



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

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**ABSTRACT:** The ninth excavation season of the Archaeological Expedition to Wad Ben Naga focused on the continued excavations of the temple complex of the Typhonium, begun in 2011, the continued conservation and related re-excavation of the Palace of Queen Amanishakheto and the excavation of two tumuli at the cemetery WBN C200. The archaeological works at the Typhonium brought forth numerous discoveries including fragments of statues, Roman imperial coins and pieces of jewellery.

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

The ninth excavation season of the Archaeological Expedition to Wad Ben Naga took place between 1 November and 10 December 2014. The archaeological works were launched on 4 November 2014 and were concluded on 5 December 2014. The mission was headed by Pavel Onderka (director), Vlastimil Vrtal (chief archaeologist), Alexander Gatzsche (chief conservator), Juwariya Osman Mohamed Zain (inspector of the National Corporation for Antiquities and Museums). It further consisted of (in alphabetical order): Jiří Honzl (archaeologist) and Eric Spindler (archaeologist).

The work of the ninth season focused on [1] the continued excavation of the temple complex of the building known as the Typhonium (WBN 200), [2] the continued conservation and re-excavation of the Palace of Queen Amanishakheto (WBN 100),

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explored by the Sudanese expedition between 1959 and 1960 and [3] the excavation of two tumuli from the cemetery WBN C200.

During the excavation season, the site was systematically inspected. A substantial amount of damage to archaeological structures was identified, especially in the part of the site south of the Wadi Kirbikan. Superstructures of several tombs in the very extremity of the site were graded as a result of the expansion of the agricultural land; others were quarried as a source of building material. The areas around the rail track that intersects the site were ground shaped as a result of the recent reconstruction by a Chinese contractor.

[4] During the excavation season, the mission's inspector was contacted by representatives of the Sudanese Railways who informed her that the rail track embankment would be possibly expanded to the site and a buffer zone for the rail track created. The mission contacted the directorate of the Sudanese National Corporation for Antiquities and Museums to inform them regarding the matter. A plan for a rescue excavation campaign to take place in spring 2015 was prepared and the Director of the National Corporation for Antiquities and Museums contacted the Sudan Railways, National Corporation, in this matter.

## 1 Typhonium

Since 2011, the Expedition has been exploring the Typhonium, recently identified as a sanctuary of the originally Egyptian goddess Mut. The temple (Onderka – Vrtal et al. 2013: 111–120; Onderka – Vrtal et al. 2014: 164–167) possessed an unparalleled ground plan, possibly imitating – not only in terms of architectural layout – the only other temple dedicated to Mut in present-day Sudan, the hemispeos B300 at the foot of Jebel Barkal (cf. Robisek 1989).

The works in the Typhonium continued in two areas. Within the temple's main sanctuary, the reference sections blocks between the trenches T6, T8, T10 and T14 were taken apart (labelled as trench T19). The area of the main altar set into the sanctuary's northern wall was cleaned and yielded numerous finds.

Further trenches (T18, T21 and T23) were set in the front part of the temple and contained remains of walls forming a transversal room (WBN 204), the roof of which was supported by four pillars.

**Altar.** The initial works in the Typhonium focused on the exploration of the immediate vicinity of the altar set into the northern wall of the main sanctuary. The altar, which originally appeared to be a solid block of sandstone, was actually hollowed from behind, most likely with the purpose of decreasing its total weight. The cavity in the back of the altar, which was filled with dirt and mud, revealed several substantial finds that slipped through the slit between the altar and the back wall of the niche. The finds included three Roman billon tetradrachms produced in Alexandria, Egypt (one dated to the year 11 of Emperor Nero, i.e. 64/65 CE, with a Ptolemaic eagle on the reverse [cf. Zach 1992]; one to the year 7 of Emperor Maximianus, i.e. 292/293 CE, with Victoria on the reverse, and the last one dated only tentatively to the late 3<sup>rd</sup> century CE due to its poor state of preservation; Fig. 1). In addition, two large faience balls (from a necklace; another faience ball of the same type was found during the 7<sup>th</sup> excavation season [SM13/192] in the western part of the main sanctuary in T16), as well as the arms of a (royal ?) statue (made of a copper alloy and gilded), two spacers made of



Fig. 1 Roman coins of Alexandrian provenance discovered in the main sanctuary of the Typhonium (Drawing by Vlastimil Vrtal).

golden plate from a piece of jewellery (most likely from a three-string glass pearl bracelet; the quality of craftsmanship is comparable with the pieces from the treasure of Amanishkaheto, cf. Helmbold-Doyé 2014); three heads of Amun's rams and three Isis knots) and eight gilded glass beads (added to six beads of the same type found during the 7<sup>th</sup> excavation season [SM13/171] in the northwestern part of the main sanctuary and in the corridor behind it) were found behind the altar (Pl. 1).

