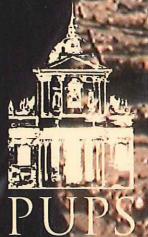


Vincent Rondot, Frédéric Alpi
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LA PIOCHE ET LA PLUME

Autour du Soudan, du Liban et de la Jordanie

HOMMAGES ARCHÉOLOGIQUES
À PATRICE LENOBLE



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Passé Présent

collection dirigée par Dominique Valbelle

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EARLY MUSAWWARAT

Claudia Näser

Humboldt-Universität zu Berlin

I can't claim an old friendship with Patrice, but one thing which characterized him in my eyes was that he approached me exactly as if I could. He was extremely open, generous and true, and very early in my professional life, when we became acquainted in Sudan in 1992, he conveyed to me the conviction that this professional life would be worth living – even when he gave me the advise to counteract diarrhoea by ingesting a spoon of table salt, which immediately brought me down on the bathroom floor in his house, then in Khartoum. I owe him a lot of moral support.

Throughout his life in Sudanese archaeology, Patrice was interested in the Meroitic period and its social, political and economic constitution. He had a special attachment to sites in central Sudan and even wrote a brief guide to Meroe, Naqa and Musawwarat es Sufra.¹ Although much archaeological work has been carried out at these sites, we are still in the dark about numerous points of their history, the function of their individual elements and their integration into Meroitic economic, social and religious life. This seems particularly true for Musawwarat. Several of the many open questions on this site relate to its early history, i.e. the why, when and how of its origin. The following contribution, and my tribute to Patrice, is an initial sketchy attempt to collect and organize the data on “early Musawwarat”, which at present are at our disposal, in order to provide a basis for future investigations and further in-depth discussions.²

¹ P. Lenoble, *Meroe – Naqa – Musawwarat es Sufra, Khartoum*, Khartum, 1991 and P. Lenoble, *A Brief Guide to Naqa, Musawwarat-es-Sofra, Meroe, Khartoum*, Khartum, 1994 (*non vidi*).

² I wish to thank Thomas Scheibner and Rebekka Mucha for detailed discussions of the manuscript and the intricate questions of Musawwarat chronology, and David Edwards for helping with the English and improving several of the arguments discussed.

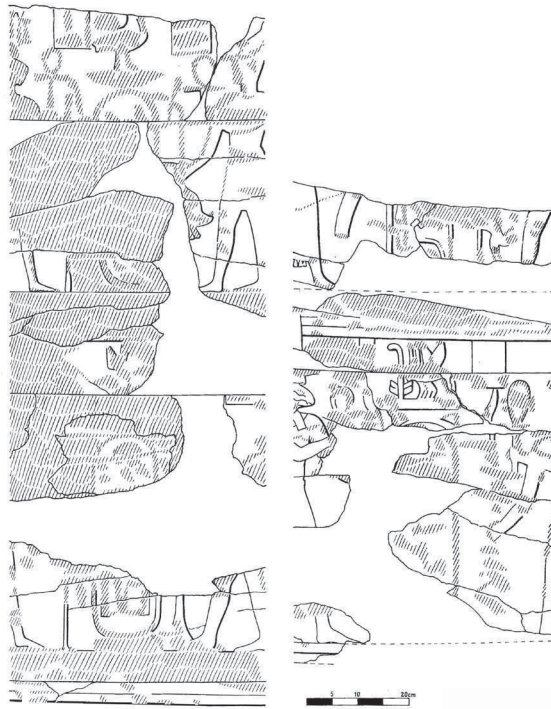
Common disciplinary opinion passes on two statements on early Musawwarat: first, that the building history, i.e. the development of the site reaches back to pre-Meroitic, i.e. Napatan times, and second, that the site was chosen because it had been a sacred place even before.³ Though never expressly reasoned, the first statement seems to be based upon the building history of the Great Enclosure, as established by Fritz Hintze after the close of the first series of excavations at Musawwarat.⁴ As is well known, Hintze distinguished eight main building periods. Their “absolute” dating is exclusively tied to the remains of royal cartouches on the fragments of two columns in room 516 in the Western Chapel (**Figs. 1-4**), which Hintze reconstructed as the *s3-R* ‘ and the throne name of Arnakhamani *Hpr-k3-R* ‘ (c. 235-218 BC).⁵ This led him to attribute building phase 6, to which the architectural assemblage in question belonged, to the reign of that king. If this attribution were correct, the earlier phases of the Great Enclosure would date back to pre-Meroitic, i.e. Napatan times. Further dating criteria, available and used by Hintze, mainly concern building techniques, and are vague at best.⁶

³ Of this tenor e. g. D. N. Edwards, *The Nubian Past*, p. 127, 151, 179, 181.

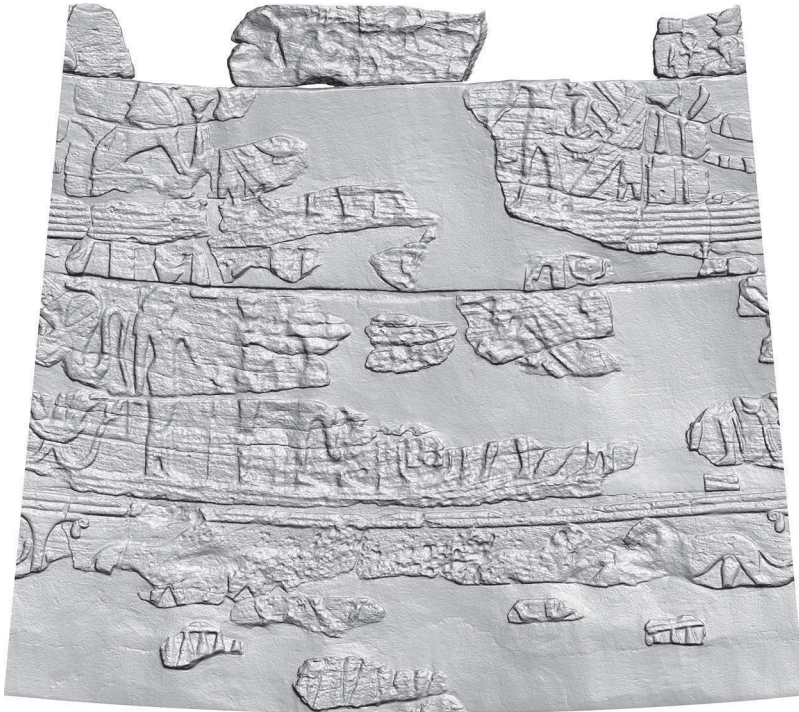
⁴ Fr. Hintze and U. Hintze, “Einige neue Ergebnisse der Ausgrabungen des Instituts für Ägyptologie der Humboldt-Universität zu Berlin in Musawwarat es Sufra”, in E. Dinkler (ed.), *Kunst und Geschichte Nubiens in christlicher Zeit*, Recklinghausen, 1970, p. 51-63; Fr. Hintze, “Musawwarat es Sufra. Vorbericht über die Ausgrabungen des Instituts für Ägyptologie der Humboldt-Universität zu Berlin 1968 (siebente Kampagne)”, *WZB* 20, 1971, p. 227-245. In the following, references are made throughout to the primary reports of the mission published in *WZB* in German. It should, however, be noted that equivalents of the first three reports in English were published in *Kush* 10 (1962), 11 (1963) and 15 (1967-1968).

⁵ *Ibid.*, p. 240, figs. 20-21.

