

## REPORT ON SURVEYS IN DUWEYM WAD HAJ<sup>1</sup>

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This article reports on the surveys of “*the Slovak research at the Sudanese site of Duweym Wad Haj*,” a joint project of the Institute of Oriental Studies and the Archaeological Institute, both of the Slovak Academy of Sciences (SAS). A short survey was carried out at the site in November 2017. Two mosques, qubba and a tell were identified; the tell rises about 5 to 6 m above the alluvial terrain. The western entrance to the older mosque is flanked by hard black stone blocks. Nearby is a worked stone block of the same material. Non-diagnostic pot-sherds were found mainly concentrated on the northern side of the tell. A geophysical survey, documentation of the older mosque and archaeological prospecting were carried out in February 2018; fragments of alabaster, black and red granite and stone industry were identified at the site. The geophysical survey was carried out by a georadar RAMAC X3M system with 500 MHz antenna and processed by ReflexW software. The site was divided up into 8 areas and the individual areas were measured out by GPS Trimble R2. Overall, 11 structures were discovered.

**Keywords:** Sudan, Nubia, Duweym Wad Haj, geophysical survey, mosque

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<sup>1</sup> The article originated within the project APVV-17-0579 “*Slovak Research at the Sudanese Site of Duweym Wad Haj*”; it is an extended and modified version of the preliminary report, submitted to the NCAM. Brief results of the research were also published by HUDEC, J., CHEBEN, M., KOVÁR, B. Výskumy lokality Duwejm Wad Hadž v Sudáne - sezóny 2017 a 2018 [Research at Duweym Wad Haj in the Sudan – 2017 and 2018 seasons]. In *Študijné zvesti*, 2019, Vol. 65, pp. 207–220.

## Introduction

The decision to begin Slovak excavations in the Sudan was taken in summer 2015. Reasons for this initiative were various: scientific, logistic and social. Inter alia, an excavation was encouraged by the Slovak Honorary Consul General in the Sudan, Dr. Nasreldin Shulgami. There was no precedent for an excavation by Slovak and Czechoslovak Egyptologists in the Sudan, despite the presence of the Ancient Egyptian civilisation and tradition in Upper Nubia.

Earlier scientific contacts could be traced back to the period of the Danube Monarchy. The geologist Josef von Russegger (1802 – 1863), the director of the Mining and Forestry Academy in Banská Štiavnica/ Schemnitz between 1850 and 1863, was commissioned by the Egyptian ruler Muhammad Ali in 1838 to explore the mineral resources of the Sudan, especially gold.<sup>2</sup> The establishment of a colony in the Sudan was considered around the middle of 19th century.<sup>3</sup> The Danube Monarchy was the predominant European power in the Sudan until 1862, when the Austrian Roman Catholic Mission to Central Africa was abolished.<sup>4</sup> The presence of the monarchy dwindled<sup>5</sup> after 1866, when Austria lost Venice and other lands important for trade with Africa. Nevertheless, Habsburg subjects were present in the region and even took up prominent positions in the colonial administrations of other powers.<sup>6</sup> A chair of Egyptology, established in Vienna in 1873, contributed to the beginning of archaeological excavations also in Nubia at the start of the 20th century. However, the researchers did not move south of the Lower Nubian Toshka and Ermenne/Armanā.<sup>7</sup>

<sup>2</sup> HILL, R. *A Biographical Dictionary of the Sudan*, p. 322.

<sup>3</sup> AGSTNER, R. *Das k.k. (k.u.k.) Konsulat für Central Afrika in Khartoum 1850 – 1885*, pp. 11–15.

<sup>4</sup> AUSTRIAN ADVENTURES. [cit. 4 February 2019]. Available from <<https://medievalsaiproject.wordpress.com/2012/09/23/austrian-adventures-along-the-middle-nile-with-a-focus-on-themeroitic-civilization/>>

<sup>5</sup> TAFLA, B. *Ethiopia and Austria: A History of Their Relations*, p. 50.

<sup>6</sup> HUDEC, J. Hunting in North-Eastern Africa – Photographs of Count Michael Esterházy. In CZERNÝ, E. (ed.). *Egypt and Austria XI*, pp. 135–159.

<sup>7</sup> UNIVERSITY OF VIENNA. [cit. 4 February 2019]. Available from <<https://egyptology.univie.ac.at/en/about-us/history-of-the-institute/>>

## Duweym Wad Haj

After a research in scientific publications, Duweym<sup>8</sup> Wad Haj (also written Hajj) was chosen as a promising site for Slovak excavations. The site is located in Wilāyat ash-Shamāliyyah/Northern State, about 350 km north of Khartoum, in Great Bend of the Nile, on the left bank of the river. The site is close to the boundary dividing the rocks of the Phanerozoic Eon and the older Precambrian supereon<sup>9</sup>, about 30 km south-west i.e. downstream from the Merowe Dam of the 4th cataract of the Nile (Fig. 1). Its venue is opposite (through the stream of the river) to Gebel Barkal, one of the most significant Sudanese UNESCO sites.

The site was discovered by Faiz Hassan Osman and surveyed by Timothy Kendall,<sup>10</sup> the co-director of the NCAM Jebel Barkal Mission, in 2009. The results of Kendall's survey attracted the attention of Jozef Hudec in 2015 and contributed to the decision to request the National Corporation for Antiquities and Museums of the Sudan/NCAM for an archaeological excavation permit. Jozef Hudec visited the site in November 2017 after the NCAM approved the launching of archaeological work on August 21, 2017 and agreed to establish a scientific partnership with the Slovak side.

A reconnaissance of the Duweym site in November 2017 produced several useful items of archaeological information. It showed that the site is placed on a mound rising to about 5–6 m above the surrounding terrain, in a distance of about 0.9 km south-east of the left bank of the river Nile, near the boundary of the Nile floodplain and a desert terrace.

The site features a *qubba* (conical-shaped tomb) and two mosques (Fig. 2): a northern, abandoned old mosque, and a southern, used new one. The old mosque of an undetermined age (probably not older than the 17th – 19th centuries) was in a desolate state. Its southwestern corner was demolished and has been overbuilt by the new mosque. The eastern part of the old mosque's southern wall has collapsed. The northern and eastern (*qibla*) walls and a part of the western wall were preserved to the level of the roofing. Only the western entrance to the old mosque was covered by a roof.