*Finds from behind the altar:*

- F14/002a Right arm of a statue (originally holding a spear?)
- F14/002b Left arm of the same statue (holding a rope)
- F14/003a Part of an armlet (three Isis knots)
- F14/003b Part of an armlet (three rams' heads)
- F14/004 Roman coin from Year 11 of Emperor Nero
- F14/005 Roman coin from Year 7 of Emperor Maximianus)
- F14/006 Roman coin (from the late 3<sup>rd</sup> cent. CE)
- F14/007 Faience ball (a part of a necklace)
- F14/008 Glass beads
- F14/010 Faience ball (a part of a necklace; cf. F14/007)

**T19** (reference sections blocks in T6, T8, T10 and T14). The cleaning of the reference sections blocks between the trenches which cover the main sanctuary (WBN 201; Pl. 2) yielded complementary finds to those made in the previous seasons:

- *Section block 1* (between T6 and T14) contained an almost complete A1-type offering table with a standard decoration (find no. F14/009; typology after Hainsworth 1976), i.e. a rectangular table loaded with loaves and vegetables surrounded on both sides with tall jars with a spout and bunches of lotus flowers (Fig. 2). Other finds included several decorative nails made of copper alloy. The section block also

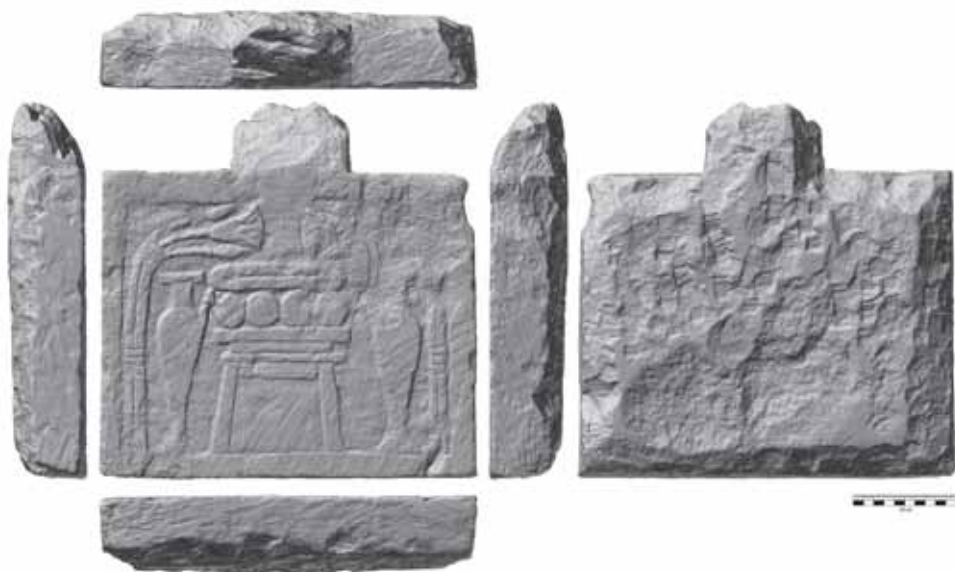


Fig. 2 Offering table discovered in the *section block 1* in the main sanctuary of the Typhonium (Illustration by Alexander Gatzsche).

covered a rectangular depression in the sandstone floor which was paved with fired bricks and served as a base for the western pillar which supported the original roof of the sanctuary. Remains of a secondary pillar or stand were discovered to the south of the depression.

