



## PRELIMINARY REPORT ON THE SECOND EXCAVATION SEASON OF THE ARCHAEOLOGICAL EXPEDITION TO WAD BEN NAGA

Pavel Onderka\*

**ABSTRACT:** During the second excavation season, the Archaeological Expedition to Wad Ben Naga focused on (1) delimitation of the archaeological registered land of the site of Wad Ben Naga, (2) revising excavation of several structures unearthed during the Sudanese excavations of 1958–1960 and survey of the so-called Eastern Temple (WBN<sup>1</sup> 500) and (3) conservation of rooms at the southern entrance of the so-called Palace of Amanishakheto (WBN 100).

**KEY WORDS:** Wad Ben Naga – Nubia – Meroitic culture – Meroitic architecture.

### Expedition

The second excavation season of the Archaeological Expedition to Wad Ben Naga took place between 11 November and 20 December 2010. The expedition reached Wad Ben Naga on 15 November and launched field work two days later. Archaeological and conservation works were concluded on 16 December 2010.

The mission was headed by Dr. Pavel Onderka (director), Dr. Miroslav Vaškových (chief archaeologist, deputy director), Jitka Barochová (chief conservator, deputy director) and Mohamed Saad (inspector). The mission further consisted of (in alphabetical order): Dr. Jiří Bučil (anthropologist), Dušan Nováček (conservator), Samuel Rihák (architect), Vlastimil Vrtal (archaeologist) and Jana Zemanová (civic engineer).

The work of the second excavation season focused on (1) the delimitation of the archaeological registered land of the site of Wad Ben Naga, (2) the revision excavation of two structures unearthed during the Sudanese excavations of 1958–1960, namely the *Houses A and B* (WBN 600) and the so-called Small Temple (WBN 400) and the preliminary survey of the so-called Eastern Temple (WBN 500) also unearthed by the Sudanese mission; and (3) the conservation of rooms WBN 154–156 (i.e. the southern entrance) of the so-called Palace of Amanishakheto (WBN 100).

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\* Contact: PhDr. Pavel Onderka, National Museum-Náprstek Museum of Asian, African and American Cultures, Ancient Near East and Africa Department; e-mail: pavel\_onderka@nm.cz

<sup>1</sup> Numbering according to *The Archaeological Map of the Sudan*.

The season was carried out in the regime of the 'archaeological excavations' as defined by the *Ordinance for the Protection of Antiquities of 1999*.

### 1. Delimitation of the archaeological registered land

During the first days of the actual fieldwork, the archaeological site (stretching from the railway station at Wad Ben Naga to the southern bank of the delta of Wadi Kirbikan) was inspected. Several recent accounts of illegal digging activity were detected in the vicinity of the Palace of Amanishakheto (WBN 100) and on several tumuli within the Southern Cemeteries (on the southern bank of Wadi Kirbikan). In the past year, some locals also initiated agricultural activities in the vicinity of the rail track that intersects the archaeological site and constructed several compounds for animals directly in the central part of the site.

In order to prevent further expansion of cultivated and built-up areas on expanses of the archaeological land, the borders of the archaeological registered land (as specified by the *Ordinance for the Protection of Antiquities of 1999*, Chapter II, § 9.1) were marked by 33 concrete boundary stones located in the distance of ca. 50 m on the northern and eastern limits of the archaeological site. The area behind the rail track represents a very vulnerable part of the site and therefore was demarcated in a preliminary fashion as well. The demarcation of the archaeological registered land was directed by the inspector of the National Corporation for Antiquities and Museums, Mohamed Saad. The project shall be finished during the following excavation season (Fig. 1).

### 2. Archaeological Work

The archaeological excavations focused on secondary excavation of the so-called Small Temple (WBN 400) and the vicinity of the Circular Building complex (WBN 600, WBN