The survey of Kendall had already described Duweym as “the site of an ancient temple (?), directly across the Nile from Jebel Barkal on the left bank; its traces survive as blocks of red sandstone underlying the foundations of an

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<sup>8</sup> From ضوايم dawayim = spaces (?); Wad Haj = son of a Mecca pilgrim.

<sup>9</sup> CATARACT NILE INTERACTIVE MAP [cit 4 February 2019]. Available from <<https://www.utdallas.edu/geosciences/nile/cataractsnilegif.html>>

<sup>10</sup> KENDALL, T. *Jebel Barkal History and Archaeology of Ancient Napata*. [cit. 4 February 2019]. Available from <[http://jebelbarkal.org/index.php?option=com\\_content&view=article&id=67&Itemid=77](http://jebelbarkal.org/index.php?option=com_content&view=article&id=67&Itemid=77)>

old mosque”.<sup>11</sup> As also reported by Kendall, the level of the upper stair to the western gate has been regularly flanked (Fig. 3) by a block of hard stone (black granite or schist) on each side of the entrance.

Both blocks might originally have belonged to one longer prismatic block. Their sides have been painted green, much like the surface of the mosque entrance; the stone material is obvious/visible only on the top sides of the blocks. A dressed stone (statue?) of the same rock material as the above mentioned both blocks (black granite or schist) has been set up in front of the left side of the western entrance (Fig. 4).

Based on these investigations, the Duweym site has been assessed as having potential for discovering ancient structures covered under and beside the ruins of the old mosque. The archaeological character of the site was also supported by the presence of ceramic sherds. The uniqueness of the archaeological opportunity at the site was underlined by the fact that no field research had been carried out on the site in the past.

Archaeological and inter-disciplinary (inter alia geophysical) research was thus postulated to be necessary at the site to verify the following assumptions and hypotheses:

1. There are ancient (sacral?) structure(s) beneath and beside the old mosque;
2. Exposed stone blocks originate from the ancient (sacral?) structure(s);
3. The site was of importance for communications between Gebel Barkal and Meroe, through the Bayuda Desert (via Abu Dom Valley)<sup>12</sup> south-eastwards.

Therefore, a project “Slovak Research in the Sudanese Site of Duweym Wad Haj” was drawn up and submitted to the Slovak Research and Development Agency, with a focus on interdisciplinary research and co-operation. The research envisaged the application of natural science methods (e.g. geophysics – magnetometrics, electro-resistance, and geo-radar/GPR; soil science; construction engineering), excavation methods (single context; ceramology) and documentation methods (a surveyor, 3D documentation/scanning, context of tachymeters, photogrammetry, digital photography) and surveys.

## 2018 Season

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<sup>11</sup> KENDALL, T. *Jebel Barkal History and Archaeology of Ancient Napata*. [cit. 4 February 2019]. Available from <[http://jebelbarkal.org/index.php?option=com\\_content&view=article&id=67&Itemid=77](http://jebelbarkal.org/index.php?option=com_content&view=article&id=67&Itemid=77)>

<sup>12</sup> WADI ABU DOM ITINERARY. [cit. 4 February 2019]. Available from <<http://en.wadi-abu-dom.de/>>

Between 20 and 26 February 2018 a team comprising Jozef Hudec (Field Director, Institute of Oriental Studies, Slovak Academy of Sciences/SAS), Branislav Kovár (archaeologist, Archaeological Institute, SAS), Michal Cheben (geophysicist, Archaeological Institute, SAS) and Mongeda Khalid Magzoub Ali (Inspector, National Corporation for Antiquities and Museums of the Sudan/NCAM), supported also by the Aigyptos Foundation and Geotronics s.r.o./Eng. Rastislav Hrdlovič, undertook the first research season in Duweym Wad Haj. The objective of the Slovak Archaeological Mission to the Sudan (SAMS) was to carry out a geophysical GPR survey of Duweym Wad Haj, take geodetic measurements and fixation of the site, a ceramics survey and photographic documentation, under the licence of the NCAM.<sup>13</sup>

The mission members arrived in Karima and Duweym Wad Hajj on 22 February 2018. They sectionalised the site into eight areas (Fig. 5) for the purposes of the GPR survey. The objective of the GPR survey was to record traces of possible archaeological and architectural remains. Therefore, the eight areas were distributed on available places such a way as to cover the maximal possible surface of the probable archaeological site.

### Geophysical Survey

The first area to be surveyed (**A1**) was chosen to be in the northern quadrants inside the old mosque. On 23 February 2018 other six areas (**A2 – A6**) were surveyed: **A2** in the south-eastern quadrant inside the old mosque, two areas **A3** and **A4** east of the old mosque, two areas **A5a** and **A5b** north of the old mosque and area **A6** on the north-western periphery of the Duweym site. On 24 February the GPR survey was completed in the last of the designated areas (**A7**).

The ground-penetrating radar/GPR RAMAC system X3M with 500MHz antennae was used to survey the designated areas. The surface of the Areas 1 – 5a/b consists of sand layer. The situation in the Areas 6 and 7 is different: the top (humose) sand layer is deposited on fluvial clays of the river Nile. Individual profiles on the surface of the areas were measured at a distance of 0.5 m. The depth of the GPR antenna's range was set at 3.4 m. The measured data were processed by the ReflexW software. The process produced vertical

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<sup>13</sup> HUDEC, J., CHEBEN, M., KOVÁR, B. Výskumy lokality Duwejm Wad Hadž v Sudáne – sezóny 2017 a 2018 [Research at Duweym Wad Haj in the Sudan – 2017 and 2018 seasons]. In *Študijné zvesti*, 2019, Vol. 65, pp. 207–220.

GPR profiles which were subsequently connected together and resulted in horizontal time slides.

The geodetic measurements were done by GNSS receiver Trimble R2 – Rover GPS/GLONASS/ Galileo/BeiDou, NMEA, provided by Geotronics Slovakia s.r.o./Eng. Rastislav Hrdlovič, with the aim of recording GPS coordinates, including elevations.

The surface of **Area 1** was not flat; there were several obstacles such as bushes, pits and ditches. Nevertheless, the GPR survey identified several structures, including probable architectural residuals and/or remains of human activity, in Area 1 (Fig. 6).

