

Gebel Adda and its environs: 50 years on

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Following the 2015 Kirwan Memorial Lecture delivered by Dr Krzysztof Grzymalski (see this volume and also Grzymalski 2010) this further brief article concerning the ARCE excavations at Gebel Adda has been prepared drawing on personal records of one of the participants (RH) and information provided by Horst Jaritz and the late Richard Edlund¹ relating to a range of archaeological material in and around Gebel Adda. This summarises a much more extensive series of notes prepared by the first author (RH) along with drawings and photographs. With the aid of aerial photographs from the collections of George Gerster, a composite map of Gebel Adda and its environs has also been prepared (Figure 1)

hoped that this may be useful for those working with the various published reports which lack supporting mapping/plans.

Beyond the hilltop settlement and its associated cemeteries a number of other archaeological locations are of interest. At the southern edge of the concession was a very striking sandstone ridge. This hill is most commonly identified as ‘Gebel es-Shams’, the Arabic rendering of its Nubian (Nobiin) name *Mashinkid*, which appears in several 19th century sources, if also applied to the hilltop settlement of Gebel Adda e.g. *Mashakit*, *Mashakeit*, *Massakeet*, *Maschiachetta* (Usick 1998, 47-76). Noted in many early accounts, the end of the ridge overlooking the Nile was the site of three shrines (Plate 1) and stele of Paser, Hor and Katha (Porter and Moss 1952, 122-123). Millet suggested that this name should rather have been applied to another hill, a peak with a flat summit ‘a kilometer or so further south’ towards Qustul (Plate 2), on which there was a small group of mainly Meroitic *proscynemes*/graffiti. Falling within the concession of the Oriental Insti-

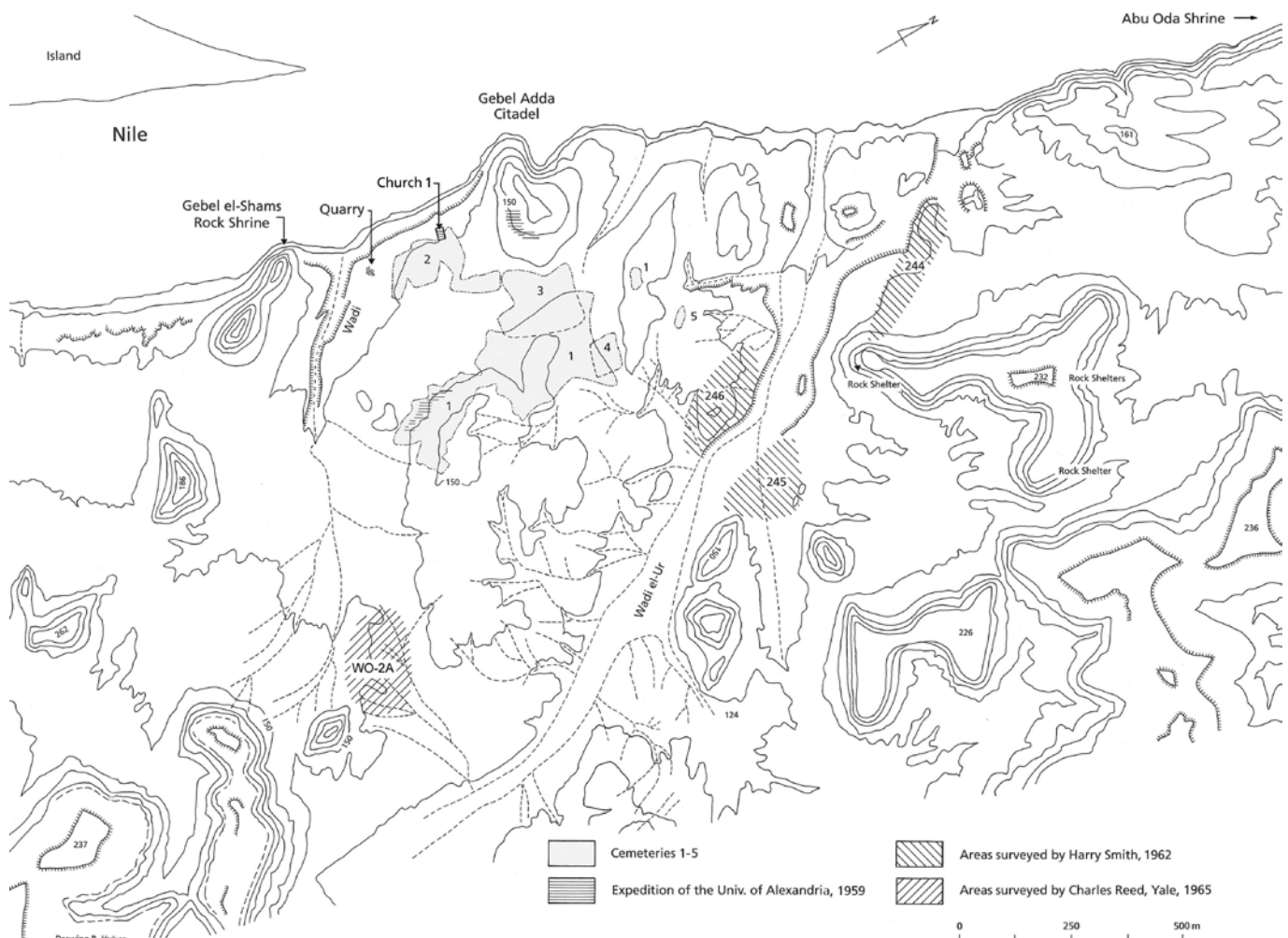


Figure 1. Map of Gebel Adda environs, around settlement and its cemeteries, with associated sites (see also El Amir 1963; Smith 1962; Wendt 1966).

indicating some of the main sites in and around the ARCE concession including the outlines of the main cemeteries. It is

tute's Nubian Expedition (OINE), readings of these graffiti were included by Millet in his PhD dissertation (1968, 381-4).

As noted by Weigall the shrines on the nearer ridge ‘with its curious double peak’ were located not far about high water

¹ Richard Edlund was the expedition photographer and artist.

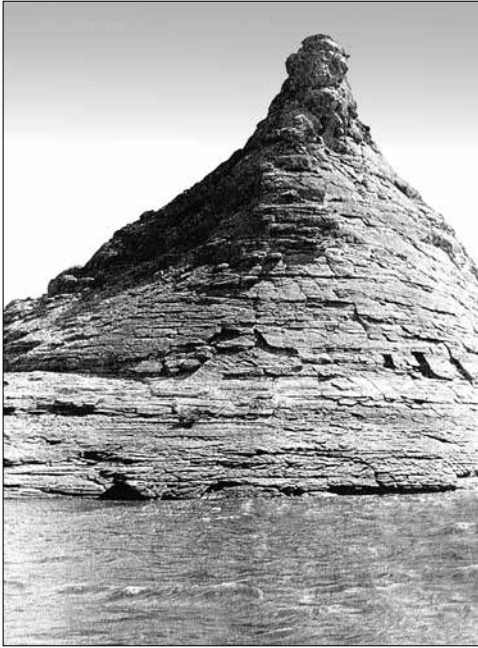


Plate 1. Early 20th century view of 'Gebel es-Shams' from a boat: unknown photographer (collection D. N. Edwards).