- *Section block 2* (between T10 and T14) yielded further fragments of the architrave with two winged sun discs which was originally placed above the niche with the main altar (cf. Onderka – Vrtal 2014: 13, Pl. 2). Like the *section blocks 1* and *4* it contained numerous pieces of hard lime plaster with remains of fired bricks.
- *Section block 3* between T8 and T10 contained a number of finds including a seal-ring (find no. F14/012), the head of a sandstone statue of a seated lion (find no. F14/016; Pl. 3), a fragment of a plaque with the head of a cobra (find no. F14/014) and fragments of an imported transport amphora (type Athenian Agora G199, probably from southern Turkey or Cyprus, 2<sup>st</sup>–3<sup>rd</sup> century CE; Robinson 1959: 43, Pl. 8; Pl. 4) with an inscription in cursive Meroitic script (F14/015). It also revealed the remaining part of the eastern side entrance to the main sanctuary.
- *Section block 4* between T6 and T8 covered the western part of the main entrance to the main sanctuary. In this area three more fragments of the *Altar B*, originally discovered by the Lepsius expedition in 1844, were found.

**T18.** The trench included the southern part of the transverse room (WBN 204), out of which only the lower courses of bricks were preserved, and probably the rear part of another room of the temple (WBN 205). The archaeological situation was analogous to that in T16, which was excavated during the previous season, only the floor was much better preserved in T18. The existence of a circular hut is attested to by numerous post

holes organized into two circles in the southern part of the trench. The only substantial finds from the square were a fragment of a libation table (similar to the one discovered in the temple's main sanctuary) and a fragment of a cornice of an altar (probably *Altar B*).

*Find from T18:*

F14/001 Fragment of a libation table

\*SNM 36350 Upper part from an altar (possibly from the *Altar B*)

**T23.** The trench covered parts of two rooms (WBN 204 – the transverse room – and the hitherto unnumbered room located east of the open courtyard which was labelled the 'kitchen') and partly also the supposed exterior of the proper temple (Fig. 3, Pl. 5). Within the trench the base of a pillar made of fired bricks was discovered. It was one of