An L-shaped **Structure 1** was identified at a depth of 0.4 m. Its dimensions could not be fully determined as the structure does not emerge entirely. The structure disappears at a depth of 1 m. It might represent architectural remains.

A slightly obscure **Structure 2** appeared on the horizontal time slide at a depth of 30 cm, situated near Structure 1. On other time slides it becomes more obvious. The width of the structure is 3.5 m. The length was not determined as the structure does not emerge entirely. The structure continues to a depth of 0.7 m. It might also represent architectural remains.

**Structure 3** appears on a horizontal slide at a depth of 0.5 m. Its ground plan has a rectangular shape, with a width of about 1 metre, but the length could not be determined. Structure 3 continues to a depth of 0.7 m. Structures 2 and 3 might be related.

A structure appears at a depth of 0.5 - 0.6 m; it could be interpreted as a one-metre wide base of architectural remains. As it does not appear on other time slides, it might be identified as a masonry negative only. The potential ancient structures in Area 1 should predate the old mosque.

Several structures appear in **Area 2** (in south-eastern part of the old mosque). They could indicate architectural and/or other remains of human activity. A line structure appears just below the surface, which could indicate recent engineering network or digging.

A small square **Structure 4** appears on horizontal slides at a depth of 0.4 m (Fig. 8). Its dimensions are about 1.5 x 1.5 m. The structure is clearly visible in the vertical section on the Y-axis. It could be the remains of an architectural structure.

Several structures (Fig. 9) were identified in **Area 3** (eastward of the old mosque). A square-shaped **Structure 5** appeared at a depth of 0.3 - 1 m. Its dimensions are 2.5 x 2.5 m. This structure is clearly visible in the vertical section on the Y-axis. It could be the remains of an architectural structure.

A distinctive circular **Structure 6** appeared at a depth of 0.4 m in a horizontal time slide. The structure is clearly traceable down to a depth of 0.7 m. The circular shape of the structure has a square outshoot with the dimensions

of 4 x 4 m. This dilapidated structure is clearly visible in the vertical section on the Y-axis (Fig. 10).

In **Area 4** a square **Structure 7**, with the dimensions of about 1 x 1 m, appeared on a horizontal time slide (Fig. 11) at a depth of 0.4 m and reaches a depth of 0.9 m.

Several structures (Fig. 12) appeared in **Area 5a** (outside the old mosque, northwest of Area 1). No continuous structure indicating any ancient architectural remains appeared in the surveyed area at depths of 0 - 1 m. At this depth range, however, several anomalies indicate solitary blocks - possibly stone pieces. The recorded layers slope down north-westwards.

**Structure 8** appeared at a depth of 1.3 m and was visible to a depth of 1.8 m. This could be the residuum of a building base with a relatively wide fundament. The structure is L-shaped in the ground plan. A part of the structure continues under the subsidiary wall of the old mosque. In the south-eastern part, the structure has a square-like shape with the dimensions of 8 x 8 (?) m.

A line **Structure 9** with a slightly rounded shape appeared at a depth of 1.9 m. It continues to the Area 5b but ends after a few metres. It could be an element of ancient architecture. Both structures are clearly visible also on a vertical section (Fig. 13).

One probable architectonic structure has been identified in **Area 5b** (outside the old mosque, north of area 5a). A square-shaped **Structure 10** (Fig. 14) with the dimensions 1 x 1 m appeared on a horizontal time slide at a depth of 0.2 m. The structure is visible down to a depth of 1.5 m. It is also clearly recognised in the vertical section.

One probable architectonic structure has been identified in **Area 6** (northwest of Area 5b). A line-shaped **Structure 11** (Fig. 15) appeared at a depth of 0.4 to 0.7 m.

The GPR survey has not detected any structure in **Area 7** (north of Area 5b and east of Area 6) so far (Fig. 7). Horizontal time slides show deposit of layers only.

In all areas the GPR survey has identified several structures at different depths. The structures could indicate blocks of stone or similar solid structures. This could also indicate the presence of ancient buildings/constructions.

## Mosque

The old mosque has been also measured by the mission. The ground plan of the mosque (Fig. 16) is slightly irregular, with dimensions SW-NE circa 45.5m x NW-SE circa 36.3 m x NE-SW circa 44 m (circa 23 m traceable) x SE-NW circa 33m (circa 23m preserved). Parallel to the northern wall of the mosque, at

a distance of circa 11.8m from the wall, the remains of a *riwāq* (arcade<sup>14</sup>: Fig. 17) are preserved to a length of circa 25m. However, it is not to be excluded that this is just a *rakuba* – a sun shelter, common in Sudanese mosques.<sup>15</sup>

A semi-circular *mihṛāb*<sup>16</sup> was built in the centre of the east/NW-SE (*qibla*) wall, with surprising accuracy as to its *qibla* direction (to Mecca). The *mihṛāb* (with a decorative framework on the wall between window and *minbar*<sup>17</sup>) was, however, not centred between the third and fourth windows of the six windows in the NW-SE wall. A *minbar* was built on the right side of the *mihṛāb* (Fig. 18).

There are ten windows and an entrance in the north (SW-NE) wall (Fig. 19). With the exception of the entrance the wall is undecorated from the external side, just plastered in several layers. The external face of the entrance is in a niche flanked on each side by a pair of eroded half-columns and an eroded half-pillar. The internal face of the entrance is flanked on each side by an eroded half-pillar (?). The entrance is between the eighth and ninth windows, i.e. close to the NE corner of the mosque. The first window in the SW corner is already eroded from above. Along the external side of the SW-NE wall there is a low subsidiary (?) wall (from the entrance to the SW corner). The space between the walls is filled with sand. In some parts the sand covers the most recent plaster, painted in pink. There is a traditional shelter for water vessels (*mazeera*)<sup>18</sup> at the SW corner of the old mosque.

The inner side of the northern (SW-NE) wall is much more divided up by eroded half-columns or pillars. They were built roughly in the centre between the windows. However, the virtual lines between the half-columns/pillars of the wall and of the courtyard side of the *riwaq* are not at regular distances and are non-parallel. Also due to the distance between the northern wall and the *riwaq*, there may be (an)other row(s) of (wooden/mud-brick?) columns/pillars in the interspace,<sup>19</sup> to support the probable roofing of the *riwāq*. The high mosque windows are round-vaulted from the inside but the vaults are arched by wooden beams and filled with mud-bricks from the outside (Fig. 20), and thus they have

<sup>14</sup> HATTSTEIN, M., DELIUS, P. (ed.). *Islam. Art and Architecture*, p. 611.

