

STORMING THE GATES? ENTRANCE PROTECTION IN THE MILITARY ARCHITECTURE OF MIDDLE KINGDOM NUBIA

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I. INTRODUCTION¹

Gates are the most vulnerable feature within a fortification as they weaken the wall by an artificial gap.² To overcome this problem, military architects of all ages and cultures developed elaborate gateway solutions to guarantee the entrance protection.

This paper focuses on the fortresses of Middle Kingdom Nubia where two main gate types are testified in various sub-groups:

Huge and highly fortified gates facing the desert, serving as the main entrance, as well as smaller and less fortified river side gates ensuring reliable supplies of drinking water.

Based on the archaeological evidence between the First and Second Nile Cataract the gates will be shown in the light of their corresponding and deviating patterns.

2. FORM AND FUNCTION OF GATES IN MILITARY ARCHITECTURE

In one of his recent articles on prehistoric gates – in the context of fortified enclosures – Michael Kunst stated seven types adhering to different principles.³ All of them are of general nature, and might even be stressed for fortress gates in Middle Kingdom Nubia as well.

I. The closure-principle

An entrance is closed by a door. Since doors are manoeuvrable, the entrance is less stable than the wall and can be easily stormed.

II. Principle of narrowness

The entrance should be as narrow as possible, to prevent crowds of people getting in simultaneously. This idea is one of the oldest.⁴ For wider gates, you will need additional defense capability.

III. Deceleration principle

A passageway extends the entrance. The effect is, complemented by the principle of narrowness, that the first intruders will be an obstacle to the following, thus delaying the attacker.

IV. Safeguard from the top-principle

A second floor is built behind the wall, and above the passageway. The roof is pierced with holes through which stones, arrows, or hot liquids will be thrown or poured at unwelcomed intruders. One might find this idea of defence in the well preserved fortified medieval harbour-town of Aigues Mortes in Southern France.⁵ The example given here shows the Porte de la Marine (Fig. 1).

V. Principle of safeguard from the flank, likewise: from outside

The entrance is flanked by one or two bastions or towers protruding from the curtain wall (Fig. 2).⁶

VI. Principle of additional obstacles

- a) The side walls of the passageway had one or even more niches, or small chambers for guards.

¹ I owe deep debt to Dr Katja Lehmann, Chicaco, for proof reading earlier versions of this text. Her valuable advice was – as always – highly welcome.

² As Christopher Duffy, one of the most famous military historians of our days, pointed out correctly: „The individual works of a fortress might be ever so fine, but all the skill of the engineer would go for nothing if (as sometimes happened) he forgot to provide adequate means of getting men, artillery and materials to the fortifications and back again.“ DUFFY 1975: 72–73.

³ KUNST 2006: esp. 61f.

⁴ As one might imagine this type was usually intended to

serve as a postern gate since its narrow passage was as inconvenient to the enemy's as to the garrison's needs. For types of postern gates in Nubia see below. For the phenomenon of narrow gate types as a standard feature in the Early Bronze Age, see HELMS 1975: 134, and HERZOG 1986: 158.

⁵ Built by Saint Louis (Louis IX). From here the royal fleet started the 7th crusade in 1248.

⁶ As will be discussed below, this gate type was the most common one used for the main entrance in Middle Kingdom fortresses, see 3.2.



Fig. 1 Aigues Mortes, Southern France: Porte de la Marine (© Andreas Vogel)



Fig. 2 Safeguard from the flank, Askut (after SMITH 1991: pl. XXXIX)

- b) The passageway describes sharp turns, resulting in a time delay and allowing additional room for possible obstacles.⁷
- c) Pitfalls handicap the attacker in front of, within or behind the passageway.
- d) Ditches in front of the ramparts and gates provide additional protection.⁸

VII. Principle of intimidation

At first sight, this principle might be of less military importance, but appeals to the basic instincts of mankind. Gates, especially gatehouses, offered a unique opportunity to display the sovereign's power. Their size and design should intimidate the approaching enemy.⁹

⁷ An early example of this type is attested for Mersin XIV (Anatolia, ca. 3500 BC), see HERZOG 1986: 6–7, incl. fig. 6.

⁸ This feature is known from all Middle Kingdom fortresses which were situated in the Nubian Nile valley. For fortresses located on an isolated bed rock an additional ditch was not considered to be an essential obstacle, thus none is attested (e. g. Askut, Shalfak, Uronarti). A first approach to the significance of moats in the Ancient Near East is given by the dissertation of Dag Oredsson (OREDSSON 2000).

⁹ As will be discussed below, there is only poor evidence of the original mud-brick superstructure of Middle Kingdom fortress gates as well as their individual decoration. However, even without knowledge of their former design one can easily detect their intimidation by sheer size. Compare especially the elaborate main gates of Buhen and Mirgissa (3.2). Later examples like the stone lined gates from ancient Joppa

(Jaffa), the main entrance at Zawiyet Umm el-Rakham, or the recently discovered gate area at Tell el-Borg bearing the name and titles of Ramesses II show that the decoration of the door lintels with the imperial signature was a common feature in the military architecture of the New Kingdom. (For Jaffa, see MORRIS 2005: 570–572, and www.tau.ac.il/humanities/archaeology/projects/proj_jaffa.html; for Zawiyet Umm el-Rakham, see SNAPE 2004: 150, 156 and fig. 8; for doorjambs of a gate belonging to Amenhotep II found reused on the bottom of the moat of the Ramesside fort at Tell el Borg, see HOFFMEIER and BULL 2005: esp. 80.; for the gate of the Ramesside fort at Tell el Borg, see HOFFMEIER 2009). For the tradition to design names for temple gates and doors see GROTHOFF 1996. For examples in non-military context see BUDKA 2001. A convincing approach to the mechanism of representation and propaganda in the context of city

3. ENTRANCE SOLUTIONS IN THE MILITARY ARCHITECTURE OF MIDDLE KINGDOM NUBIA

3.1 The building phases of Nubian fortresses in the 12th dynasty

Before we have a closer look at the solutions Egyptian military engineers found in Middle Kingdom Nubia, I will provide a short outline on the two main building phases of fortresses during the 12th dynasty (Fig. 3).

During the reign of Senusret I, Egypt realised that it would be necessary to build permanent fortifications to ensure a lasting control over Lower Nubia. Out of all archaeological remains only Buhen can be dated back safely to the early years of this king.¹⁰ Structural parallels at phase I of Aniba, Quban and Ikkur make it possible to attribute their construction into his reign too.¹¹

All these fortifications situated on the Nile bank showed a rectangular layout. Their ramparts were surrounded by wide ditches, which were protected by separate walls that ran parallel to the curtain. Those ditch-defences were further strengthened with semi-circular bastions¹² that protruded into the ditch in the style of a modern caponier. Similar to these structures within early modern times fortifications, the ditch-defences were not visible to an attacker unless he had reached the top of the glacis.

The double rows of loopholes¹³ would have been an unpleasant surprise for every aggressor who came that close. A small wall on top of the glacis served as the outermost element of these highly elaborate structures for staggered defence.

During the reign of Senusret III the existing fortifications have been upgraded intensively. Especially in the vicinity of the 2nd cataract several new fortresses were built: Semna-South, Semna-West, Kumma, Uronarti, Shalfak, Askut, and Serra-East can be traced back to his reign. The reason for this intensified military commitment has to be seen in the increasing pressure from Kerma. This Kingdom, located at the 3rd cataract, developed into an equal opponent. Therefore the goal was no longer restricted to secure trading

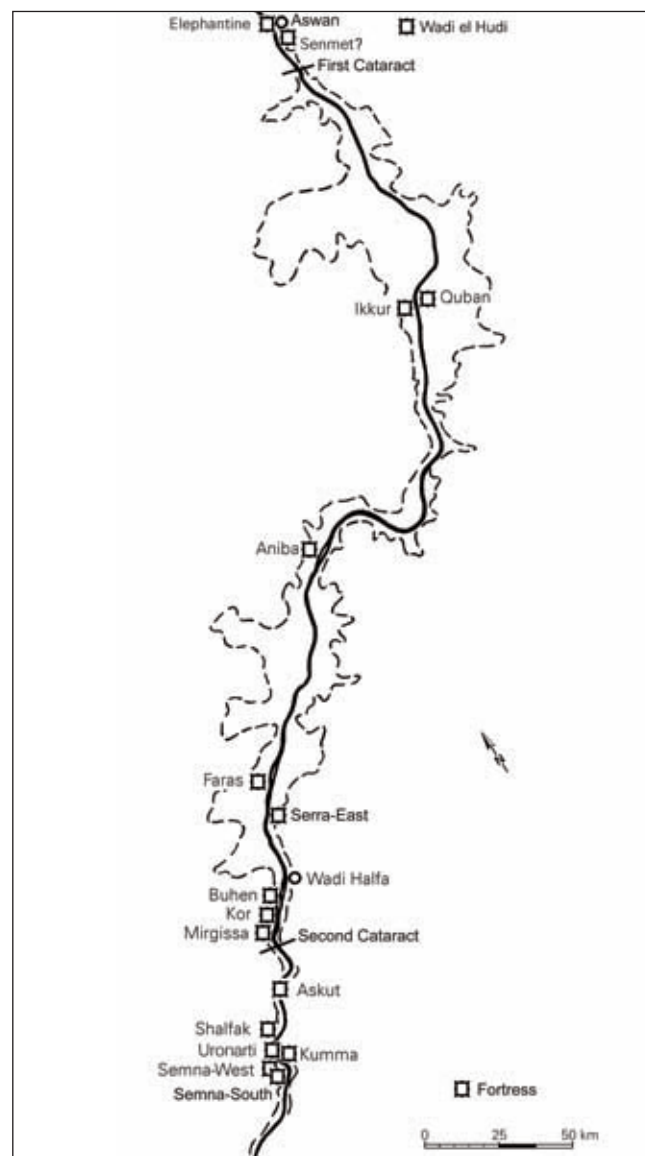


Fig. 3 The Chain of Nubian fortresses in the time of Senusret III (after VOGEL 2004: fig. 10)

routes and the goods movement within the C-Group territory, especially at the crossroads leading to the goldmines, but also to build a staggered defence system against the rulers of Kerma.¹⁴ Because of this

gates architecture in the Renaissance offers SCHWEIZER 2002. For Islamic examples of figural propaganda on city gates in Anatolia and Northern Mesopotamia compare GIERLICH 2006. Geis 2007: 21–24 deals with the apotropaic character of decoration on Greek city gates. A rare example of propaganda displayed at an Egyptian city gate is known from the fortified town of Amara. Here the inner northern and the southern walls of the passage of the west gate were used for representations of the naturally successful Nubian campaign of Ramesses II (HEINZ 2001: 257–260 = IV.1, IV.2).