⁶ Fr. Hintze and U. Hintze, in E. Dinkler (ed.), *Kunst und Geschichte Nubiens*, *op. cit.*, p. 62-63. The only other object with a potentially secure date from the Great Enclosure is a Ptolemaic coin, reportedly from Ptolemy III, which was found in the floor level of the period 6 Temple 100; Fr. Hintze, *WZB* 20, 1971, p. 245, figs. 22-23.



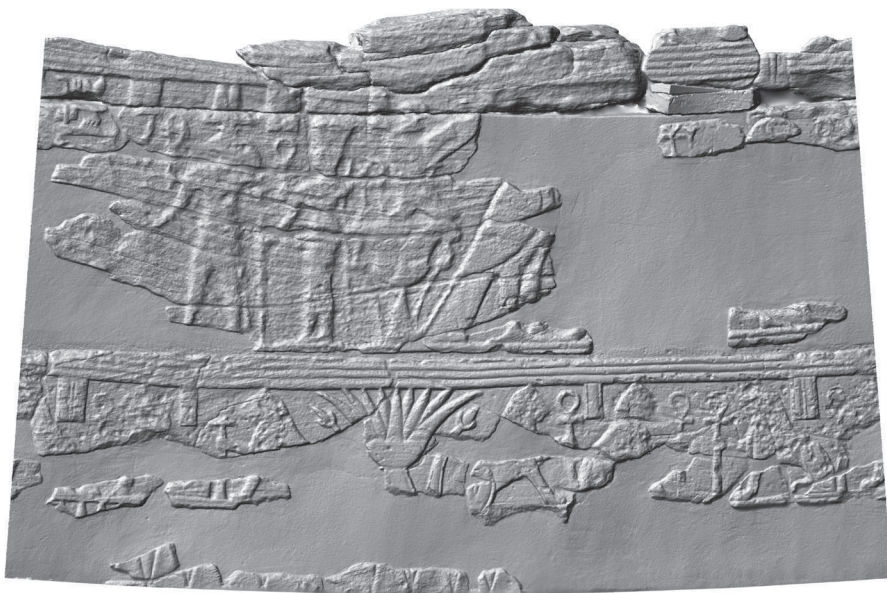
1. Reconstructed cartouches on the columns from room 516
(after: Fr. Hintze, *WZB* 20, 1971, fig. 21)



2. The relief decoration of the southern column from room 516 (Musawwarat archive)



3. Actual preservation of a cartouche ending at the sign *k₃* on the southern column from room 516 (photograph: Tim Karberg)



4. The relief decoration of the northern column from room 516 (Musawwarat archive)

*Hpr-k3-R*⁷, however, was not only the throne name of Arnakhamani, but, among other later Meroitic kings, also of Natakamani. Recently, it has been suggested by Tim Karberg that building phase 6 of the Great Enclosure should be attributed to that ruler rather than to Arnakhamani.⁷ The arguments enlisted in this respect relate to the chronological position of terrace buildings in the Nile Valley in general and more particularly to the masons' marks connected with building phase 6, which have close parallels in the Kalabsha Temple, which dates to Augustan times. Karberg correctly points out that the re-dating might also help to resolve other problems, which *e. g.* exist in the discrepancy of the art historical position and the chronological attribution of the *en face*-depictions of gods on the columns in front of Temple 100, which also belong to the notorious building phase 6.

From my point of view, several further indications also support this re-dating. The first concerns the general extent of building activity of the Meroitic rulers. Apart from the controversial building period 6 of the Great Enclosure, the Apedemak Temple at Musawwarat is the only major monument that could be attributed to Arnakhamani so far.⁸ If we were to assign building phase 6 to him, we would have to assume a large-scale commitment to Musawwarat, which would not be mirrored by any other building activities elsewhere. In contrast, Natakamani was the most active king of the entire Meroitic period in terms of building enterprises, and his rule can easily be called the heyday of Meroitic temple building. It is, therefore, more than plausible that he should also have been active at Musawwarat on a larger scale than just the restorations of building period 7, which is conventionally attributed to him.⁹

A second overarching argument relates to the chronological positioning of the earlier building history of the Great Enclosure. Assigning building period 6 to Natakamani would mean that the previous periods 1, 3, 4 and 5¹⁰ would fit into the earlier phases of Meroitic history, with Arnakhamani or another early

7 T. Karberg, "Musawwarat es-Sufra: a Meroitic terrace temple in a Nubian perspective", in W. Godlewski and A. Łajtar (eds.), *Between the Cataracts, Part two*, p. 571-576. It should be noted that the columns in room 516 belong to the latest phase of building period 6; it is, therefore, not impossible that earlier phases of that period were begun or even completely executed under the predecessors of the king mentioned on the columns, be it Natakamani or not.

8 His tomb is unknown, although it is supposed to have been Beg. N53; St. Wenig, "Bemerkungen zur Chronologie des Reiches von Meroe", *MIO* 13, 1967, p. 6-7. The only other monument inscribed for him is the bronze head of a goddess, probably an attachment of a ceremonial bark, from Kawa; St. Wenig, *Africa in Antiquity. The Catalogue*, p. 211, no. 133.

9 Fr. Hintze and U. Hintze, in E. Dinkler (ed.), *Kunst und Geschichte Nubiens, op. cit.*, p. 62.

10 For the deletion of building period 2 see below note 25.

Meroitic king being the first to conduct large-scale building activities at the site. In order to evaluate this argument we have to consider how likely it is that the building history of the Great Enclosure goes back to Napatan times – as implied by conventional dating. Fritz Hintze and Pawel Wolf suggest that the Napatan king Talakhamani may have been the founder of Musawwarat.¹¹ This hypothesis rests upon three Meroitic *proskynemata* in the Great Enclosure, which contain the name of this king and are taken as an indication of his later apotheosis at the site. The reign of Talakhamani is dated to the second half of the 5th century BC. Save for the three posthumous mentions in Musawwarat, he is known from his funerary stela found in pyramid Nu. 16 and from an inscription of his successor Yerikeamanote in Temple T at Kawa, which reports that Talakhamani died “in his palace at Meroe”.¹² Apart from the connection to Talakhamani, Fritz Hintze also assumed that the building activities using “Blockbauweise”, i.e. the construction of walls from sandstone blocks, which appears in the Great Enclosure from building period 1 onwards, may already have started shortly after the transfer of the capital from Napata to Meroe, which he dates to the time of Aspelta, thus taking the origin of the Great Enclosure even further back in time.¹³ In marked contrast to these considerations, so far no traces of Napatan building activities in the Keraba have come to light.¹⁴ Also the suggestion that the construction of *hafirs* in the region reaches back to Napatan times,¹⁵ is partly based upon the assumption that the early phases of the Great Enclosure, which presuppose the existence of a *hafir* at the site, date themselves back to that period.

Returning to seeming facts, ¹⁴C-dates might be thought to offer a solution to the dating problem. However, also they are contradictory. A series of dates obtained during the excavations in the 1960s from samples related to building period 6 ranges from the 5th to the 3rd centuries BC, suggesting a Napatan date

11 P. Wolf, “Die Höhle des Löwen. Zur Deutung der Großen Anlage von Musawwarat es Sufra”, in C.-B. Arnst, I. Hafemann and A. Lohwasser (eds.), *Begegnungen. Antike Kulturen im Niltal. Festgabe für Erika Endesfelder, Karl-Heinz Priebe, Walter Friedrich Reineke, Steffen Wenig*, Leipzig, 2001, p. 486, 490, referring to Fr. Hintze, *Meroitische Graffiti mit Anrufungen an Apedemak und andere Götter*, posthumous, in preparation.

