); he can be recognized by his familiar epithet “swift of step” and by his invocation, in the colophon, as “Father, Most Hidden of the Hidden” (*imn n3 imn*). In the text, however, he is called “Lion of Might” (*Rw phty*), which reminds us not only of Amun’s familiar epithet from Kawa, “Lion over the South Country (*m3i hry hnty*)”, which dates from the New Kingdom, but also of his appearance as a lion-headed man in the western rooms of the Great Temple of Medinet Habu, where he appears with the other primeval – and Nubian – forms of the god (see Macadam 1949: 134 (references), I: lunette [Pl. 3], VIII: 2 [Pl. 16], XXXV [Pl. 35]. See also note 17, above). Otherwise, the text seems to be describing a figure concealed within the pinnacle: He is called “lord of the white crown (*wrrt*), who is equipped with the flail ... lord of the phallus ... lord of forms (*hprw*), numerous of aspects (*š3 inw*), who conceals himself in the Eye from his children (*h3p sw m wd3t r msw.f*)” (transcriptions derived from hieroglyphic text published by Verhoeven 1993: 329-330; text 135\*-136\*). The text seems to be telling us that the Eye-Uraeus-Pinnacle conceals a hidden image of Amun as Lion-Kamutef, whose only clearly visible attributes are his white crown and phallus!

In Spell 162 Variant, the deceased, as Osiris, prays to the same lion god with the same attributes, who is further identified as the “beautiful one who dawns in the disk of Re”. Halfway through the spell, however, the deceased suddenly addresses Osiris, who “dawns as the Moon”. The text seems to present the two gods as day and night aspects of the same being, manifested as the Sun and Moon, that is, the “two Eyes (=Uraei) of god” (Parker *et alii* 1979: 74-75; and see note 26, above). From this point the spell continues much like the Osiris-hymn in B 700: “You renew your youth ... forever and ever in your rejuvenation ... Osiris in the sky ... You come as the inundation that waters, you provide for the fields (and) all the flowers ...”. Then abruptly it says of Osiris: “Your *ka* is enduring and your phallus is within the maidens ... You are lord of the Uraeus (*i3rt*) ... King of the Gods. You are youthful forever and ever” (Allen 1974: 158). If we recognize the pinnacle as an image of Osiris,

we see at once why his “*ka* is enduring”. This is not only Osiris’ eternal image, but it is also the eternal image of kingship. And obviously if Osiris’ image is within the pinnacle (“Lord of the Kraeus”, he is also the “phallus” that is within the “maidens” (i.e., the uraeus goddesses).

Spell 163 begins with a series of obscure references to the *ba* of a deceased or unborn solar god in the underworld, who rests in the waters of a marsh. The deceased, in the person of Osiris, then makes a wish to merge with the god and to protect him from danger. At this point the god’s fire becomes kindled within the water (an apparent reference to the red color of the Nile reflecting the first glow of dawn), and Osiris is reborn with the god. The deceased, after begging the god’s protection, then says of him: “The limits of heaven are under your *ba*, and this land is under your statue (*ssm*)” (Verhoeven 1993: 333, l. 148, 9, text 137\*). Based on what follows in this text, this would seem to be an explicit reference to the pinnacle.

The god then allows the *ba* of the deceased, as Osiris, to “enter into his corpse and *vice versa*”, at which point he is said to become “hidden (i.e. Amun) within the pupil of the Eye/Uraeus”. The conclusion must be that he has merged with the God/Uraeus within the pinnacle, since in the next sentence we are told that “he sets northwest of the Ipet, headland of Ta-Seti, without journeying to the east” – which places us squarely at Jebel Barkal!

The next lines invoke the god by his different aspects: “O Amun (i.e. ‘Hidden One’), the *Ka* (= bull = phallus), Khepri, lord of the two Eyes (*wd3ty*), Fierce of Pupil is your name; Osiris [N] is the support of your two Eyes; *šršr* is the name of one; *šp ntrwy*, who creates the *ka* (*ir k3*), is the name of the other ... Atum, who illumines for himself the Two Lands, is his true, true name...”

(Verhoeven 1993: 333-334, text 137\*). Here, it seems, the text is telling us that the pinnacle is Amun; it is the *ka* and phallus of Amun, thus Amun Kamutef; it is all aspects of the sun; it is both Eyes-Uraei; it is all goddesses; it is Osiris, personification of kingship past, and it is Atum, personification of Creation, the totality, and of kingship present and eternal. This conclusion neatly supports all of the data previously presented.