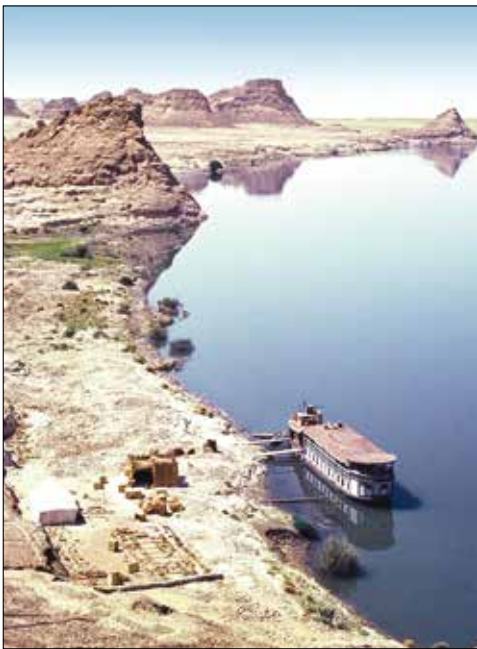


Plate 2. View south towards 'Gebel es-Shams' ridge and hilltop beyond (photo: Reinhard Huber).

level and were not easily accessible (Weigall 1913, 581). Millet recorded an alternative name for this peak that recognized its striking profile: in Nobiin: *Engarwonmule* = "Two brothers mountain" (Millet 1968, 382, n. 1), although his source is not known. Here it may be noted that these features bear comparison with a number of shrines of various kinds, commonly located at prominent riverside locations at several locations in Lower and Middle Nubia, such as on the cliffs below Qasr Ibrim and at Jebel Dosha, between Soleb and Sedeinga.

If the shrine of Paser and other features have long been

known, it seems that this ridge was also the site of some other potentially significant features, if unfortunately ones that were never fully recorded prior to the inundation of this area.² In 1963 Richard Edlund discovered, and drew, what seems to have been a rather remarkable rock drawing depicting a large oared boat with 14 oarsmen plus a steersman. In correspondence with the first author (RH) in July 2014 Edlund recalled that the boat drawing was c. 3m long; apparently with an incised outline, only visible in low raking light (invisible in shade or full sun). Its exact location along the south face of the ridge was unfortunately not recorded but it was located on the exposed rock face some height above the existing upper talus on the higher slopes. In the absence of any other record of this drawing, it is not possible to verify the accuracy of the depiction, but in view of its unusual nature Edlund's drawing is reproduced here (Figure 2). Such a form of boat is certainly unusual although it has some similarity to a rather smaller drawing of an oared boat recorded on the

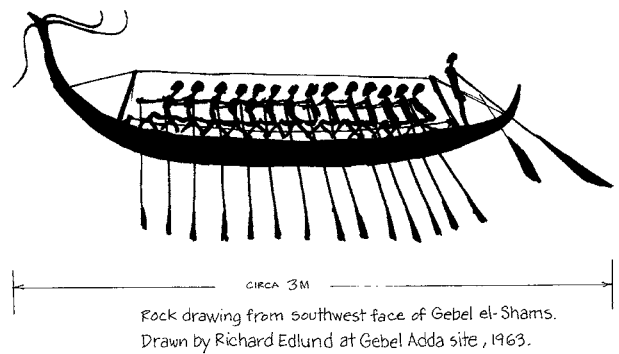


Figure 2. Drawing of a large oared boat on south-west side of 'Gebel es-Shams' ridge (drawing: Richard Edlund, 1963).

Khorr Fomm el-Atmur, c. 5km south south west of Korosko (Suková 2011, 187, pl. 90). The boat drawing appears not to have been the only feature of interest on this ridge. Below the higher southern peak (Plate 3) there also appears to have been a cave, although no further details are known. On the north-eastern side of the ridge the presence of numerous other rock drawings, most located several metres above the desert surface, were also noted (see also Smith 1962, 13). These included drawings of ostrich and boats, as well as camels, of various periods (Plate 4).

In addition to these various features to the south of the settlement, attention may also be drawn to some further peripheral features towards the northern end of the concession. The first of these was a number of Meroitic graffiti located near the mouth of the Wadi el-Ur, briefly recorded (by RH) in January 1966. Their exact location cannot now be identified but these seem likely to have been sited on a small sandstone outcrop on the north side of the *wadi* near its mouth. These were noted by Millet in his PhD, registered as GA6 nos 122-129, with some suggested readings (Millet

² It may be noted that recent satellite imagery indicates that only the highest peak of this ridge has remained above water level; now a small island c. 50m across (22° 16' 56.72" N/31° 36' 18.41" E).



Plate 3. View of the south-west face of 'Gebel es-Shams' ridge, along which the large boat drawing was located (exact position unknown). A cave was noted below the southern peak of the ridge – at right of picture (photo: Reinhard Huber).

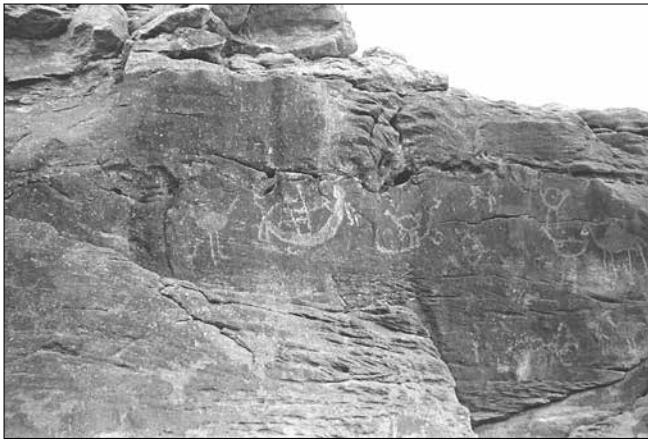


Plate 4. Group of rock drawings from the north side of 'Gebel es-Shams' ridge (photo: Reinhard Huber).

1968, 307-9). The location was referred to as 'Parkhan's Rock', on the basis of a likely personal name (*prhn-qo*) in one of the texts (GA6-2). Two of the graffiti were associated with a number of carved footprints, pointing west, one (GA6-3) within a footprint, while another was carved within an earlier (C-Group?) bovine figure.

One of these, GA6-7 (Millet 1968, 308-9), was photographed by Horst Jaritz, a three-line text on a vertical face (Plate 5). Millet's suggested reading is presented below using current transliteration practice (Rilly and de Voogt 2012, 7). In line 2 the suggested correction/insertion of *we* is apparent (correction to either *snswe* or *smuse*). Attention may also be drawn to the possible presence of a numeral 1 after *penn*, as was also suggested by Millet (1968, 309). While no further signs were noted by Millet or in a rough handcopy (RH's) this photograph does suggest the presence of several further signs. This should be borne in mind in any future consideration of this text. It is also perhaps worth emphasising the significance of these two groups of graffiti on the southern and northern approaches to Gebel Adda, not least as potential indicators that the locale may have had a



Plate 5. Meroitic text (GA6-7) from near the mouth of Wadi el-Ur (photo: Horst Jaritz).

rather longer history as a Meroitic place of significance than Millet believed.

1. *a r o t e n e q o : y d x n o : a n o q o*
2. *y k e n e 6 s n s e w e : p e n n o d t e q q*
3. *b . q o : a s o d e : . . ?*

As noted by Millet, these Meroitic graffiti were added to many other rock drawings of earlier periods. Further additions were clearly made in later periods. A preliminary survey was carried out in the 1963-64 season identifying the location of the main groups (Millet 1964, 11). Systematic recording was scheduled for later seasons but in the event never seems to have been possible. Further photographs, some taken by Horst Jaritz, a member of the 1963-64 team, provide examples of prehistoric drawings commonly on horizontal surfaces (Plates 6 and 7), as well as clearly medieval graffiti, including monograms (Plate 8).



Plate 6. Rock drawings of a gazelle hunt, with human figures (left) (photo: Horst Jaritz).

Rock shelters and a cave site

A little additional information may be provided concerning a number of 'rock shelters' on a desert peak to the north of the Wadi el-Ur, c. 500m from the riverbank; the top of this peak at a height of c. 232m OSL has remained above lake

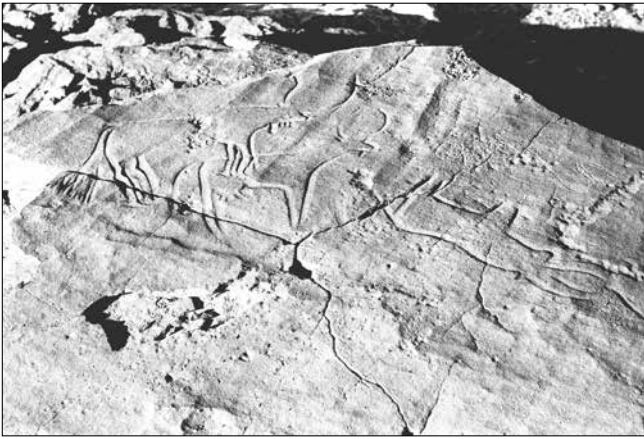


Plate 7. Rock drawings of cattle (left) and uraeus with sun disk (right) (photo: Horst Jaritz).