12 FHN II, p. 393, no. 67, p. 400-428, no. 71. The quoted passage is line (5) of that text.

13 Fr. Hintze and U. Hintze, in E. Dinkler (ed.), *Kunst und Geschichte Nubiens*, op. cit., p. 63.

14 Indeed, the only monument that testifies to the extension of the Napatan sphere of action in terms of large-scale building projects beyond the confines of the river valley is the fortress of Ghala Abu Ahmed in the Lower Wadi Howar, west of the Nile; D. Eigner and F. Jesse, “Im Westen viel Neues. Die Grabungen 2008/09 in der Festung Gala Abu Ahmed”, *MittSAG* 20, 2009, p. 141-158.

15 T. Scheibner, *Die Wasserversorgung von Musawwarat es Sufra*, vol. II, unpubl. master's thesis, Berlin, Humboldt University Berlin, 2003, p. 96; *id.*, “Neue Erkenntnisse zur Wasserversorgung von Musawwarat es Sufra (I). Das übergeordnete Wasserversorgungssystem. Teil I: Wassergewinnung und -speicherung”, *MittSAG* 15, 2004, p. 62-63.

for much of the building history of the Great Enclosure.¹⁶ In contrast, samples obtained from the excavations in the 1990s indicate a date in the 2nd century BC as a *terminus post quem* for the construction of Temple 300 and, thus, for building period 6.¹⁷

Leaving aside this equivocal evidence as well as the doubtful attribution of the cartouches in room 516, it seems worthwhile to revisit the actual archaeological evidence for “early Musawwarat” in order to provide a basis for further discussion – about that evidence, as it is presented here, and its wider historical implications.

THE EARLY HISTORY OF THE GREAT ENCLOSURE

The record of the building periods

No coherent picture exists of the early building periods of the Great Enclosure. Before plunging into a discussion about the early stages of the conventional building history, as it was suggested after the first series of excavations in the Great Enclosure in the 1960s by Hintze, it must be underlined that in numerous trenches in the central and western parts of the Enclosure remains of foundations and walls as well as postholes and other features came to light, which could not be attributed a specific building period, but seem to be of early date.¹⁸

The walls, which were defined as building period 1 by Hintze, represent the remains of a corridor located west of the Central Terrace.¹⁹ From them the

16 According to new calibrations with Calib, intcal09, 1 sigma range, on the basis of Fr. Hintze, “Diskussionsbeitrag zum Thema ‘Meroitische Architektur’”, in Fr. Hintze (ed.), *Meroitistische Forschungen 1980*, p. 338-339 with table 7. It should be noted that the sample giving the oldest date, i.e. 2333 +/- 80 BP, corresponding to 538-353 calBC (Berlin 458, 1 sigma range, calibrated with Calib, intcal09), derives from an architectural context, namely room 123, which was originally attributed to building period 2 by Fr. Hintze, *WZB* 20, 1971, p. 233, maps 4-5. The fact that the architectural remains of this period in their entirety are now assigned to building period 5 (see below note 25), also changes the presumptive context of this sample. Its reported stratigraphical origin, a fire place in 1.2 m depth, is very vague anyway. Thus, the sample and its date should not be associated with a particular building period.

17 For the attribution of Temple 300 to building period 6 see below.

18 J. Hallof, *Die Baustufen I bis IV der Großen Anlage von Musawwarat es Sufra*, IBAES VIII, 2006, p. 18-19. A prominent example for this is a segment of the foundation of wall 512-S/513. While the actual standing wall was assigned to building period 2 (which is now eliminated, as the features attributed to it are now thought to belong to the later building period 5; see below note 25), the foundation in question deviates from its architectural context in several aspects and probably is a leftover of an early construction phase, but cannot be related to the remains that were labelled as building period 1 (*ibid.*, p. 18, 37).

19 For this and the following see in detail Fr. Hintze, *WZB* 20, 1971, p. 228-240 and J. Hallof, *Die Baustufen I bis IV*, *op. cit.*, p. 20-100.

existence of a completely vanished early Central Temple, which is thought to have been their point of departure, has been inferred.²⁰ Re-investigations in the 1990s showed that a presumed entrance building at the western end of this west corridor, underneath the later west chapel 516, was in fact not an entrance, but a small rectangular building, which at some point in time was demolished, and possibly did not belong to building period 3, but to an older construction phase.²¹ Re-investigations in the area of the Central Terrace and courtyard 120 immediately north of it produced further traces of early building periods, namely: 1) a brick paving underneath ramp 119;²² 2) a water basin or a cistern (K 63) built from re-used red bricks beneath room 108;²³ 3) two rows of postholes and wide ditches, probably remains of scaffolding²⁴.

Hintze's building period 2 was represented by several walls, detected in the area north of the extant Central Terrace. In a reinvestigation in 2000 it was shown that they actually belonged to building period 5.²⁵ Thus, period 2 has to be deleted from the records.

Of building period 3, substantial remains are preserved. From a newly constructed Central Temple, however, only foundations of its interior room have survived.²⁶ It seems that the well-known garden detected in courtyards 117 and 120 east and north of the Central Temple had its origin in this building period as well.²⁷ With reservations, Fritz Hintze also attributed Temple 300

20 Fr. Hintze, *WZB* 20, 1971, p. 233, n. 13.

21 R. Mucha, "Untersuchungen in Hof 521 der Großen Anlage und im Komplex I D von Musawwarat es Sufra", *MittSAG* 11, 2001, p. 34-37. Cf. also J. Hallof, *Die Baustufen I bis IV, op. cit.*, p. 113-115. An unequivocal *terminus ante quem* for its demolition is only the construction of the south wall of the west chapel and wall 521/520, both of which are dated into the later stages of building period 6; R. Mucha, *MittSAG* 11, 2001, p. 36-37 and Fr. Hintze, *WZB* 20, 1971, p. 240.

22 St. Wenig and P. Wolf, "Feldarbeiten des Seminars für Sudanarchäologie und Ägyptologie der Humboldt-Universität in Musawwarat es Sufra, Dritte Hauptkampagne, 13.1.1997-11.4.1997", *MittSAG* 9, 1999, p. 25, fig. 1, map 3.

23 P. Wolf, "Die Untersuchungen zur Baugeschichte an der Nordseite der Zentralterrasse", *MittSAG* 11, 2001, p. 22-23, fig. 8; *id.*, "Fieldwork of the Humboldt-University of Berlin at Musawwarat es Sufra 1993-2000. A Summary", in St. Wenig (ed.), *Neueste Feldforschungen im Sudan und in Eritrea*, p. 49, where the excavator suggests that it "probably belongs to the very first building periods of the central area of the Great Enclosure".

24 St. Wenig and P. Wolf, "Feldarbeiten des Seminars für Sudanarchäologie und Ägyptologie der Humboldt-Universität in Musawwarat es Sufra, Zweite Hauptkampagne, 1.2.-1.4.1996", *MittSAG* 8, 1998, p. 41.