<sup>15</sup> TRIMINGHAM, J. S. *Islam in the Sudan*, p. 122.

<sup>16</sup> HATTSTEIN, M., DELIUS, P. (ed.). *Islam. Art and Architecture*, p. 610.

<sup>17</sup> Ibid.

<sup>18</sup> FAHMI, W. S. *The Adaptation Process of a Resettled Community to the Newly-Built Environment*, p. 97.

<sup>19</sup> Such an arrangement should be attested by archaeological methods, as well as the presence of other parts of a *riwāq* or *maqsura* (domed and enclosed space in front of the *mihṛāb*) inside the eastern and southern parts of the old mosque.



a rectangular external shape. The windows in the *qibla*<sup>20</sup> wall were constructed similarly but they are much more eroded.

The western wall has been preserved only from the NW corner to the main/western entrance. There are two false entrances shaped in the masonry of the western wall's outer side. There are no traces of filling-in masonry on the inner side of the western wall. Near the NW corner of the mosque there is a palm tree trunk, which was probably planted to stabilize the foundation of the old mosque. The masonry of the southern wall has collapsed altogether. No traces of a minaret have been discovered so far. If there was one, it might have stood near/at the SW corner of the old mosque and might be destroyed/adapted by the minaret of the new mosque.

The mud-brick masonry walls of the mosque were built in so-called "English" bond, i.e. an alternating row of header bricks and a row of stretcher bricks. The bond pattern is evident in the SE corner of the mosque. It seems that the thickness of the wall was of 2.5 stretcher bricks (i.e. min. 45 cm), up to the level of window sills. Above this level the walls are thinner, with about 2 stretcher bricks (i.e. min. 36 cm).

According to some local residents, the old mosque was probably built in the 1820s. This date would link the construction of the architecture with the beginning of the Turkiyya (conquest of the Sudan by Muhammad Ali).<sup>21</sup> However, the dating should be verified by further research. Any C14 specimen from the trunk or other organic remains from the mosque (e.g. a wooden beam from a window arch), could contribute to the dating of the mosque building.

The old mosque is remarkably large (almost 1600 m<sup>2</sup>) for the presumably modest local rural environment; it is much larger than the mosque architecture in the port city of Suakin<sup>22</sup>, a part of the Ottoman Empire, and comparable in size/ area even to the Great Mosque (*Mesjid al-Kabir*) in Khartoum (over 2000 m<sup>2</sup>)<sup>23</sup>. Despite the lack of older representative Sudanese Islamic architecture (due to the prevalence of mud-brick in construction, the abandonment of older

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<sup>20</sup> HATTSTEIN, M., DELIUS, P. (ed.). *Islam. Art and Architecture*, p. 611.

<sup>21</sup> TRIMINGHAM, J. S. *Islam in the Sudan*, pp. 91–92.

<sup>22</sup> GREENLAW, J. P. *The Coral Buildings of Suakin*; SMITH, L. et al. *Archaeological Work at Suakin*.

<sup>23</sup> SALOMON, N. *For Love of the Prophet: An Ethnography of Sudan's Islamic State*, p. 46

architecture, and Sufi simplicity)<sup>24</sup> Islam has a longer tradition in the area of the river Nile's Fourth cataract.<sup>25</sup>

About 10 meters south of the mosque, there is a *qubba*, a mausoleum of the local Muslim religious figure Abdelrahman Wad Haj, whose name was probably eponymous with the site.

### Small Finds

The mission members also focused on identifying stone blocks and debris on the surface of the site. In addition to the previously known black granite and pink Nubian sandstone, fragments of alabaster (Fig. 21a) and red granite (Fig. 21b) have been detected.<sup>26</sup> Two pieces of black granite (?) had abrasion marks, probably evidence that they might have been used as grinders.

A number of potsherds were recorded in the northern part of the surveyed site, between the sandstone outcrop and fluvial clays of the river Nile. Here, foundations of several mud brick buildings are visible, in lower layers of the slope between Area 5b and Areas 6 –7. The potsherds were not characteristic enough to estimate the date by stratigraphy. In other areas surveyed the potsherds had been swept away or covered by sand.

### Conclusions

Duweym Wad Haj might have had a strategic position for communications between Gebel Barkal and Meroe.<sup>27</sup> After the raids of the New Kingdom's pharaohs to the Upper Nubia (Kush), Duweym was also located at the southern border zone of the Ancient Egyptian Empire, 3.3 km across the river opposite to the Gebel Barkal/Napata, the religious centre *Ipet-Isut* of the god Amon. It was also about 4.3 km upstream from the Sanam temple, on the same bank of the river.

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<sup>24</sup> INTISAR S. EL-Z. The Archaeology of the Early Islamic Period in the Republic of Sudan. In *Sudan & Nubia*, 2000, No. 4, p. 34.

<sup>25</sup> ABDELRAHMAN A. M. The Islamic Period in the Fourth Cataract. In ANDERSON, J. R., WELSBY, D. A. (ed.). *The Fourth Cataract and Beyond*, pp. 201–208.

<sup>26</sup> LUCAS, A. *Ancient Egyptian Materials and Industries*, pp. 66, 72–77, 463, 469n.

<sup>27</sup> PANER, H., MASOJC, M. From Old Sennar, Bejrawiya and Fourth Cataract – to the Bayuda Desert. In *Gdansk Archaeological Museum African Reports*, 2013 (2016), Vol. 8, p. 23, fig. 18.

The Ancient Egyptians ruled the area for about 300 years. Later, Napata became the metropolis of the independent Nubian kingdom. Nubian kings gradually even conquered Egypt and ruled it as the 25th Dynasty. Even after their expulsion from Egypt, Napata remained a royal residence and religious centre, until about 350 BC. The site was populated during the reign of the Meroitic kings or even later.

The next archaeological season, provisionally planned for January/February 2019, may clarify further the position of Duweym in the historical framework of the Fourth Cataract area, Napata and Nubia in general.