¹⁰ SMITH 1976: 13f.

¹¹ VOGEL 2004: 67f.

¹² For the distinction between bastion and tower, see RUMPP 2006: 16, footnote 76.

¹³ For the construction of loopholes in mud brick architecture, see KEMP 2000: 90.

¹⁴ An overview on the recent research in Kerma offers BONNET 2004.

buffer zone it became possible to protect the traditional Southern Egyptian border – the region at the 1st cataract.

3.2 The highly fortified main entrance, postern gates, water/river gates

Main gate/s

The main entrance of a Nubian Fortress has always been a huge weak spot within the defence, which sometimes developed into the strongest part of a fortifications perimeter. The elaborate gatehouse designs might be compared in strength to the Donjons of medieval castles. The latter were strong enough to endure independently when everything else had collapsed.

Usually the construction was supported by a pair of large flanking horseshoe-shaped bastions¹⁵ or rectangular towers¹⁶ protruding forward from the line of the curtain wall, while two smaller flanking towers could stretch into the inner ward. Examples like Mirgissa¹⁷ show that even the road leading to the main entrance might have been kept under surveillance by a protective wall.

The gatehouse itself might have been supported by a number of other defences. Unfortunately, the state of preservation of the wall superstructure only up to half of its original height does not allow convincing reconstruction attempts. Any proposal regarding the design of the upper parts of the gates has to be judged against this background.¹⁸

Water gates

This type of gate can be observed in every single Nubian fortress. Its existence was essential, thus offer-

ing direct access to a protected stairway which led to the Nile.¹⁹ In terms of defence both, water gate and covered river steps have to be seen as an inseparable unit.

Postern gates

Usually, postern gates were thought to simplify the internal traffic. As will be discussed below, the number of these gates within a fortress correlates with its size, as well as a possible ditch. While smaller fortresses like Uronarti, Shalfak and Askut, which were built uphill and did not have a moat, miss such a feature, their larger counterparts like Buhen possess one as a standard. The main reason for additional, smaller gates in an inner enclosure might be seen in the necessity to offer direct access to the outer defence line.

A few examples described from north to south shall highlight the various gate types attested for Middle Kingdom fortresses in Nubia.

QUBAN, PHASE II (Fig. 4)²⁰

Main entrance

The gate in the centre of the east-wall served as the main entrance to the fortress.²¹ Its original design appears to have been a gate 2,5 m wide flanked by two large semicircular bastions (3,8 m wide and 1,8 m deep) built on the scarp of the moat Fig. 5. The scheme was changed, obviously soon after its execution, in favour of two large towers on each side of the gate, which stretched 14 m across the moat and over the counterscarp. The already existing rock cut moat had to be bridged with a stone foundation to support this construction. A foundation of six large stone blocks could be traced which supported the drawbridge.²²

¹⁵ A more common feature in the first building phase of the early 12th dynasty, compare the change of design at the main gate at Quban, 3.2.

¹⁶ Towers are especially attested for the second building phase of the advanced 12th dynasty.

¹⁷ The construction of this fortress can be dated back to the reign of Senusret II, see AZIM and GRATIEN 2009.

¹⁸ Even Ludwig Borchardt considered the reconstruction a most difficult task. In a letter about the Harvard Expedition at Semna-Kumma to the department of foreign affairs in Berlin, Borchardt already mentioned the reconstruction problem: „Die Ha(r)vard-Grabungen an den nubischen Festungen werden uns endlich gutes Material an die Hand geben, uns vom ägyptischen Festungsbau ein klares Bild zu machen. Dieses Bild wird sich aber nur wirklich klar für die unteren Teile solcher Festungen zeigen. In den oberen wird es, (wie) ich glaube, stets verschlossen bleiben...“ Letter from 10th September 1924, German Archaeological Institute, Archiv. Information kindly provided by Norbert Düring, Berlin.

¹⁹ Military engineers usually tried to avoid the dependence on external water supply especially in case of siege. This explains the tremendous efforts that could be ascertained for underground water systems in Middle Bronze Age towns in ancient Palestine: TSUK 2001. The use of natural water sources allowed towns like Tell Kabri or Tell Dan to stay independently. In Egypt, wells within the walls are frequently attested for New Kingdom fortresses like Zawiyet Umm el-Rakham in the Western delta. However, the Middle Kingdom fortresses in Nubia situated close to the Nile, show only protected water steps, which seemed more reasonable according to their proximity to an unlimited fresh water resource.

²⁰ Due to the poor preservation of the first phase of the fortress, the focus of the following considerations is on the second fort, that was built over the first one. Some remarks on the layout of Quban I can be found in EMERY, KIRWAN 1935: 28.

²¹ EMERY 1931: 71, 73ff.

²² EMERY 1931: 73, 74 fig. 5.

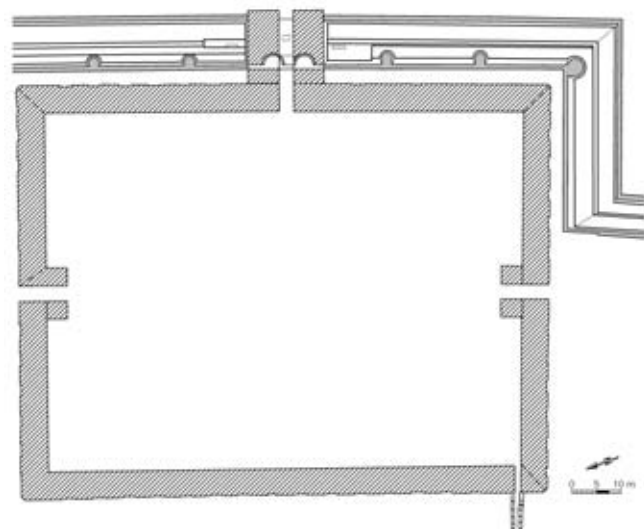


Fig. 4 Quban II, General plan (after EMERY 1931: pl. 2)

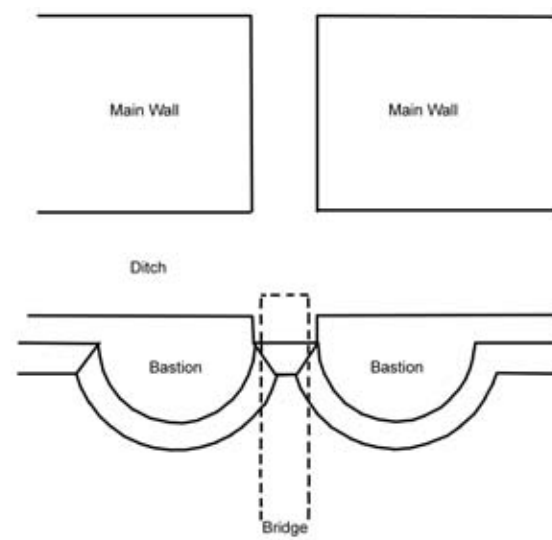


Fig. 5 Quban II, Main Gate, First Phase (after EMERY 1935: fig. 8)

Postern gates

Two additional gates of 3 m width are ascertained for the second phase of fortress (Fig. 4). It is diffi-

cult to determine if their use was restricted to offer access to the outer defence line by the garrison or if they might have been thought for the traffic from outside as well. Both gates were positioned in the



Fig. 6 Quban II, River Gate (after FIRTH 1927: pl. 1c)

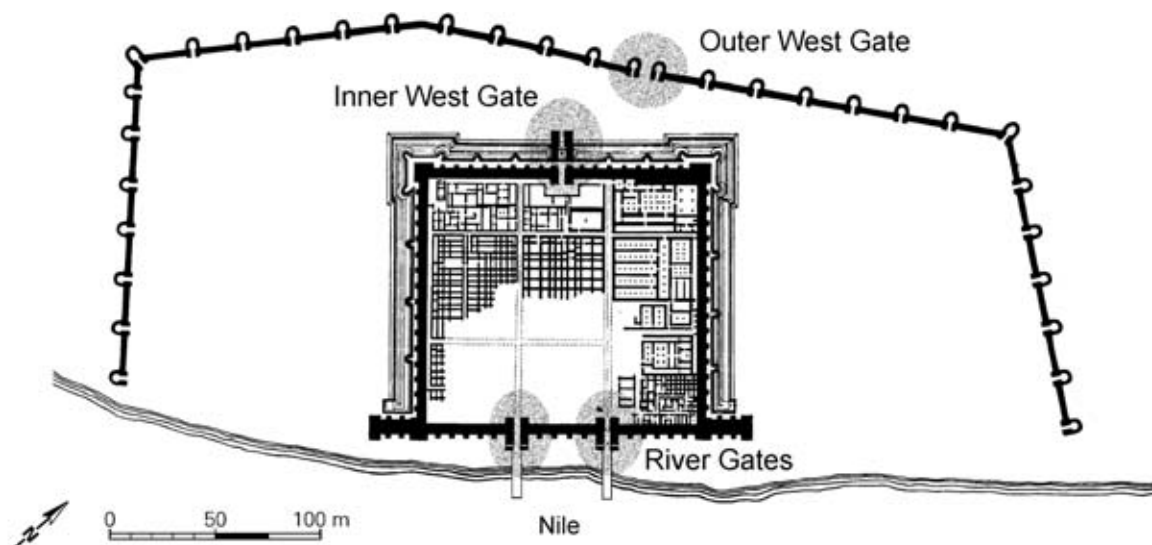


Fig. 7 Buhen, Middle Kingdom I (after Emery. EMERY, SMITH, MILLARD 1979: pl. 2)

centre of the north and south wall, consisting of a passageway of 10 m length, stretching inwards with flanking towers.²³

River gate

At the southern end of the western wall facing the Nile, a narrow passage led to the obligatory water stairs (Fig. 6).²⁴

BUHEN

Unfortunately, we don't have a clear understanding from the original entrance situations, and the building sequences at Buhen. In the final report of the archaeological results of the excavations²⁵ two deviating viewpoints are given for the same findings. We have on one hand the architectural description by W. B. Emery – posthumously published as chapters 1–3²⁶ – and on the other hand there is the archaeological commentary by H.S. Smith (chapters 4–5).²⁷ Thus, the following considerations should be judged against this background.