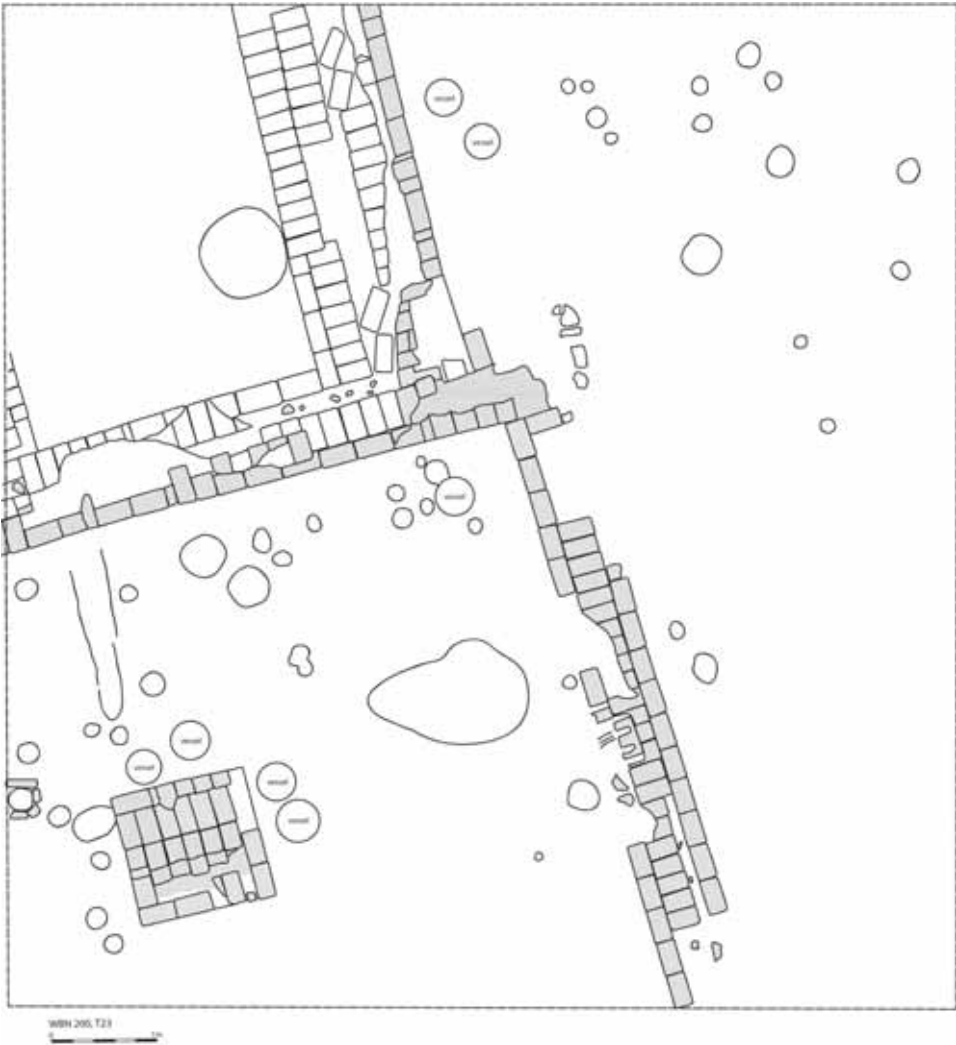


Fig. 3 Trench T23 (Drawing by Eric Spindler, Vlastimil Vrtal).

originally four pillars that supported the roof of the transverse room. A number of vessels inserted either into the original or a later floor were discovered in the same room, the biggest ones being found to the north and to the east of the pillar base. A door was set into the eastern wall of the room. No substantial features were detected in the 'kitchen'. A number of postholes were identified in the room WBN 204, as well as in the exterior. At least two phases of occupation may be distinguished. The only finds of special interest were fragments of a faience statue of a goddess in a draped dress.

*Finds from T23*

F14/011 Fragments of a faience statue

## 2 Palace of Queen Amanishakheto

Excavations in the Palace of Queen Amanishakheto focused on two areas: (1) the north-western corner of the Palace (trench T20) and (2) the room WBN 121 (trench T22). Furthermore, consolidation of the walls in the area of entrances to the magazines in the eastern part of the Palace was carried out (rooms WBN 129, WBN 130).

**T20.** The excavations in the north-western corner of the Palace aimed to establish the relationship between the main outer wall of the Palace and the northern one of two stone walls commencing from the western corners of the Palace (cf. Vercoutter 1962: fig. 2, no. 3; Hinkel – Sievertsen 2002: Pl IX.72: structure WBN<sup>H</sup> 55). The stone wall proved to be built of a local stone and without solid foundations on debris formed during the disintegration of the Palace. The wall was thus constructed only when the Palace was in a state of decay, i.e. in the late Meroitic or Post-Meroitic period. The foundations of the main wall of the Palace were cleared, providing information on constructional features. The wall was built on levelled local base rock (*sāra*) and a layer of gravel around 26cm thick, with the first row of bricks being laid on their edges. A few examples of the original outer treatment of the main wall were found, with painted decorative motifs mainly in blue and yellow, and a few cornice bricks. In the gravel layer and sometimes cutting into the bedrock, numerous post holes were found in the trench T20 (Fig. 4), possibly indicating a rectangular building pre-dating the construction of the Palace and attesting to the earlier history of occupation in this part of the site. Three large cooking pot emplacements were probably related to this building and provided charcoal samples for further analysis.

**T22.** The excavations in the room WBN 121 aimed to clear what seemed to be a reference section column block of the 1959–1960 excavations with the original fill of the remains of the Palace and preserved stratigraphy. The column section was located in the north-western part of the room (dimension ca. 3 × 4m) and is clearly distinguishable also on early photographs of the excavated Palace (Gerster 1964: 94–95: "Der Palast Königin Amanischachetes in Wad Ben Naqa aus der Luft"). Similar, though much smaller features were identified also in two further rooms (WBN 118 and WBN 119). The original stratigraphy of the Palace in the room WBN 121 consisted of (from the surface downwards; cf. Fig. 5): (1) a thick fill of *sāra* with at least two clear material accumulation horizons, (2) a thin layer of crushed sandstone blocks, (3) a thick debris layer from the main wall, showing that the wall was cased with fired bricks in the room WBN 118 (?), (4) a fill of *sāra* with two clear floor horizons, (5) a layer of sand fill, (6)