Plate 8. Medieval rock inscriptions (photo: Horst Jaritz).

level. The presence of 29 rock shelters on this peak, apparently associated with Meroitic/X-Group sherds, was noted by Smith (1962, 18), but these were not further examined. The peak was later revisited by Richard Edlund who found another substantial cave in the cliff face at the southern end of the peak, about half way up the cliff. He also recalled the presence of many 'stone tools' below this side of the peak.

The Quarry

During the 1963 season a quarry area was excavated, mentioned in the first preliminary reports (Millet 1963; 1970, 194-5). This was surveyed and planned by the first author (RH) and it is possible to provide a little more information on the nature of this minor, but potentially significant site within the Gebel Adda concession. This was located just to the north of a *wadi* running down to the river, a little to the north of Gebel el-Shams, close to the edge of the sandstone plateau and the river bank (Figure 1). It lay *c.* 330m from the base of the hill on which the settlement was situated. When planned the quarry had been excavated down to the bedrock, exposing an irregular area of quarrying measuring *c.* 18m (N-S) x *c.* 10m (E-W). Several examples of column

drums and column bases lay abandoned, mainly on the east side of the site (Figure 3). Several of these lay on a loose layer of stone chippings and sandy debris. While some had thin cracks their quality was generally good, but they remained in various stages of completion, several with handling lugs. The size of the drums varied ranging in diameter from 0.8-1m, and standing 500 to 600mm high. Some of the circular slabs were crudely cut and thinner (*c.* 150-250mm thick), most of these with handling lugs. Several other fragments of broken drums were found dumped around the edge of the quarry area (Plates 9 and 10). On some exposed quarrying edges slots for expansion wedges were visible. In the north-east corner a shallow burial, identified as that of a young girl, was latterly



Plate 9. Quarry area with Gebel Adda 'citadel' behind, 1963 (photo: Reinhard Huber).

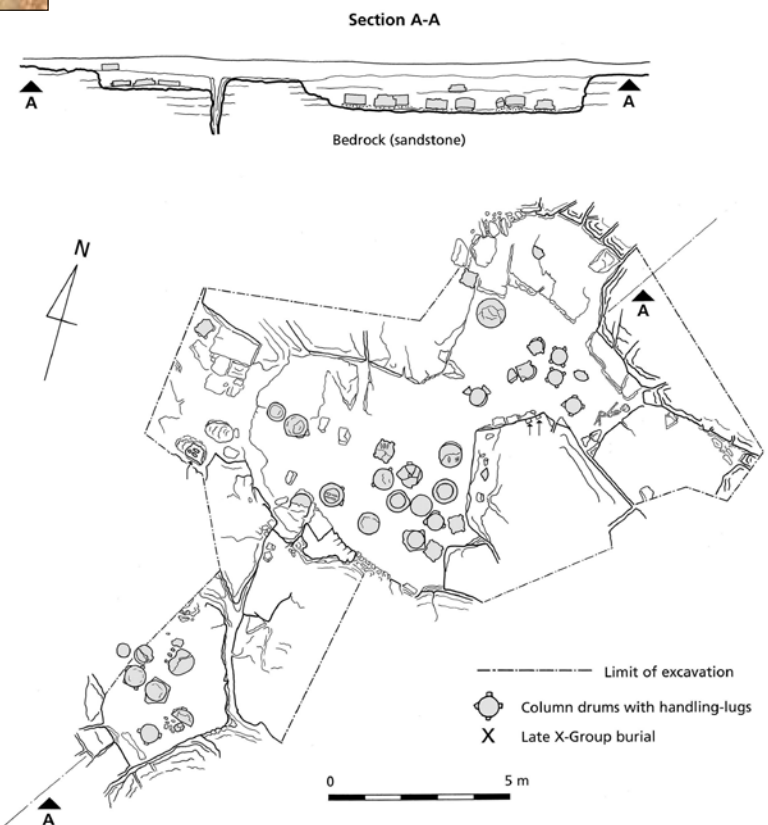


Figure 3. Plan of quarry area with discarded column drum elements in various stages of preparation (drawing: Reinhard Huber).



Plate 10. Detail of discarded column drums in quarry area 1963 (photo: Reinhard Huber).

cut into the infilled quarry pit. No finds were found except a shell bead. This was thought likely to be of 'X-Group' date (Millet 1970, 195), and fragments of 'X-Group' and medieval ('Christian') pottery were found in the quarry infill. On the west side of the area were some carved footprints beside a circular hole (Plate 11).



Plate 11. Carved footprint and circular hole on the west side of the quarry area, 1963 (photo: Reinhard Huber).

While apparently representing a quarrying operation of modest scale, its presence raises some interesting questions. No column drums have been reported as being used in any structures examined within the hilltop settlement. Millet supposed that they had been quarried for use in the Meroitic temple complex but that this part of the construction project had been abandoned (Millet 1968, 50-51). Their planned use in a Meroitic temple is quite possible, and quite similar

column bases and drums were, for example, found within the Meroitic temple complex at Qasr Ibrim (Rose 2007). However, it is perhaps also possible that these could relate to another (possibly pre-Meroitic?) monumental building episode on the hilltop, perhaps associated with what Millet thought was the mud-brick enclosure which underlay the (late Meroitic?) temple.

Gebel Adda – the Settlement

The earliest major structure on the hilltop at Gebel Adda seems to have been a sub-rectangular enclosure sketched by Millet (Millet 1968, fig. 2) occupying the top of the hill, measuring c. 60m square. This underlay the large rectangular platform on which the 'Meroitic' temple had been constructed. Millet's sketch plan remains the only published representation of this element of the site, described as a 'massive mud-brick wall provided with a flanked gate and numerous bastions [that] ran along three sides of the hilltop, leaving the precipitous river side open' (1968, 47). This hilltop enclosure was thought to be associated with another part-excavated feature 'Locus 180', a massive mud-brick tower (the 'River Tower') close to the river bank, and apparently linked to it by a wall running up the hillside. He described the tower as constructed of large thick mud bricks (c. 450mm) combined in courses laid flat as well as on their edges, of a kind difficult to parallel elsewhere in Nubia. The base of the tower on its north and west sides had seen some additions with additional retaining walls of stones set in mud mortar (Millet 1964, 7-8, pl. I,1-2).

It is possible here to provide some more information both on the mud-brick tower/bastion (Locus 180) and nearby medieval buildings (100, 101, 102), the first author (RH) having been involved with their excavation during the 1963-64 season, working with Horst Jaritz. A long test trench (Trench 3) was also excavated down the slope in this area to explore the stratigraphy. On the basis of original field drawings it has been possible to reconstruct plans and sections relating to the two large medieval buildings (100, 101) which dominated this side of the North-West Suburb (Figure 4), as well as the test trench.³ These are, therefore, a valuable record of some of the otherwise largely undocumented medieval buildings of Gebel Adda. These also provide a glimpse of the underlying stratigraphy and some indications of the stratigraphic relationship of a number of potential important different construction episodes on the site, albeit ones whose date and significance may still remain uncertain. It may be reiterated that the study of this part of the settlement was not completed during the second season and it was intended to further explore this area in the third (1964-1965) season. As it transpired, work had only just resumed around the 'River Tower' in late 1964 when the field season was prematurely

³ Note that room numbers on these drawings for House 100 may not match those originally assigned for field recording purposes and so should not be used to locate finds recorded in project archives without further confirmation.