Main entrances

MK I, Outer defences

During the first phase, one gate, flanked by the semi-circular bastions number 18/19, led through the

Outer Enclosure Wall (Fig. 7). It seems likely, that this structure was built to offer protection during the building period of the inner stronghold.

MK II, Outer defences

The final plan of the outer enclosure at Buhen followed the course of its predecessor, but possessed additional walls along the river front (Fig. 8). As a further obstacle a ditch, 6 m wide and 3 m deep, was cut in the rock running in front of the three inland sides. The ditch could be crossed via a rock-cut causeway to the northwest which gave access to the main entrance of the outer defences. The exact date of this monumental two chamber-gate in the western wall is disputed (Fig. 9a), since it underwent different and complicated alterations. All we know is that it was built directly on top of the first gate. It consisted of a great tower like structure, measuring 47 m in length and 30 m in width, possessing inner and outer buttresses.

Those projections were thought to be towers by many scholars, reaching up to the parapet where they provided a platform to be used by one or two archers (Fig. 9b).

As I pointed out elsewhere,²⁸ I disagree with this reconstruction attempt.

²³ There is a hint of evidence that the original design of the north gate described a sharp turn and was later altered in its final shape. EMERY, KIRWAN 1935: fig. 6.

²⁴ FIRTH 1927: pl. 1b) and 1c).

²⁵ EMERY, SMITH, MILLARD 1979.

²⁶ EMERY, SMITH, MILLARD 1979: 3–17.

²⁷ EMERY, SMITH, MILLARD 1979: 21–89.

²⁸ VOGEL 2004, 120–122, 123 fig. 15; VOGEL 2009b.

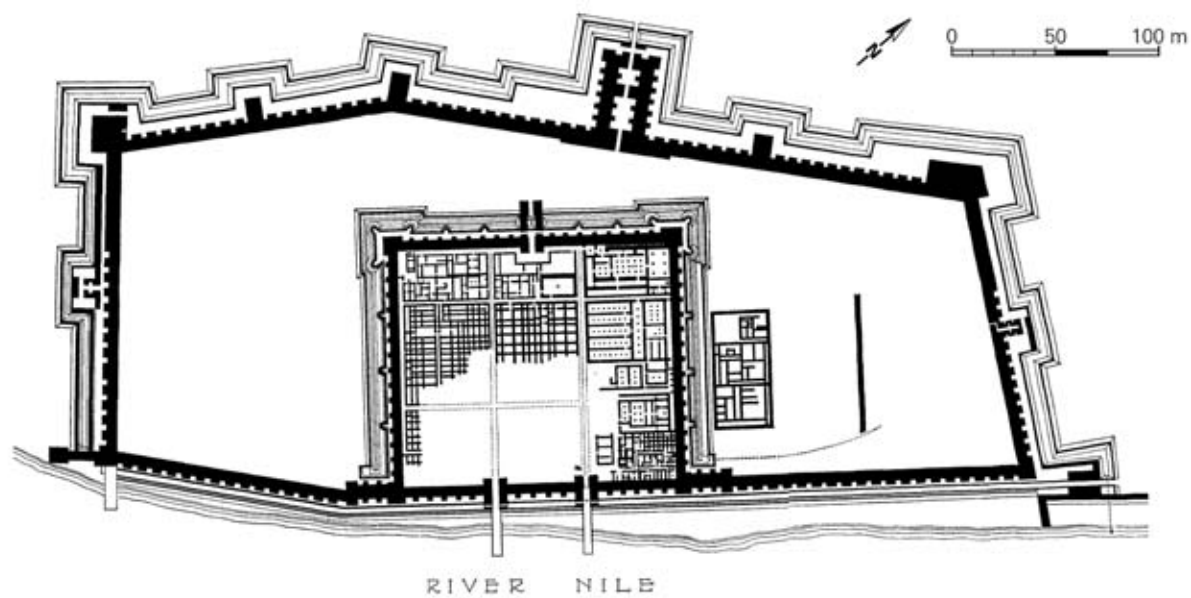


Fig. 8 Buhen, Middle Kingdom II (after Emery. EMERY, SMITH, MILLARD 1979: pl. 3)

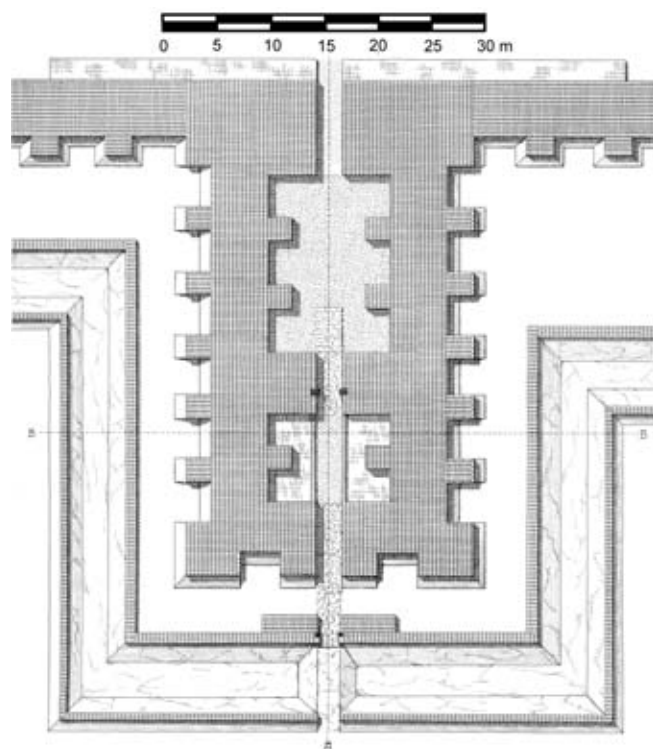


Fig. 9a Buhen, Middle Kingdom II, Outer Defences, West Gate (after EMERY, SMITH, MILLARD 1979: pl. 5)

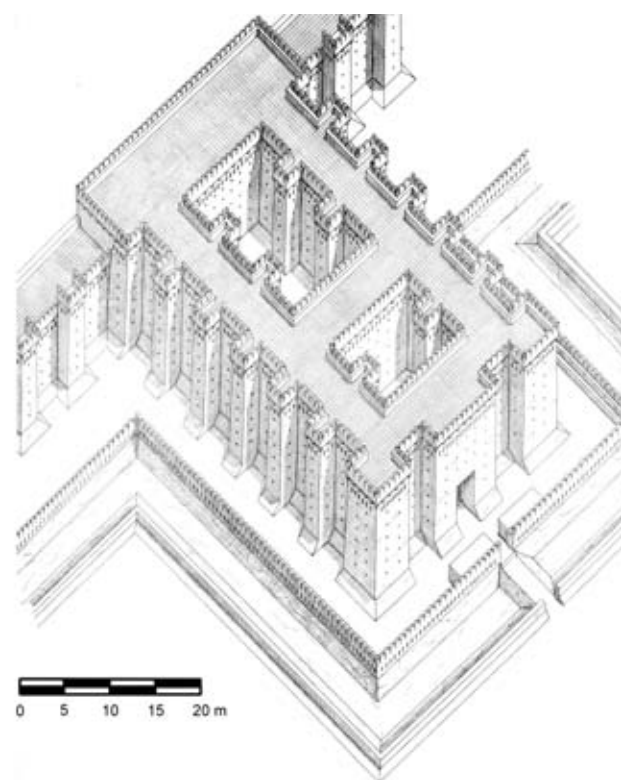


Fig. 9b Buhen, Middle Kingdom II: Reconstruction of the Outer West Gate (after Emery. EMERY, SMITH, MILLARD 1979: pl. 6)

Steady wall protrusions don't need necessarily to be interpreted as towers. In my opinion the fighting platform provided by them would have been too small in most cases to allow room for more than two archers. Weak towers like this could not have been economic as

they did not give much advantage to the defenders. On the contrary, they weaken the defensive front, since they create dead ground on the fortresses most sensitive spot: the wall base. Small bartizans, resting on wooden beams, however, provided additional flanking



Fig. 10 Reconstruction of the fortress of Semna-West (after BORCHARDT 1923: pl. 1)

power for the defenders without the disadvantages of the small towers. Furthermore, they are well known from illustrations. Even Borchardt preferred the idea of balconies in his reconstruction of Semna-West as one might see here (Fig. 10).²⁹

Due to my opinion the frequently appearing small wall protrusions should be interpreted as abutments, which touched the wall at about two thirds of their height, with the purpose of dispersing the force lasting upon the wall.³⁰

MK (I-II), Inner defences

A highly fortified tower like gate situated in the centre of the west wall (between buttresses no. 9 and 8) served as the main entrance to the inner defences (Fig. 11a).³¹ Although its superstructure had been largely destroyed by later alterations, the Middle Kingdom foundations were well enough preserved to give an idea of the general layout.

The complex possessed a direct-axis passage flanked by two rectangular towers aligned parallel to each other. The towers protruded inwards and outwards from the curtain wall. A wooden drawbridge that could be pulled back on rollers led across the dry ditch. The remains of the later were embedded in the side walls of the pit.³² The purpose of a rock-cut rectangular base in the centre of the pit below the drawbridge remains unclear (Fig. 11b).³³ As already mentioned above, a similar structure of the same type exists in the East Gate of the fortress of Quban, although here the pedestal was built of stone blocks.