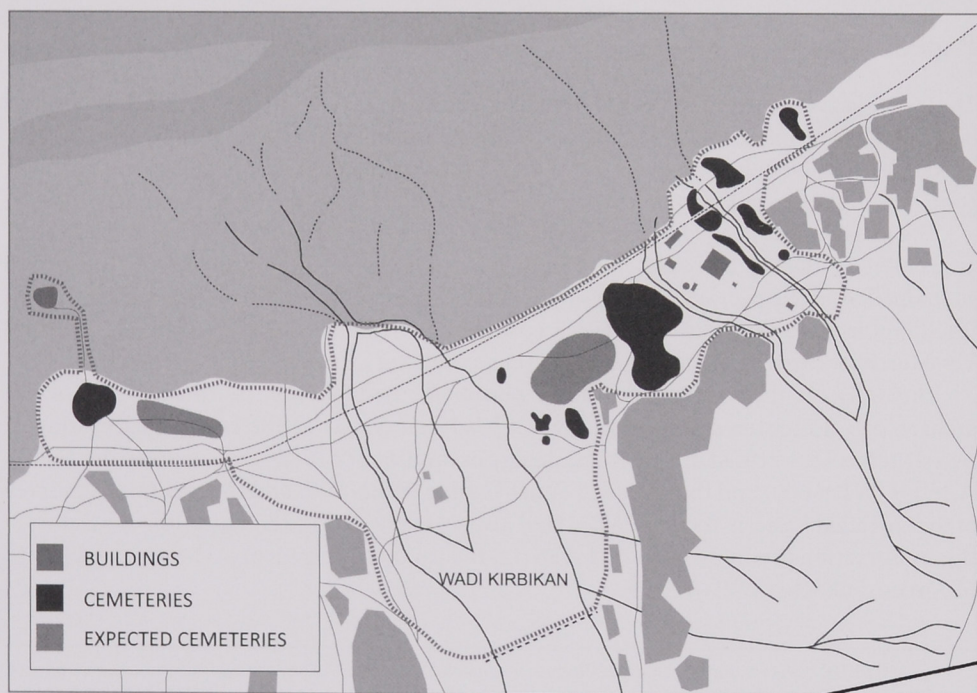


Fig. 1: Plan of the concession [illustration by Pavel Onderka].

50), including *Houses A and B* (WBN 600) and likely a collapsed stone wall (WBN 53). The structures were cleared of sand and test trenches were carried out within them or in their vicinity.

### 2.1 Small Temple (WBN 400)

The Small Temple (Fig. 2, Pl. 1) was unearthed by Said Thabit Hassan during the first excavation season of the Sudanese Antiquities Service at Wad Ben Naga in 1958–1959.<sup>2</sup> It was first described in detail by Ahmad Ali Hakem<sup>3</sup> and was re-excavated by Friedrich W. Hinkel who included its plan in the map of Central Wad Ben Naga published within *The Archaeological Map of the Sudan*.<sup>4</sup>

The objectives of the revising excavation were to obtain a detailed plan of the structure and to possibly identify and verify building phases previously suggested for the building in question. The secondary excavations confirmed the minimum of two phases of construction noted previously (preliminarily dated to the latter half of the Meroitic period, i.e. 1<sup>st</sup>–4<sup>th</sup> century CE) and the reuse of the partly collapsed building as a habitation by squatters (most likely during the post-Meroitic period, i.e. 5<sup>th</sup>–6<sup>th</sup> century CE).

The simple inner structured temple was originally a cella (WBN 401) with a pylon in front. Its roof was supported by three pairs of columns which stood on rectangular bases. Ahmad Ali Hakem mentions that “upon the bases rested columns built from specially made segments of fired terracotta”,<sup>5</sup> however only a single possible example of these was discovered during the revising excavations. Traces of white plastered floor were attested.