Figure 4. Location plan of medieval buildings (100,101) and the massive mud-brick 'River Tower' (180) added to Gebel Adda's site plan prepared by Peter Mayer in January 1963.

floor level. The walls were mud plastered and the rooms had thick laid mud floors. It has three entrances in its south wall, leading to 11 vaulted chambers, accessed through internal arched doorways (Figure 6). Within what seems likely to have been storage and service rooms an oven had been installed at the east end of Room 8 (blocking the original entrance from Room 7). Above Room 11 a narrow space $\approx 400\text{mm}$ wide extending through the floor above was a chimney/ventilation shaft, suggesting this room might also been used for cooking. One other notable feature was a 'foetal pot burial' buried beneath four threshold slabs at the street entrance into Room 4.

The upper storey of House 100 had thinner walls 500-600mm wide. This seems to have been entered from the south-east side via an external staircase of mud brick surfaced with stone slabs (Plate 12). This floor had a large central room (Plate 13) measuring $\approx 4.7 \times 8.5\text{m}$.

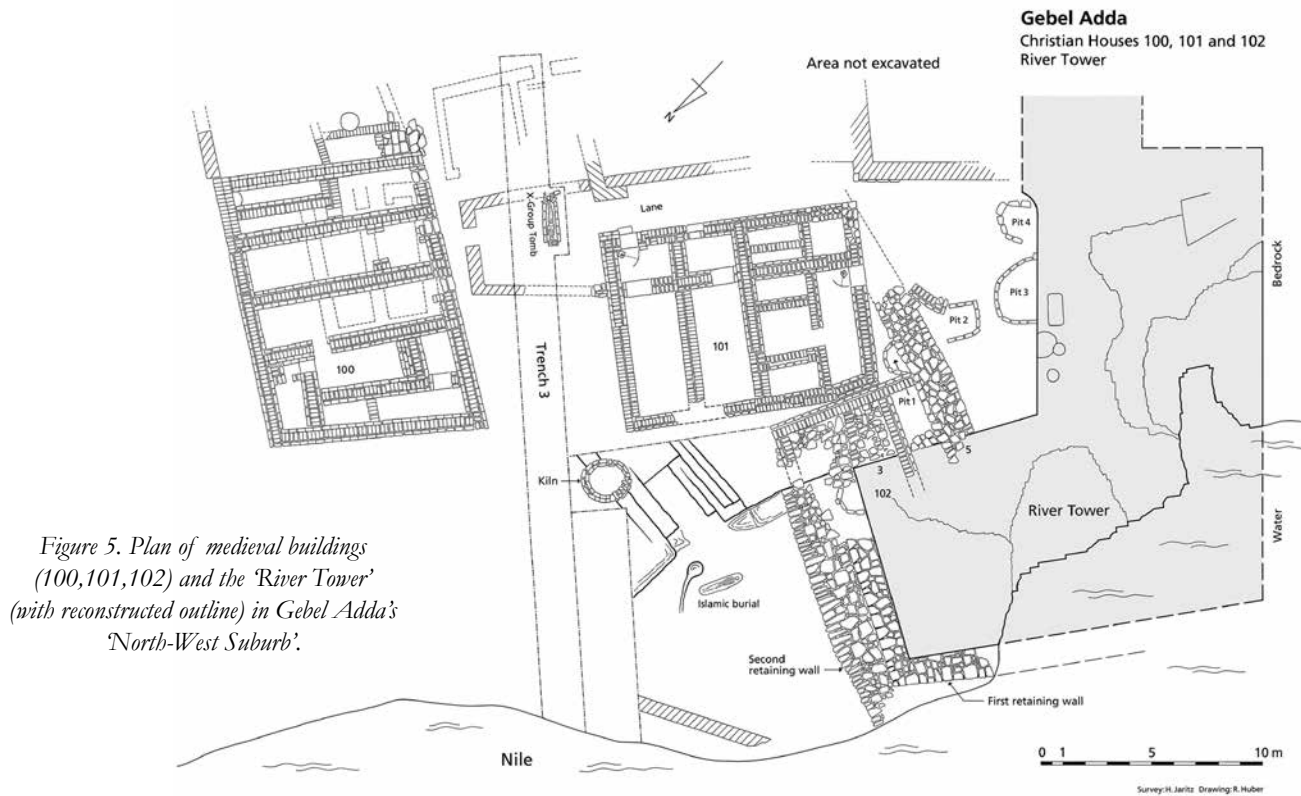


Figure 5. Plan of medieval buildings (100,101,102) and the 'River Tower' (with reconstructed outline) in Gebel Adda's North-West Suburb'.

curtailed causing the transfer of workmen to complete excavations within Cemetery 4.

House 100

House 100 was a two-storeyed structure measuring 12.5 x 9.8m with well-built mud-brick walls 700mm thick at ground

Two sockets set in the centre of the floor were thought likely to have been for timber roof supports. In the south-west corner the 'chimney' walls survived to $\approx 3\text{m}$ above the upper floor level. House 100 overlay an earlier, smaller, probably two-roomed building measuring $\approx 5.7 \times 6.5\text{m}$. This was built on bedrock, but was not further investigated.

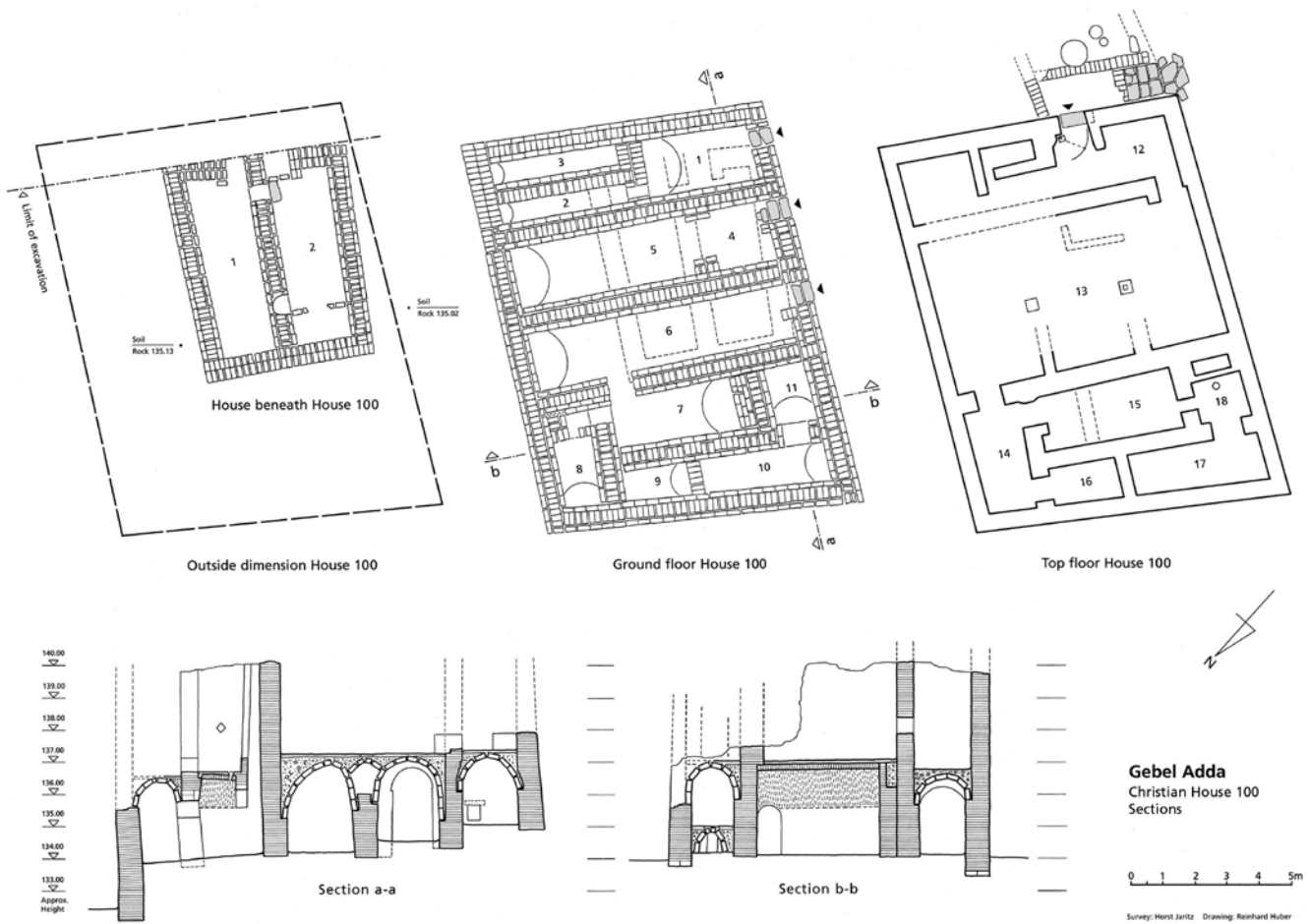


Figure 6. Plan and sections of the ground and first floors of House 100, and the underlying structure (left).