Spell 164 also seems to be making allusions to the pinnacle, but this time it is personified as the leonine goddess Sekhmet-Bastet, “Eye of Re”. She is called “royal wife of the lion god *Hq*”, which is the Amun-aspect of Spell 162. In that spell, the god is called “He of *Hqhqd* ... Embracer of the Great Goddess”. Obviously, if the god and goddess were both manifested in the pinnacle, then they would be in a state of permanent embrace! Just as we have noted in the temples B 200-B 300, as well as in the pinnacle, the goddess is merged with other goddesses. In this spell she is also said to be Mut as well as Great of Magic (i.e., Weret-Hekau), goddess of the crowns and, as we have seen, occupant of B 1100 (Allen 1974: 160).

The vignettes accompanying Spells 163 and 164 [Fig. 20] depict a variety of symbols at once recognizable as those linked to Jebel Barkal. These include a serpent in sideways-S shape, wearing the crown of Atum as worn by him in the night bark [cf. Fig. 18]. He stands next to a pair of winged *udjat* eyes with legs, which would seem to symbolize all the goddesses of the “Eye of Re” and “Eye of Horus”. The same scene includes a pair of dwarf beings sharing the posture and attributes of Kamutef – one symbolizing Ptah (Memphite consort of Sekhmet), the other having a double falcon head with *shuty* crown, symbolizing Re. These figures are said to be “what is in the pupils” of the Eyes – in other words, they are



Fig. 20. Vignette accompanying Spells 163 and 164

“hidden” (=Amun) aspects of the god within the pinnacle (Allen 1974: 159-161).<sup>44</sup> These figures stand on either side of a third figure, described in the text as “(an image of) Mut having three faces – one like the face of *Ph3t* (“Revealed One”=a lioness) wearing twin plumes (*šwtj*), another like a human face wearing the white crown and red crown, another like a vulture’s face (i.e., Nekhbet) wearing twin plumes – and a phallus and wings, and lion’s claws”. Surely this figure symbolizes the dual-sexed pinnacle, which unites multiple uraeus goddesses, both lion- and human-headed, and both crowns, together with Kamutef/phallus and Lion (Faulkner 1972: 163; Allen 1974: 160-161).

Finally, Spell 165 is addressed directly to Amun: “O you towering one, towering one! The eldest, eldest! Amun, Amun! The lion, Magician, eldest of the gods of the east of the sky ... hidden of aspect, mysterious of form, lord of the two horns ... Amun of the Pillars ... O Amun, I ask of you, for I know your name; your forms are in my mouth, and your outward aspect is in my eyes. Come to your heir, your image, Osiris [N] ... Your name is Hidden One” (Allen 1974: 161). It would be hard to imagine a more a direct and poetic description of the pinnacle! And once again we find the god’s name linked to the word “Pillar” – here in the plural, reminding us again of the relationship between Heliopolis (“Pillars”) and Jebel Barkal, and suggesting perhaps that all four of the projections on the mountain’s cliff face were conceived as divine images, as over sixty years ago suggested by Titherington, Arkell, and Chittick (see Kendall 2004: esp. 1-6, 41).<sup>45</sup>

In the Egyptian religion the one Great God was thought to incorporate all gods within himself. The Litany of Re, for example, lists 74 forms of Re – many of which are familiar as the gods and goddesses of Jebel Barkal (Piankoff 1960: 16-21). The king, too, was thought to be an earthly manifestation of this god, who was both his parent and child, through the Kamutef principle. The one gave rise to the other endlessly, and by injecting this theology into the pinnacle at Jebel Barkal, the Egyptians and Kushites could imagine that this mountain was the place where it all was actualized.

Bell has observed that the word *wꜥb* (“pure”) often meant “pure waters” referring to the waters of the New Year and the inundation, which were presented by the king to the god of Luxor during