Emery suggested in the case of the Quban example that the base was used as a support for the drawbridge, but discarded the explanation for the feature in Buhen, referring to the low height of the base. It seems likely that the gate passage could be closed by sets of wooden doors at four spots along its length. A stone pivot socket could be traced in height of the outer face of the main wall.³⁴

Although the inner gate was a formidable obstacle, the attackers might have considered it worth to make

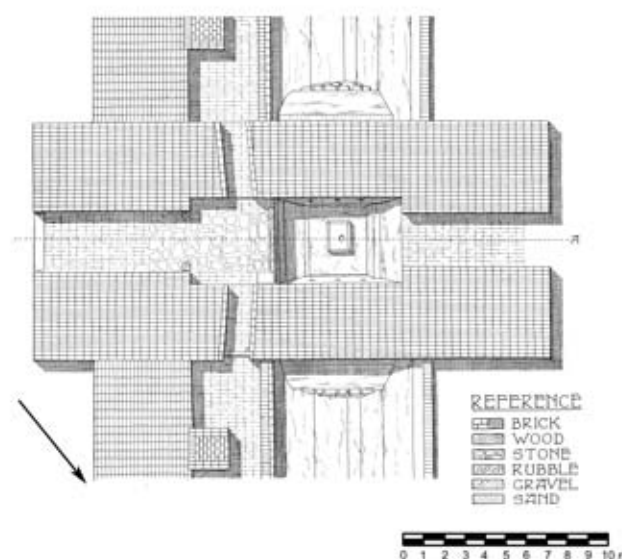


Fig. 11a Buhen, Middle Kingdom I-II: Inner Defences, West Gate (after EMERY, SMITH, MILLARD 1979: pl. 10)

²⁹ BORCHARDT 1923: Abb. 1a.

³⁰ With respect to the small protrusions at Mirgissa, which measured 2 by 2 m, located in a distance of 2–3 m next to each other, compare LAWRENCE 1965: 80–81 who favoured their explanation as piers.

³¹ EMERY, SMITH, MILLARD 1979: pls. 10, 11.

³² EMERY, SMITH, MILLARD 1979: pls. 10, section A–A; 85, B).

³³ EMERY, SMITH, MILLARD 1979: pls. 85, C–E.

³⁴ EMERY, SMITH, MILLARD 1979: pl. 85, F.

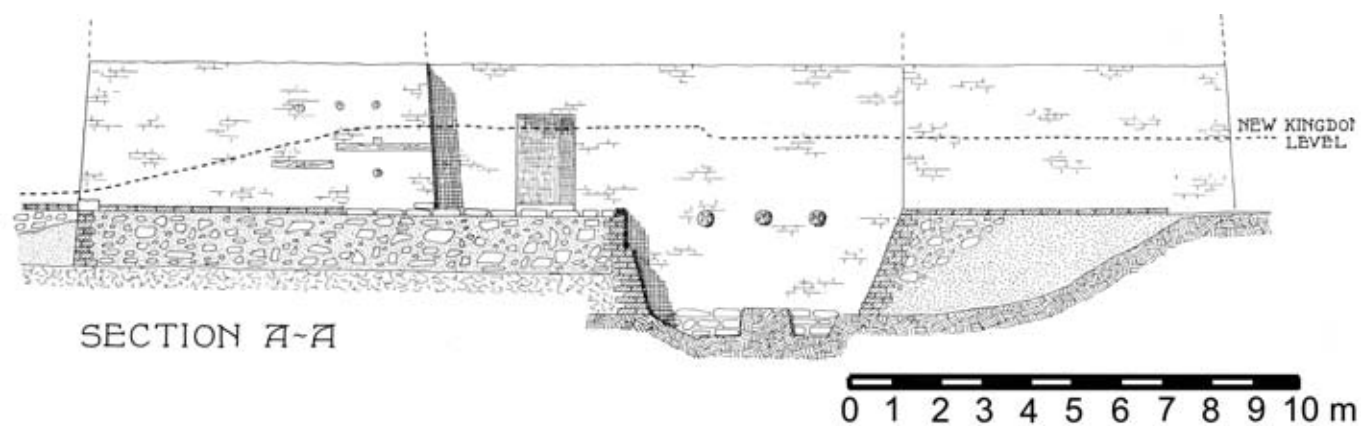


Fig. 11b Buhen, Middle Kingdom I-II: Inner Defences, Cross section of the main gate (after EMERY, SMITH, MILLARD 1979: pl. 10)

a breach instead to storm the glacis, overcoming the covered way, crossing the ditch, clearing the lower ramparts, and finally scaling or mining the main walls. Once the enemy made it across the drawbridge, he would have had access to the lower ramparts through two small gates on each side of the spur walls.³⁵ It is in the vicinity of the main Western Gate where all signs indicate a violent attack. Whereas the excavators assumed the destruction by fire caused by an assault of the Kermans at the end of the Middle Kingdom,³⁶ more recent research supports a later date for this evidence, thus it seems quite obvious that the gate's fall and the fortress' sack took place during the reconquest of the fortress under Kamose.³⁷

Riverside gates

Two gates, situated 42 m apart from each other in the center of the east wall were thought to guard the two main streets of the town to which they opened from the quays on the riverbank (Fig. 7, 12).³⁸ Their towers stretched inwards and outwards from the curtain wall flanking a passageway of 10 m length and 3 m width. The southern gate and the quay were largely destroyed but an adequate part of the foundations could be traced, to determine that they were identical in design with their northern counterpart. A terrace road ran along the river edge passing through gates cut in the side walls of those features. The paved corridor which led from the quay to the end of the

North Drain Street was blocked by a stone-built gate³⁹ with a single wooden door. The pivot hole of the latter was found in situ. Beyond the gate the inner side walls of the mud-brick corridor were lined with stone.

*Water gate*⁴⁰

Only one of probably two⁴¹ water gates could be ascertained (Fig. 12). The feature consisted of a stone-built

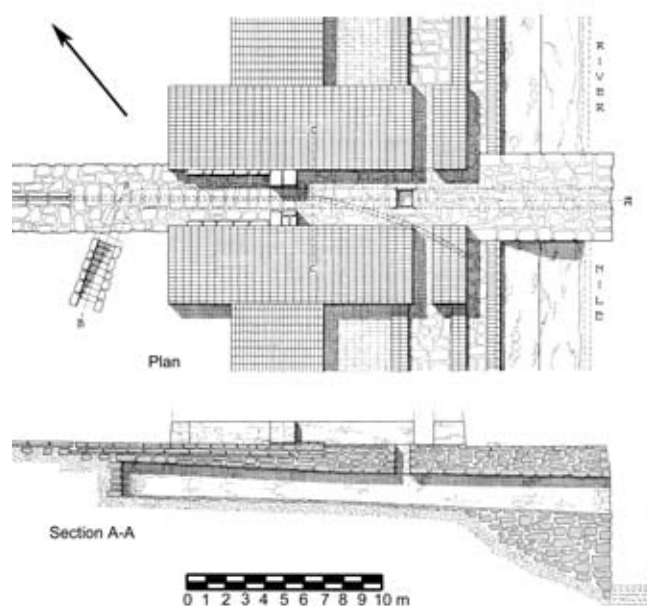


Fig. 12 Buhen, Middle Kingdom I-II, Riverside Gate/ Water Gate (after EMERY, SMITH, MILLARD 1979: pl. 13)

³⁵ Due to Smith the existence of these gates as reconstructed in EMERY, SMITH, MILLARD 1979: pl. 10 and pl. 11 remains unclear.

³⁶ For the old model favoured by Emery and Smith see EMERY, SMITH, MILLARD 1979: 3, 19292.

³⁷ SMITH 1992, SMITH 1995: pp. 107; SMITH 2003: 78–83.

³⁸ EMERY, SMITH, MILLARD 1979: 7.

³⁹ EMERY, SMITH, MILLARD 1979: pl. 92 D–F.

⁴⁰ EMERY, SMITH, MILLARD 1979: 7.

⁴¹ It is most likely that a second water gate of a similar design existed under the South Riverside Gate, although no trace of it remained.

stairway within the interior of the fort, which gave access to a passage directly below the pavement of the corridor of the North Riverside Gate and the North Quay. The end of it was connected with the river.⁴² Unfortunately, the ruined condition of the quay does not allow to determine the length of its penetration into the Nile and the character of the original opening of the Water Gate at the head of the quay. One might assume that steps or a ramp sloping downwards existed to ensure water supply at any level.

A rectangular well traced in the floor of the stone-paved corridor of the gate gave direct access to the Water Gate passage.⁴³ At high Nile, water could have been drawn from the passage. As the well was situated outside the main defence wall though, it is difficult to detect its purpose. One might comply with the excavators that it was used to sustain a defending force of men holding the lower ramparts, when the gates of the main defences had been closed behind them.⁴⁴

*Safety standard*⁴⁵

The vulnerability of the Water Gate seems to confirm the idea that the garrisons were convinced that the river would remain under their control,⁴⁶ whereas the elaborate defences on the three sides of the perimeter show that attack was feared from there.

MIRGISSA

The archaeological and architectural results of the French rescue mission at the fortress of Mirgissa are awaiting their final publication until today.⁴⁷ Since the former head of the French mission, Jean Vercoutter, died a few years ago, Brigitte Gratién and Michel Azim will complete this work, exclusively. I have to thank both for providing me with an extract of an unpublished article on the site of Mirgissa.⁴⁸ However, for the time being, any information on the fortress' gates, I am going to present know, has to be considered as preliminary.

The number of attested gates of the Middle Kingdom main fortress⁴⁹ at Mirgissa differs from excavator to excavator.