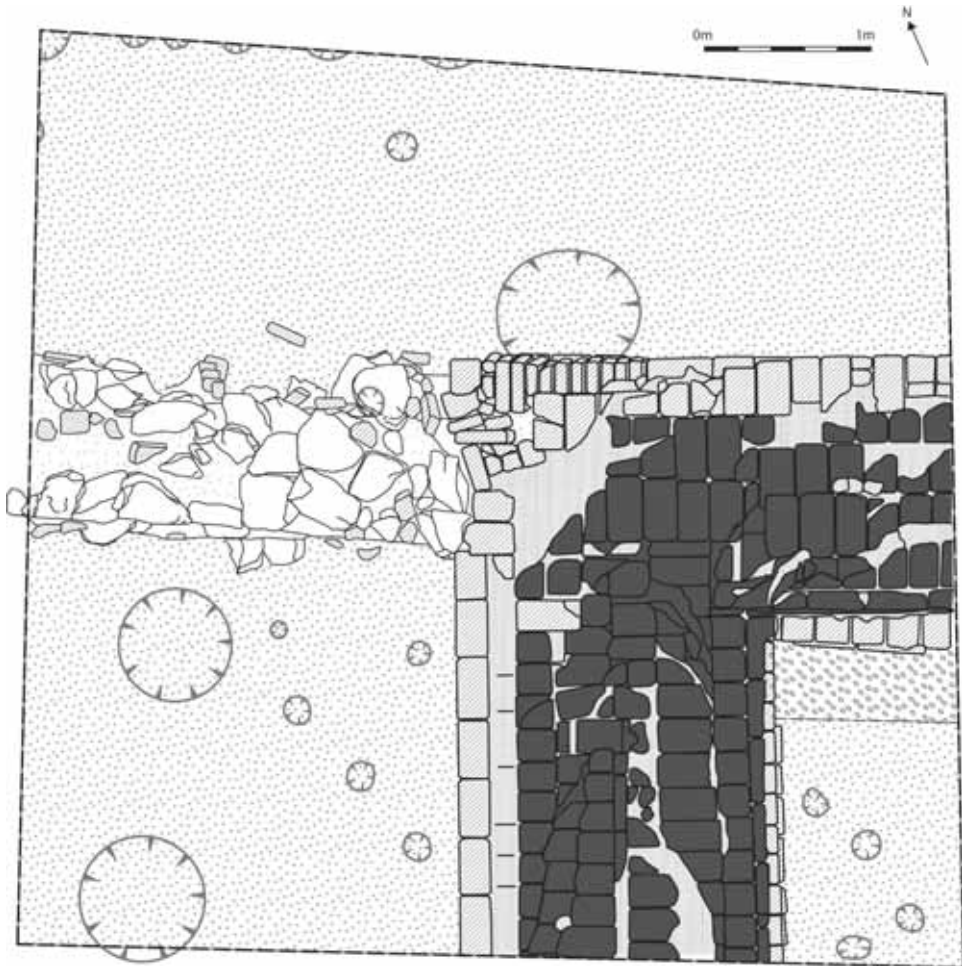


Fig. 4 Trench T20 (Drawing by Vlastimil Vrtal).

eight compartments formed by roughly built walls made of fragments of fired bricks and clay mud bricks, and (7) ash and gravel fill still below the compartments on a levelled bedrock (*sāra*). The compartments were filled with debris and trash – mainly ash and gravel, and functioned as a podium (Pl. 6). Pottery finds, animal bones and samples of charcoal from this area provided highly-valuable material for dating the construction of the Palace. The pottery finds, including two almost complete conical stands, which were preliminarily dated to the second half of the 1<sup>st</sup> century BCE (Fig. 6; cf. pottery stand from tomb Beg W316, Dunham 1963: 342, fig. F23, falling into Group Ia of Edwards [Edwards 1999a]; for another possible parallel cf. Edwards 1999b: 93, Pl. XV, no. 828), would support the assumed dating of the construction of the building to the reign of Queen Amanishakheto, conventionally dated to the end of the 1<sup>st</sup> century BCE. The foundations of the main wall of the room shared constructional features with the outer main wall in the trench T20.

In connection with the excavation of the room WBN 121, a survey and measurements were also carried out in the area of the northern side of the Palace. It was observed that