the Opet festival (Bell 1997: 174). Throughout this paper, I have spoken of the many striking connections between Jebel Barkal (the “Pure” Mountain), which was discovered in the early Eighteenth Dynasty, and Luxor Temple (“Southern Sanctuary”), whose cult and complex appear to have been developed shortly afterward. The ram-headed or ithyphallic god of both places appears to have been the same; he was identified with the South, the Primeval Mound, the *sp tpy*; and judging by the Luxor statue of Taharqa [cf. Fig. 10, left], he could assume the form of a rearing serpent, like the Jebel Barkal pinnacle – and if I am correct, also like the shape of the Upper Nubian Nile [cf. Fig. 10, right, 18]. If Jebel Barkal was the place where the god’s uraeus and the king’s uraeus were merged as one, surely it was also the place where the god and the king merged as one to form the royal *ka*. In Spell 163, we are told that one of the two Eyes-Uraei “creates the *ka*” and, elsewhere, that the primeval Amun-Re-Atum, as the serpent Nehebkau, “Combines the *kas*”. Does this mean that Jebel Barkal rather than Luxor was thought to be the actual source of the royal *ka*? Is this why the temples to the royal *ka* were built in Nubia rather than in Egypt? Was Luxor Temple developed at Thebes as a response to the discovery of Jebel Barkal in Nubia – and as an attempt to bring the mysterious Nubian demiurge to the capital? Was the unusual south-directed axis of Luxor an acknowledgement that the royal *ka* came from Nubia with the inundation?

If the Egyptians recognized many places within Egypt itself as sites where Creation had taken place, I suspect that they saw in the “Pure Mountain” of Nubia a kind of ideal manifestation of all of them, which not only absorbed all of their essences unto itself but also reflected its own essence back upon them. Because it existed in what was essentially a foreign land, they apparently preferred to speak of it indirectly in Egypt, or to evoke it in riddles or symbols, or to call it by such familiar Egyptian names as “Karnak” and “Heliopolis”.

We have seen that Taharqa, in his tomb at Nuri, merged himself with Osiris. I have also shown elsewhere that, at vast labor, he merged himself with the “god” in the pinnacle (Kendall 2004: esp. 1-6, 41, see note 45, above). By constructing a complex framework of beams between the cliff and the pinnacle shaft so that

<sup>44</sup> Note that dwarf figures, human and ram-headed, combined with leonine goddesses (Eye of Re), as well as *udjat* eyes, human-headed goddesses flanked by uraei, and figures of Re with two heads comprise most of the amulet types found at el-Kurru (Dunham 1950: Pls 50-54).

<sup>45</sup> See also Fig. 12 as a possible representation of the four projections, and note 16, above, for the identification Heliopolis = Jebel Barkal.



his workmen could climb to its peak, he placed an inscription (now largely destroyed) on the almost inaccessible front face of the rock at a height of almost 75 m and covered the carved panel with sheet gold (Kendall 2004). Among the few signs still clearly legible on the east panel of the text is the word “white crown”. Under the panel is a rock-cut alcove, on the floor of which can still be seen the rear corners of a square-cut socket, perfectly centered on the text above. This suggests that the king also raised up and installed here a small statue, not more than a meter high, probably of himself. With this construction and his own tomb, Taharqa could have imagined himself fully united with the Great God in all his aspects on both banks.

Since Taharqa’s pyramid was placed on the horizon with respect to the pinnacle so that the sun rose over it forty days after the summer solstice, the pinnacle also lay on the horizon with respect to Nuri I so that the sun set behind it forty days before the winter solstice. We thus must wonder if this latter date had any meaning in the Egyptian calendar.

If the Egyptians associated the start of the inundation with Osiris’ rebirth, we find that they also considered the end of the inundation as a sign of his death. The death of the god was commemorated at the end of the fourth month (Khoiak), in the so-called Khoiak or Sokar festival. According to A.J. Spalinger, the Khoiak festival was originally celebrated for six days, from days 25 to 30 of the month, but was preceded by a five day ceremony involving the preparation of Osiris’ corn mummy. The Khoiak festival, he writes, was “observed with much agony and sadness”, for Osiris “was considered to be dead by the central date of the Sokar feast, day 26 in month four”.<sup>46</sup> The corn mummy ceremony, however, began on day 20. If in our own time the sun rises over Nuri I on July 31, and we know that each month of the Egyptian calendar was thirty days in length, then the month of Khoiak (in the modern calendar) would have extended from October 29 to November 28, which means that the festival, by Spalinger’s reckoning, would have occurred on November 23-28 and the corn mummy ceremony on November 18. Forty days prior to the winter solstice places the setting of the sun directly behind the pinnacle, when viewed from Nuri, on November 12. Is it possible that this event signaled the start of the festival, or the death of the god at Napata, given that the Nile levels in

Upper Nubia would have fallen sooner than in central Egypt?

