

FORTRESS HATRA NEW EVIDENCE ON RAMPARTS AND THEIR HISTORY

Following the kind invitation of Dr. Moayed Saeed Damerji, Director General of Antiquities and Heritage, a mission of the University of Warsaw joined the recently started Hatra Project, working on the site from March 10th to April 14th, 1990. The team included Mssrs. Janusz Byliński, Tomasz Herbich (both archaeologists), Adam Dolot (architect), and the present writer. We were offered very favourable conditions of work and, above all, the efficient, friendly cooperation of our Iraqi colleagues, Sd. Manhal Jaber in Mosul and Sd Hikmat Bashir al-Aswad in Hatra itself. It is our pleasant duty to acknowledge their eminently valuable help and to thank them most cordially for all they have done.

As it has been settled with Dr. Moayed during my previous visit to Iraq, the activities of our mission were to include the recording and study of the fortifications. It appeared to me that this task is indeed essential if one is to gain a proper understanding of the topography and history of the city.

The ramparts of Hatra have been surveyed for the first time by Walter Andrae and his colleagues of the German Assur Expedition early in this century¹. The walls could then be studied in rough outline only, being as they were covered with rubble and disintegrated mudbrick. The members of the German team were able to visit the site only intermittently and to spare very little time on research there, with very rudimentary technical means at their disposal. Given these circumstances, the publication they have provided is quite remarkably accurate, and their plan is commonly used to this day. It is however obvious that it was intended as preliminary.

Excavations of the defence system of Hatra have started in 1971, when Wathiq al-Salihi has extensively cleared the Northern Gate and its surroundings². Later, the whole eastern front of the city was also exposed, including another gate, excavated by M. Subhi Abdallah and now restored³. It has become possible to record at least this sector of the walls in some detail.

¹ W. ANDRAE, *Hatra nach Aufnahmen von Mitgliedern der Assur-Expedition des Deutschen Orient-Gesellschaft*, II, Leipzig 1912, p. 24-59.

² W. AL-SALIHI, *Sumer*, 36 (1980), p. 158-189 (Arabic).

³ M. DAMERJI, *Sumer*, 37 (1981), p. 13; cf. *Sumer*, 42 (1986), p. 157 and 276; *Sumer*, 43 (1987), p. 349.

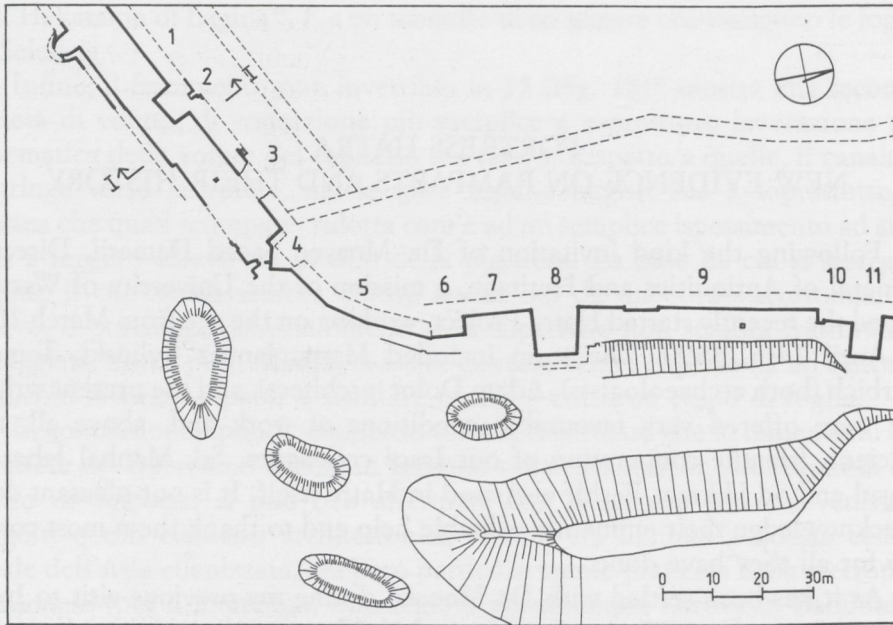


Fig. 1 - Plan of a part of the main fortifications, including the SE corner (by A. Dolot).

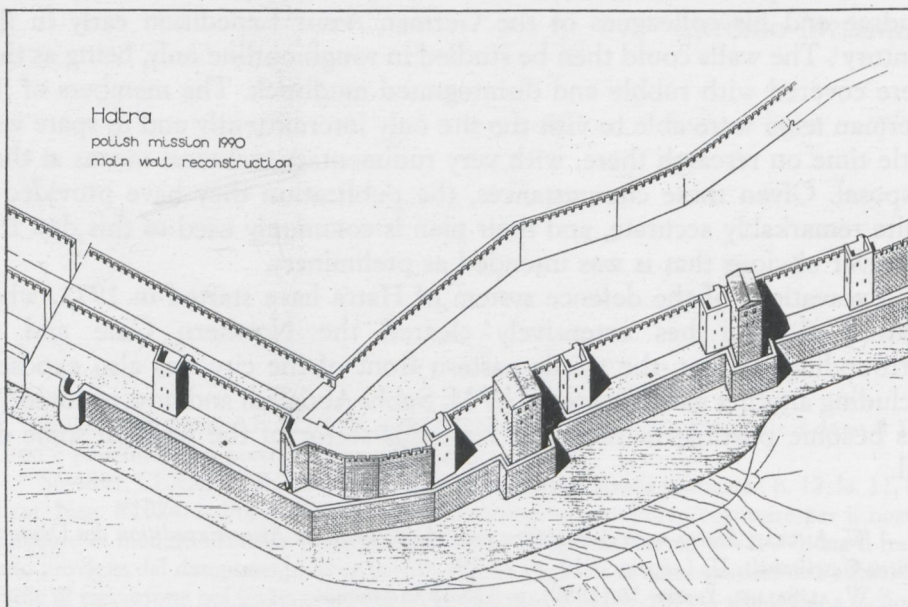


Fig. 2 - A restored bird's-eye view of the same sector of the main wall (by A. Dolot).

This we have done between the recently restored Eastern Gate and the SE corner of the fortification, i.e. on a stretch of about 500 m. Even if much remains to be done to record the already cleared walls, let alone to excavate other sectors, the main features of the defensive system can already be appreciated from this sample. Quite clearly, we have there the most complex ancient fortification preserved in Iraq and well beyond⁴.

The fortifications

There are three parallel lines of defence: the ditch with an earthenwork in front and a stone facing on the inner side, the main line provided with towers



Fig. 3 - A view of the rampart westwards from the SE corner. The ditch is to the left, in the foreground tower 1.

⁴ Cf. recently G. BERGAMINI, «Parthian Fortifications in Mesopotamia», *Mesopotamia*, 22 (1987), p. 195-214, and E. VALTZ, «Kifrin, a fortress of *limes* on the Euphrates», *ibid.*, p. 81-89; W. AL-SALIHI, «Considerations on the Defences of Hatra», *Mesopotamia*, 26 (1991), pp. 187-194.



Fig. 4 - Part of the main wall: tower 10 and battery 11. The enlarged ditch is filled with rainwater.



Fig. 5 - Tower 1 from the front. In the foreground, remains of the *proteichisma*.



Fig. 6 - Entrance to tower 1. Left, the stepped ramp, in the foreground the socle of the inner wall.

and bastions, and the inner wall behind (Figs 1-3). The farther outer wall surrounding the city at a distance of 300 m to 500 m is quite evidently a siege work, most probably due to the Sassanian troops preparing for the final assault⁵. Only the outside of the main line on the eastern front of the city is systematically cleared, allowing the repairs and additions to the original fortification to be observed (Fig. 4).

The main wall consists of mudbrick curtains 8 bricks (3.15 m) deep, set on a stone socle generally not higher than 1 m. At intervals varying between 26 and 31 m there are rectangular towers built together with the curtains on the

⁵ So already W. ANDRAE, *op. cit.*, p. 20-23.