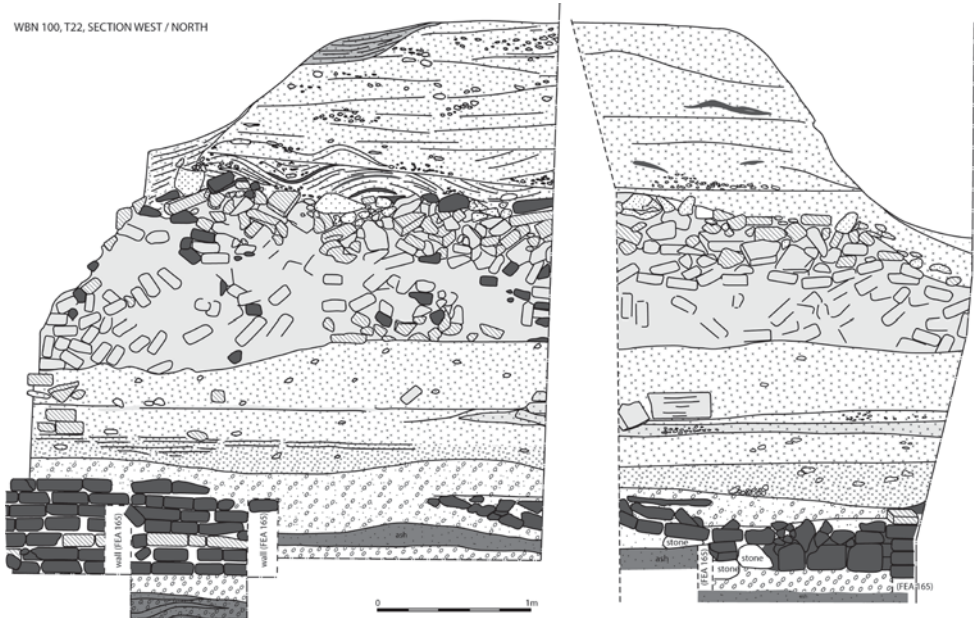


Fig. 5 Section west and north in trench T22 showing cut through the reference section column with original stratigraphy of the room WBN 121 (Drawing by Vlastimil Vrtal).

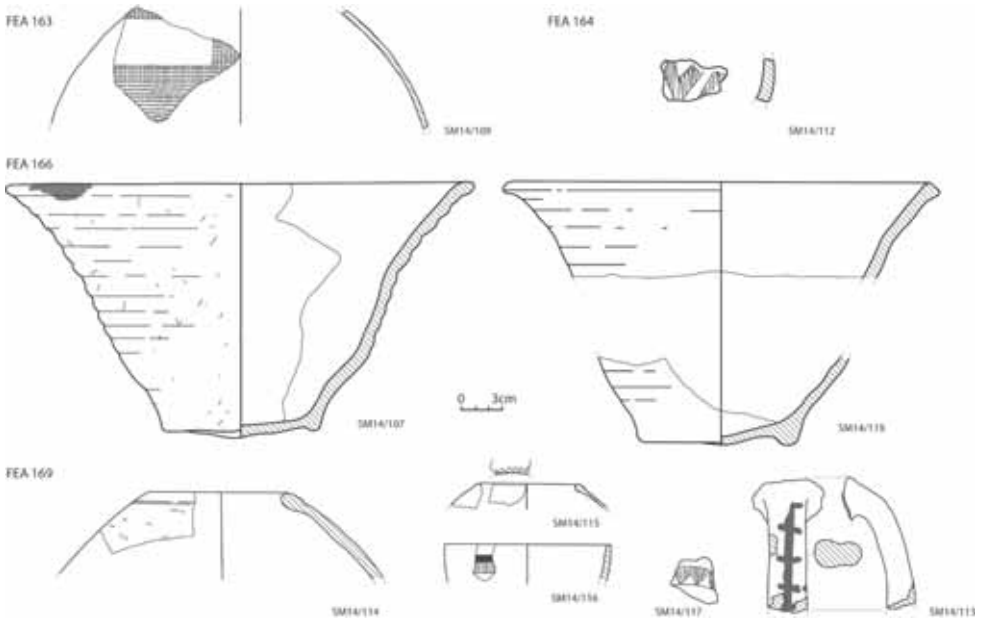


Fig. 6 Pottery assemblage from strata FEA 163, 164, 166 and 169, forming fill of the podium in WBN 121 (Drawing by Vlastimil Vrtal).



the ramp adjoining the northern wall of the Palace and labelled by Hinkel as WBN 167 (cf. Hinkel – Sievertsen 2002: IX.75) represents two separate ramps. The ascent of the better-preserved western ramp was measured and showed that the entrance into the room WBN 120 was located at the same level as the floor level in the room WBN 121. At least three different floor levels can thus be assumed for the Palace as a whole.