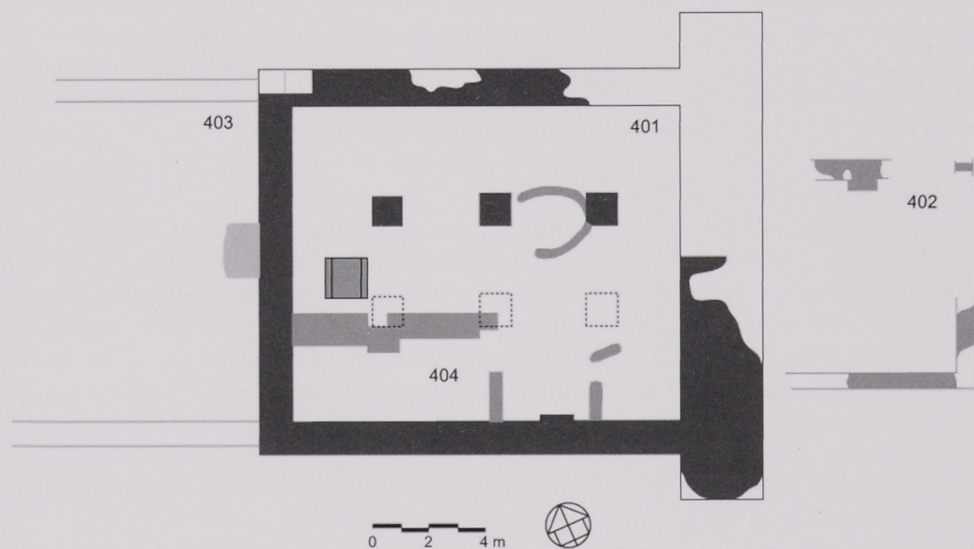


Fig. 2: The Small Temple (WBN 500) [illustration by Pavel Onderka].

<sup>2</sup> Vercoutter (1962), p. 273.

<sup>3</sup> Ali Hakem (1988), pp. 323–324.

<sup>4</sup> Hinkel – Sievertsen (2002), p.72.

<sup>5</sup> Ali Hakem (1988), p. 323.

The second phase is likely represented by a structure (WBN 402) appended to the entrance of the temple, as well as an outbuilding adjoining the rear of the temple (WBN 403). For the time being, the function of the latter building may not be determined with certainty. One may rule out the possibility that this was a contra temple. The outbuilding must have been either a storage space or more likely a habitation. Another example of habitation (or an atelier) adjoined to a temple may be found north of the so-called Eastern Temple (WBN 500; cf. below) The foundation of northern and southern walls of WBN 403 are very similar to those of *House A* and *B* (WBN 600; cf. below).

Hinkel's plan depicts WBN 402 as a building consisting of two separate rooms and directly adjoining to the pylon, but the acquired archaeological evidence seems to point to the fact that WBN 401 and WBN 402 (despite situated on the same axis and forming parts of a single complex) were not touching each other. Both WBN 401 and WBN 402 were built of red bricks, while WBN 403 of mud bricks. Before WBN 403 was annexed to the main building, the northern wall of WBN 401 must have had serious problems with stability, a fact manifested by two stones (likely segments of a statue's stand) supporting the north-west corner of the WBN 401 indicating a reconstruction of the building in the times when a cult was practiced in the building.

At a certain point of time, the cult in the temple (WBN 401–2) came to an end and the structure lost its sacred character. It seems that the previous problems with stability resulted into another destruction of the northern wall (preceded by or connected with the collapse of the roof). WBN 401 was turned into a habitation consisting of a yard (identical with WBN 401) and a roofed room (WBN 404, Pl. 2) newly built into the south-west corner of WBN 401. During the period in question, the northern wall and the northern tower of the pylon must have already collapsed and their material was evidently used for the newly constructed walls of WBN 404. As the southern course of columns stood in the way of the northern wall of WBN 404, they were dismantled to the basements. Within the original cella (WBN 401) some minor structures of poor quality of fabrication were erected.

## 2.2 Houses A and B (WBN 600, T1-3)<sup>6</sup>

Another structure discovered in the course of the Sudanese excavations at Wad Ben Naga are two 'houses' (WBN 600, Fig. 3, Pl. 3)<sup>7</sup> located east of the Circular Building (WBN 50<sup>8</sup>). Both structures were re-excavated by Hinkel in 1983 and their (inaccurate) ground plans published within *The Archaeological Map of the Sudan*.<sup>9</sup> Neither of the above-mentioned publications gives information concerning material used for the construction of the houses or mentions other important details. The houses were once again cleared from the sand in order to obtain the missing data.

Vercoutter wrongly stated that the houses were built of only mud-bricks as red-bricks were also used.<sup>10</sup> The western, southern and northern walls of WBN 605 were made of red bricks, while the mud bricks were used everywhere else.

*House A* consisted of five separated rooms (WBN 601–605), out of which three or four were roofed. Only the remains of the lower courses of masonry were unearthed still *in situ*.

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<sup>6</sup> Numbering of the Archaeological Expedition to Wad Ben Naga.

<sup>7</sup> Cf. Vercoutter (1962), p. 275, Ali Hakem (1988), p. 317.