Fig. 7 - The walk between the inner wall (left) and the eastern front of the main wall.

same socle. The towers measure over 6 m in front and are usually provided, low above the outside ground, with arrow-slits, two facing the enemy and often one on each side for cross cover (fig. 5). The towers were accessible through open passages in the inner face of the wall (Fig. 6), leading into chambers about 3.5 m by 2.5 m on the average. Whenever cleared, the ground-floor chambers show no trace of inner stairs or of intermediate levels. It seems likely that there was only one upper floor, level with the top walk which could be reached by means of stone steps borne on a brick ramp or on arches set along the inner face of the wall, close to each tower of this type.

The inner brink of the ditch has been reinforced by means of a stone facing which can be followed on the ground at a distance of about 10 m from the curtains. At places, it supports the remains of an antemural (*proteichisma*). There are reasons to believe that this stood quite high, at least at the latest stage. The loose blocks belonging to this wall and found in the sector around the SE corner would suffice to erect four courses above the two still in place, to the height of about 2.5 m above the ground inside.

The inner wall runs about 11 m behind the main line. Generally, it is only marked on the ground by a low embankment and a changing vegetation pattern (Figs. 3, 7), but in some places it is apparent that it has been built in the same way as the main wall, that is in mudbrick on a stone socle. There is no trace of towers. In a short sector cleared near the Eastern Gate there are vaulted passages through it and a flight of steps adhering to the town side. This wall cuts through the houses leaning on the main wall and appears thus to be later than both (Fig. 8)⁶.

The original height of both lines has been deduced from the dimensions of steps which subsist in several places near the Eastern Gate: the number of missing ones can be evaluated from the length of the supporting ramp. The result thus obtained is 8.40 m for the inner wall (the ramp is 9.80 m long, the



Fig. 8 - The stepped ramp against the inner wall, and parts of earlier houses near the Eastern Gate.

⁶ Cf. J. KH. IBRAHIM, *Pre-Islamic Settlement in Jazirah*, Baghdad 1986, pl. 90-93.



Fig. 9 - Tower 10, cut and filled with mortar-held bricks.



Fig. 10 - The SE corner bastion and stone curtain doubling the original mudbrick rampart (sectors 4 and 5).

extant steps being 35 cm wide and 30 cm high) and 8.60 m for the main wall, at which the ramp was replaced by three arches extending for 7 m and reached at 4 m above the ground by means of 20 preserved steps (30 cm wide, 20 cm high). It appears therefore that both walls were practically of the same height, supplemented of course by a crenellation, presumably about 2 m high.

The whole system constituted a formidable triple barrier extending in depth for about 30 m. At places, there are signs of damage inflicted on curtains and towers, and repaired after the danger had passed. Nowhere in the sector investigated a need has arisen to replace a part of the wall entirely. The shattered mudbrick face of some curtains has been however patched with stones or bricks set in mortar, and not in mud-plaster as in the original fabric. Several towers have been filled with bricks, and one cut nearly even with the curtain before being blocked (Fig. 9). More radically, certain parts of the fortifications have been doubled by means of a stone wall shouldering the original mudbrick. In this way the SE corner of the original wall has been enveloped in ashlar masonry; a triangular bastion pointing afield has entirely hidden from view a square mudbrick tower, while the adjacent curtain has doubled the thickness of the defences at this strategic spot (Fig. 10). At other



Fig. 11 - A view of the eastern front: right, an incorporated tomb, behind a late stone curtain, then batteries 11 and 8.



Fig. 12 - Battery 20 added to the main wall and, this side, a breach in the wall. Behind, the enclosed area between the main and the inner walls.

places, stretches of ashlar walls run along the main line, sometimes connected with tombs included in the perimeter as towers (Fig. 11)⁷.

The reinforcement of the defences consisted mainly, however, in providing solid stone bastions set against the front of the main line at irregular intervals (Figs. 11, 12). They are as a rule larger than the mudbrick towers and measure from 6.25 m to 9.20 m in front. These bastions were evidently intended as batteries for catapults larger than such as could have been installed on the original mudbrick towers. Built of broken stones set in mortar, they are faced on all sides with ashlar blocks. Some still preserve the shooting platform on top, about 8 m from the ground, which had been accessible necessarily from the walk of the adjacent curtain on the same level.

As the new bastions intruded on the inner brink of the ditch, buttresses were added in the corresponding places, altering the course of the *proteichisma* accordingly. Behind this cover, more shooting devices were installed in front of the main wall. There are heavy stone blocks set into the

⁷ The stone curtains were understood by Andrae as sluices («Wasserauslässe»); this is the only serious mistake of his description.



Fig. 13 - Part of a shooting device in front of curtain 18 (see also Fig. 12).



Fig. 14 - A beam support in the face of the curtain 12.

ground and pierced in such a way as to maintain sturdy wooden axles parallel to the wall (Fig. 13); there are also, bearing no relation to these, traces of beams fixed at one end on the face of the wall in a metallic collar (Fig. 14).

The ashlar blocks in the later curtains and bastions present usually mason marks engraved in the middle between two rusticated patches which distinguish these stones from those used in the original wall (Fig. 15). Varied as they are, the marks on these parts of the defences, and also on stones of the *proteichisma* in front of the SE bastion, form a coherent set, quite different from the signs to be found, for instance, on the masonry of tombs incorporated into the rampart. Two clear-cut stages of construction can be recognized in this way.

In the first stage, the brick wall with hollow towers, protected by the ditch, rose to the height of some 10 m counting with the battlements. The walk was probably paved with baked bricks, some of which were found in the rubble, and the crenellations covered with blue-glazed tiles, found in fragments at the foot of the wall and in the filling of one tower. On top of each tower there was a platform or a small room intended for archers or light catapults.

The chronology

Both excavated gates (East and North) formed integral parts of the defences at this stage. Both were already in place in 152 A.D.⁸, when a law was proclaimed concerning theft inside of the ditch and of the «outer wall» (*šura baraya*). While inscriptions relating directly to the construction of these two gates preserve unfortunately no dates⁹, they do mention Lord Naşru as the builder. Moreover, one of them alludes, in my reading, to the building by the same ruler of the «inner stone wall» (*šura di kepa gawaya*), which cannot be other than the enclosure of the main sanctuary, known otherwise to have been completed by Lord Naşru in or before 138 A.D. (Fig. 16, see Appendix I).

The building of the brick «outer» wall can be dated, then, between 138 and 152 A.D. and attributed to Lord Naşru. An inscription used recently by B. Aggoula to advance a much earlier date is far from proving his point (see Appendix II).

⁸ Inscription H 336 (F. VATTIONI, *Le iscrizioni di Hatra*, Napoli 1981, p. 102; B. AGGOULA, *Inventaire des inscriptions hatréennes*, Paris 1991, p. 155) and Ibr. I (J. KH. IBRAHIM, *op. cit.*, p. 195; J.B. SEGAL, *JSS*, 31[1986], p. 73).

⁹ Inscriptions H 335 (VATTIONI, *op. cit.*, p. 101; AGGOULA, *Inventaire*, p. 154) and Ibr. IX (IBRAHIM, *op. cit.*, p. 200; SEGAL, *op. cit.*, p. 76).