### 3 Exploration of the cemetery WBN C200

South of the Typhonium and west of the *kom B* are located several tumuli of late Meroitic and Post-Meroitic date (Pl. 7). The cemetery has been labelled WBN C200 (“C” referring to Central [Wad Ben Naga]). The estimated number of tumuli is around a dozen. The tombs of the cemetery seem to be divided into three clusters. Two clusters are centred on two larger tumuli (WBN C201 and WBN C204) to which subsidiary and later tombs were added. The third cluster is located in the immediate vicinity south of the the *kom C*. The superstructures of the tombs largely employed recycled material from the nearby Isis Temple (WBN 300), hidden under the *kom C*.

The larger of the two explored tumuli, WBN C201, was possibly of early (?) Meroitic date (cf. Burial Type I, El-Tayeb – Kołosowska 2004: 12–17). The deceased was buried stretched in a supine position, aligned in a northwest-southeast direction, with the left hand on the pelvis and head facing to the northeast. No items of funerary equipment were discovered. The substructure was a simple sub-rectangular pit with a descending corridor identified in the section of the superstructure. The superstructure consisted of a core made of mud bricks, which was set into the stone ring and casing. Fragments of a fine handmade burnished bowl with incised incrustated decoration used possibly during the funerary rituals were found in the debris of the superstructure (SM14/122; Fig. 7).

The smaller of the tumuli, WBN C202, located immediately to the north of the previous one, had a minimal preserved superstructure consisting of a simple ring of

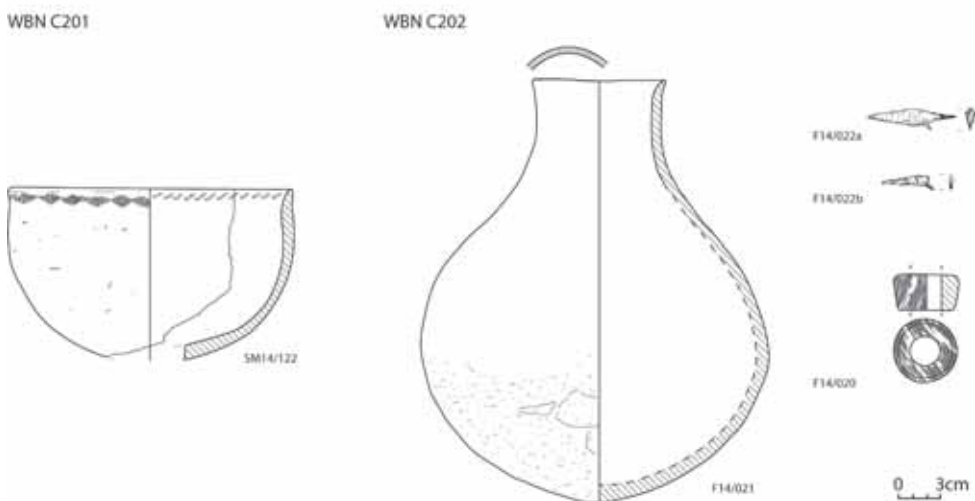


Fig. 7 Finds from the tumuli WBN C201 and WBN C202 (Drawing by Vlastimil Vrtal).

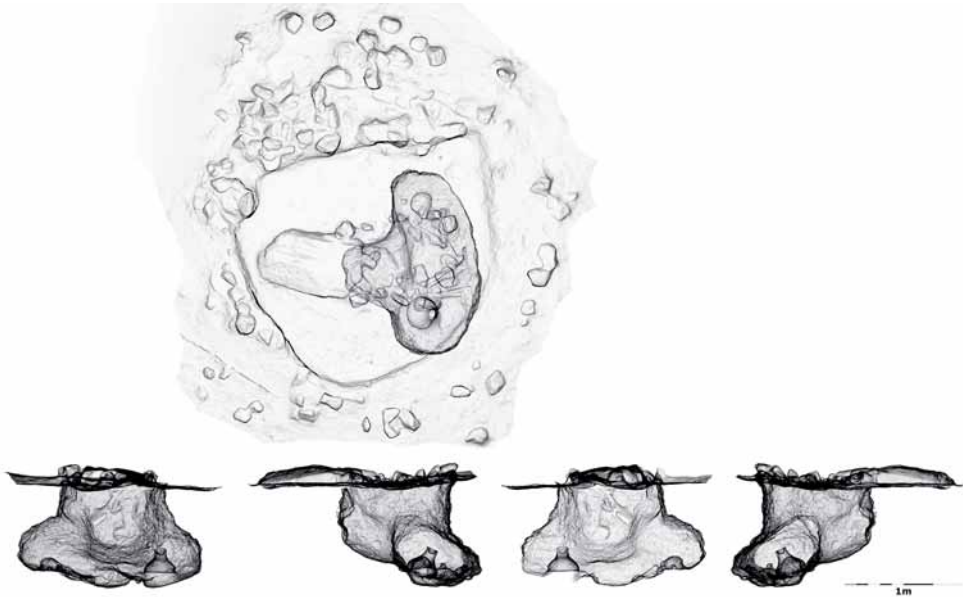


Fig. 8 3D-visualization of the burial WBN C202 (Illustration by Alexander Gatzsche).