Plate 12. Staircase to the upper floor of House 100 (photo: Horst Jaritz).



Plate 13. Western façade of House 100 with Horst Jaritz in front. Vaulted room 8 visible on left with built-in oven. Trench 3 visible to right and side of House 101 beyond (photo: Reinhard Huber).

House 101

Some 6.5m to the south of House 100 was a second similarly sized building, House 101, of similar construction and orientation (Plate 14). It measured *c.* 11.8 x 8.9m with ground-floor walls 700mm thick. The space between the houses appeared

originally to have been open, also providing access to other structures further up the slope. This space was overbuilt in later periods (post-medieval/Ottoman?) with a number of structures of rough stone and mud-brick construction.

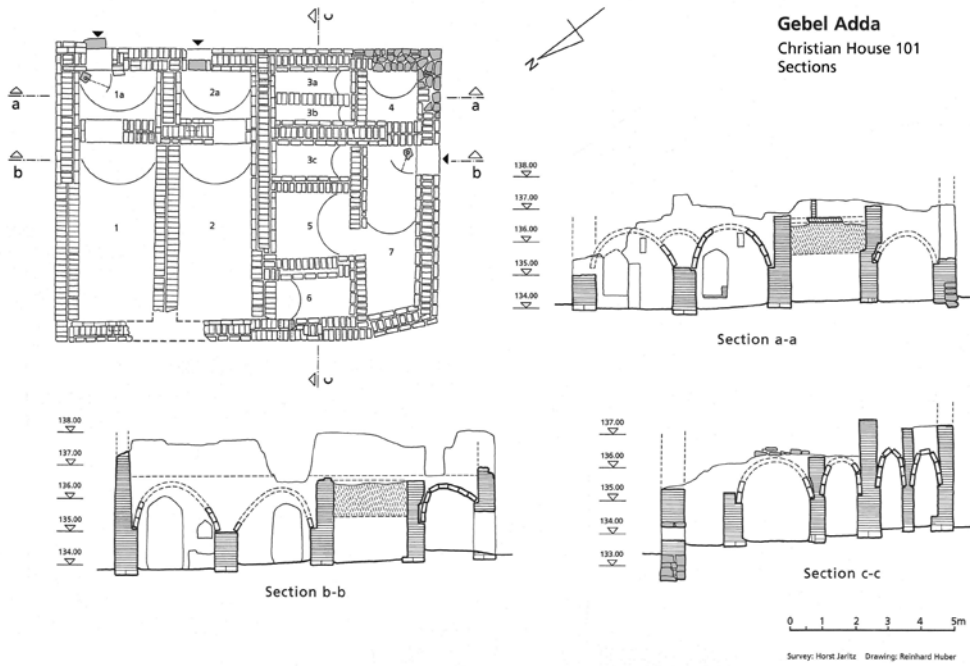


Figure 7. Plan and sections of the ground and first floors of House 101.



Plate 14. View from river of the north-west wall of House 101 (with exposed section below walls), with House 100 to left, and the 'River Tower' on the right. Stones of wall 5 are visible above the 4m ranging pole on the right. By this time raised water levels were eroding the base of the tower (photo: Reinhard Huber).

There was also an open street/lane on the east side of the house. There were further, probably contemporary medieval structures beyond the lane but these were never investigated, due to lack of time.

The ground floor of House 101 was divided into two sections, with 11 vaulted rooms, whose roofing was only partly preserved.⁴ The walls had been mud plastered and the building had laid mud floors throughout. The northern half comprised two large vaulted chambers (1 and 2) entered from the street to the east through separate arched doorways passing

⁴ Room numbers indicated for House 101 should correspond to finds locations recorded for objects and pottery.

through small antechambers (1a and 2a), both with small windows *c.* 1.7m above floor level. In Room 1a a stone door socket was found *in situ*, and there was a stone slab outside the mud threshold. The main chamber (1) had two niches set in its end walls. Room 2a had a stone-slab threshold and a niche facing the entrance. There was also a small opening through the south wall into Room 3a in the southern half of the building.

The southern half of the building seems to have been entered through a doorway in the south wall. It was apparent that its construction had required the dismantling of part of a substantial (*c.* 1.7m thick) stone wall (Figure 5, wall 5) which had run east from the 'River Tower', parts of its lower

levels running beneath the south-east corner of House 101. In places still standing *c.* 1.5m above exposed surface levels, this wall clearly represented an earlier construction built against the still earlier 'River Tower'.⁵ This side of the building was entered though an arched doorway into Room 7, and a stone door socket survived in the floor. The south-west corner was angled to avoid the corner of the (partially preserved) adjoining Building 102, while the room vault was asymmetrical with springers set at very different levels. Room 4 in the south-east corner was entered though an arched doorway, also leading into two small narrow chambers (3a, 3b). An arched doorway linked Rooms 7 and 3c, while Room 6 was accessed from Room 5. It could not be confirmed whether there was any access to the north side of the building into Room 2 from here. Room 6 had a small window in its north-west corner. No other significant internal features were recorded within these rooms to suggest their use. Very little of the second storey of this building survived, with parts of an upper floor preserved above Rooms 3a and 5. One of the Meroitic inscriptions (GA42) was found in the foundations of House 101, below the north wall of Room 1 (Millet 2005, 33; pl. 1-10).

House 102

This was the third, more poorly preserved medieval building in this area. It predated House 101 and it was built against the north face of the stone Wall 5 (Figure 5). Its east wall was 6m long, its north wall overlying and following the line

⁵ An Arabic inscription (Reg.1965/1/90) was recovered from the core of Wall 5 confirming a medieval date for it, although stratigraphically earlier than the (late medieval) buildings 100, 101, 102.

of the 'Second Retaining Wall' which had been built around the mud-brick core of the 'River Tower'. The best preserved part of its wall was preserved to a height of *c.* 4m and showed no evidence for a vaulted roof. The surface of both the 'River Tower' and the stone 'Wall 3' built against it had been cut down to create a flat mud floor for this building. Field notes (of RH) also record that parts of a Meroitic ba-statue as well as a Coptic inscription were found in the rubble above the mud floor of this building. Varied sizes of bricks were used in the construction of this house included large bricks (420 x 190 x 100mm, 420 x 220 x 70mm) probably reused from the fabric of the 'River Tower', as well as smaller bricks of varying sizes (390 x 190 x 90mm, 350 x 150 x 100mm). The bricks of the other (later) houses were of one standard size measuring *c.* 350 x 150 x 100mm.