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**Hudec, Fig. 1.** Nile Valley downstream Meroe Dam. (Google Earth)



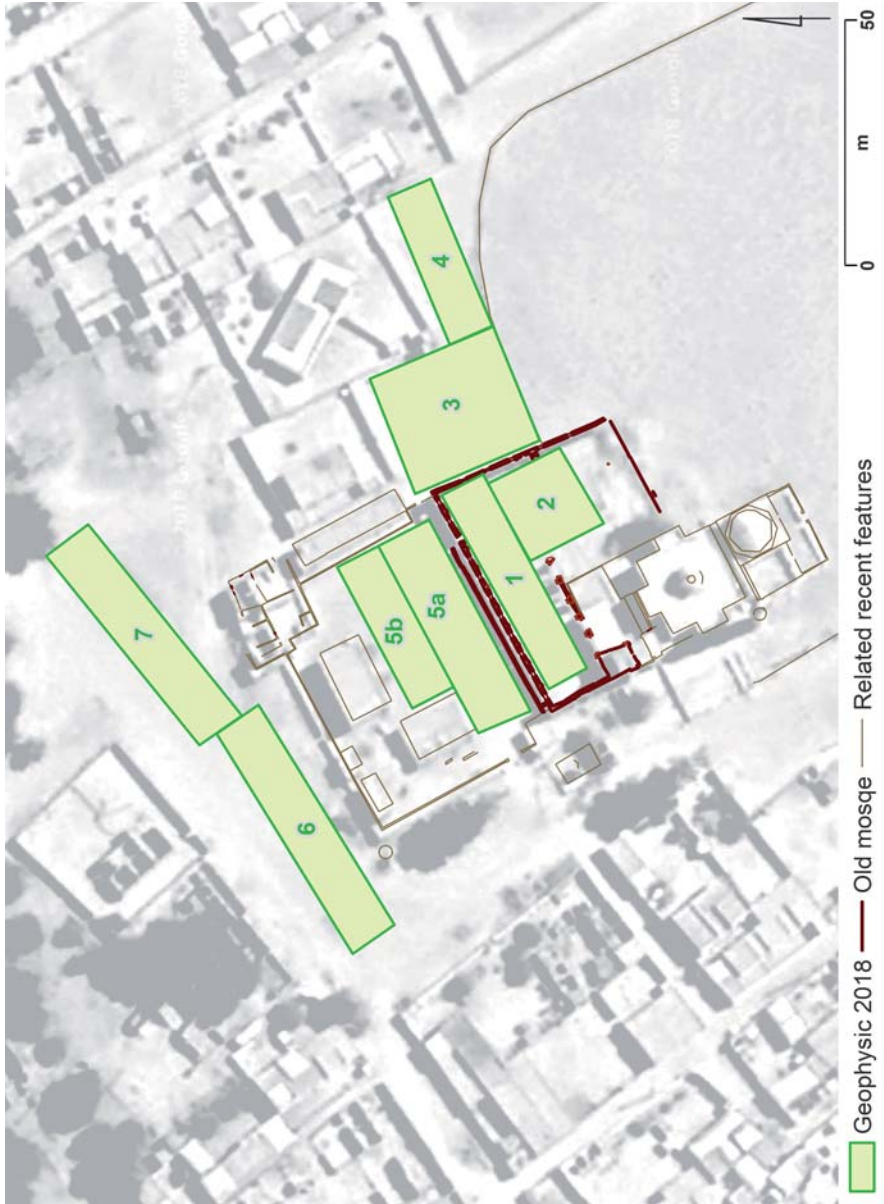
**Hudec, Fig. 2.** Qubba and new mosque. (Photo Jozef Hudec)



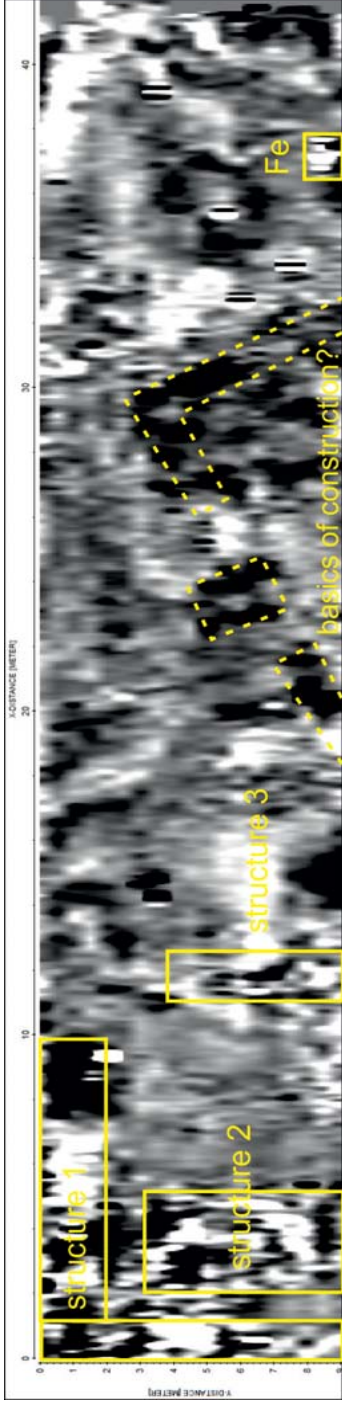
**Hudec, Fig. 3.** Block on the left side of mosque's entrance. (Photo Jozef Hudec)



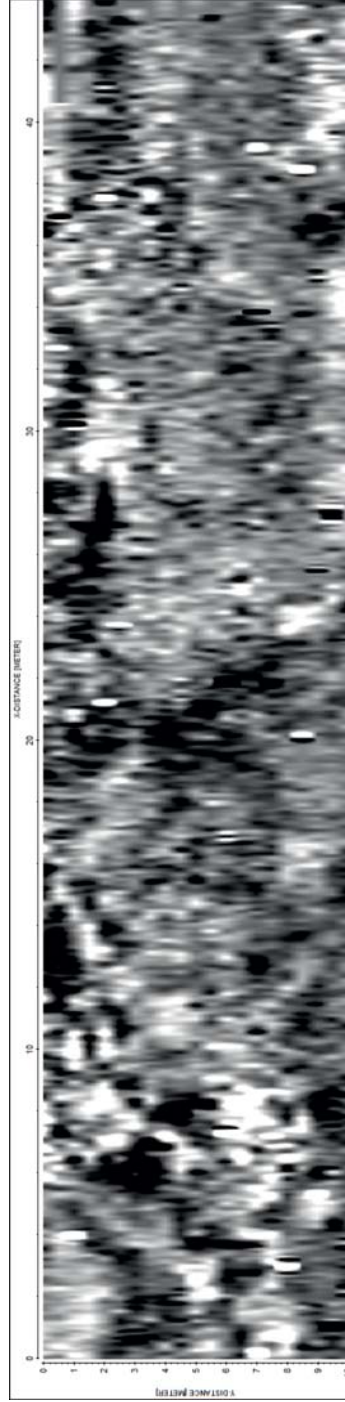
**Hudec, Fig. 4.** A dressed stone (statue?). (Photo Jozef Hudec)