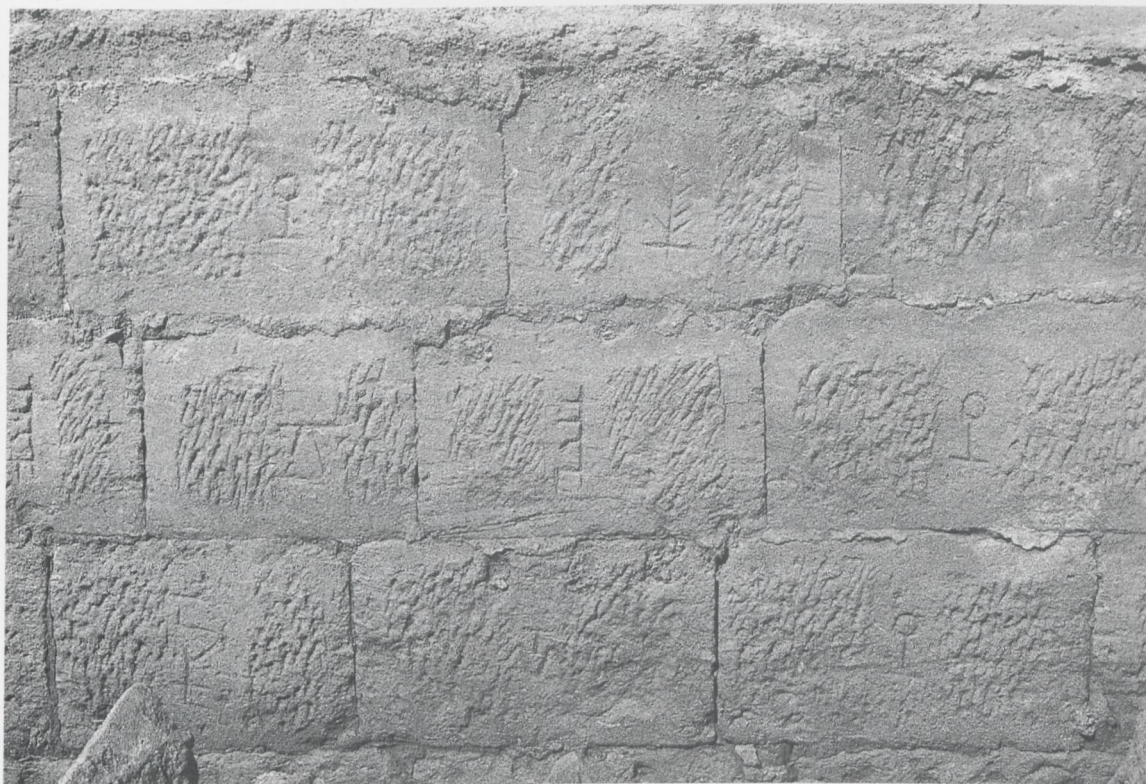


Fig. 15 - Mason marks on the wall of battery 14.

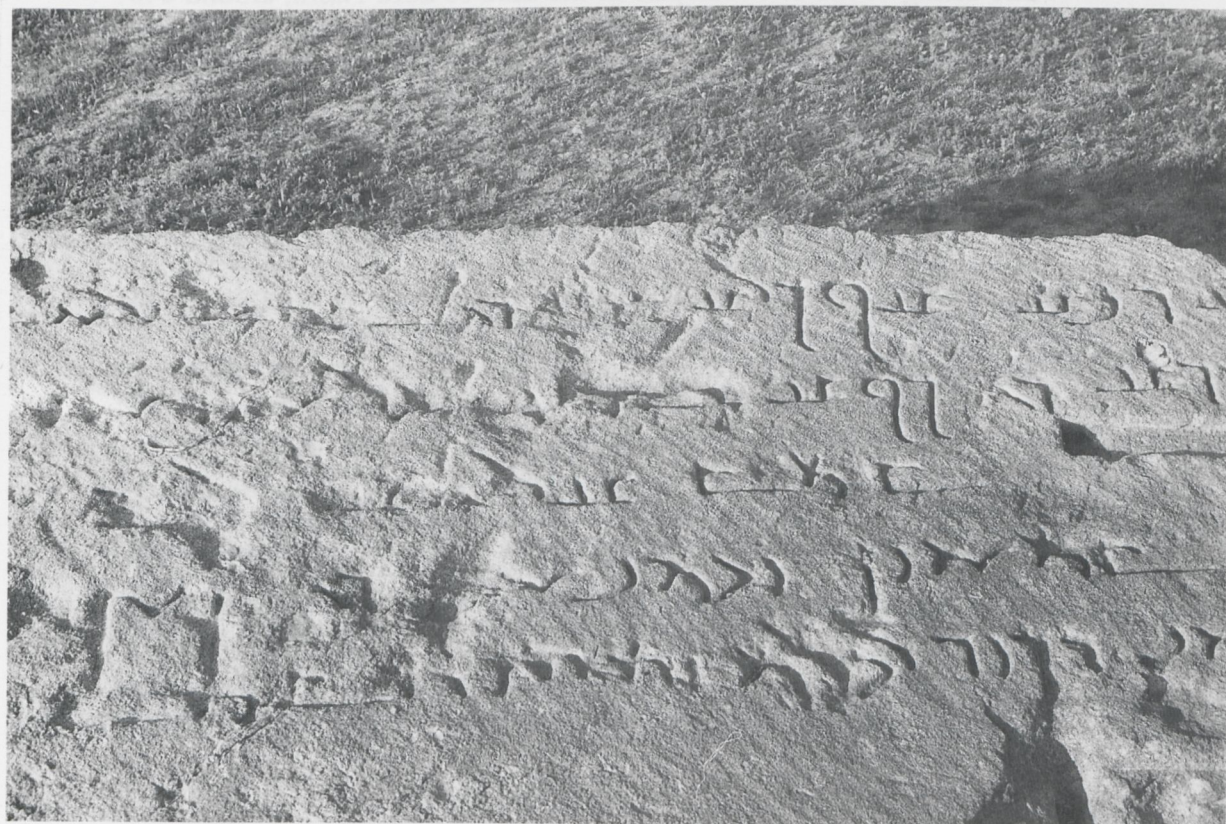


Fig. 16 - Part of the inscription from Eastern Gate. In line 2: *šwr' dy kp' gwy'* (see Appendix I).

The repairs, including the facing of damaged parts with stone and the filling of some towers with bricks, can be understood as following a siege, and so dated after the repeated unsuccessful attempt of Septimius Severus in 198/199 A.D. The second line behind the main wall is most probably contemporary with these repairs; indeed, this inner wall has reinforced the defence after a period during which houses were allowed to agglutinate on the main wall on its town side.

Even so, the traumatic experience of the Severan siege has apparently convinced the rulers of the city that the old wall would not stand another trial. Accordingly, more vulnerable places were protected with stone curtains adhering to the original mudbrick wall and huge solid bastions added along the line to accommodate catapults, such as the one actually found at the foot of the battery covering the North Gate¹⁰.

This gate has been reinforced by means of a second doorway, provided by Sanaṭruq b. 'Abdsamya¹¹, the future Sanaṭruq II, still under the reign of his father who had confronted the Roman troops of Severus and remained king in 200/201 A.D. according to an inscription recently discovered by the Italian mission¹². Sanaṭruq is probably responsible for the other additions as well, all completed in the first years of the 3rd century.

The dating of the brick rampart in the time of Lord Naṣru, around 140 A.D., prompts immediately the question of fortifications which Emperor Trajan encountered when he tried to take the city in 117 A.D. Hatra does not appear to have left a particularly strong impression on the Romans then, judging from the disparaging remark preserved by Cassius Dio («neither big or prosperous», LXVIII, 31, 1-2). Still, it inspired a sound respect eighty years later, on the occasion of the next Roman siege; treasures kept in its temples are said by the same author to have been coveted by Septimius Severus (LXXV, 12, 2). While it is clear that the historian used in each case a different source, perhaps without noticing their discrepancy, the problem of the 1st century Hatra is quite independent of his text.

The oldest firmly dated monument in Hatra is a shrine built in 98 A.D.¹³, and no part of the main temple complex can be attributed with any probability to earlier times¹⁴. While the chronology of the temenos is still far from

¹⁰ Cf. D. BAATZ, «Recent Finds of Ancient Artillery», *Britannia*, 9 (1978), p. 1-17.

¹¹ Inscriptions H 333-334, 341 (VATTIONI, *op. cit.*, p. 101, 103; AGGOULA, *Inventaire*, p. 153-4, 157).

¹² R. VENCO RICCIARDI, «The 1987 Excavations at Hatra», *Mesopotamia*, 23 (1988), p. 31 s.

¹³ Inscription H 214 from shrine VIII (AGGOULA, *Inventaire*, p. 106).