stone. It covered a T-shaped substructure with the descending sub-rectangular shaft oriented towards the east. The original blocking of the shaft was provided by a large sandstone block. The deceased was laid to rest in a contracted position facing east (Fig. 8). The funerary equipment consisted of an archer's ring (find no. F14/020; fig. 7), a beer jug (find no. F14/021; fig. 7) and two arrow heads with a single short barb (find no. F14/022; fig. 7). The burial is dated to the transition between the late Meroitic and Post-Meroitic periods.

#### 4 Survey of the surroundings of the rail track

The rail track intersects the archaeological site at Wad Ben Naga for a total length of almost 4km; however, only the northernmost kilometre seems to cover archaeological structures, namely a Meroitic or Post-Meroitic Cemetery WBN N100 and a building (a temple?), labelled by Frédéric Cailliaud as '*kom H*' (Cailliaud 1826). The structure is also marked on Hinkel's plan of Central Wad Ben Naga, published in *The Archaeological Map of the Sudan* (Hinkel – Sievertsen 2002: Pl. IX.72). The rescue excavations of the area began in spring 2015 (i.e. during the tenth excavation season).

#### 5 Conservation Report

During the ninth excavation season the conservation focused primarily on the Palace of Queen Amanishakheto (architecture) and on the preventive treatment of finds (mostly from the Typhonium and two tumuli of the cemetery WBN C200) which required different approaches and conservation techniques. The pottery was approached individually, mostly with respect to the quality of pottery production. To consolidate it, a 10 per cent solution of Paraloid™ B44 in acetone was used.

Because of the inferior quality of the sandstone employed in the construction of buildings at Wad Ben Naga, its surface, usually covered by a layer of plaster, was similarly treated using a 10 per cent solution of Paraloid in acetone (weight/weight). Powdering surfaces of lime plaster or stones and endangered pigmented stone surfaces were consolidated with a 2 per cent solution of Mowital in ethanol (weight/weight).

The recovery and conservation of the wall paintings from the main sanctuary of the Typhonium continued. The reverses were consolidated with a solution of 10 per cent Paraloid in acetone (weight/weight) and stabilized with a glass fiber solder, together with a 20 per cent solution of Paraloid in acetone (weight/weight). Continued cleaning of isolated blocks with fragments of wall paintings from the area of the main altar revealed further pieces of the original decoration of the main sanctuary, including parts of a seated female figure, most probably representing the goddess Mut.

The conservation of the Palace of Queen Amanishaketo (WBN 100) continued. The uncovered fired brick and mud brick walls were stabilized against the annual rains with a combined reversible cover of a border layer of geo-textile, bricks and concrete. Measures were taken to protect the walls of the Typhonium which are endangered by ground water. The substructures of the excavated tumuli WBN C201 and WBN C202 were refilled with soil.

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Pl. 1 Finds from the area of the altar in the main sanctuary of the Typhonium  
(Photo by Alexander Gatzsche).



Pl. 2 3D-visualization of the archaeological situation in the main sanctuary of the Typhonium  
(Illustration by Alexander Gatzsche).



Pl. 3 Head of a gilded and painted statue of a seated lion discovered in the main sanctuary of the Typhonium (Photo by Alexander Gatzsche).



Pl. 4 Reconstruction of imported transport amphora found in the main sanctuary of the Typhonium (Illustration by Alexander Gatzsche).



Pl. 5 Trench T23, view from the north (Photo by Eric Spindler).



Pl. 6 Trench T22, section west and north showing cut through the original fill of the room WBN 121 and compartments forming podium (Photo by Alexander Gatzsche).





Pl. 7 Cemetery WBN C200; well-preserved tumuli WBN C201 and WBN C202 can be seen in the centre. View from the east (Photo by Pavel Onderka).



Pl. 8 Burial WBN C202 (Photo by Alexander Gatzsche).