<sup>8</sup> The number of the structure WBN50 *et sequentia* are not in compliance with Hinkel's numbering.

<sup>9</sup> Hinkel – Sievertsen (2002), p. 74.

<sup>10</sup> Vercoutter (1962), p. 275.

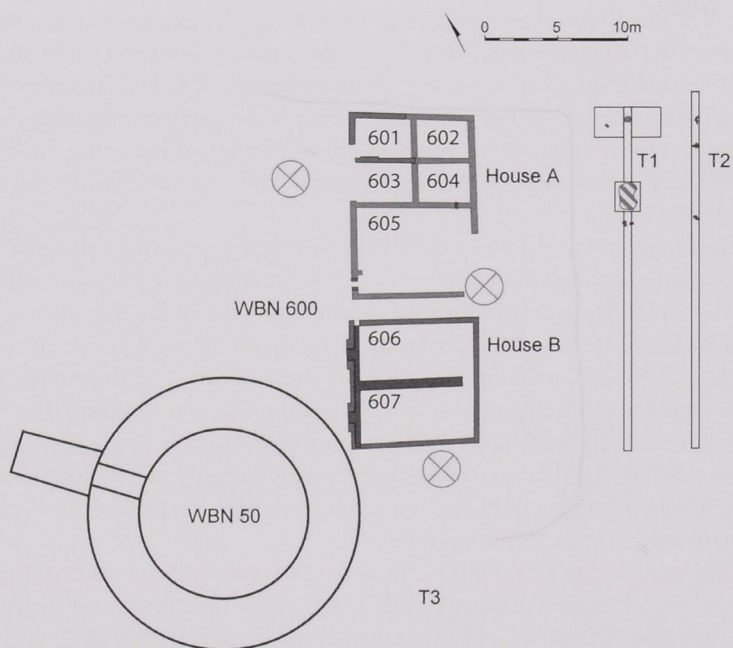


Fig. 3: The Circular Building complex [illustration by Vlastimil Vrtal].

The level of preservation did not much exceed the foundations. The western wall of WBN 602 was not detected archaeologically. In the course of the cleaning of the structure several objects were discovered, including complete miniature (offering) dishes, several fragments of fine pottery, and a fragment of a stone vessel. The structure likely served as a habitation, possibly for personnel attached to the Circular Building (WBN 50). At a short distance to the west from the building, a hard sandstone architrave, possibly coming from *House A*, was discovered.

*House B* consisted of two identical rooms (WBN 606–607) with individual entrances that were interpreted as storerooms. The hypothesis has been verified by the discovery of four seal imprints in front of the door to WBN 606.<sup>11</sup>

All the entrances to the houses were oriented towards the west, i.e. towards the Circular Building. The buildings' orientation and close proximity to the Circular Building makes it very probable that the houses were subsidiary to it. One would logically expect that such an extraordinary structure – no matter what its function was – would need subsidiary buildings to accommodate its personnel and to provide storerooms for equipment connected with its maintenance.

In connection with the revising archaeological research of *Houses A* and *B*, three trial digs (T1–3) were carried out in the specified area with the prospect of locating structures similar to WBN 600. Two test trenches (T1 and T2; 15.00 m, 0.50 m) ran east parallel to the houses

<sup>11</sup> The imprints were of two seals, the first showing the sacred bull under the sun disk, the other a vulture with an upright cobra in front.

in the distance of 5 and 20 meters, respectively. The last one (T3) comprised cleaning of the area south to *House B* (WBN 606–607) and east to the Circular Building (WBN 50, Pl. 4).

T1 and T2 revealed fragments of pottery, dislocated red bricks with remains of plaster. A pot filled with ash and containing a juvenile ulna and a metal ring (probably made of copper) was discovered in the depth of some 50 cm in T2. As a result of the discovery, the northern part of the trench was expanded into a square of 4.00 m side which did not bring any new discoveries.

In the sector designated as T3 (ca 17.00 by 10.00 meters), large sandstone blocks were secondarily deposited in connection with the Sudanese excavations of 1958–1959. Beside the stones, an architectural feature now believed to be the top collar of the dome-shaped roof of the Circular Building (WBN 50) was discovered together with three fragments of an altar (?).