**Hudec, Fig. 5.** Areas 1 – 7 of GPR survey. (Map Tibor Lieskovský)

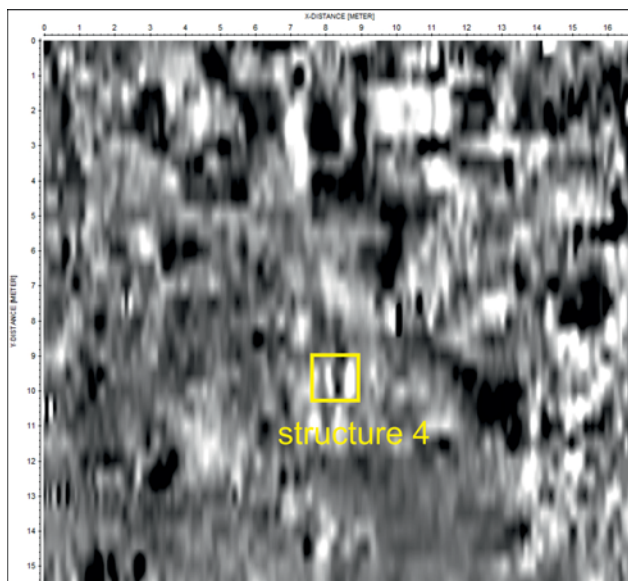


**Hudec, Fig. 6.** Time slide of Area 1 in depth of 55 cm. (Authors Michal Cheben a Branislav Kovár)

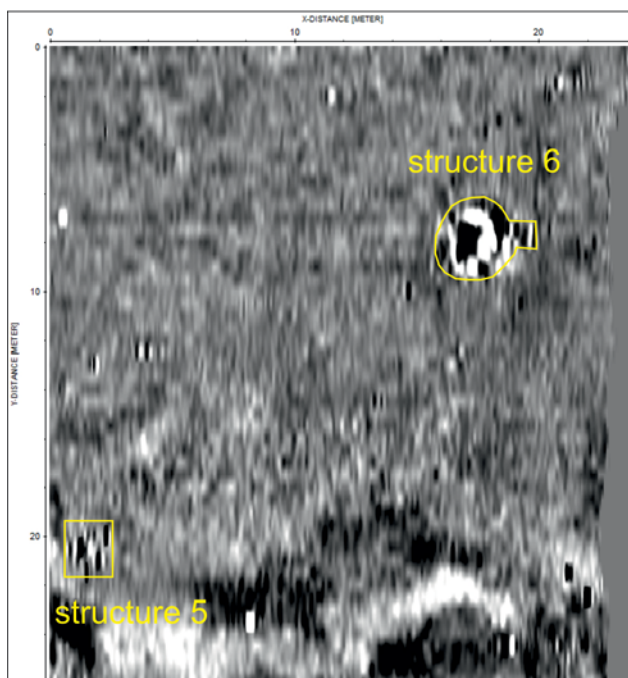


**Hudec, Fig. 7.** Time slide of Area 7 in depth of 50 cm. (Authors Michal Cheben a Branislav Kovár)

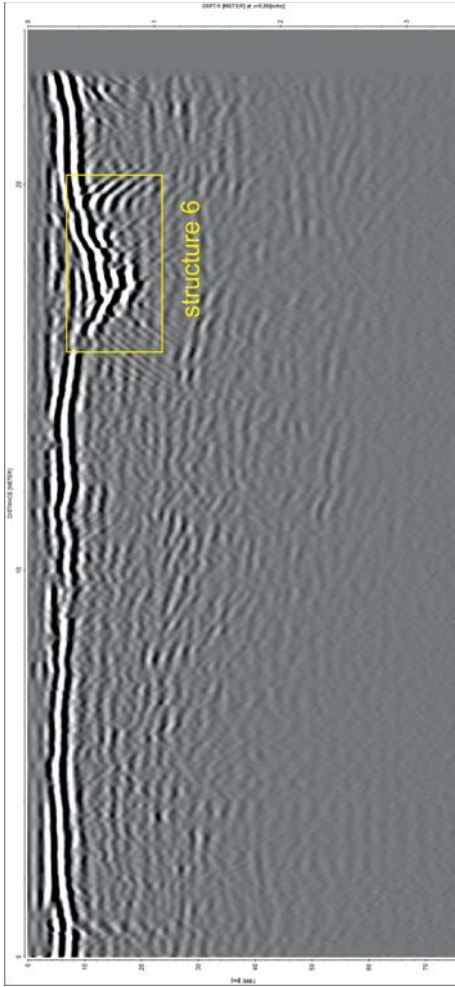




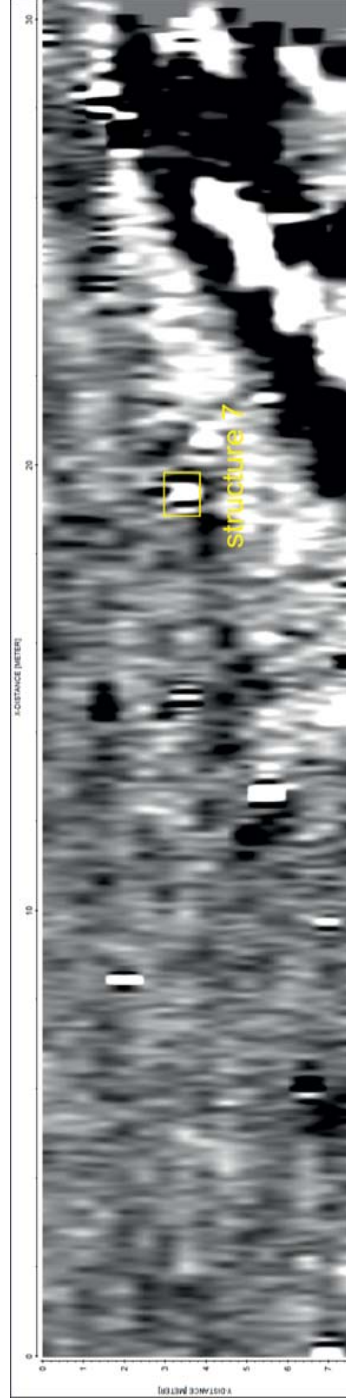
**Hudec, Fig. 8.** Time slide of Area 2 in depth of 50 cm. (Authors M. Cheben a B. Kovár)