As noted above, several sections were recorded across this area (Figures 8-13), including that along the exploratory Trench 3 and these provide some valuable insights into the overall development of this area of the site, if leaving several issues unresolved. The Trench 3 section (Figure 9, section f-f) illustrates the general character of the stratigraphy in this area. It also shows the stratigraphic position of what was identified as an 'early X-Group' burial (Plate 15), which lay at a similar depth to a second burial seen in the north-south section (Figure 13, section e-e) *c.* 7m to the south. This suggests relatively limited accumulations in this area prior to the early medieval period. In the absence of further information the significance of these burials remains unclear but their presence here on the hillside rather than

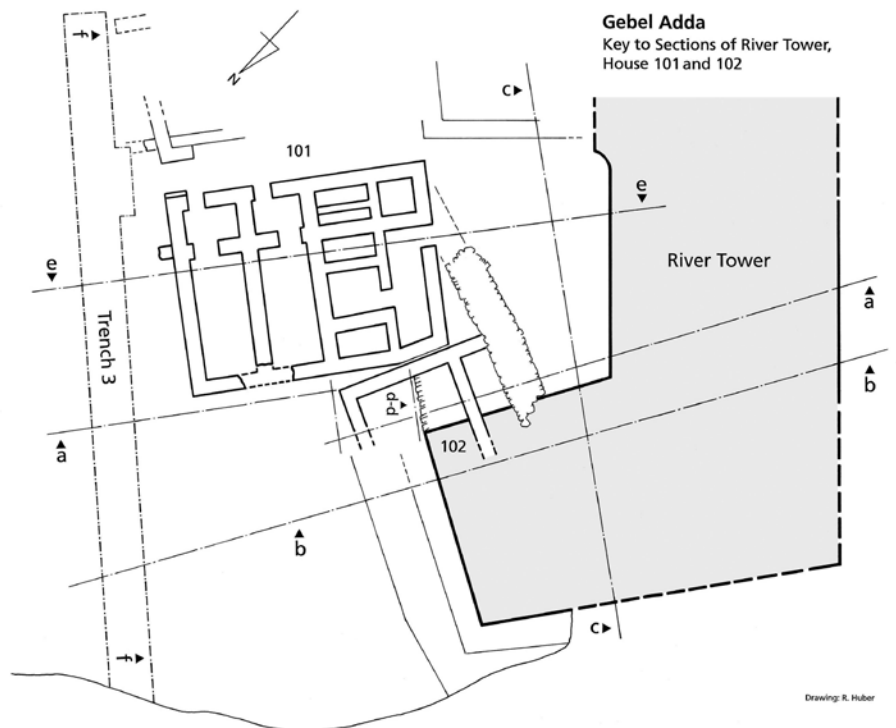


Figure 8. Key to sections recorded in the area of medieval buildings (100, 101, 102) and the 'River Tower' in Gebel Adda's 'North-West Suburb'. [Section c-c not included here].

within the large cemeteries in the plain below the hilltop should be noted.

The 'River Tower'

Around the base of the 'River Tower' excavations did manage to reach bedrock, exposing the base of this massive structure and two additional stone retaining walls built around its base. As noted above the tower was constructed of bricks measuring *c.* 420 x 190 x 100mm. Within the tower's core the brickwork was quite irregular with bricks laid both horizontally and vertically, and often with significant voids and gaps. Other examples of such large bricks has yet to be identified in the region and these would seem to differ markedly from types commonly encountered in constructions of the second and first millennia BC, including those at Dorginarti (Heidorn 2013) at the Second Cataract. As such the form of construction provides no further clues as to the likely date of the tower. The external faces which all seem likely to have been sloping/battered, were more regularly constructed. No traces of mud plastering were recorded. By the start of the third season parts of the western and southern faces of the tower had begun to collapse, and it may be noted that in some photographs of the tower, in various stages of collapse, there is an impression that it may have had a rounded form. This was however, not borne out by excavations and clearance around its base, which served to confirm that it was rather larger than first supposed and was indeed rectangular. (Plates 16-19).

Running up to the north side of the tower the rock had been quarried out creating a series of steps leading up the hillside, leaving quite distinctive diagonal tooling marks on



Plate 15. Extended burial with brick covering, thought to be of 'early X-Group' date, at the base of Trench 3 (photo: Richard Edlund).

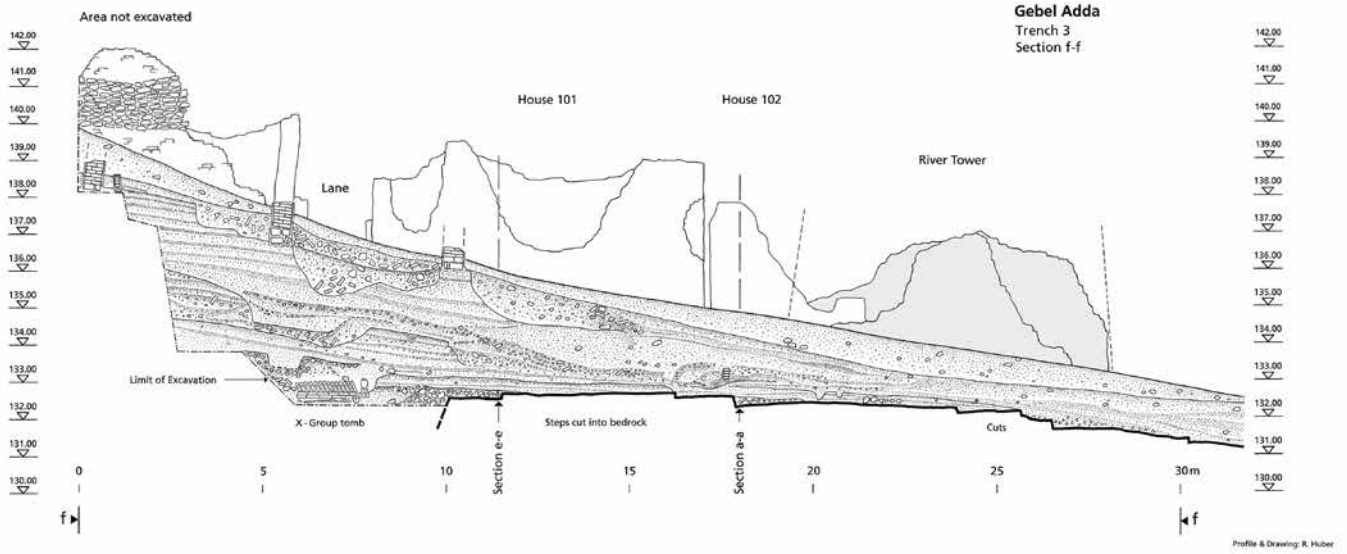


Figure 9. Section f-f with a profile of the long Trench 3.

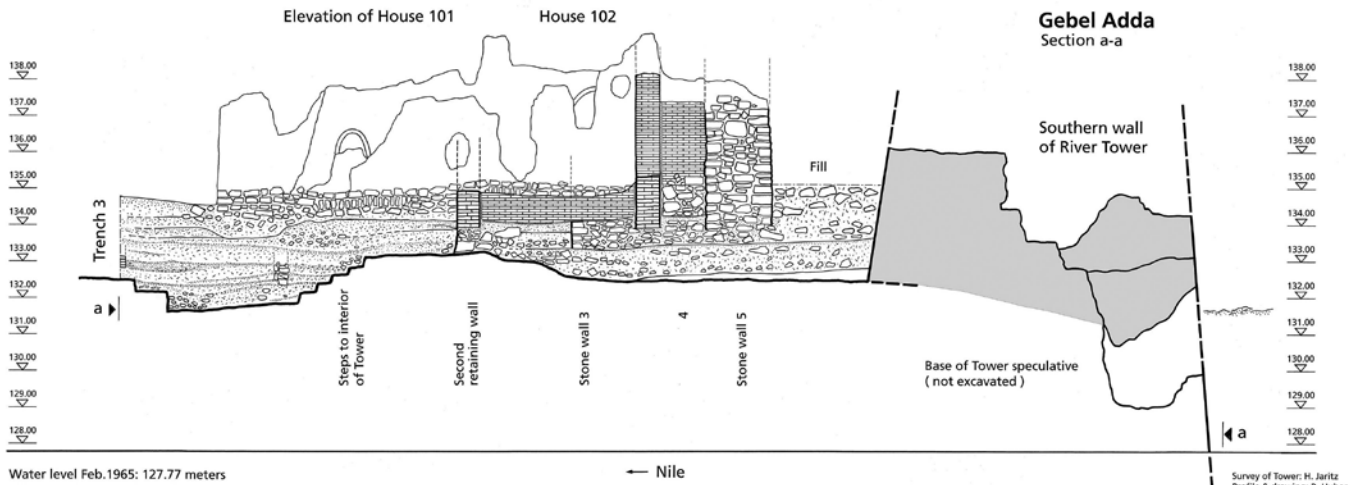


Figure 10. Section a-a, running below Houses 101 and 102.