Wheeler, who was digging at Mirgissa in the early 1930s, was convinced that there existed at least six gates within the upper fort (Fig. 13):

The outer North Gate
The inner North Gate
The outer South Gate
The inner South Gate

In addition:

The Northeast Gate
The (Southeast) River Gate

Due to the archaeological evidence, the existence of only three of the mentioned gates is ascertained, allowing discussing their features in greater detail:

The outer North Gate

From the northern outlet of the gateway, probably joining its west side, ran the long wall of the North Wing. This huge wall flanked the road leading to the outer North gate and has to be considered as an important part of the defence system at Mirgissa. It allowed monitoring the hinterland, and protected a lesser fortified area as well as the main access to the fortress.⁵⁰

The outer North Gate itself is one of the most impressive gates ever found in ancient Nubia. It bears every comparison with the far better known gates at the outer and inner defence at Buhen described above.

The gate consisted of two parallel running walls more than 60 m in length, strengthened by interior and outer buttresses (Fig. 14). A sloping passage led to a broader room, followed by a stone paved passage that could be closed by a wooden portcullis. A second elongated chamber led into the south passage with two single winged wooden doors to be opened in opposite directions. A Senet-game, carved in the paving, illustrates that the guards on duty might have been bored.⁵¹

⁴² EMERY, SMITH, MILLARD 1979: pls. 13; 93 A-C.

⁴³ EMERY, SMITH, MILLARD 1979: pl. 93 A.

⁴⁴ EMERY, SMITH, MILLARD 1979: 7.

⁴⁵ EMERY, SMITH, MILLARD 1979: 7.

⁴⁶ EMERY, SMITH, MILLARD 1979: 7; on the contrary, GILBERT 2009 tries to bring forward the idea that the Nubian fortresses were built to maintain the line of communications along the river. He states that the maritime aspects of defence on the Nubian frontier are generally underestimated.

⁴⁷ For preliminary reports on the gates see VERCOUTTER 1967–1968: 274–275, and VERCOUTTER 1970: 9.

⁴⁸ AZIM and GRATIEN 2009.

⁴⁹ For details on the postern gates situated in the girdle wall, which can't be discussed here, see VERCOUTTER 1965: esp. 63, incl. fig. 2.

⁵⁰ See VERCOUTTER 1965: 62–64.

⁵¹ AZIM and GRATIEN 2009 incl. fig. 4. The carving of board games in the context of gates is a well-attested feature in the Ancient Near East. Various examples from sites as Arad (Early Bronze Age II–III), or Lachish (Assyrian times) indicate their popularity among the garrison over time. In Lashish a senet game carved in a stone slab could be found in the innermost chamber of the gatehouse, near the steps that led from the gate passage to the doorway: SEBANNE 2004. For an overview on early board games in the Ancient Near East, see SEBANNE 2003.

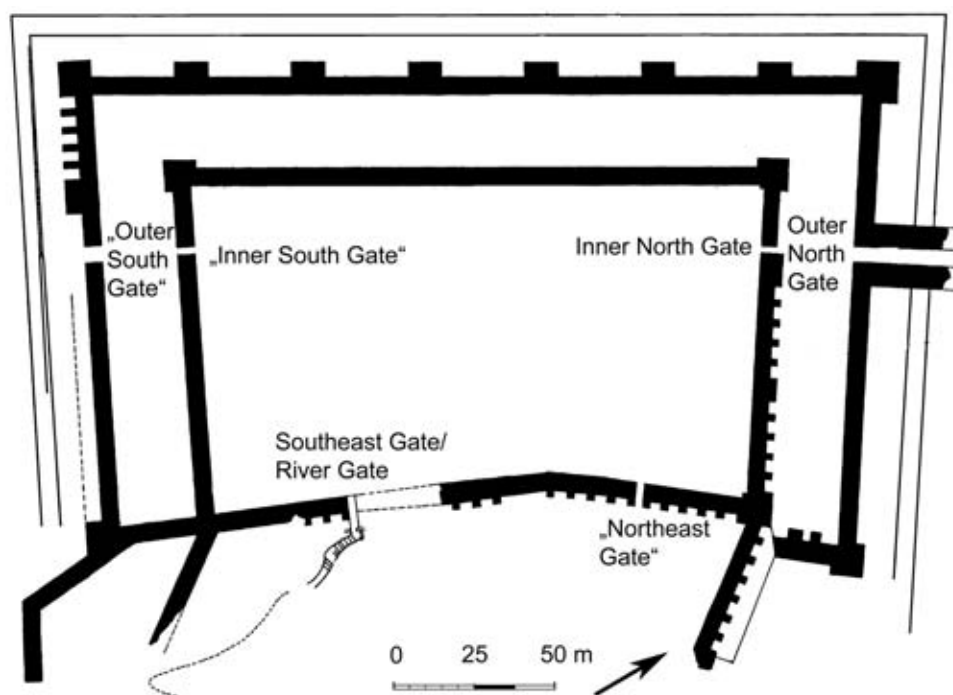


Fig. 13 Mirgissa (after DUNHAM 1967: map XVI, XVII)

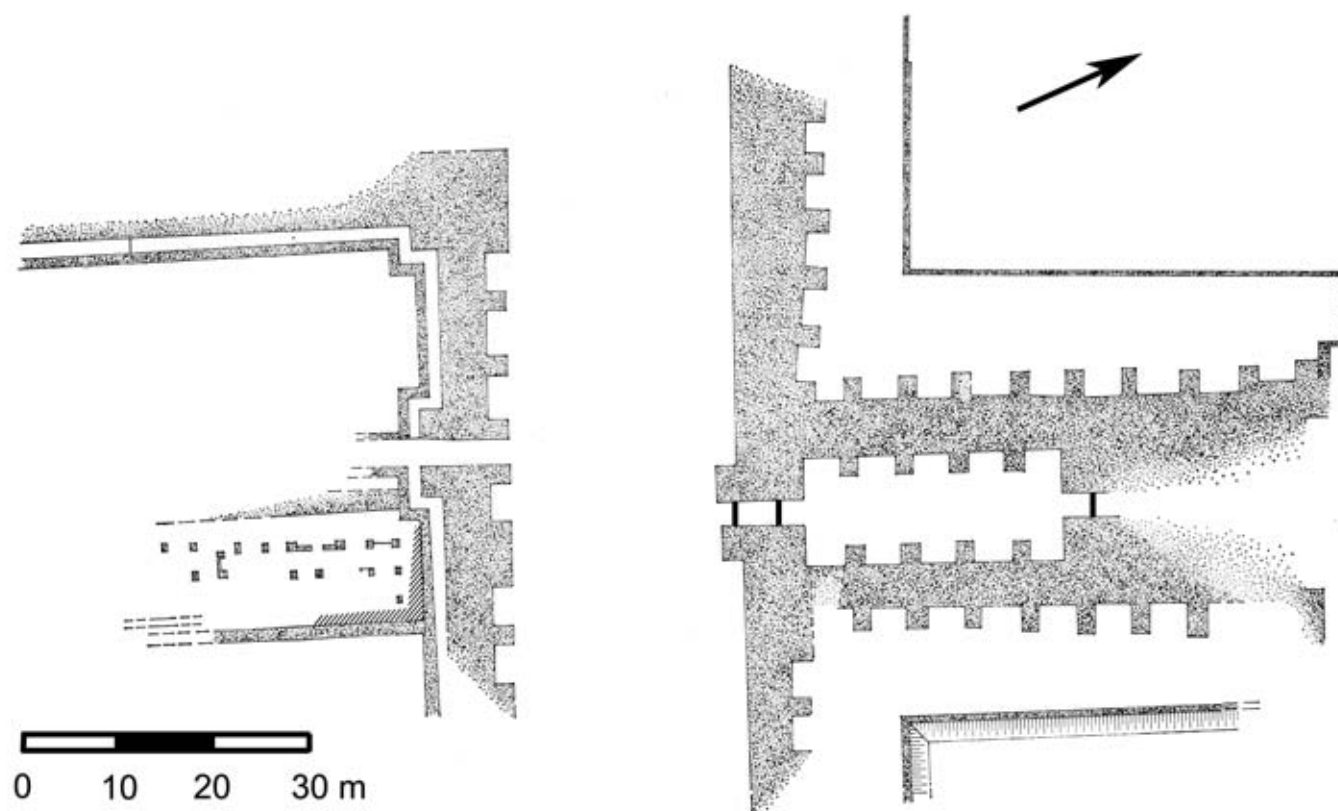


Fig. 14 Mirgissa, Outer and Inner Northern Gates (after VERCOUTTER 1970: fig. 1)