On November 11, 2005, I climbed up Jebel Barkal an hour before sunset. As the sun lowered, I observed that the pinnacle cast a shadow to the east that slowly extended across the eastern plain and, at the moment of sunset, pointed directly to Nuri I across the river [Fig. 21]. Wishing to observe this phenomenon in reverse, I went to Nuri on the evening of November 13 to observe the setting sun from the summit of the pyramid. From this vantage, the sun appeared to set behind the pinnacle (although, unbeknownst to me then, I was a day late for the more perfect alignment). The pinnacle was for a few moments silhouetted in the disk so that, if one conceived of it as a human figure, he would see it as the “dying god-and-king” himself – Atum or Osiris – receding into the Underworld [Fig. 22]. One is reminded of the words in Spell 163, where, after enumerating all of the god’s names and aspects, it says of him: “Atum, who illumines for himself the Two Lands, is his true, true name ...”.

One wonders if the raising of Nuri I from its original 28 m to 63 m may have been an attempt by the later builders to create a second “pinnacle” (i.e., “benben”, Primeval Mound, etc.) on the left bank to correspond to the one on the right bank, which was only 12 m higher. The intent may have been to increase the length of the shadow that the pyramid cast at New Year’s Day, so that just as the sun rose, the shadow would point to the pinnacle, just as the latter’s shadow, 115 days later, pointed to the pyramid.

The symbolism here, if I have correctly interpreted it, is elegant. When the rising sun cast a shadow from the pyramid to the pinnacle, the “god” on the opposite bank would have seemed to “wake up” on his day of rebirth. Three and a half months later, when the sun set behind the pinnacle, the “god”, by casting his shadow to his tomb, would have seemed to “die”.

In all of this we easily recognize the source of the Nubian creation legends recorded by Diodorus in the 1st century BC (*FHN* II, 638ff.). According to his account, the Nubians (“Aithiopians”) were the first men created on earth because they were “closest to the sun”. The gods (led by Zeus[=Amun]) found the sacrifices of the Nubians most pleasing, which is why they regularly went to Nubia to take their meals. Osiris was a native Nubian who came to Egypt with a colony from the South and settled it. This

<sup>46</sup> Spalinger 2001; on the five day corn-mummy ceremony preceding the Khoiak, see Spalinger 1994b: 370-371. On Egyptian festival calendars in general, see Spalinger 1994a: 297-308; Spalinger 1990: 289-294; Spalinger 1995: 17-32, with references.





*Fig. 21. A series of photos taken from the summit of Jebel Barkal, November 11, 2005, between 5:20 PM and 6:15 PM. As the sun sinks in the west, the pinnacle casts an ever longer shadow to the east. At the moment of sunset, it points directly to Taharqa's pyramid on the horizon, 9.7 km distant (indicated by black arrow)*



*Fig. 22. View from Nuri I of the sun setting behind the Jebel Barkal pinnacle on November 13, 2005. The rock is silhouetted in the disk like a “dying” god.*



*Fig. 23. Shadow of the pinnacle pointing directly to the pyramid Bar. 11 shortly after sunrise on 9 March 2007*

was obvious, Diodorus wrote, because “Egypt was not a country but sea at the time when the world first was formed. Later, however, as the Nile, when rising, carried down the mud from Aithiopia, Egypt was little by little accumulated”. (Being of scientific mind, the Greek historian clearly did not realize that Osiris was simply a deified metaphor for the Nile mud.) Later he remarks that the story of Osiris’ southern origin explained not only why the Egyptians and Nubians of his day shared the same customs, but also, among other things, why the kings of both nations wore the “tall, knobbed crown”. It would be hard to imagine that in these tales we are not hearing echoes of the Nubian traditions of Jebel Barkal and Nuri.

#### ADDENDA

In 2005, as I became more confident that Nuri I was sited on the Barkal pinnacle for astronomical reasons, I considered the possibility that certain of the Barkal pyramids, too, may have shared a similar relationship with it – and that their placement in the cemetery might have been determined by the cultic significance of the day on which the shadow of the pinnacle passed over or pointed to them. While the main group of Meroitic pyramids at Jebel Barkal is built far enough around the mountain so that the pinnacle cannot be seen from where they stand, this is not true for Bar. 11 and the two tombs (DB) P 26 and P 27, which all date to the Napatan period and occupy strangely isolated places in the plain west of the mountain.