To the south of the Circular Building (WBN 50), the remains of a destroyed stone wall (WBN 53) were identified. The collapsed wall separates the Circular Building from the small present day wadi located immediately behind it (in publications wrongly identified as the southern branch of Wadi Kirbikan). The collapsed wall is some 30 meters long and has two main segments. The larger segment includes a small projection in the direction towards the ascending ramp of the Circular Building (Pl. 5).

The collapsed wall has close parallels in the walls connecting the corners of the western façade of the Palace of Amanishakheto (WBN 100) and the north-east corner of the Typhonium (WBN 200) [WBN 55] and the so-called Isis Temple [WBN 56].

### 2.3 Survey of the Eastern Temple (WBN 500)

Within the preparation for the third excavation season, the Expedition took measurements of the so-called Eastern Temple (Fig. 4, Pl. 6) that had not been published in the previous reports from the excavations and surveys carried out on the temple. So far, two ground plans of the temple have been published. The earlier one published by Vercoutter<sup>12</sup> is highly erratic. The later one published by Hinkel is, as far as we can judge from the preliminary survey, accurate in dimensions, however, misses exact measurements.<sup>13</sup> The ascertained dimensions are: width of the pylon 19.50 m; the width of the temple 15.50 m; the length equals 23.70 m. The measurements are preliminary and were taken as data of general comparison.

### 3. Conservation Work

The expedition returned to Wad Ben Naga after the first excavation season of 2009 with the intention of conservation interconnected with revision excavations of the Palace of Amanishakheto (WBN 100). The whole project has been divided into four main phases, namely [1] southern entrance complex (WBN 154–157), [2] western entrances complexes (WBN 103, WBN 158–160), [3] eastern entrance complexes including an external ramp that originally lead to the upper floor (WBN 141–142, WBN 143) and [4] the remaining magazines.

During the present excavation season, the conservation work was directly connected to the re-excavation work which focused on the southern entrance system (WBN 154–157), especially rooms WBN 154 and WBN 156 (Fig. 5).

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<sup>12</sup> Vercoutter (1962), fig. 2.

<sup>13</sup> Hinkel – Sievertsen (2002), p. 72.