25 P. Wolf, *MittSAG* 11, 2001, p. 16-23.

26 Fr. Hintze, *WZB* 20, 1971, p. 233-234, fig. 10, map 5.

27 St. Wenig and P. Wolf, *MittSAG* 9, 1999, p. 27-29. For a summary of the discoveries related to the garden, see also P. Wolf, in St. Wenig (ed.), *Neueste Feldforschungen im Sudan und in Eritrea*, p. 51-52 with further references.

to it.²⁸ Extensive re-investigations now indicate that it instead belonged to building period 6.²⁹ In strata below the ramp and the portico of Temple 300, mud-filled foundation trenches of a circular (K523) and a rectangular (K536) structure were recovered.³⁰ The former, with a maximum diameter of 7.2 m, was partially aligned with postholes on its interior side. Judging from their layout and stratification, they represent the remains of mud buildings from a period predating Temple 300. Two associated ¹⁴C-dates fall into the 2nd century BC.³¹ Another charcoal sample deriving from the fill of a pit, stratigraphically underneath the fill of the temple terrace, was radiocarbon dated to 203–53 calBC.³² This evidence all very consistently points to the 2nd century BC as a *terminus ante quem non* for the construction of Temple 300 and, thus, gives an additional argument for re-dating building phase 6.³³

To sum up: leaving aside a number of incoherent remains of foundations, walls, postholes and other features, which at present cannot be dated or related to each other, the first intelligible traces of the building history of the Great Enclosure are segments of walls, which originate from a corridor west of its (later) central part and are called building period 1. Further elements, such as a small building west of this corridor and a brick paving and a water basin or cistern detected on the north side of the later Central Terrace, also are of early date, but can not yet be linked to a specific construction phase. Of course, they

28 Fr. Hintze, *WZB* 20, 1971, p. 234, 240; Fr. Hintze and U. Hintze, in E. Dinkler (ed.), *Kunst und Geschichte Nubiens*, *op. cit.*, p. 61.

29 St. Wenig and P. Wolf, “Feldarbeiten des Seminars für Sudanarchäologie und Ägyptologie der Humboldt-Universität zu Berlin in Musawwarat es Sufra. Vierte Hauptkampagne, 12.1.1998–1.4.1998”, *MittSAG* 10, 2000, p. 30–32; K.-H. Priese, “Bauen in Musawwarat”, *MittSAG* 14, 2003, p. 55.

30 St. Wenig and P. Wolf, *MittSAG* 10, 2000, p. 35–36, plan 4; P. Wolf, “Steps toward the interpretation of the Great Enclosure of Musawwarat es-Sufra”, in T. Kendall (ed.), *Nubian Studies 1998*, p. 440–441, fig. 2; P. Wolf, “Ausgrabungen im Hof des Tempels 300 der Großen Anlage von Musawwarat es Sufra, Kampagne 2004”, *MittSAG* 15, 2004, p. 24–25, map 1.

31 According to new calibrations with Calib, intcalog, 1 sigma range, on the basis of P. Wolf, in T. Kendall (ed.), *Nubian Studies 1998*, p. 441. Disconcertingly, P. Wolf (in St. Wenig (ed.), *Neueste Feldforschungen im Sudan und in Eritrea*, p. 54) speaks of “remains of very early round shaped buildings made out of unburned, probably stamped mud (*galus*)” which he thought might have belonged either “to very early settlement structures, or [...] represent the earliest sacral buildings in that area.”

32 According to a new calibration with Calib, intcalog, 1 sigma range, on the basis P. Wolf, in T. Kendall (ed.), *Nubian Studies 1998*, p. 441.

33 Apropos of these dates, Pawel Wolf (*ibid.*, p. 441 with n. 23) had for the first time questioned the correlation of building phase 6 with Arnakhamani. Using different arguments, a functioning of the Great Enclosure over more than 500 years is also queried by D. Eigner, “Where kings met gods. The Great Enclosure at Musawwarat es Sufra”, *MittSAG* 21, 2010, p. 13–14).

may represent relatively minor modifications rather than a more widespread rebuilding episode. Architectural remains on a much larger scale are preserved from the subsequent building period 3. It comprised the first courtyards and a (new) Central Temple, but apparently no other sanctuary. Thus, the triad scheme detected in Temples 100, 200 and 300³⁴ might actually be a “late” concept, developed or architecturally implemented only in building period 6.

Further evidence for building activities prior to period 1

Several foundation and wall remains of the early building phases of the Great Enclosure contain blocks, whose dimensions conspicuously deviate from other contemporary building material. This was noted particularly within the fabric of wall foundation 513A, dated to building period 1.³⁵ Re-used early material is probably also present in the lower layers of wall 122a/123, originally dated to building period 2, but now considered to be part of period 5.³⁶ Of course, these blocks were not necessarily re-used *in situ*, but could have come from an older building anywhere at the site.

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A *hafir* in or at the Great Enclosure?

Archaeological evidence shows the existence of a large water basin in the area of (later) courtyard 122. Excavations revealed a re-filled oval depression, whose original extensions were approximately 35×20 m, judging from the recorded contours.³⁷ Thomas Scheibner proposed that it was an artificially dug reservoir, i.e. a *hafir*, tracing its excavated fill in the neighbouring (later) courtyard 304.³⁸

Stratigraphical evidence showed that the structure had later been partly filled with building rubble. The foundations of wall 122/304, which belongs to building phase 4, rest upon that material and, thus, give a *terminus ante quem* for this episode. The re-filling, however, was not designed to completely level the basin, but only reduced its size. Towards its centre, substantial silt layers on top of the mixed fill indicate fluvial sedimentation processes, prior to its final sanding up.

34 P. Wolf, in C.-B. Arnst, I. Hafemann and A. Lohwasser (eds.), *Begegnungen. Antike Kulturen im Niltal*, p. 488-492.

35 J. Hallof, *Die Baustufen I bis IV, op. cit.*, 2006, p. 18, 22, 25-26.

36 *Ibid.*, p. 18, 48-49. For the elimination of building period 2 see above note 25.

37 P. Wolf, “Ein See in der Großen Anlage von Musawwarat es Sufra? Testgrabungen im Hof 122, Kampagne 2004”, *MittSAG* 15, 2004, p. 17-20, map 1. Excavations did not reach the bottom of the feature; thus, its depth remains unknown. T. Scheibner, *MittSAG* 15, 2004, p. 58 suspects a second similar feature in courtyard 415.

38 *Ibid.*, p. 58-60. Contra P. Wolf, *MittSAG* 15, 2004, p. 20, who also considers that it might have been part of the natural rainwater drainage system.

The structure was within the confines of the Enclosure in building period 3, when wall 122/227 formed its new northern outer wall.³⁹ It may, thus, have had a connection to the garden of that period, discussed above. The oldest, i.e. pre-period three stage(s) of the Great Enclosure, of which at present only the walls of building period 1 and possibly some further incoherent remains are known, apparently did not extend into the area of (later) courtyard 122. Based upon that evidence and the implicit assumption that the basin itself was not only constructed in periods 1 or 3, Thomas Scheibner⁴⁰ suggests that the Great Enclosure may actually have started as a temple built next to an already existing *hafir*.

LOST MONUMENTS AT THE SITE OF MUSAWWARAT

Complex I D

Complex I D is situated about 170 m south of the Great Enclosure.⁴¹ It appears to have been an extensive structure, which had systematically been dismantled already in antiquity, with only the foundations of several walls remaining (**Fig. 5**). Rebekka Mucha⁴² convincingly argued that its construction had never been completed, but stopped before most walls had been built and even before all their foundations had been laid: only this can explain why many walls terminate abruptly, without even foundations trenches continuing their lines.

One comparatively well preserved element of Complex I D is a one-roomed building with four interior columns (I D/a-1), situated in the north-eastern corner of the complex (**Figs. 5, 6**). East of it, a deposit of several blocks with

39 It should be noted that T. Scheibner (*Die Wasserversorgung, op. cit.*, vol. II, p. 38), doubts that wall 122/227 belongs to period 3, as it is apparently younger than the architectural remains around room 123, which were originally assigned to building period 2, but are now allocated to period 5 (see above note 25). A possible re-attribution of wall 122/227 to period 6 does not affect the points made in the following.