¹⁴ The date of 7/8 A.D. for the square temple, as read by B. Aggoula (*Syria*, 60 [1983], p. 251), from a photograph of an inadequate stamp (W. ANDRAE, *op. cit.*, fig. 278), is in disagree-

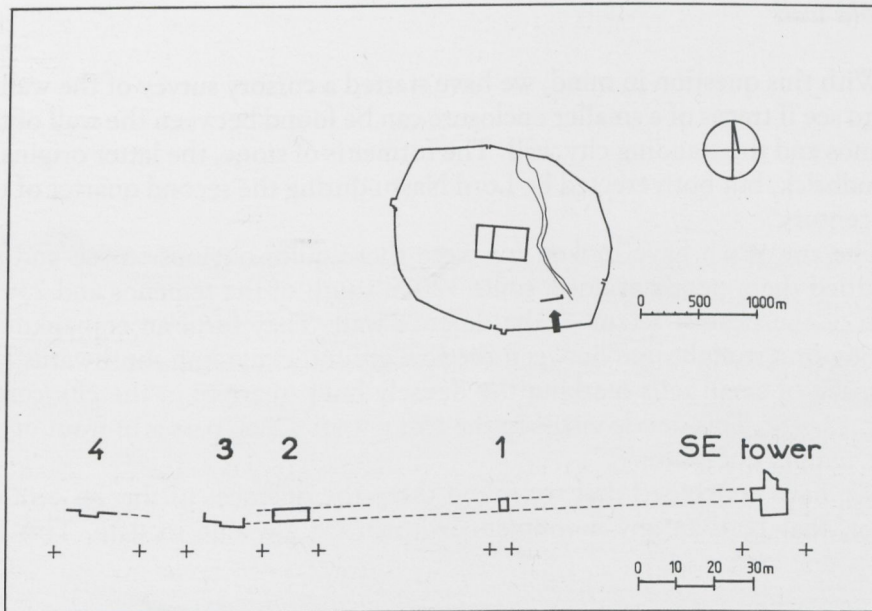


Fig. 17 - Situation of the old wall (arrow) and of soundings along it (by A. Dolot).

complete, it is established that the construction of the great liwans has started under Lord Worod in the beginning of the 2nd century¹⁵ and was completed by Lord Naşru, who also erected the stone enclosure of the temenos by 138 A.D.¹⁶ Lord Naşryahb, father and predecessor of Naşru, is mentioned in the extant inscriptions only in connexion with his son and no foundations of his own are on record, suggesting a rather short reign. The ruler of Hatra who opposed Trajan in 117 should have been therefore Lord Worod. The city had obviously to be walled at that time, but the standing walls were built, as we have seen, only about 140 A.D. Where is, then, the rampart of Worod's time?

ment with everything we know about the chronology of the great temple complex, but the indistinct numeral could well begin with CCCC instead of CCC...

¹⁵ Inscriptions H 266-267 (*wrw d m*) and those reproduced in ANDRAE, *op. cit.*, p. 154, fig. 273, 274, 276 (*wrw d mry'*) are necessarily contemporary of the construction still in progress, as they are not visible from the ground level. The series H 240-245 on the same walls, concerning gifts for the building of «Sagil», is dated by H 243, of 428 Sel., 117 A.D. The *floruit* of Lord Worod is therefore dated c. 110 A.D., cf. J.T. MILIK, *Dédicaces faites par des dieux*, Paris 1972, p. 364, and B. AGGOULA, *MUSJ*, 47 (1972), p. 54-55.

¹⁶ Cf. H 272.

The old wall

With this question in mind, we have started a cursory survey of the walled area to see if traces of a smaller enclosure can be found between the wall of the temenos and the standing city wall. The former is of stone, the latter originally of mudbrick, but both erected by Lord Naşru during the second quarter of the 2nd century.

The traces we have looked for were there quite obvious to see and we identified them nearly at once, some 320 m south of the temenos and 230 m north of the nearest sector of the defence wall. They form an embankment running in a straight line between the low ground extending southwards and the maze of small tells marking the densely built quarters in the city centre (Figs. 17, 18). This divide meets to the east a wadi which passes in front of the great temple enclosure.

We have concluded that we found there the defences of the 1st century, earlier, that is, than any monument in town we are able to date. This im-

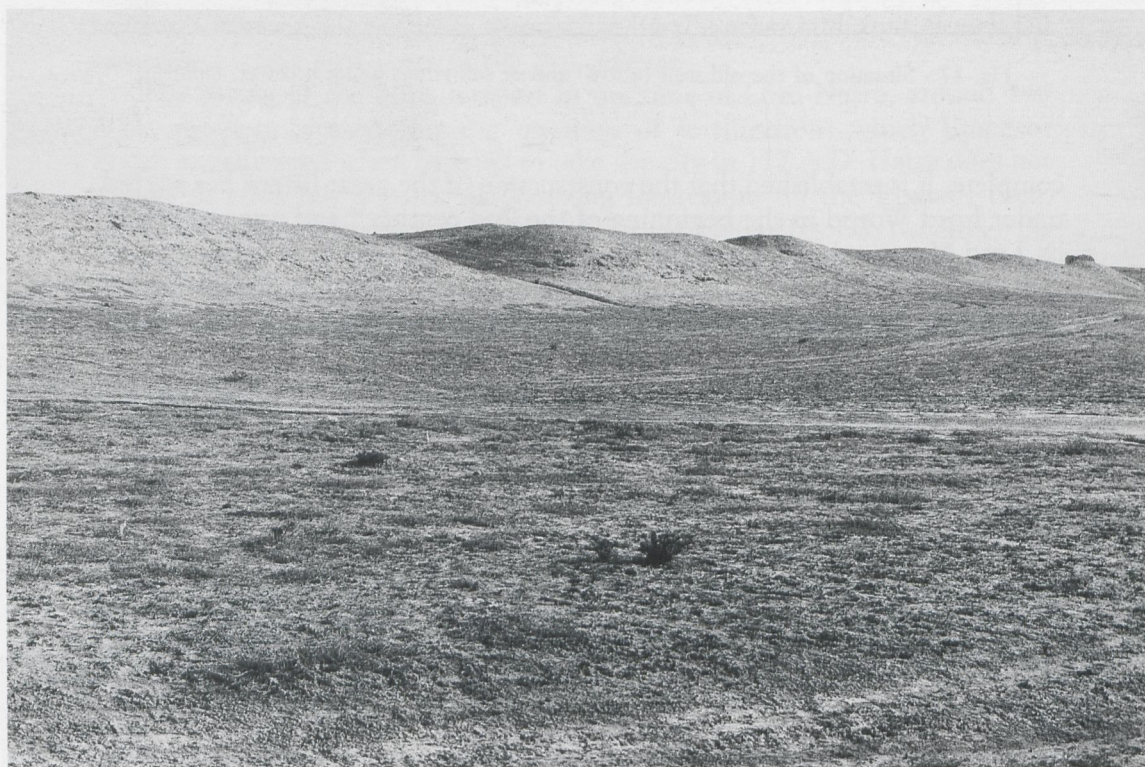


Fig. 18 - The embankment of the old rampart, as seen from south before excavation.



Fig. 19 - Same, at the close of season 1990: from left to right, soundings 4, 3, and 2.
In the background, the main temple complex.

pression was confirmed by the fact that all tombs to be seen in the neighbourhood happen to stand outside the embankment, while the 2nd century development included most of them within later fortifications.

Given these circumstances, I have requested the permission to check these observations through digging. This was granted immediately by Dr. Damerji and work has started without delay along the line of the presumed early wall (Fig. 19).

Two alignments of stones could be seen to emerge on the embankment, one at its base and the other at mid-height, both extending for about 200 m from east to west. They seemed at first to represent the inner and outer faces of the wall. Eventually it appeared, however, that the upper line of stones belonged in fact to houses which have used the already dismantled wall as a foundation.