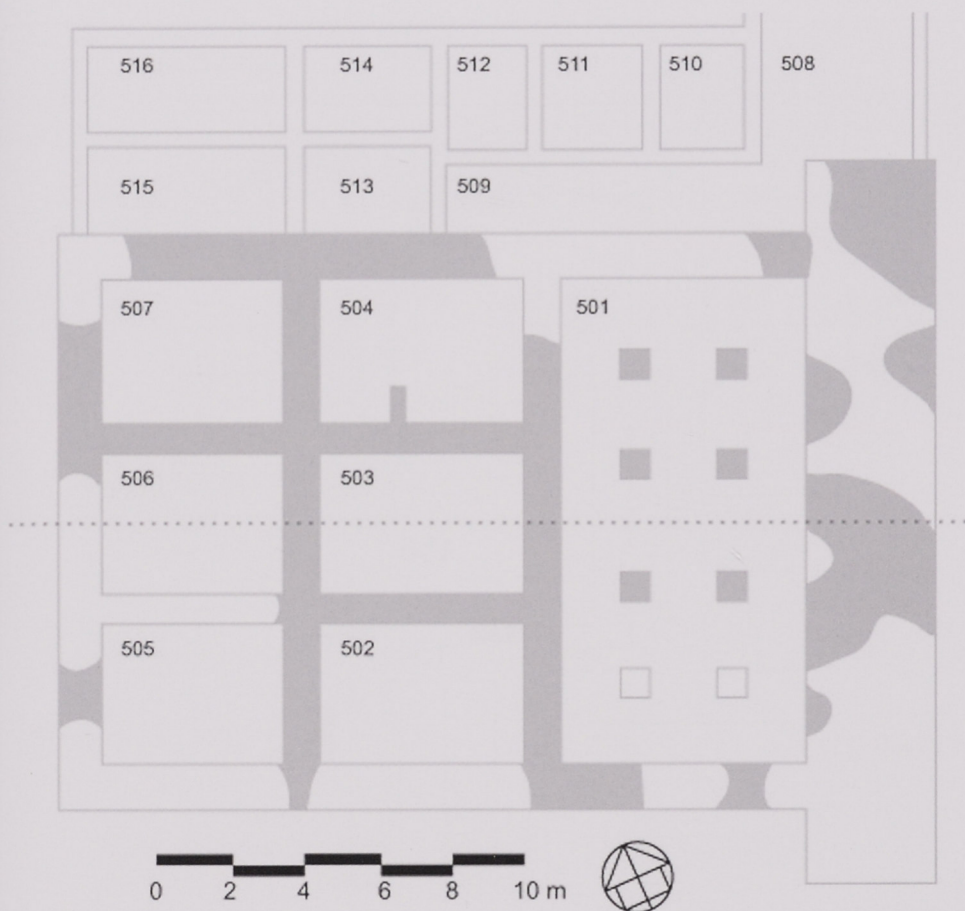


Fig. 4: The Eastern Temple [illustration by Pavel Onderka].

### 3.1 Room WBN 154 – The Entrance Hall

The original floor of WBN 154 (Pl. 7–9) was taken away already during the second excavation season of the Sudanese expedition.<sup>14</sup> Only several traces of the plastered floor were possible to be identified at present. The roof of WBN 154 was supported by two lines of three columns each. Each pair of the columns had a different type of capitals: (1) lotus-shaped, (2) decorated with Amun's ram heads and (3) floral ones. The capitals are deposited in front of the southern façade of the Palace (WBN 100) and had already been documented during the first excavation season of the Archaeological Expedition to Wad Ben Naga. Each line of columns stood on deep basements the exterior of which was made of red bricks and the interior of mud bricks. Their tops were unearthed already during the Sudanese excavations. Their inner edges were erratically interpreted as dividing WBN 154 into three sections by Hinkel.

<sup>14</sup> Vercoutter (1962), Pl. XIXc.