40 *MittSAG* 15, 2004, p. 62.

41 First excavations at I D were undertaken in 1965; see Fr. Hintze, "Musawwarat es Sufra. Vorbericht über die Ausgrabungen des Instituts für Ägyptologie der Humboldt-Universität, 1963 bis 1966 (vierte bis sechste Kampagne)", *WZB* 17, 1968, p. 681, fig. 25. In 1998 and 2000, re-investigations were carried out; St. Wenig and P. Wolf, *MittSAG* 10, 2000, p. 38-39, figs. 15-16, and R. Mucha, *MittSAG* 11, 2001, p. 38. Their results are extensively discussed in R. Mucha, *Kleine Gebäudestrukturen in Musawwarat es-Sufra. I C, I D, II B, II D sowie III B1 und III B2*, Teil I: Text, unpubl. master's thesis, Berlin, Humboldt University Berlin, 2002, p. 41-155. For additional findings see T. Scheibner, "Archäologie, Verantwortung und Kulturerhalt. Die Rettungskampagne am Großen Hafir von Musawwarat 2005", *MittSAG* 16, 2005, p. 32.

42 *Kleine Gebäudestrukturen, op. cit.*, p. 103-113.

architectural ornaments was found. Two blocks with sun discs flanked by *uraei* with falcon heads and lion heads with *hemhem*-crowns respectively can be reconstructed as part of a monumental doorway (**Fig. 7**).⁴³ They support the interpretation of structure I D/a-1 as a temple. With regard to the entire Complex I D, Rebekka Mucha⁴⁴ concludes that it may either have been a temple with further attached structures or a building with a palatial character and an integrated temple, an architectural composition which, as she argues, should be linked to royal usage.

In several buildings all over the site of Musawwarat, blocks with reliefs and architectural ornaments have been found in secondary use. So far, examples have been reported from the Great Enclosure, the Small Enclosure I B and structures II A, II B and III A.⁴⁵ Fritz Hintze judged that the blocks from I B and II B, which come from an exterior decoration, are stylistically older than the reliefs of the Apedemak Temple and suggested that they originate from Complex I D.⁴⁶ He went on to identify I D/a-1 as an Isis temple, whose existence at Musawwarat he inferred from the titles of prince Arka on the walls of the Apedemak Temple, namely priest of Isis of *Īpbr* and *Īrbjklb*, i.e. Musawwarat and possibly Wad ban Naqa.⁴⁷ In sum, Hintze concluded that I D may have been the oldest sacral structure at the site.⁴⁸ However, so far no clear evidence linking the relief blocks with I D has come to light, and the existence on the site of one or more other temples with such relief decoration cannot be excluded.

⁴³ *Ibid.*, p. 53, figs. 29, 31, 32.

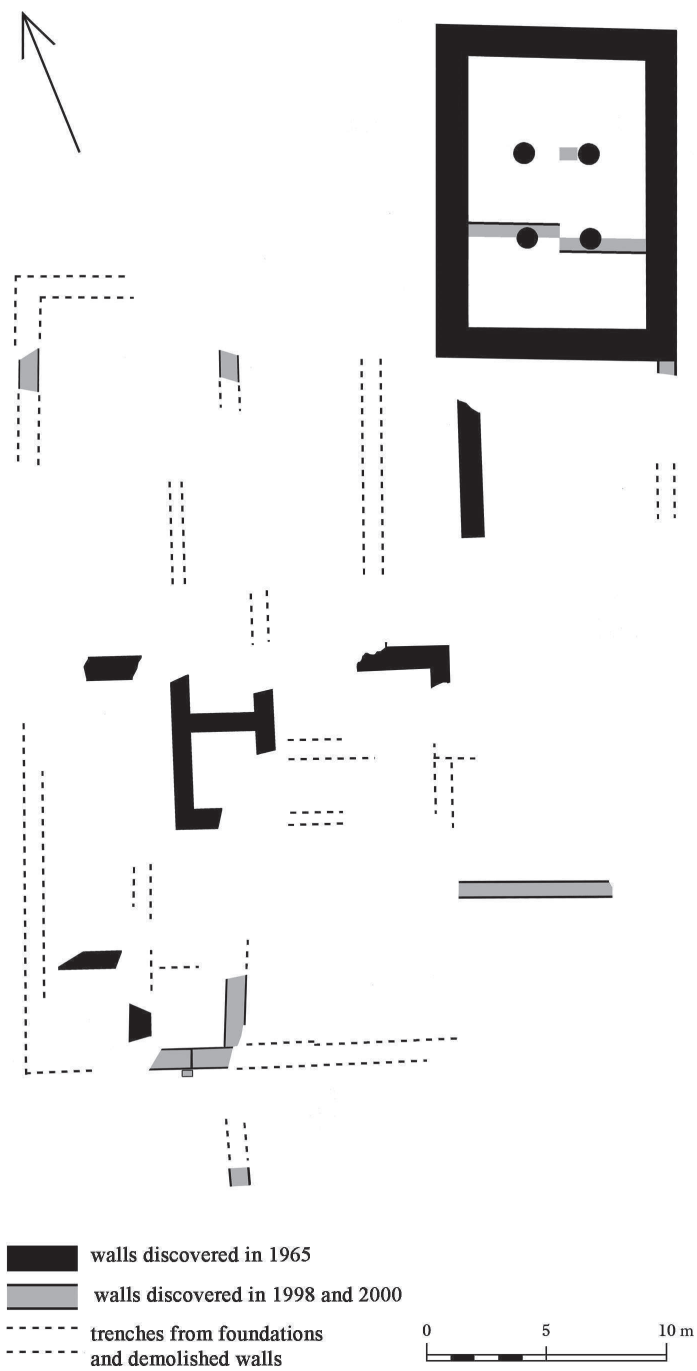
⁴⁴ *Ibid.*, p. 127-144.

⁴⁵ *Ibid.*, p. 177-179 with further references.

⁴⁶ Fr. Hintze, "Vorbericht über die Ausgrabungen des Instituts für Ägyptologie der Humboldt-Universität zu Berlin in Musawwarat es Sufra, 1960-1961", *WZB* 11, 1962, p. 456 and Fr. Hintze, *WZB* 17, 1968, p. 681.

⁴⁷ Fr. Hintze, "Musawwarat es Sufra. Vorbericht über die Ausgrabungen des Instituts für Ägyptologie der Humboldt-Universität zu Berlin, 1961-1962 (Dritte Kampagne)", *WZB* 12, 1963, p. 70. Cf. Fr. Hintze, *Die Inschriften des Löwentempels von Musawwarat es Sufra, Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin, Klasse für Sprachen, Literatur und Kunst* 1, Berlin, 1962, p. 19-21, 25.

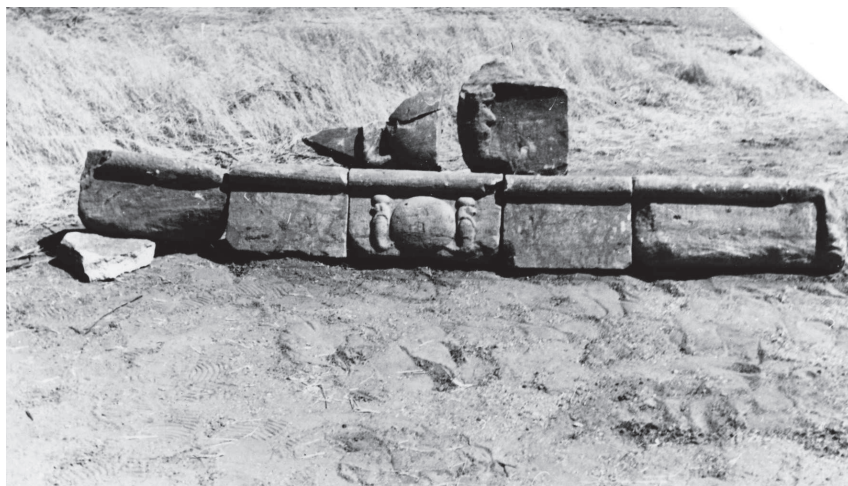
⁴⁸ For several ephemeral features predating the construction of I D/a-1, see R. Mucha, *Kleine Gebäudestrukturen*, *op. cit.*, I, p. 79-83.