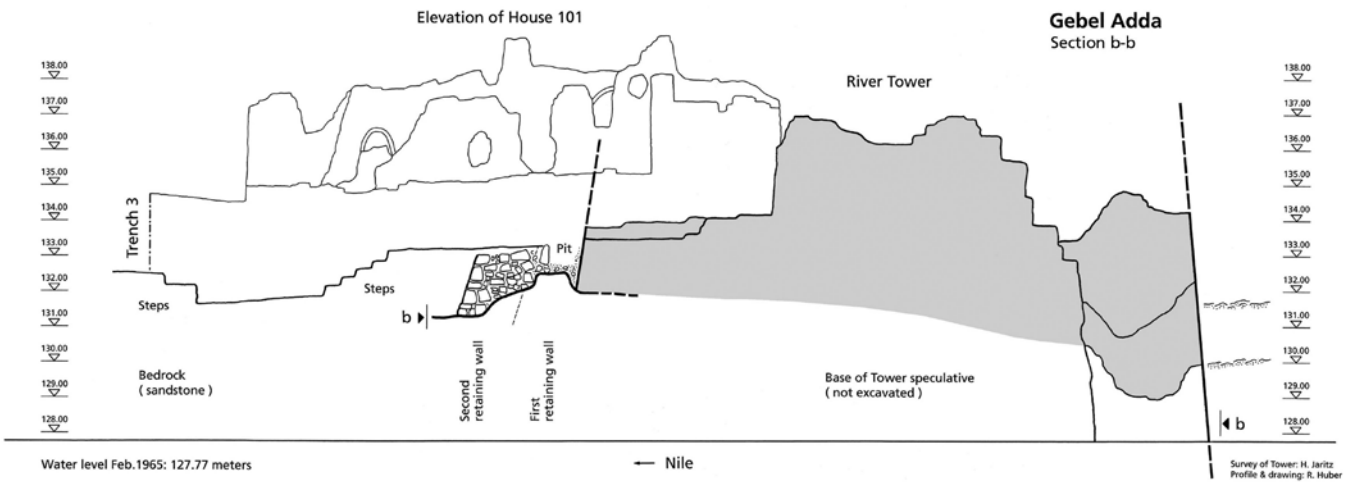


Figure 11. Section b-b showing retaining walls against the River Tower.

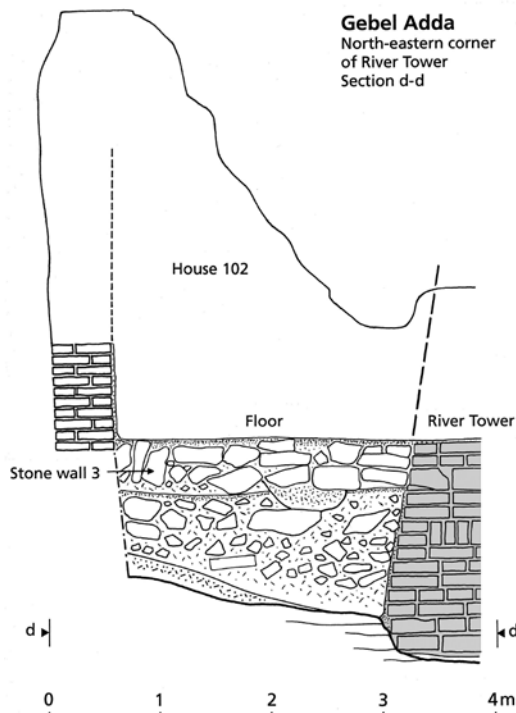


Figure 12. Section d-d showing the floor level of House 102 overlying the River Tower.

the exposed rock. That these steps relate to an entrance to the site from this area is supported by an observation made during the last days of the excavation of an additional wall, constructed with the same bricks as the tower, aligned with the north face of the tower, creating an entrance at this point, with an opening *c.* 3m wide (Plate 16). Its suggested form may be reconstructed (Figure 14), although it was not possible to establish how such an entrance may have been linked to the hilltop enclosure it was assumed to be associated with. Unfortunately not recorded in the section drawn through this area (Figure 10), it is possible that the later stone wall 3 was blocking off this entrance, at a slightly higher level. A number of other features were also noted cut into the bedrock near the base of the tower, including a possible Islamic period burial and the lower part of a pottery kiln (Plate 17).



Plate 16. Entrance to the River Tower with the main body of the tower on the right and a small section of brick wall exposed on the left (photo: Reinhard Huber).



Plate 17. Brick pottery kiln ('early X-Group?') in the excavated area just to the north of House 101; possibly associated with a small mud-brick wall recorded at the north end of section a-a (see Figure 10) and in section f-f (Figure 9) (photo: Reinhard Huber).

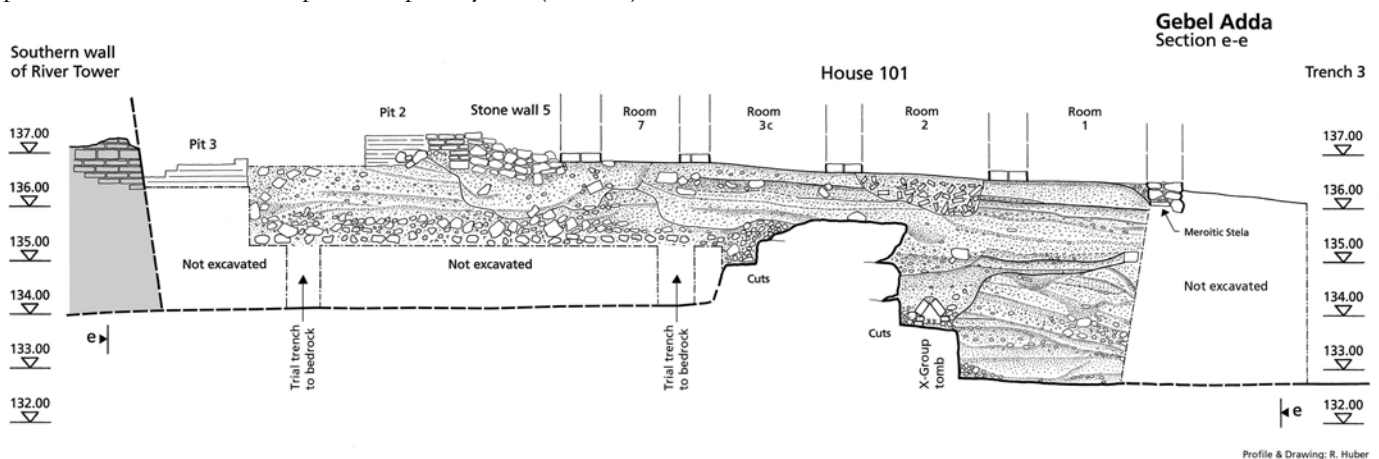


Figure 13. Section e-e below House 101 with soundings to expose the bedrock. The second 'X-Group' burial exposed (below Room 2) and the location of the Meroitic stela in the wall foundations (Room 1) are indicated.