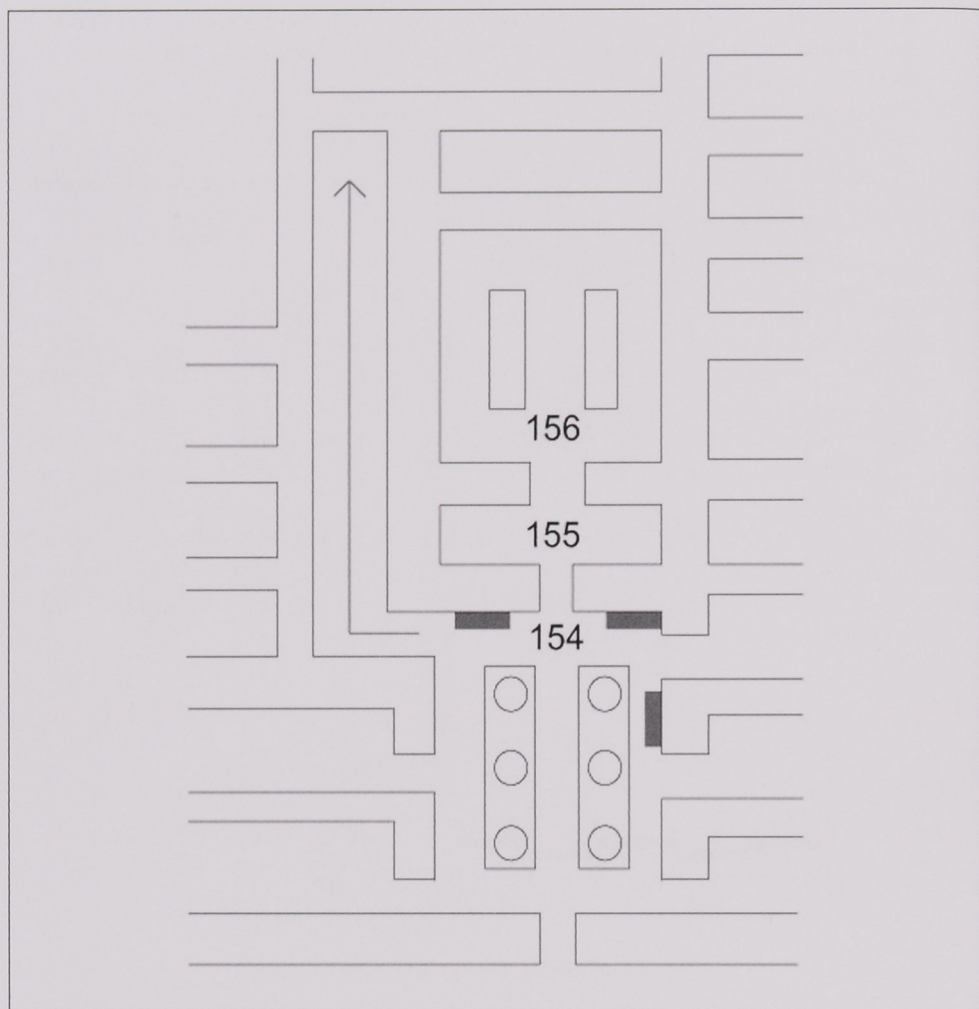


Fig. 5: Southern Entrance to the Palace of Amanishakheto [illustration by Pavel Onderka].

In the connection with the conservation of wall segments in the northern part of WBN 154, an interesting feature of the room was identified. The long segments were once supported at their base by means of mud brick benches (mastabas) inserted into the mass of the walls giving the lower parts of the walls better stability as they did not stand on sufficiently stable foundations (probably only on leveled terrain). The benches themselves are unfortunately not preserved but they are archaeologically demonstrable through gaps of identical dimensions in the lower courses of masonry and by remains of headers that had partly formed the bodies of the mastabas, as the mud bricks of the benches were interconnected with those of the walls' cores. The benches adjoined wall segments 154/155/W (suggested dimensions of the bench ca. 205 x 38, h. 43 cm), 154/155/E (ca. 205 x 38, h. 43 cm), 154/134/135 (ca. 210 x 35, h. 43 cm) and most likely also 154/111 (covered by upper courses of the fallen wall). The empty spaces after the original mud brick bench within the red brick walls were filled in by red bricks with the intention to prevent a potential collapse of the wall. The bricks were



fixed by mortar only in the case of 154/155/W as an enormous crack appeared in the middle of the wall shortly before the conservation works started. The conservation procedures were otherwise fully reversible.

Cleaning was carried out in the short corridor connecting WBN 154 and WBN 157 proper. The ramp (WBN 157) originally leading to the upper floor of the Palace (WBN 100) started already in this passage and then turned in the right angle. The climbing angle seems to be around 10 degrees.

### **3.2 Room WBN 156 – ‘Receiving Hall’**

Simultaneously with the works in WBN 154 (Pl. 10–11), conservation was carried out also on two huge pillars of WBN 156. The eastern pillar was cleaned from sand and soil until the lower limit of the basement. The original floor was recognizable on the profile of the pillar.

The pillar stands on a mud brick platform. Its exterior is made of red bricks and the interior filled with mud bricks (similarly to the basements of columns at WBN 154). It seems likely that the pillars actually supported columns of the royal living quarters on the upper floor of the palace.

The tops of the pillars were cleaned and their inner structure documented. The tops were cover by a geo-textile upon which a course of red bricks casted over by a thin layer of concrete was placed. The measure is aimed at protecting the pillar from further rain erosion. The conservation intervention is fully reversible.

## Literature:

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- VERCOUTTER, JEAN: Un palais des “Candaces” contemporain d’Auguste. Fouilles à Wad Ben Naga 1958–1960; in: *Syria* 39, 1962, pp. 263–299.



Pl. 1: The Small Temple (WBN 400) [photo by Pavel Onderka].



Pl. 2: Room WBN 404 after clearing [photo by Miroslav Vaškových].



Pl. 3: Houses A and B (WBN 600) [photo by Pavel Onderka].



Pl. 4: Sandstone blocks in T3 [photo by Pavel Onderka].



Pl. 5: Collapsed wall WBN 53 [photo by Pavel Onderka].



Pl. 6: The Eastern Temple (WBN 500) [photo by Pavel Onderka].



Pl. 7: The Southern Entrance to the Palace of Amanishakheto [photo by Pavel Onderka].



Pl. 8: Wall 154/134/135 before conservation [photo by Dušan Nováček].



Pl. 9: Wall 154/134/135 after conservation [photo by Dušan Nováček].



Pl. 10: Room WBN 154 in the course of cleaning [photo by Pavel Onderka].



Pl. 11: Western pillar in Room WBN 154 before conservation [photo by Pavel Onderka].



Pl. 12: Pillars in Room WBN 154 after conservation [photo by Dušan Nováček].