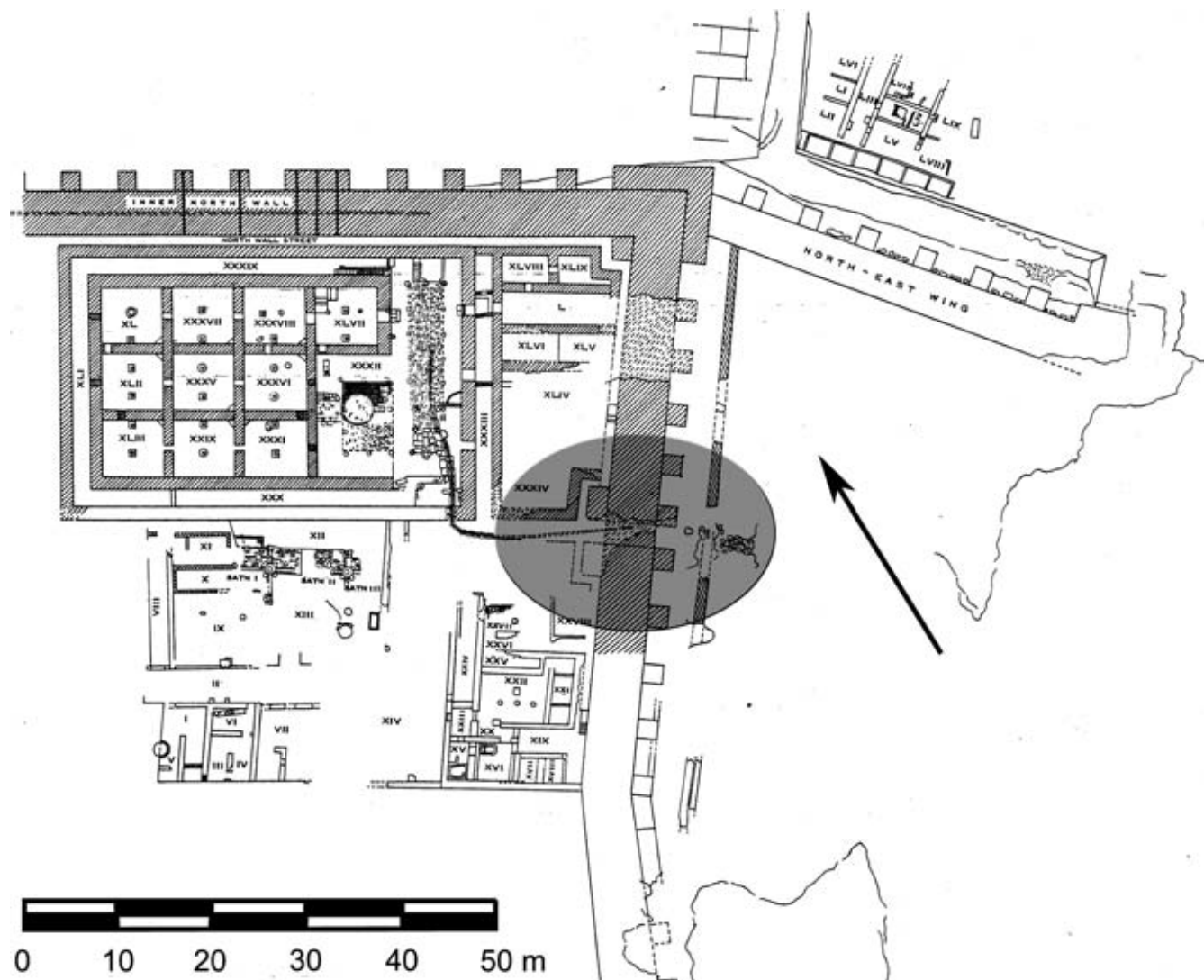


Fig. 15 Mirgissa, Northeast Gate (after DUNAHM 1967: maps XVI–XVIII)

The passageway was narrowed by two small brick walls at an unknown point in time.⁵²

The inner north gate

If an aggressor had overcome the outer North Gate he would be surprised to find himself in front of two additional obstacles. He would encounter an inner ditch, as well as a second gate.

The axis of this inner north gate did not coincide with the already described outer one, but was situated some 4 m west of it (Fig. 13).

The gateway passes through the main fort wall and was lengthened by two buttresses on the outer and inner face of the wall. Two wooden single-leafed

doors could close the passage, one at either end of the passage. The excavators were lucky to find not only their sills, but also remains of one of them in situ, still standing open.

Because of the additional inside buttresses, the North Wall Street had to make right angle turns around them instead of passing straight across the gateway opening. From here the Main Street runs south through the length of the Inner Fort, ending at a point where Wheeler expected the Inner South Gate to be.

The supposed inner south gate

The existence of this gate as reconstructed by Wheeler⁵³ is unproven. Wheeler favoured a gate at the point

⁵² A phenomenon known from other gateways as well: e.g. the Northern Gate at Uronarti, see below.

⁵³ DUNHAM 1967: 152.

on the inner face of the south wall, where two buttresses 2 m next to each other seemed to flank a passage, since the gap between them deviated from the usual interval of 4 m. However, Vercoutter could clarify this as purely incidental.⁵⁴

The supposed outer south gate

Since the existence of the outer south gate was concluded from the existence of an inner south gate, as stated by Wheeler, this can be withdrawn.

Northeast gate

The existence of a northeast gate as suggested between two inner buttresses by Wheeler remains uncertain, as well (Fig. 15).⁵⁵ Brigitte Gratién and Michel Azim brought forward the idea that it might have been abandoned in favour of the new Southeast/River gate, since the latter did not belong to the first building phase of the Inner Fort.⁵⁶

The southeast gate/river gate (Fig. 16)

This gate was situated towards the southern end of the Inner Fort, 50 m north of East Wing. When Wheeler excavated the outer parts of the gate, the passage stood up to a height of more than 1 m. Two

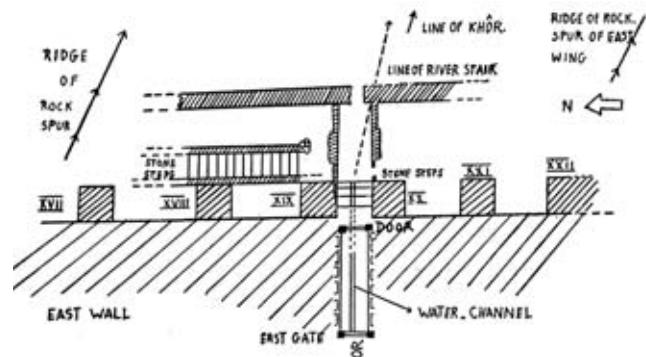


Fig. 16 Mirgissa, Southeast Gate/River Gate, sketch plan (after WHEELER 1961: 136, fig. 57)

buttresses flanked the outer (and inner) face of the wall.⁵⁷ Their spacing was reduced from 4 to 2.5 m. A door at each end could close the passage. Their original timber sills remained. The outer door opened inward in height of the northern doorpost, and the stone socket was found in position. At a later date the doorway underwent several alterations. The side walls were refaced with mud-brick and sandstone blocks which reduced the width to 1.8 m. Some of the stones came from the water channel that originally led through the middle of the passage.

The later outer wooden door still stood opened back against the north side of the passage. As the remaining lower part was preserved to a height of 30 cm some construction details can be given. The door consisted of six vertical planks, each 30 cm wide and 10 cm thick, held together by crosspieces 7 cm thick, of which the lowest one was found. During the reconstruction of this feature new doorposts (20 cm²) were fitted, without removing the former ones.

In front of the outer door and between the flanking buttresses, several stone steps were found. Wheeler states their considerable wear from passing feet. The way led eastwards, crossing the extramural walk between two low walls. The narrow mud-brick wall bordering the walkway to the East had an opening opposite to the River Gate, which offered access to the river stair. Unfortunately, its original route could only be traced in parts.⁵⁸

The three sites whose entrance solutions I am going to discuss next show a similar layout: Askut, Uronarti, Shalfak.

ASKUT

*The main gate*⁵⁹

The fortified main entrance toward the south end of the east face featured two huge towers stretching in right angles from the curtain wall and flanking a corridor 21.5 m long and of variable width (1.4, 2.3, and

⁵⁴ VERCOUTTER 1967–1968: 273: “To finish with the inner fort I have to mention an important if negative result. There certainly never was a ‘Southern Gate’ as indicated on the map drawn by N.F. Wheeler. The girdle wall there is uninterrupted as can be seen at ground level and the gap in the structure is purely incidental (there is a similar gap in the western girdle wall)...”

⁵⁵ VERCOUTTER 1967–1968: 273: “... In the same manner we have been able to ascertain the fact that there never was either an entrance at the north-eastern corner as suggested by the existence of two square bastions protruding

in Wall-street east (near room XII on N.F. Wheeler’s plan)”.

⁵⁶ AZIM and GRATIEN 2009.

⁵⁷ The French mission got a better idea of the stratigraphy when excavating the inner part of the gate. They recognized, that the two buttresses stretching inwards must have been of later date, since they were built on debris, compare AZIM and GRATIEN 2009.

⁵⁸ DUNHAM 1967: 153.

⁵⁹ BADAWY 1966: 219.

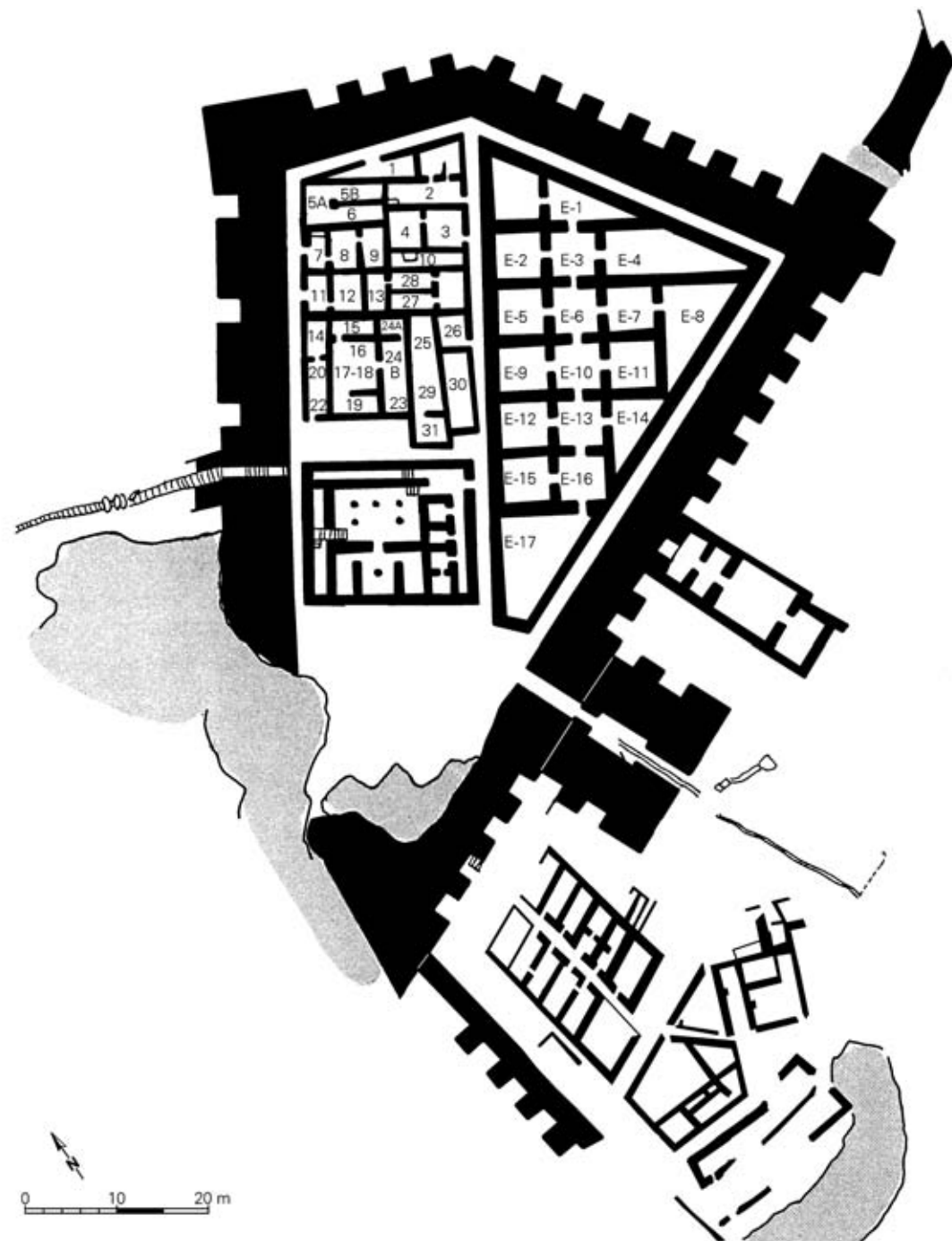


Fig. 17 Askut (after SMITH 1991: pl. XXXIX)

3.2 m) (Fig. 17). It is proven that a massive single-leaf door could have closed the outer doorway, since its remnants (1.7 m) were found open in situ. However, it is most likely that up to three doors might have originally protected the passage.