5. Complex I D (recording and drawing: Rebekka Mucha)



6. View of structure I D/a-1 before the 1965 excavation (Musawwarat archive)



7. Re-composed lintel of a monumental gate, whose individual components were found east of structure I D/a-1 (Musawwarat archive)

Building(s) with relief decoration

As established in the previous paragraph, on the basis of the available evidence it cannot be ascertained that the relief blocks re-used in the Small Enclosure, the Great Enclosure and structures II A, II B and III A came from Complex I D.⁴⁹ We, therefore, have to concede that one or several other structures may have existed, from which they derived.⁵⁰

Red brick architecture

It is an accepted opinion that previous to the introduction of stone architecture at Musawwarat, red bricks had been used as building material. This notion goes back to Hintze, who reported considerable quantities of red brick “überall im Schutt und in den unteren Lagen der Wallaufschüttungen des Großen Hafirs”.⁵¹ Unfortunately, the excavation records proper do not specify or even mention these occurrences.⁵² Rather, they evoke the impression that red bricks were used very sparingly and in a functionally limited way, at least in the era of stone architecture. So far, not a single standing red brick wall has been found at the site.

Contrary to Hintze’s statement that red bricks only appear in building rubble,⁵³ they are occasionally also preserved in their functional contexts. Recorded instances primarily concern hydraulic installations such as water basins and channels in the Great Enclosure.⁵⁴ Besides that, there are the red brick paving found underneath ramp 119⁵⁵ and the small building underneath the later west chapel, whose sandstone walls have a partial facing of two layers of red

⁴⁹ *Ibid.*, p. 179.

⁵⁰ A detailed study and discussion of the relief blocks in question is beyond the scope of the present contribution; the current state of research is presented in R. Mucha, *Kleine Gebäudestrukturen*, *op. cit.*, I, p. 177-179 and II, p. 99, 101-130.

⁵¹ Fr. Hintze and U. Hintze, in E. Dinkler (ed.), *Kunst und Geschichte Nubiens*, *op. cit.*, p. 63. This statement only concerns red bricks; for the use of mud and earth bricks in Musawwarat, see M. Fitzenreiter, A. Seiler and I. Gerullat, *Musawwarat es Sufra II*, p. 38-39.

⁵² See only J. Hallof, *Die Baustufen I bis IV*, *op. cit.*, p. 44, for an apparently late instance of brick rubble in the Great Enclosure. For the Great Hafir, dumped plastered sandstone blocks are reported from the “Wasserleitungshügel”, i.e. the western segment of the embankment, where waterduct II F was detected; Fr. Hintze, *WZB* 11, 1962, p. 459 and *id.*, *WZB* 12, 1963, p. 68.

⁵³ Fr. Hintze and U. Hintze, in E. Dinkler (ed.), *Kunst und Geschichte Nubiens*, *op. cit.*, p. 63. The red bricks of Christian date from structure III A are not considered here; for these see L. Török, “Ein christianisiertes Tempelgebäude in Musawwarat es Sufra (Sudan)”, *AAASH* 26, 1974, p. 78, 94-100.

⁵⁴ For a list of all known examples, T. Scheibner, *Die Wasserversorgung*, *op. cit.*, II, p. 161.

⁵⁵ See above note 22. For doubts on the functionally correct identification of this feature see *ibid.*, p. 162.

bricks⁵⁶. On two occasions, red bricks were also used for thresholds in the Great and the Small Enclosure.⁵⁷ Finally, several red bricks were incorporated in a small square structure in front of Temple II A.⁵⁸ These instances do not suggest, that red bricks were a common building material at the site in the building periods which have come down to us. Instead it seems that their use was limited to instances, in which their specific material qualities were desired or necessary, and beyond these contexts they were employed only sporadically and erratically.

With a single exception: red bricks in larger quantities were found in workshop area II G west of the Great Hafir. Hintze convincingly identified II G as a production site of plaster, one of whose ingredients was crushed red bricks.⁵⁹ They were also used in the construction of some installations at the site.⁶⁰ The bricks found at II G all have traces of mortar and, thus, must derive from demolished buildings. Hintze suggested that workshop II G and the Great Hafir were contemporary,⁶¹ which leaves a wide time range, as the use life of the *hafir* has not yet been determined.

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What can be made of these findings? The bricks from II G indeed indicate the existence of an architecture that employed more extensively red bricks, of which no trace has as yet been found. For the bricks reported from the embankment of the Great Hafir, two explanations can be offered. Either they derive from a nearby building that was demolished – incidentally or necessarily at the same time – when the Hafir was constructed, or they were brought there from some other spot in the site in order to be processed in the workshops close to the Hafir, some ending up in its embankment instead. It can be expected that more workshops like II G existed in the environs of the *hafirs*, which provided water for their operations. However, as long as we lack more detailed data on the find contexts of the bricks in the embankment and the existence and dating of further workshops, no answer to these questions can be found. Concerning the hypothesis of an early “brick period” at Musawwarat, the query must be made as to why the tradition of building in red brick was completely abandoned after the introduction of stone architecture, and whether, seen against this background, we can really assume a proper earlier phase of brick building, and, further, the extent it could have reached.

⁵⁶ See above note 21 and particularly R. Mucha, *MittSAG* 11, 2001, p. 35 and J. Hallof, *Die Baustufen I bis IV*, *op. cit.*, p. 113-115.

⁵⁷ *Ibid.*, p. 89 and M. Fitzenreiter, A. Seiler and I. Gerullat, *Musawwarat es Sufra* II, p. 39.

⁵⁸ Fr. Hintze, *WZB* 11, 1962, p. 454, fig. 14, pl. 17.a.

⁵⁹ *Ibid.*, p. 460, fig. 14, pls. 21.c, 22.a. For a discussion of the site see also T. Scheibner, *Die Wasserversorgung*, *op. cit.*, II, p. 141-146.

⁶⁰ Fr. Hintze, *WZB* 11, 1962, p. 460.

⁶¹ *Id.*, *WZB* 12, 1963, p. 61.

Generally, traces of buildings made from perishable material, particularly those with circular ground-plans, are often connected to early periods in the occupation history of a site. This is also true for Musawwarat. The structures whose traces were found underneath Temple 300 were termed “very early”, until they were ¹⁴C-dated into the 2nd century BC.⁶²

Immediately south of the Small Enclosure, postholes of three circular structures (K10-12) were detected.⁶³ The diameters of these structures range from 2.6 to 2.8 m. A charcoal sample from the fill of a posthole in structure K10 has given a date of 2040 ± 40 BP, corresponding to 104 calBC-5 calAD (Poz-33246, 1 sigma range, calibrated with Calib, intcal09). A relatively close date of 1945 ± 80 BP, corresponding to 48 calBC-137 calAD, was obtained in the 1960s from a sample, which is probably to be associated with the second phase of use of the nearby Smallest Enclosure I C (Bln 460, 1 sigma range, calibrated with Calib, intcal09).⁶⁴

Although the evidence is still very limited, it clearly shows that non-durable architecture existed at the site during its heyday in the Meroitic era. We should, thus, picture round huts made from wood, matting and *galus* existing in the vicinity of the large monuments, instead of preceding them.