The defence wall was built about 3 m thick in mudbrick on rubble foundations which emerge at places as the lower alignment of stones. Subject

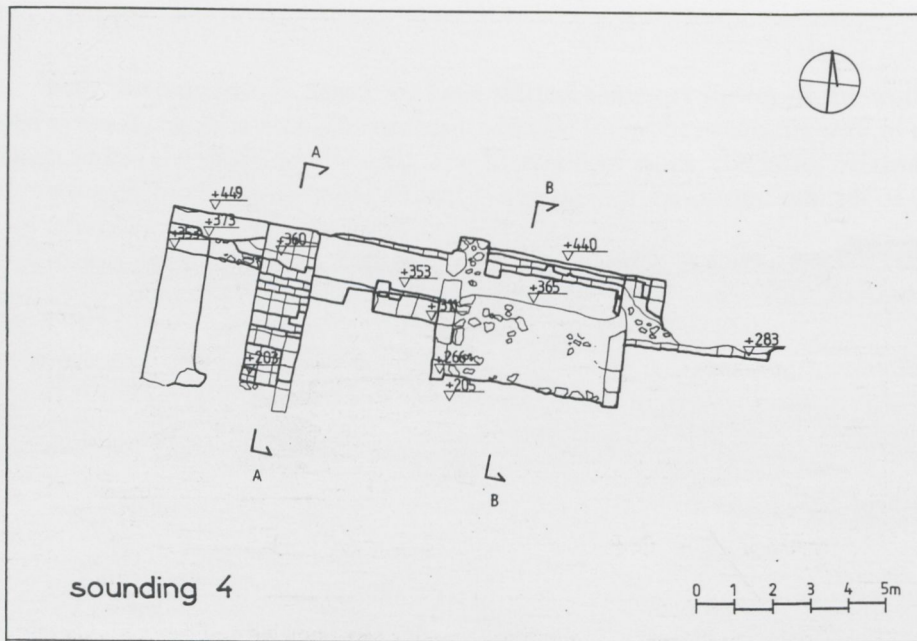


Fig. 20 - Plan of sounding 4 (by A. Dolot).

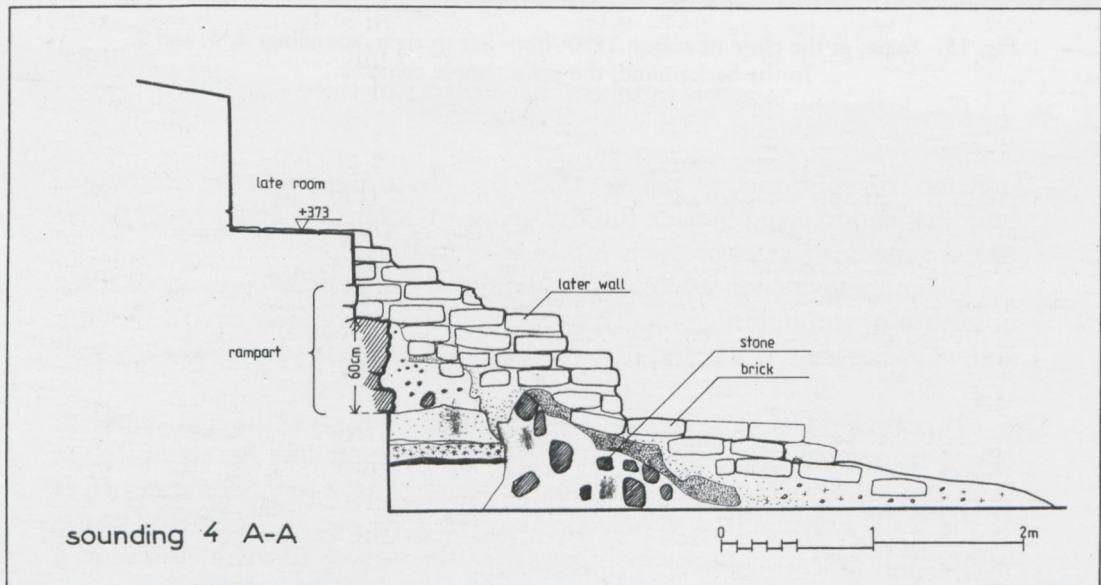


Fig. 21 - Cross-section AA through sounding 4 looking east, showing later structures (by A. Dolot).

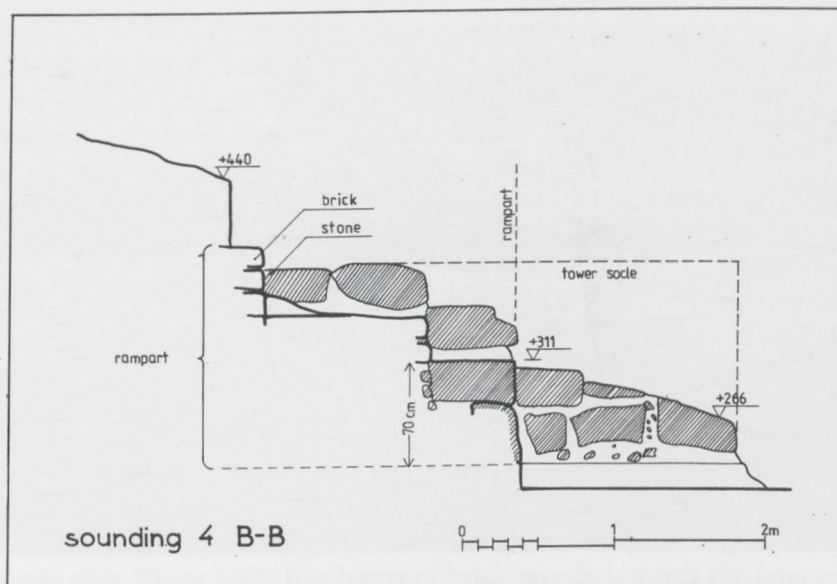


Fig. 22 - Cross-section BB through sounding 4, looking east, showing foundations of the curtain and of a tower (by A. Dolot).

to very heavy erosion, the wall was found reduced at best to six courses of bricks wherever it was protected by later houses built on the ruin, and otherwise less, to the point of disappearing. In spite of the damage, what is left gives a quite clear idea of the original rampart.

All five soundings opened along the wall have provided coherent information. Starting with the westernmost sounding 4 (Figs. 20-22), a foundation in rubble still preserving in front two courses of rough stone facing about 70 cm high, and 50 cm higher at the back, was found to support a mudbrick curtain now reduced to five courses at the back, while in front the erosion has removed the brickwork entirely and exposed the rubble fill of the socle (Fig. 23). Extant bricks, here and elsewhere, measure 40 cm to a side, being 11 cm thick.

A tower built in the same way, 5.30 m wide in front, was advancing from this curtain for 1.50 m or more. The socle of the tower is about 70 cm higher than that of the curtain adjoining to the west (level +365 against +311), and 80 cm higher than the socle of the curtain to the east (level +283). The foundation of the façade is not preserved.

At the back of this trench there are remains of a building having stood on the inner face of the defence wall previously reduced to the height of 5 bricks or less. On this foundation, two courses of stone still remain, forming the



Fig. 23 - Sounding 4, socle of a tower.



Fig. 24 - Sounding 4, looking eastwards. In the foreground, remains of a later house.

northern limit of the excavation. While most of the building stays unexplored on the high ground to the north, one room was overlying the old wall, reduced at this spot to the stone socle and two layers of brick. A short perpendicular wall, three and a half bricks or 1.40 m in width, apparently made of material taken from the fortification, is sloping down over the rampart socle and disappears upon reaching the flat modern surface (Figs. 22, 24). The floor of the corresponding room lies about 60 cm higher (at +373) than the top level of the socle and is well preserved at the foot of the plastered northern wall of the room. The sounding was not continued to the west.

After a break of 22 m, the old wall appears again in the sounding 3, below a corner of another late house (Fig. 25). The heavily eroded socle of limestone rubble with rough huge stones in front stood about 1.10 m high. Three courses of original brickwork are preserved, lower than the stone foundation and brick wall of the late house cutting through the rampart (Fig. 26). A tower 4 m wide reinforced there a hollow angle of the wall whose line receded northwards, parallelly to the stretch found in sounding 4. The socle of the tower was only 50 cm high; five layers of brick recede towards the later wall at the back (Fig. 27).