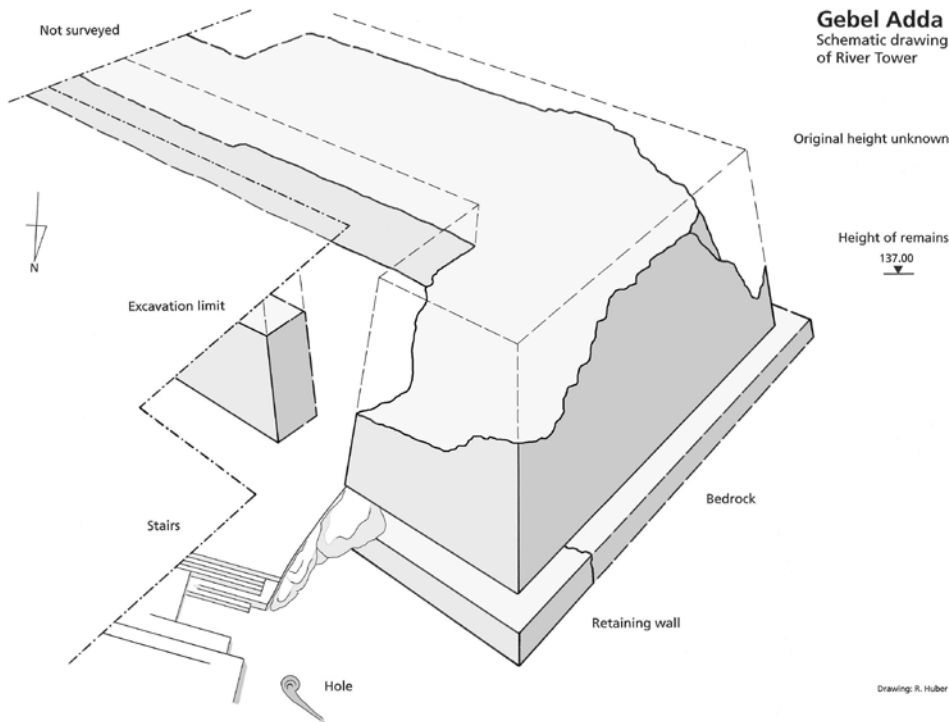


Figure 14. Schematic reconstruction of the River Tower and entrance, with the addition of the first retaining wall.

limited excavations within the settlement. The later experience of excavators at Qasr Ibrim (Rose 2011) have made clear the huge challenges and difficulties in unravelling what may have been extended histories with multiple phases of occupation, some of which may prove very elusive notwithstanding decades of fieldwork. It is hoped that this summary based on personal experience and notes (of RH) may prove useful in throwing further light on some less well-known aspects of the 1960s fieldwork at Gebel Adda and be of assistance to future researchers working with the project archives.

Acknowledgements

We would like to acknowledge the assistance and extend thanks to Horst Jaritz and the late Richard Edlund for sharing information, memories and photographs of Gebel Adda. Thanks also to George Gerster for permission to publish his remarkable aerial photograph over Gebel Adda (Plate 20), and Derek Welsby for useful suggestions.

Drawing: R. Huber



Plate 18. Stone stairs giving access to the River Tower entrance with a second retaining wall visible. Brickwork of the tower's core is visible, and the section below House 101 (photo: Reinhard Huber).

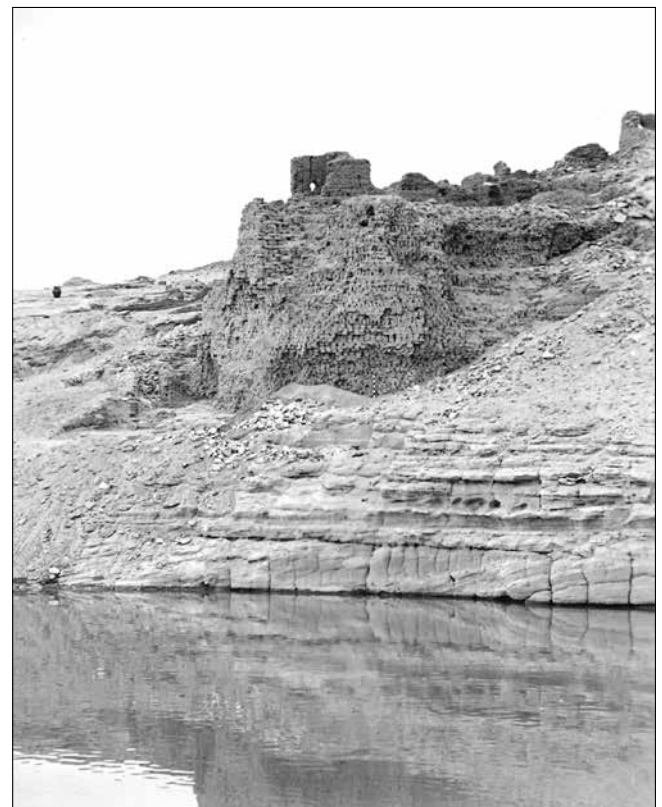


Plate 19. View of the River Tower in spring 1963 from the south west, showing large areas of collapse and variable brickwork of the tower's core; with lower water levels (photo: Richard Edlund).

In the area of the kiln deposits of fired and unfired sherds (identified as 'early X-Group') were found.

While it is not possible to propose a more conclusive account of the River Tower, it seems clear that this was an early feature, and one much eroded and decayed by the medieval period when House 102 was constructed over its ruined remains (Plate 17). The unusual nature of the brickwork, for which no parallels have yet been found within Nubia, presents a puzzle. While Millet seemed reasonably convinced that the main period of occupation began in the late Meroitic period, there is certainly reason to suspect that there was some earlier activity on the site, if never really defined in the relatively



Plate 20. Aerial photograph over Gebel Adda and cemeteries 1965 (photo: © George Gerster).

Bibliography

- El Amir, M. 1963. 'Fouilles de l'Universite d'Alexandrie a Gebel Adda (1959)', *Fouilles en Nubie (1959-61)*. Cairo, 35-68.
- Grzymalski, K. 2010. 'Gebel Adda revisited', in W. Godlewski and A. Łajtar (eds), *Between the Cataracts (part 2:1)*. Warsaw, 25-30.
- Heidorn, L. 2013. 'Fortress at the Mouth of the Rapids', in F. Jesse and C. Vogel (eds), *The Power of Walls – Fortifications in Ancient Northeastern Africa*. Cologne, 293-307.
- Millet, N. B. 1963. 'Gebel Adda: Preliminary Report for 1963', *Journal of the American Research Center in Egypt* 2, 147-165.
- Millet, N. B. 1964. 'Gebel Adda Expedition Preliminary Report, 1963-1964', *Journal of the American Research Center in Egypt* 3, 7-14.
- Millet, N. B. 1968. *Meroitic Nubia*. Ph.D. thesis. Yale University. Ann Arbor: University Microfilms.
- Millet, N. B. 1969. 'The Gebel Adda Archaeological Project, Nubia, 1963-1965', *National Geographic Research Reports 1964*, 153-159.
- Millet, N. B. 1970. 'The Gebel Adda Project, Nubia, 1962', *National Geographic Research Reports 1961-1962*, 191-200.
- Millet, N. B. 2005. 'The Meroitic Inscriptions from Gebel Adda', *Journal of the Society for the Study of Egyptian Antiquities* 32, 1-65.
- Porter, B. and R. L. B. Moss, 1952. *Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings, VII. Nubia, The Deserts and Outside Egypt*. Oxford.
- Rilly, C. and A. de Voigt 2012. *The Meroitic Language and Writing System*. Cambridge.
- Rose, P. J. 2007. *The Meroitic Temple Complex at Qasr Ibrim*. London.
- Rose, P. J. 2011. 'Qasr Ibrim: The last 3000 years', *Sudan & Nubia* 15, 3-12.
- Smith, H. S. 1962. *Preliminary Report of the Egypt Exploration Society's Nubian Survey*. Cairo.
- Suková, L. 2011. *The Rock Art of Lower Nubia (Czechoslovak Concession)*. Prague.
- Usick, P. 1998. *William John Banke's collection of drawings and manuscripts relating to Ancient Nubia*. PhD. thesis, University of London. <http://discovery.ucl.ac.uk/id/eprint/1317809>
- Weigall, A. E. P. 1913. *A Guide to the Antiquities of Upper Egypt*. (2nd edition) London.
- Wendt, W. E. 1966. 'Two Prehistoric Archeological Sites in Egyptian Nubia', *Postilla* 102, 1-46.