A drain of specially carved limestone blocks with its lower stretch merely lined with rough slabs ran along the passage-way through the gate down to the ancient waterfront 23 m away.

*Water gate*⁶⁰

Just to the northeast of the headquarters, a passage through the curtain wall indicated the obligatory river gate leading to the Nile steps. While clearing the

⁶⁰ BADAWY 1964: 52.

doorway, a large stone socket, remnants of the wooden doorjamb and the upper steps of the water-stairway were uncovered. After a flight of seven steps, the feature changed its direction to the south-west, following the bedrock riffs closely.

Thick brick walls flanked the stairway. Only a few blocks of the original ceiling could be found in situ. Those large red granite blocks were hanging in a precarious position on top of the burnt masonry of the lateral walls. A likewise burnt inscribed stela was found embedded in the north wall of the stairway. Its offering text mentions the crocodile god Chentcheti.⁶¹

SHALFAK⁶²

The main gate

The main South Gate of the fortress of Shalfak could be reached from the desert only through a very steep slope (Fig. 18). In a first phase a narrow passage led through the south wall giving access to the inner fortress. It was strengthened into a chamber-gate by two walls, about 7 m thick and 15 m long, protruding from the South Wall of the fort on either side of the entrance, 2.2 m wide. The space between these walls was about 5 m wide for half of their length, and narrowed to 2.2 m at the entry.

There were traces of two wooden doors in the passage through the main fort wall. The sills and one

doorjamb of square section timber remained in position (45 cm in thickness). The floor of the gateway was stepped and originally paved, as a few remaining stone slabs indicated.

The internal traffic was affected by a blocking wall which was built between the South Gate and the South Wall at some later date.

River gate

The second gate at Shalfak was built as a simple 2.2 m wide passage through the thickness of the North Wall. Even here traces of two doors could be discovered. Parts of one heavy timber sill, of a smaller one, and of one doorpost were found in situ. The doorway opened to the area of the so-called North Wing Rooms, and was protected by the North Wing itself and by the steep cliff on the east. The stairway led to a stone-built quay which could be traced by the excavators 7 m above water level of 1931.⁶³

URONARTI (Fig. 19)

If one bears the gateway solutions of the fortress of Shalfak in mind, one might be surprised by the corresponding patterns at Uronarti.

Main gate

Similar to the situation at Shalfak the access to the fortress is restricted to one main gate. Its approach from the south was up a steep slope. Flanking walls

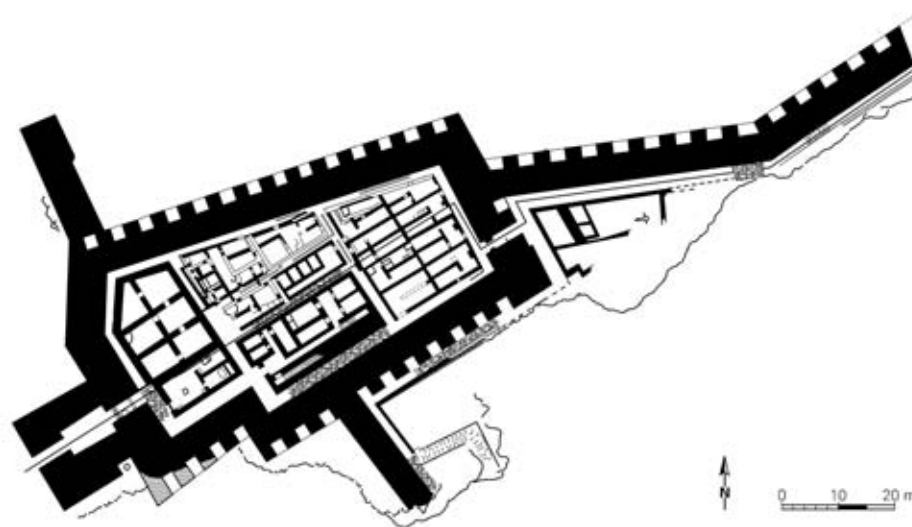


Fig. 18 Shalfak (after DUNHAM 1967: map X)

⁶¹ BADAWY 1964: 52, and pl. XVI, c).

⁶² DUNHAM 1967: 119

⁶³ DUNHAM 1967: 120–121.

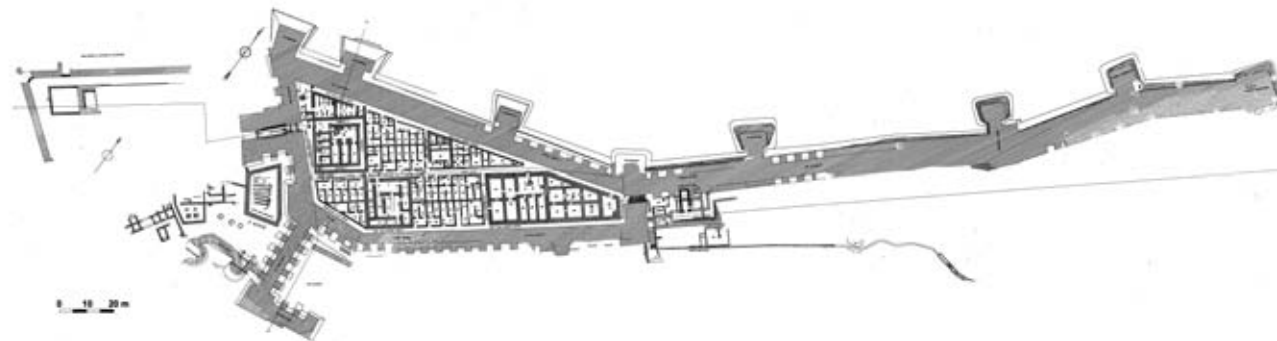


Fig. 19 Uronarti (after DUNHAM 1967: map III)

protruding south from the main wall protected the gate. They were 6 m wide and ended in strong towers (total length incl. thickness of the curtain: 23 m). Their outer faces were provided with buttresses.

At least three wooden sills⁶⁴ were found, indicating that the doors were situated 5 m from the south end of the passage, as well as 4 and 2 m from the inner end.⁶⁵

The passage between the outer and middle doors had been lined with a mud brick wall (80 cm thick), to narrow the passage from 2.7 to 2.3 m. We know this phenomenon for instance from the outer North wall at Mirgissa. If those walls were built to make it more complicated to access the fortress as pointed out in the „Principle of narrowness“ remains unclear.

River stair

The northern gate was built as the familiar passage leading through the northern wall. The passage was 8 m long and 2.6 m wide.⁶⁶ The remains of their wooden sills could verify two doors located 4 m apart from each other. The floor of the passageway was originally paved with stone slabs, and a water drain passed through the gate. It turned east down the sloping approach to the river stair, which ran 250 m to the north before reaching the Nile.

The northern gate did not only give access to the Nile steps, but also to a temple area. A northern wing gave additional shelter, running for a distance of 240 m beyond the gate, strengthened by buttresses.

SEMNA-WEST

The L-shaped fortress was situated on a promontory on the west bank of the Nile. The defences of Semna-West consisted of a glacis about 6 m in width, an outer wall about 7.5 wide, and a ditch of varying width. Regular access to the fortress was restricted to two main gates, connected by a granite paved south-north running street (Fig. 20). Both installations, 15 and 16 m in length represent the same type: a huge one-chamber gate protruding from the perimeter wall. At these spots the ditch was filled with rubble to form a causeway, and, at least in the south, the usual drain was placed beneath it. Both gates were equipped with two wooden doors. It seems most likely that the space between the doors was accessible from the rampart above, so that if any intruder broke through the outer door he would be exposed within a narrow enclosure to projectiles from above.

*River gate*⁶⁷

As one might imagine, the water supply of the fort was of great importance, especially in times of siege. Semna-West makes no exception. From the highest rock in the fort, (the so-called Burg A), a stairway led downwards through the centre of the eastern wall to the “rubble foundation platform”. This feature was extended to the northeast and the stairway passed down through a covered corridor of granite

⁶⁴ The sills were made of single balks of square section about 40 cm thick.

⁶⁵ Remains of the lower parts of the two posts of the inner door were found in situ. The door was pivoted to the inner face of the eastern one, and stood opened against the east wall.

⁶⁶ For a postern gate 2.6 m seems quite wide. Especially if one compares this width with those from the two axial connected gates at the western settlement in Qasr es-Sagha. Here, the northern and southern main gates led as a simple passage of just 1.4 m through the enclosure wall which was 3.1 m thick. SLIWA 1986, 172–173, incl. fig. 4.

⁶⁷ DUNHAM, JANSSEN 1960, 7, and pls. 7A, 7B, 8A, 8B.