The fragment exposed some 8 m farther in sounding 2 is even more

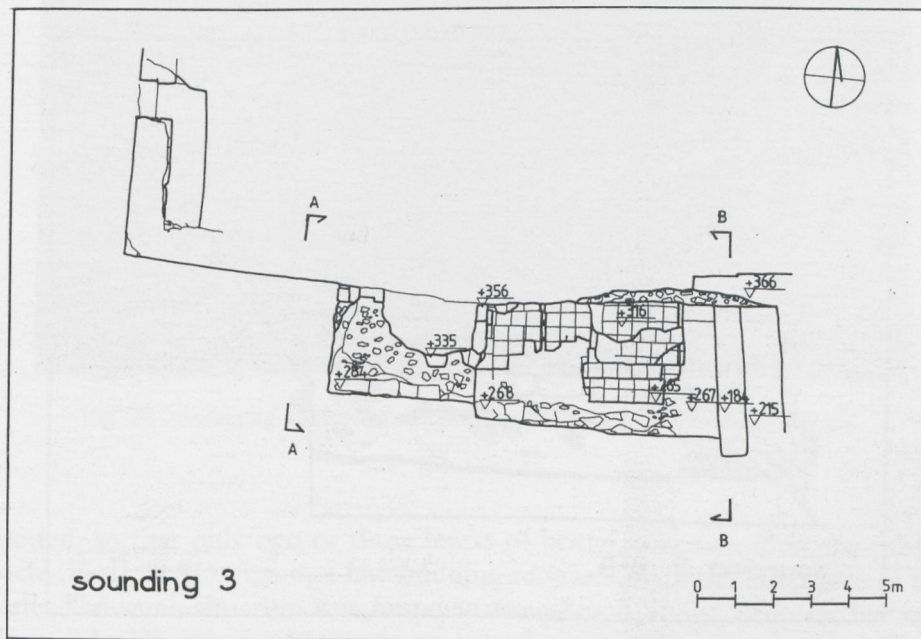


Fig. 25 - Plan of sounding 3 (by A. Dolot).

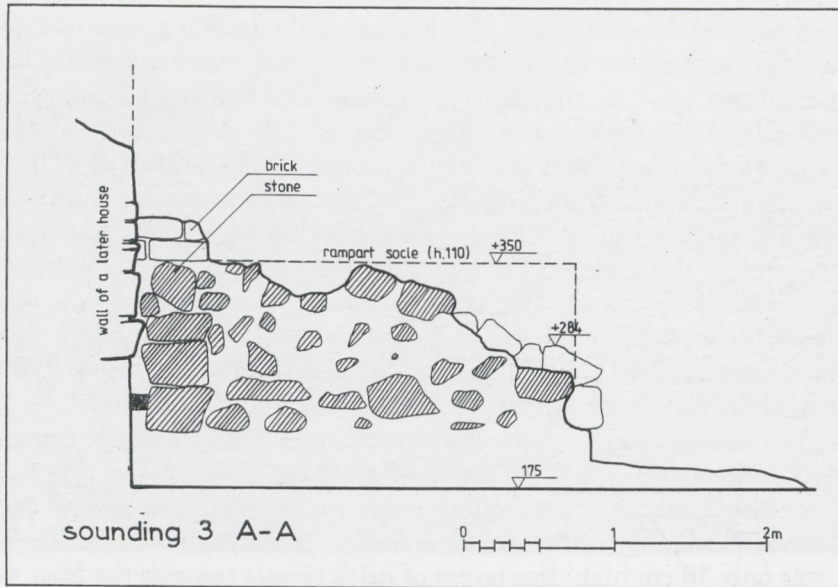


Fig. 26 - Section AA through sounding 3, looking east (by A. Dolot).

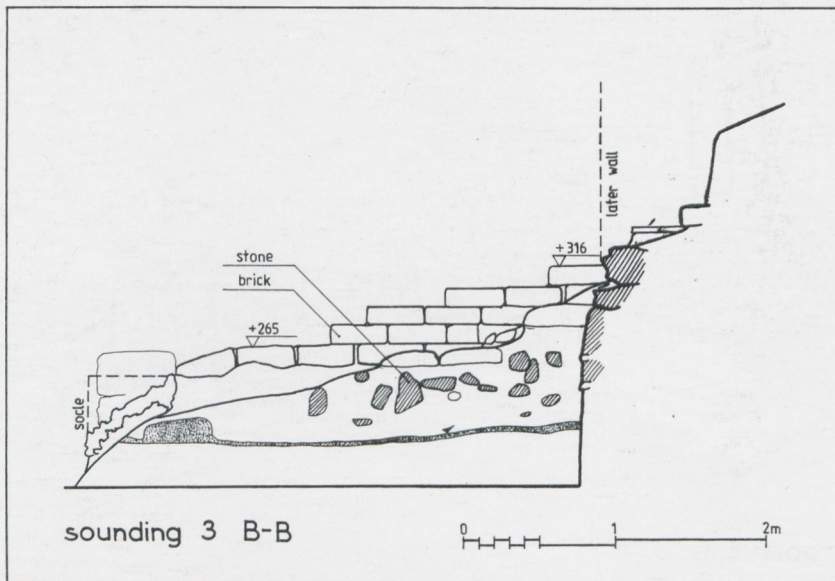


Fig. 27 - Section BB through sounding 3, looking west (by A. Dolot).



Fig. 28 - Sounding 2, looking westwards: remains of the mudbrick curtain.

eroded, so that only two or three layers of bricks were found on the rubble socle (Figs. 28-31). Again, a late building recovers there the inner face of the wall. The same situation was found in sounding 1 about 50 m farther east (Figs. 32, 29), where the strata preserved against the outside face of the rampart came out clearer than in other soundings (Fig. 33).

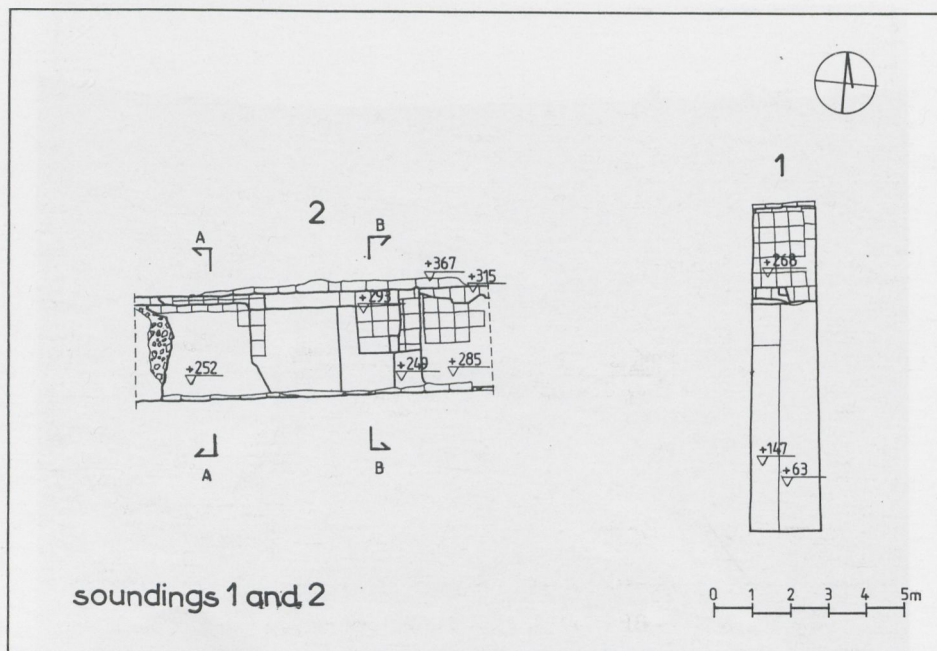


Fig. 29 - Plans of soundings 1 and 2 (by A. Dolot).

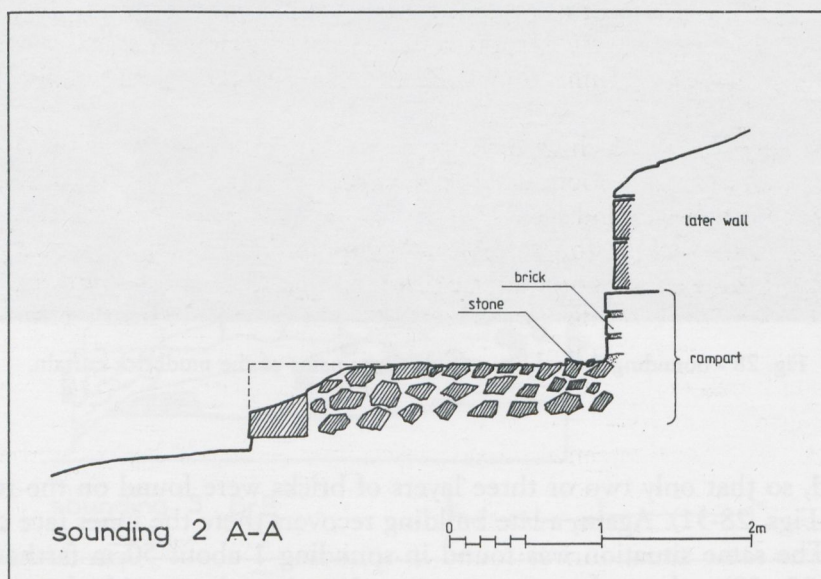


Fig. 30 - Section AA through sounding 2, looking west (by A. Dolot).