THE HAFIRS

Thomas Scheibner has very convincingly argued that the construction of at least one *hafir* must have preceded all other large-scale building activities at Musawwarat, as only in this way could the immense quantities of water required for such activities be supplied.⁶⁵ Thus, a *hafir* should be the oldest monument at the site. Again, the discussion of this hypothesis is severely hampered by the lack of general background knowledge about Meroitic *hafirs*, as far as the age of this technology of water harvesting and storage and the chronological attribution of the extant monuments in the Keraba are concerned.⁶⁶ Therefore, the continued archaeological investigation of the *hafirs* at Musawwarat remains of great importance.

62 See above note 31.

63 R. Mucha, “Untersuchungen in der Umgebung der Kleinen Anlage (I B)”, *MittSAG* 16, 2005, p. 9-10, fig. 4.

64 Fr. Hintze, *WZB* 17, 1968, p. 681; *id.*, in Fr. Hintze (ed.), *Meroitistische Forschungen 1980*, p. 339: table 7 and R. Mucha, *Kleine Gebäudestrukturen*, *op. cit.*, I, p. 31.

65 T. Scheibner, *MittSAG* 15, 2004, p. 60-63. See also Cl. Näser, “The Great Hafir at Musawwarat es-Sufra: Fieldwork of the Archaeological Mission of Humboldt University Berlin in 2005 and 2006”, in W. Godlewski and A. Łajtar (eds.), *Between the Cataracts, Part two*, p. 39-46.

66 T. Scheibner, *MittSAG* 15, 2004, *passim* and Cl. Näser, in W. Godlewski and A. Łajtar (eds.), *Between the Cataracts, passim*.

The Small Hafir

Several considerations suggest that the Small Hafir (I E) was the first *hafir* at the site.⁶⁷ The water it provided could then be used to sustain the workmen who built the Great Hafir (II H), whose construction certainly took several years, depending upon the actual size of the workforce, as well as other early structures in the valley of Musawwarat. Thomas Scheibner further speculated whether the Small Hafir might even predate the schemes to develop Musawwarat into a sacral centre, i.e. whether it may not have been built in the first instance by a local population for economic purposes.⁶⁸

The Great Hafir

Despite the fact that the Great Hafir is the only monument of its type, which has been archaeologically investigated so far,⁶⁹ its exact age is still unknown. Stratigraphic findings only relate to its embankments and are, therefore, problematic, as the embankments are not necessarily contemporary with the construction of the *hafir*, but may have received additional material during subsequent extensions and cleaning work.⁷⁰ Moreover, they were heavily transformed by fluvial and aeolian erosion. For example, during excavations in the 1960s, it was observed that the enclosure wall (II E) of the nearby Apedemak Temple (II C) rests atop a dune, which had built up at the foot of the *hafir* embankment and also contained gravel washed down from the embankment.⁷¹ However, the enclosure wall itself is not dated, as its stratigraphic connection to the temple could not be established during the excavation.

Obviously, much speaks in favour of the assumption that the Apedemak Temple, which dates to the reign of King Arnakhamani (c. 235-218 BC), was built simultaneously or after the construction of the Great Hafir. Throughout the Keraba, small temples regularly accompany the *hafirs*, indicating a conceptual relationship between these two components. However, it must be underlined that theoretically all of these temples could also be later additions.

So far, few data on the use-life of the Great Hafir exist. In the 1960s a water duct (II F) running in the direction of the Great Enclosure was found and

67 T. Scheibner, *MittSAG* 15, 2004, p. 61-62.

68 *Ibid.*, p. 62.

69 Fr. Hintze, *WZB* 11, 1962, p. 459-460, fig. 25, pl. 21a, b; *id.*, *WZB* 12, 1963, p. 67-68, figs. 7-9, pls. 5-6; T. Scheibner, *MittSAG* 15, 2004, p. 62; *id.*, *MittSAG* 16, 2005, p. 15-33; T. Scheibner and R. Mucha, "Kulturerhalt in Musawwarat es Sufra. Die Kampagne 2006", *MittSAG* 17, 2006, p. 31-37.

70 T. Scheibner, *MittSAG* 15, 2004, p. 60.

71 See Fr. Hintze, *WZB* 12, 1963, p. 65, fig. 3. Cf. also *id.*, *WZB* 11, 1962, p. 453.

tentatively assigned a Post-Meroitic date.⁷² Only in 2002 was an older version (II F-2) discovered directly underneath it.⁷³ In its construction it corresponds with several sections of water duct 223 in the Great Enclosure and may in fact be part of that installation.⁷⁴

Recent data

The discovery of another subterranean water duct coming from the direction of the Small Hafir in the area east of courtyard 304 of the Great Enclosure in 2007 triggered the extension of our investigation towards this monument.⁷⁵ Subsequently, we obtained five ¹⁴C-dates from several layers of the embankment of the Small Hafir (Poz-33249 to 33253). They cannot be discussed in detail here;⁷⁶ however, one date is from the late 5th or earlier 4th century BC, while three of them have a respective range from the second half of the 4th to the earlier 2nd century BC. None of them can be connected to the construction of the *hafir*, but they seem to settle the earlier 2nd century BC as a *terminus ante quem* in this respect.⁷⁷ Two other dates (Poz-33245, 3324547) relate to the Great Hafir, more precisely the two radial banks starting from its western embankment.⁷⁸ The southern bank contained the water duct II F. The two samples originate from the lowest stratum of the northern bank and the sedimentation between the two banks. They gave dates of the 5th to 4th centuries BC. Although also these are not directly connected to the construction of the Great Hafir, as the stratigraphical relationship of the radial walls is uncertain, they nevertheless indicate a pre-Meroitic date for their construction and, thus, a *terminus ante quem* for the existence of the Great Hafir.

THE APEDEMAK TEMPLE

Leaving aside the dubious cartouches in the Western Chapel of the Great Enclosure, the Apedemak Temple (II C) is the only monument at Musawwarat

⁷² *Ibid.*, p. 459-460, fig. 25, pl. 21a., b; Fr. Hintze, *WZB* 12, 1963, p. 68, figs. 7-8, pl. 6. Sceptically about that date T. Scheibner, "Neue Untersuchungen zur Wasserversorgung von Musawwarat es Sufra. Ergebnisse der Kampagne 2002", *MittSAG* 13, 2002, p. 33.

⁷³ *Ibid.*, p. 33-34, figs. 9-11.

⁷⁴ *Ibid.*, p. 33-34.

⁷⁵ T. Scheibner, "Kulturerhalt und Forschung in Musawwarat es-Sufra 2008. Ergebnisse und Erkenntnisse", *MittSAG* 19, 2008, p. 17-21.

⁷⁶ Their full publication is prepared for the 2011 issue of *MittSAG*.

⁷⁷ The fifth date was obtained from a bone sample (Poz-33251), which gave very little collagen so that the date of 3070 +/- 120 BP must be regarded as highly uncertain.