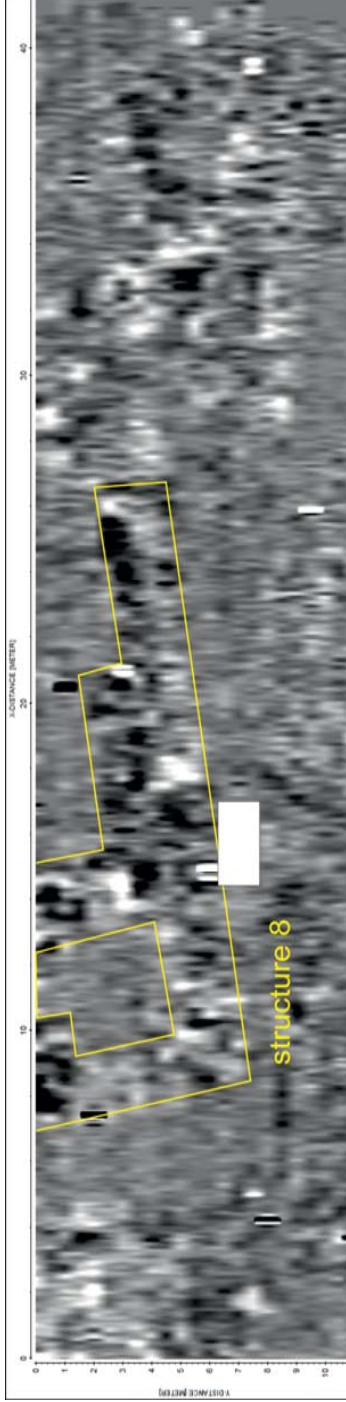
**Hudec, Fig. 9.** Time slide of Area 3 in depth of 55 cm. (Authors M. Cheben a B. Kovár)



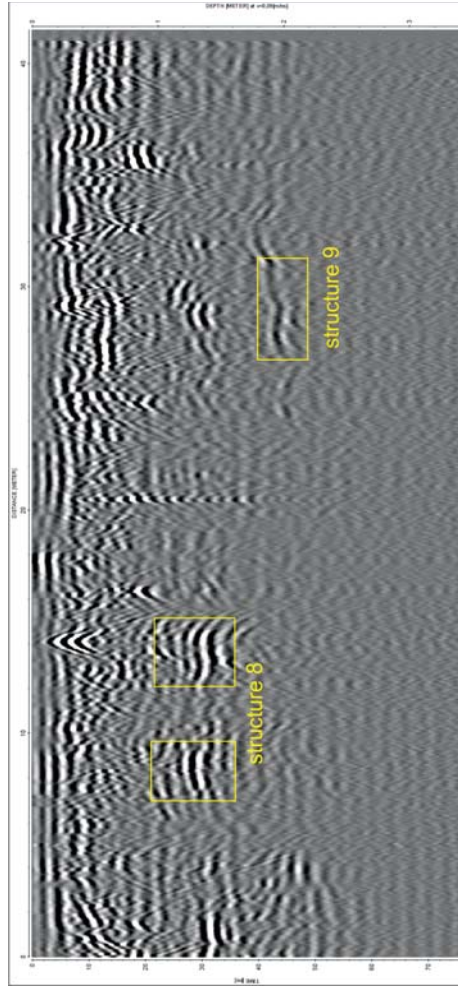
**Hudec, Fig. 10.** Vertical section of Area 3 on Y-axis – 8m. (Authors Michal Cheben a Branislav Kovár)



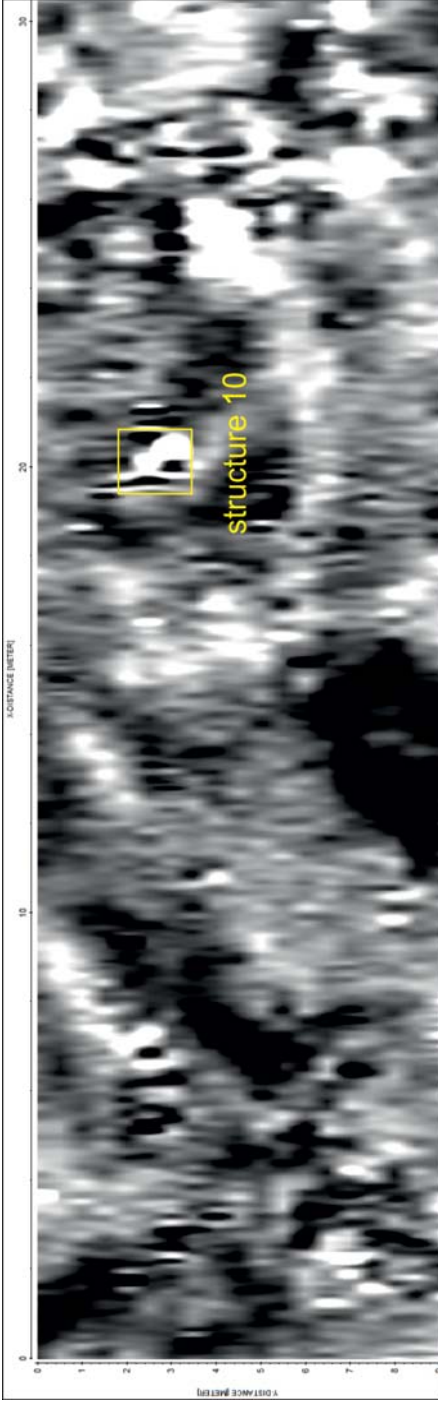
**Hudec, Fig. 11.** Time slide of Area 4 in depth of 50 cm. (Authors Michal Cheben a Branislav Kovár)