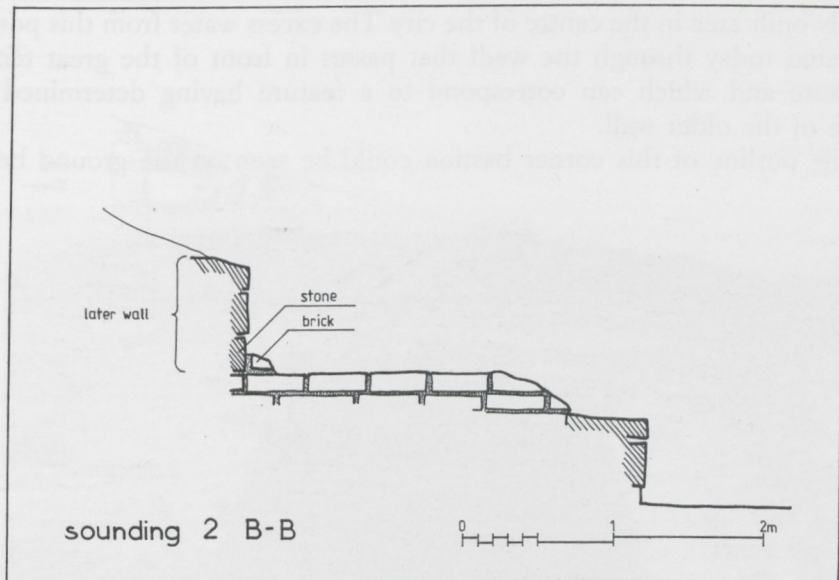


Fig. 31 - Section BB through sounding 2, looking east (by A. Dolot).

While not reaching the virgin soil, this sounding does expose at the bottom a rich, black layer of organic refuse (6). This was recovered by a layer up to 30 cm in thickness (5), formed by natural sediments washed down the slope, followed by a dump about 40 cm thick, sloping gently southwards (4).

The foundation trench of the rampart was dug, nearly vertically, through the last two layers. It is about 60 cm deep and was partly filled with sterile soil (3) before loose bricks and stones (2) were dumped into it. The foundation, 50 cm high, made of limestone rubble and broken bricks, supports above the filling level three courses of mudbrick laid in at least seven rows now exposed. The rest of the wall was dismantled and the remains covered with a thin layer of sterile soil, on which a late brick wall was built at the far end of the trench, preserved 7 courses high up to the present surface. Its ruin provided the fill of the uppermost layer (1).

The last sector that came under investigation is the site of a corner bastion situated 59 m east from sounding 1, where the rampart turned at right angle northwards. The difference of level between the town side and the field side is again very clear there: during the rainy April of 1990, a large pond had been formed between, on the one hand, the East Gate and the adjoining rampart of mid-second century and, on the other hand, the slope marking the limit of the

densely built area in the centre of the city. The excess water from this pond is evacuated today through the wadi that passes in front of the great temple enclosure and which can correspond to a feature having determined the course of the older wall.

The outline of this corner bastion could be seen on the ground before



Fig. 32 - Sounding 1: foundation of the rampart and, farther up, a later wall.

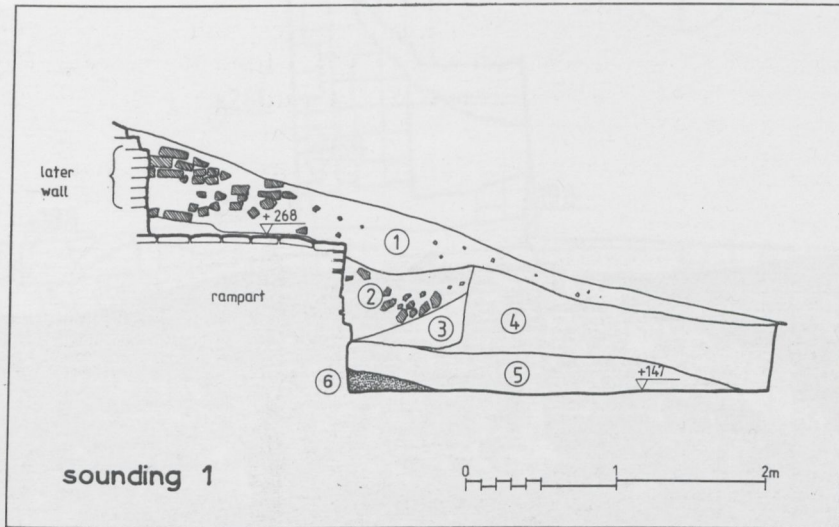


Fig. 33 - Cross-section through sounding 1, looking east (by A. Dolot).



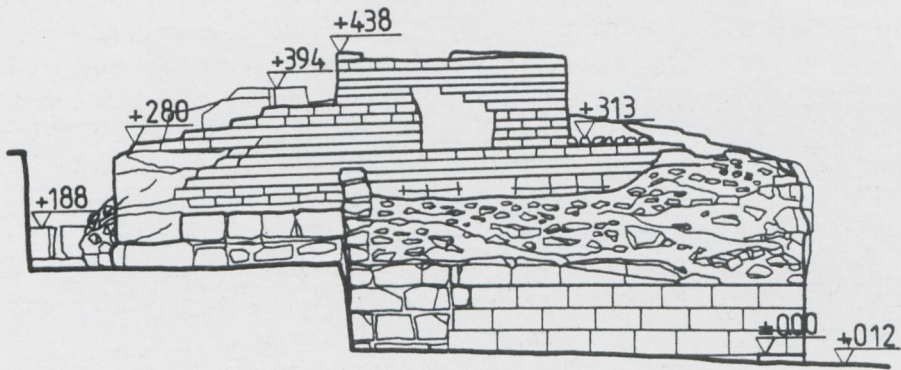
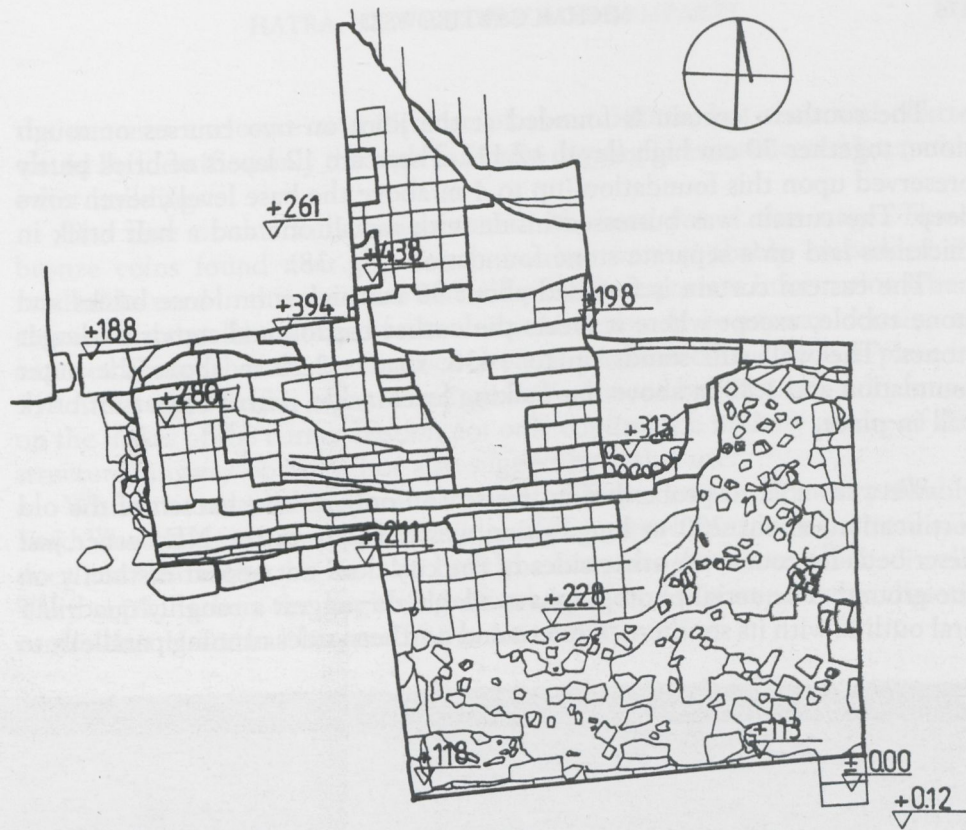
Fig. 34 - The SE corner tower before excavation, southern front.