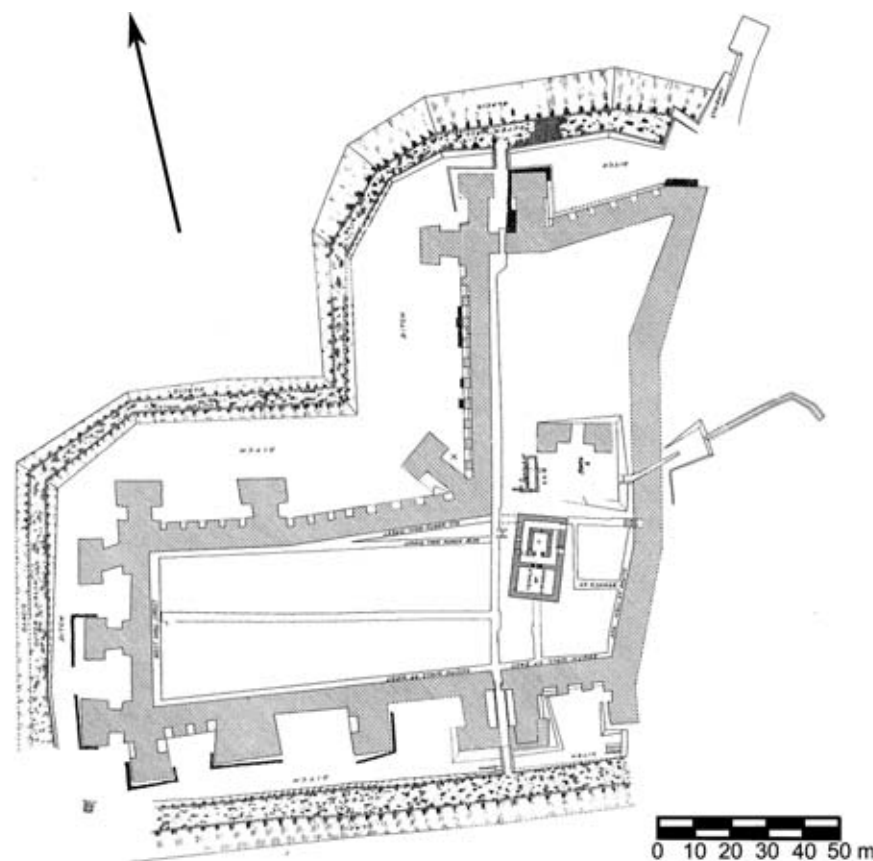


Fig. 20 Semna West: Main Gates and River Gate (after DUNHAM and JANSSEN 1960: map III)

rubble, emerging beyond the platform at step 50. From there it descended between protecting rubble walls to the river at lowest water, a total distance of 131 steps from the curtain wall. The upper part of this section was formed of granite slabs down to step 97, whereas the lower steps were cut in the solid rock. The lower end of the stairway curved sharply to the south. Below step 124 the stair was disconnected by a pit 187 cm deep, presumably intended for drawing water which filtered in from the river without necessarily descending all the way to the water's edge at extreme low Nile.

The River corridor appears to have undergone three periods of construction and reconstruction. It remains unclear during which period it was led outside the wall itself. The lower end was not only very close to the beginning of the Nile steps, but also connected with them by a path. Each side of the

river corridor is formed by a thick wall (60 cm) of mud brick.

3.3 Storming the gates? Evidence of attacks against gates

An example from the southern Levant might highlight the limitations of entrance protection. At the Middle Bronze Age site of Shechem (Tell el-Balatah) six skeletons were found on the inner steps of the East Gate, amongst fallen bricks and destruction debris dated to the end of MB.⁶⁸ Whatever the scenario at this four-pier type gate might have been, it led to their deaths, and it seems most likely that the gate was stormed.⁶⁹

An early example of Egyptian siege warfare, a wall painting from the 5th dynasty tomb of Inti in Deshasheh (Fig. 21), shows soldiers trying to breach exactly the section of the wall where two bastions

⁶⁸ BURKE 2004: 89, 657; CAMPBELL 2002: 137, 139.

⁶⁹ CAMPBELL 2002: 137 brought up the idea, that a chunk from the surface of the orthostat at the front of the south inner pier tilted 29 degrees off vertical could have been inflicted

by a battering ram. This suggestion remains unproven. I have to thank Prof. Israel Eph'al, Jerusalem, for sharing his thoughts on this topic with me.



Fig. 21 Tomb of Inti in Deshasheh (after KANAWATI & MCFARLANE, Deshaha. The Tombs of Inti, Shedui and Others, Australian Centre for Egyptology Reports 5, Sydney 1993, pl. 26)

seem to flank the entrance gate. In addition, various siege scenes from the New Kingdom show clearly that through all periods of time the following main tactics were favoured by the Egyptian troops when storming a fortification:

- First, climbing up ladders or siege towers to overcome the wall.
- Second, mining and undermining the wall with special tools.
- Third, destroying the (wooden) gate/s with axes, as shown in the conquest of Tunip under Ramesses III visualized at the outer northern wall between the 1st and 2nd pylon at Medinet Habu.⁷⁰

The latter supports the idea that the gate was considered the weakest spot, thus being the first

choice when trying to storm a fortress.⁷¹ Moreover, New Kingdom war scenes sometimes show the icon of demolished fortress gate/s as a *pars pro toto* for the successful conquest of enemy towns.⁷²

Despite its importance in terms of propaganda, we can see this piece of evidence as a proof of the Egyptian tactic in storming gates.⁷³ When searching for archaeological evidence of attacks against their own gates in Middle Kingdom Nubia one has to state that no stratified evidence exists or survived.⁷⁴ The assumption of Walter B. Emery that a massive destruction layer – including the gate section – could have been caused by a violent overthrow of the forces of the Ruler of Kush at the end of the Middle Kingdom⁷⁵ was turned down by Stuart Tyson Smith⁷⁶ as discussed above. But even if this event took place under

⁷⁰ HEINZ 2001: 313, fig. I.32. To demolish a fortress gate by using axes is well attested through cultures and times: Until today the wooden door of the main gate at the French fortress of Bitche (Dép. Moselle) shows traces of an Prussian attack which took place in November 16th 1793 under “the colonel Alexander Graf von Wartensleben” (Fig. 22).

⁷¹ In order to achieve an effective protection against the impact of fire, a bronze cover for the wooden doors can be presumed but is not preserved.

⁷² HEINZ 2001: 121, fig. 186 (Jenoam campaign under Seti I, Town of Qeder); fig. 191 (Ramesses II, Town of Mutir).

⁷³ One might not forget to mention the preferred Egyptian method to enter a gate without any violence, thus to gain access by treachery or trickery. The latter is described in the Ramesside story of the conquest of Joppa (Jaffa), which took place under Thutmosis III. In essence, the story goes that the sovereign of Jaffa was asked by the Egyptian com-

mander of an attacking army to leave his town to meet him in his camp for a brief chat. Then, he got him drunk and hid 200 soldiers in baskets, and carried them by 500 additional soldiers to Jaffa. The sovereign’s wife was convinced that the baskets contained the tribute negotiated by her beloved husband and opened the city gates, thus the Egyptians got easy access to the town (pHarris 500 vs., see. GARDINER 1932, and JUNGE 2001). As convincing the tale might have sound to Egyptian readers and writers, this trick demands no less than a naive sovereign and a likewise naive wife and would not have been successful twice.

⁷⁴ The traces of a raging fire which burnt the river gate and the water stair at Askut can’t be connected with stratified layers, thus even this event can’t be seen as a proof of a violent attack, compare Smith 1995: 109.

⁷⁵ EMERY, SMITH, MILLARD 1979: 3, 92; SMITH 1976: 80–85.

⁷⁶ See footnote 37.



Fig. 22 Main Gate at the French fortress of Bitche (Alsace) showing traces of an Prussian attack (© Frank Dittewig)

Kamose, it can be nevertheless stressed as a further proof for the gate as a popular target.⁷⁷

SUMMARY

The Egyptian architects of Middle Kingdom Nubia developed elaborate entrance solutions to meet two requirements:

- 1) to guarantee easy access to the fortresses by their own people, material and pack mules. And – at the same time –
- 2) to make the gate impregnable for a potential enemy.

These conflicting demands required compromises. One has to be seen in the approach from the desert: all main entrances to the Middle Kingdom Fortresses

of the second building phase could be reached only through a very steep slope, and the floors of the gateway passages itself proceeded sloping up into the interior of the fort. Therefore, access to the fortress was difficult not only for any attacker, but for their own garrison as well!

Among the seven different principles I have discussed above, one might be stressed as of special importance in Nubian context. It is the principle of safeguard from the flank, likewise: from outside.

This is the most common feature for main entrances in Middle Kingdom Nubia, as we learned from examples like Buhen, Mirgissa and many others.

With respect to the second main gate type, the river gate, I have to modify my proposal, that it might be a less fortified entrance. The latter might be true,

⁷⁷ Aaron Burke in his dissertation on Middle Bronze fortified sites in the Levant states with respect to their (main)gates that they were probably avoided by attackers as being the most strongly fortified positions, but assigns greatest vulnerability to the postern gates which would have been necessary to block in siege times. (BURKE 2004:

146). This is only half the story though as it could be explained vice versa: the main gates were of such an interest to the attackers that the defenders had to fortify them accordingly, with or without success is in most cases not traceable, see 3.3.

but only if one neglects the highly fortified river stair. Both have to be seen as a unit, which – once again – made it quite complicated to get in and out!

Whatever gate type was favoured within the curtain, its number was restricted to an absolut mini-

mum consisting sometimes of two gates only: a main gate, and a river gate.⁷⁸ This phenomenon demonstrates clearly that the gate was considered as a weak point that as it could not be avoided⁷⁹ must have been strengthened tremendously.

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⁷⁸ This differs from the situation in Middle Bronze Age Levant where fortified towns show a comparable huge number of gates.

⁷⁹ The earliest examples of model-watchtowers show a gate located at the uppermost floor, which could be reached only by a ladder, see VOGEL 2004: 12–13.

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