P 26 and P 27 were discovered and excavated in 1995-1996 by the Spanish Mission of the Fundació Clos, directed by F. Berenguer (2004: 223-237). These were two small ruined pyramids, comparable in form and size to those at el-Kurru. While the tomb chambers of P 27 were undecorated, those of P 26 were painted with magical spells and an astronomical ceiling. The style of the decoration suggests a later rather than an earlier Napatan date, and they appear to have been the first royal tombs built in the Barkal cemetery. The king’s names preserved in P 26 do not seem to be those of any real personage: *Smsw whmw* (“Who causes repetitions of births”) and *ʿt iw:f* (?) (“Chamber/House of his flesh”).

A GPS reading taken in 2006 indicates that the pyramid of P 26 lies at an azimuth angle of 246° relative to the pinnacle. This reveals that it is 180° from the point at which the sun rises on the summer solstice (66°). On the morning of the

solstice, therefore, the shadow of the pinnacle falls across the pyramid and tomb. As the sun rises, the shadow slowly moves northward, and the tomb is illuminated. It remains thus illuminated each morning by the rising sun, until it is again darkened by the pinnacle shadow the following June. Although the decoration in P 26 is not yet completely published, the excavator has written that the main texts on the walls are BD Spells 137a and 178, both of which deal with the relation of the Eye of Horus to Osiris. If we recall that the pinnacle is both Uraeus and Eye (of Horus), Spell 137a can perhaps be recognized as describing P 26 in relation to the pinnacle as a resting place of Osiris:

The flame (i.e., from the uraeus) comes to your *ka*, Osiris, Foremost of the Westerners ... I cause it – this Eye of Horus – to come. It is announced in front of you, Osiris Foremost of the Westerners; it is perceived before you, having dawned on your pate ... The Eye of Horus is your magical protection, Osiris, Foremost of the Westerners ... The *udjat* eye of Horus comes shining like Re in heaven... (after Allen 1974: 113).

P 26 lies on the true west side of Jebel Barkal. In the text in the tomb Osiris is repeatedly called “Foremost of the Westerners”. In the Tabiry Stele from el-Kurru, however, Osiris is called not only “Foremost of the Westerners”, but also “the great god, Lord of the East” (*FHN* I, 119). Given that P 26 and P 27 seem to be contemporary with the later Nuri pyramids, which lie in the east, on the opposite bank, and since there are no other comparably early royal tombs at Jebel Barkal, and since the royal names in P 26 do not seem to be those of any real king, perhaps we are to understand that P 26 and P 27 were built only as royal cenotaphs – to be “occupied” by each new king and queen buried at Nuri, to complete their transformations to Osiris as “Chief of both banks” (to use the phrase in the B 700 hymn, quoted above).

Another intriguing monument is Bar. 11, a large king’s pyramid, surrounded by eleven smaller (queens’?) tombs, erected in the center of the plain west of Jebel Barkal. Chronologically, this tomb belongs to the transitional phase between the Nuri and Meroe sequences (Dunham 1957: 22-23 and map I). GPS readings taken by myself and Pawel Wolf in 2006 indicate that the pyramid stands at an azimuth angle of 272.5° with respect to the pinnacle.<sup>47</sup> We realized that twice a year the shadow of the pinnacle peak must

<sup>47</sup> The south corner of the pyramid is N 18°32’137”, E 21°49’451”; the west corner is N 18°32’148”, E 31°49’443”; the north corner is N 18°32’155”, E 32°49’455” (pinnacle almost disappears behind the mountain when viewed from this point), the east corner is N 18°32’144”, E 31°49’463” Pinnacle fully disappears behind the mountain at N 18°32’125”, E 31°49’606”.



point directly to Bar. 11 shortly after sunrise, but we could not be sure of the days, since they were determined not by the moment of sunrise but by the sun's rising from the pinnacle summit – forming a sun disk “crown” on the head of the “god”. In early March of 2007, we found ourselves again at Barkal just as this phenomenon was occurring, and on March 9, I was able to photograph the event from the summit of Jebel Barkal. By observing the movement of the pinnacle shadow, I realized that from sunrise (at about 7:15 AM), it took about 20 minutes for the sun to rise over the pinnacle peak, causing the

shadow to point to the pyramid [Fig. 23]. With a theodolite, Wolf and I were able to determine that the vertical angle of the pinnacle from the top of the pyramid was 4°54'30". The azimuth angle of the pinnacle, when viewed from the pyramid, is 98.5°. Using the Distant Suns software, I was able to determine that the optimal days on which the pinnacle shadow points to the pyramid center are March 3 (72 days after the winter solstice) and October 10 (72 days before the winter solstice). One would suppose that one or both of these days had ritual significance, but the question remains open.

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