⁷⁸ Fr. Hintze, *WZB* 12, 1963, p. 68; see also T. Scheibner, *Die Wasserversorgung*, *op. cit.*, I, p. 148-151.

that is connected to a royal name, and so far the only monument to which on that basis a relatively secure date can be assigned. There is no doubt that the temple was commissioned under Arnakhamani in the second half of the 3rd century BC.⁷⁹

DISCUSSION

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In sum, the evidence on “early Musawwarat” is not only problematic, but in several aspects plainly contradictory. This especially concerns existing ¹⁴C-dates from the Great Enclosure. Samples obtained from different contexts relating to building period 6 during the excavations in the 1960s had date ranges from the 5th to the 3rd centuries BC. They uniformly point to a late Napatan or – if we take into account the full span of their possible deviation – an early Meroitic date for that phase of building. In contrast, dates gained from more recent excavations indicate the mid 2nd century BC as a *terminus ante quem non* for the construction of Temple 300, which has also been attributed to building period 6. At present, this contradiction cannot be resolved, only re-investigations at the site and the production of a new extensive series of ¹⁴C-dates will help here.

What we can further examine is a range of circumstantial evidence. So far, Musawwarat is the only site in the Keraba with a verifiable early Meroitic presence. Although it is debatable, which specific monuments belong to that era, the dating of the Apedemak Temple to the reign of Arnakhamani, i.e. the later 3rd century BC, is beyond doubt. Very likely the Apedemak Temple is conceptually and topographically linked to the Great Hafir, i.e. the Temple presupposes its existence. This is affirmed by the new ¹⁴C-dates from the Hafir, which point to the 5th or 4th century BC as a *terminus post quem non* for its construction. In this context it is worthwhile to recall the hypothesis of Thomas Scheibner, that the genesis of the *hafirs* in the Keraba considerably predates the “religious colonisation” of the area in the Meroitic period, reaching instead back to Napatan times, when it was triggered by economic needs and interests.⁸⁰ As far as the chronological point is concerned, this thesis now finds its first support. For the building history of the Great Enclosure reliable, uncontroversial data

79 Fr. Hintze, *Die Inschriften des Löwentempels*, p. 14-15. Details of the building history, namely the collapse of a first version of the pylon and part of the west wall and their subsequent re-erection, which were suggested to have been executed under a successor of Arnakhamani (I. Hofmann, “Chronologische Probleme zur Bauperiode 6 der Großen Anlage von Musawwarat es Sufra”, *MeroitNewsl* 18, 1977, p. 22-23; *id.*, *Beiträge zur meroitischen Chronologie*, p. 55-56), are of no importance for the present discussion, as they would not chronologically shift the onset of the building project.

80 T. Scheibner, *Die Wasserversorgung*, *op. cit.*, II, p. 96 and *id.*, *MittSAG* 15, 2004, p. 62-63.

are still missing. One point to be included in the consideration is that the oldest building activity elsewhere in the Keraba is currently represented by Temple F at Naqa, from the reign of Shanakdakhete, i.e. probably the mid to late 2nd century BC.⁸¹ In view of the general absence of Napatan remains in the region, the extension of the building history of Musawwarat back into that era lacks a regional context. In contrast, a re-dating of building period 6 into the time of Natakamani would leave the full length of the early Meroitic period to accommodate the previous building phases of the Great Enclosure – which suggests a plausible alternative.

One further question connected to the site's origin remains: why Musawwarat? In the present state of research, an answer to this question is inextricably linked with the function of the Great Enclosure. Against the background of a long discussion, Pawel Wolf has most convincingly argued that the assemblage was a religious complex, which centred on the veneration of Apedemak.⁸² Of importance is also the recognition that Musawwarat was not a permanently occupied settlement site, but seems to have been frequented primarily for specific festivals. The frequency with which the Great Enclosure was torn down, rebuilt, modified and extended indicates that these episodes of renewal were of special importance: no other temple in the Middle Nile Valley has a comparatively eventful building history. At the same time, the actual execution of the building work is often of low quality, even leaving the impression of Potemkin villages.⁸³ Could it be that the Great Enclosure was renewed for specific events, for which a new scene was required? In just the same way the garden in front of the Central Terrace seems to have seen several complete re-plantings. Although it is open to speculation, whether these events were related to the divine or the royal sphere – the Pharaonic Sed-celebrations immediately spring to mind⁸⁴ – the building history of the Great Enclosure clearly speaks of a repeated renewal, which did not follow a slow decay over time, but at least in some instances involved the forceful demolition of older structures. If we accept that this building history mirrors the role of the Great Enclosure as a stage for specific events and the importance of these events

81 The discussion of the chronological position of that queen was recently revived by Cl. Rilly, "Meroitic palaeography as a tool for chronology", in *Actes de la X^e Conférence internationale des études méroïtiques, Paris, 1-4 septembre 2004* (in preparation).

82 P. Wolf, in C.-B. Arnst, I. Hafemann and A. Lohwasser (eds.), *Begegnungen. Antike Kulturen im Niltal*, p. 474-476 and *id.*, in T. Kendall (ed.), *Nubian Studies 1998*, p. 436-445.

83 See e. g. T. Scheibner and R. Mucha, "Kulturerhalt in Musawwarat es-Sufra. Grundlegende Intentionen und die Erfahrungen und Ergebnisse der Kampagne 2009", *MittSAG* 20, 2009, p. 22-23 and D. Eigner, *MittSAG* 21, 2010, p. 9-10.

84 For basic information on the *ḥb-sd* and further references see K. Martin, "Sedfest", *LÄ V*, 1984, col. 782-790.

in the socio-cultural constitution of Kushite society – be it of the Napatan or the Meroitic era –, it seems possible that Musawwarat indeed represents the first step in the cultural colonisation of the western Keraba and the first centre in this region. Whether this development, or rather: its monumental manifestation, was connected to the presumed origin of the “Meroitic dynasty” from the Butana⁸⁵ again remains open to speculation. It may indeed have been associated with a political restructuring which gave more weight to the southern part of the Kushite Empire in the realm of kingship ideology, as is signalled first and foremost by the movement of the Royal Cemetery to Meroe.

The inscriptions accompanying the reliefs on the outer walls of the Apedemak Temple qualify Arka as priest of Isis of *Īpbr* and *Īrbjklb*, i.e. Musawwarat and possibly Wad ban Naqa. Apedemak is called Lord of *Twzjrk* and *Īpbr*, i.e. Naqa and Musawwarat.⁸⁶ From Arka’s title, Fritz Hintze assumed that a temple of Isis existed in Musawwarat at the time when the Apedemak Temple was built. However, the texts mention two further localities, *Twzjrk* and *Īrbjklb*, from which no temples or indeed any other building activities are known until long after the reign of Arnakhamani. Still these places occur with Apedemak and Isis being identified as their local divinities. Thus, the inscriptions first and foremost testify to the existence of religiously charged places in the Keraba and their connection with well-known gods of the Kushite world. Whether these relations were established only with the design of the Apedemak Temple or whether its inscriptions take up an older tradition remains unknown for the time being. However, it is likely that the named locales had a much longer history, stretching far beyond the Meroitic period. The new ¹⁴C-dates from the *hafirs* in Musawwarat indicate that the region of the Keraba was indeed already frequented and exploited during the Napatan period. At the same time, such evidence as is presently available suggests that its “religious colonisation” through the building of monumental temples was a feature only of the Meroitic period. If Musawwarat were an exception in that respect, with the building history of the Great Enclosure and possibly other structures as I D starting in Napatan times, we would have to fundamentally rethink the cultural and religious foundations and conditions of that period.

⁸⁵ FHN II, p. 566-567, 582, 649-650.

⁸⁶ Fr. Hintze, *Die Inschriften des Löwentempels*, op. cit., p. 19-21, 25-33, figs. 6-7, 9-11.