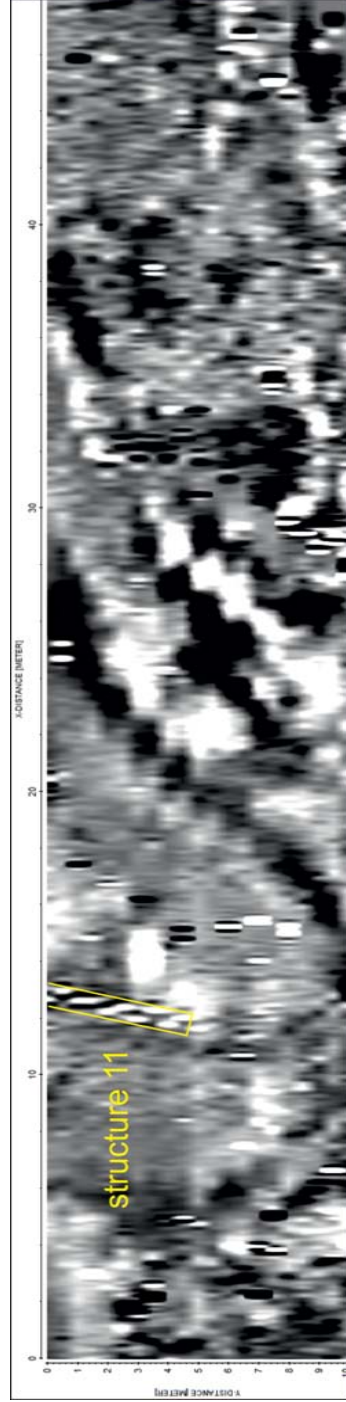
**Hudec, Fig. 12.** Time slide of Area 5a in depth of 130 cm. (Authors Michal Cheben a Branislav Kovár)



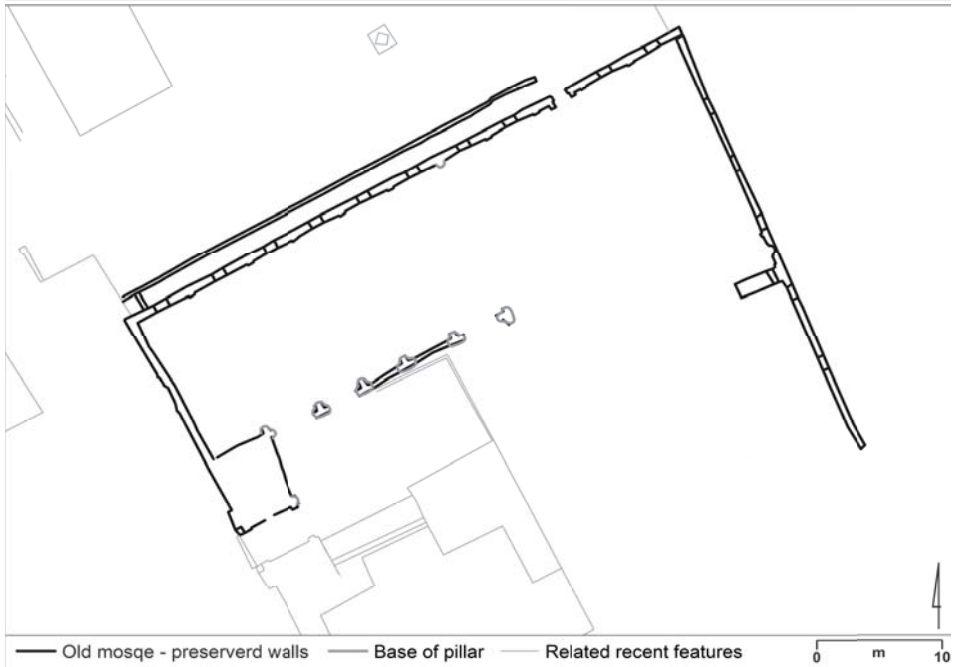
**Hudec, Fig. 13.** Vertical section of Area 5a on Y-axis - 50 cm. (Authors Michal Cheben a Branislav Kovár)



**Hudec, Fig. 14.** Time slide of Area 5b in depth of 50 cm. (Authors Michal Cheben a Branislav Kovár)



**Hudec, Fig. 15.** Time slide of Area 6 in depth of 55 cm. (Authors Michal Cheben a Branislav Kovár)



Hudec, Fig. 16. Ground plan of the old mosque. (Author Tibor Lieskovský)



Hudec, Fig. 17. *Riwaq* of the old mosque. (Photo Jozef Hudec)



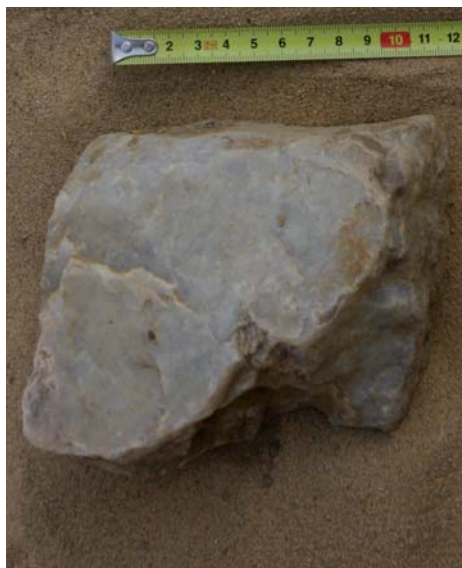
**Hudec, Fig. 18.** Mihrab (left) and minbar (right). (Photo Jozef Hudec)



**Hudec, Fig. 19.** The SW-NE wall of the old mosque. (Photo Jozef Hudec)



**Hudec, Fig. 20.** Internal shape of windows. (Photo Jozef Hudec)



**Hudec, Fig. 21a.** Alabaster fragment from the old mosque's area. (Photo Jozef Hudec)



**Hudec, Fig. 21b.** Red granite fragment from the old mosque's area. (Photo Jozef Hudec)