Fig. 35 - The same as excavated, southern front.

excavation (Fig. 34), but the clearing revealed three courses of ashlar masonry of very good quality, preserved in front 1.13 m above the ancient ground level marked by two slabs laid at the corner (the base level for measurements in all our soundings). Higher courses of the front wall are lost to erosion, but the rubble fill remains inside up to 2.30 m, supporting at that level the subsisting layers of bricks (Fig. 35, 36). On the eastern front four courses of rough blocks retain the inner rubble fill about 30 cm higher, but this side is also founded about 1 m higher than the front, following the natural slope (Fig. 37). At the far end of the bastion the last preserved fifth layer of bricks reaches the level of +3.13 m, while towards the southern front the brickwork is sloping down to +2.28 m.

The bastion measures 6.60 m on the southern front, while the sloping east side is only 6 m long. Both advance 3.50 m from the face of the corresponding curtains, each being 3.40 m wide, to which the brickwork of the bastion is bonded either way. Both walls are cut and disappear some 4-5 m from the junction.



SE tower

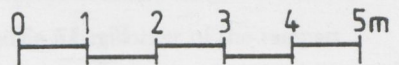


Fig. 36 - Plan and view from south of the SE corner tower (by A. Dolot.)

The southern curtain is founded at the joint on two courses or rough stone, together 70 cm high (level +2.11). There are 12 layers of brick partly preserved upon this foundation (up to 4 m above the base level), seven rows deep. The curtain was buttressed inside with a wall one and a half brick in thickness laid on a separate stone foundation (Fig. 38).

The eastern curtain is founded about 90 cm higher on loose bricks and stone rubble, except where it meets the corner bastion and stands on larger stones. The wall still stands up to +438, that is 2.40 m above the outer foundation and 1.80 m above the walking level inside, with 14 layers of brick still in place.

We were able to probe during this season only a short stretch of the old fortification, about 200 m long, going westwards from the NE corner just described. Its course on other sides of the city does not appear distinctly on the ground. The aerial photographs available do suggest a roughly quadrilateral outline with its southern, western and northern sides running parallelly to



Fig. 37 - The SE corner tower, eastern front.

the temenos enclosure at a distance of about 300 m, but their real course would be identified only through extensive digging in areas covered later with other buildings.

The date of this fortification cannot be fixed yet at this stage. Three bronze coins found near the corner bastion were probably embedded in mudbricks used in this structure and will provide important information when cleaned in the laboratory of the Iraqi Museum. It is anyway certain, as exposed above, that the newly discovered circuit should have been in place in 117 A.D., when Trajan came to besiege it. Four stone balls for catapults found on the inside of the corner bastion not only confirm the military nature of the structure, anyway obvious, but also suggest its active use.

While the ruler of Hatra at the time of Trajan's war was most probably Lord Worod, known as the first builder of the great liwans in the temenos, it does not follow that he has also built the ramparts that served him so well. They mark, rather, the beginning of urban life in this important religious centre that Hatra has become in the 1st century.



Fig. 38 - The southern wall joining the SE tower. Left, the inner corner of the rampart.

It is remarkable that all extant funerary monuments lay outside the smaller circuit, while most of them are inside the larger one. These tombs are therefore older than about 140 A.D.; one of them was built in 113 A.D.¹⁷ Some other seem more archaic, but they are not necessarily older than the first rampart now identified, and the same may be true about a chapel mentioned above (note 13), dedicated to Nergal in 98 A.D.

Description of a part of the great rampart (Figs. 1, 2)

The numbering of towers and bastions in the description of W. Andrae is not complete, as some could not be recognized prior to excavation. It has appeared practical to number in linear order all features of the main wall, such as curtains, towers and batteries, starting northwards from the point by the SE corner where the clearing has been stopped. Features of the inner wall and of the advance works are here located in relation to numbered sectors of the main rampart.

Sector 1 is a curtain of the southern front, built on stone socle c. 80 cm high in mudbrick preserved up to 2 m above the socle. Plaster is preserved in large patches on the brick face.

Sector 2 (Turm 115 of Andrae), wide 6.55 m in front, springs forward for 4.30 m (west) and 3.90 m (east). Five courses of stone reach c. 2 m above the ancient level, then 6 courses of brick (here and elsewhere 37×37×12 cm) form walls two bricks deep (c. 75 cm). In the brick wall, there are two arrowslits in front and one on the eastern side, 4-6 cm wide and c. 65 cm high, about 70 cm above ground (Fig. 5). The entrance to the tower has been cleared (Fig. 6): it is an oval opening in the inner face of the wall, with no trace of a door.

Sector 3, is a curtain c. 27.5 m long, broken by a modern path used by herds. The stone socle is about 1 m high and 3.20 m wide. Above it, some bricks are still in place.

In front of sectors 1-3, there is a ditch and a *proteichisma* preserving one to three courses of the inner face to the height of c. 1 m in a stretch some 40 blocks long. Parts of the rubble fill subsist, while the outer face has collapsed

¹⁷ Tomb J 3, dated by inscription H 294 (Aggoula, *Inventaire*, p. 144) to Tishri 423 S. The date of H 293 from the same tomb is incomplete and should not be read as 400 S. For a possibly older tomb, see Appendix II.

entirely, but it can be seen that the original width was less than 2 m.

Some 200 stones of the inner face have been recovered from the débris and aligned between the two walls. They are roughly rusticated and most are marked with mason signs on a smoothed patch in the middle, unlike the plain stones of the main rampart in the corresponding sectors. Measuring 60 to 90 cm in length and 40 cm high, they would complete the partly preserved courses of the *antemural* and allow a restoration of 4 more courses. The structure was therefore at least 2.5 m high, if no bricks were used on top of it.

In front of sector 1 there is an exedra in the antemural protruding into the ditch (*balbrunder Vorbau* of Andrae, p. 53, fig. 58), preserving two courses up to a height of 80 cm. It is 3.80 m wide and 4.20 m deep. Four stones found there, bearing a simple moulding, formed apparently the crowning of the exedra, which does not seem to have had a military function.

Further east, in front of the curtain in sector 3, a curious installation (to be found also in front of sectors 9, 16, and 18) seems to have been a part of a shooting device. Two stones set firmly in the ground about 4 m from the main wall form there a square socle 80 cm to a side. Just above the ground a round opening 22 cm in diameter is pierced across both stones parallel to the wall (cf. Fig. 13). A wooden axle could have been fixed in it.

Behind the main line there runs the inner wall, 3.15 m thick (Fig. 3). Its town face can be seen behind sector 1, near a water-hole; a stone socle in two courses, together 85 cm in height, supported a mudbrick curtain. Some 100 m farther west all three walls appear on surface: the inner line 3 m thick, the main line of 3.30 m and the *proteichisma* of 1.30 m; the space in front of the main wall is 9.40 m wide there and the passage behind it 11.20 m.

Sector 4, is a stone bastion (*Turm XXXVIII* of Andrae) forming an angle protruding c. 5 m afield (Fig. 10), built around an original mudbrick tower and linked to the *proteichisma* by a short wall only 1.40 m thick, in which a passage 1.10 m wide, with a threshold but no door socket, allowed communication between the eastern and southern walks at the foot of the main line.

All blocks of the bastion are regular and smoothed on the whole surface, laid as stretchers and sometimes as headers, to keep in place the fill of rough stones and mortar. There are 15 courses in place, of which the lower six preserve the outer face.

On top, a rectangular room (the stone wall stands now about 1 m higher) corresponds to the outline of the original mudbrick tower.

Sector 5 is formed by three straight stretches of a stone curtain, respectively 10 m, 8.40 m and 13.60 m long, enveloping the original SE corner of the

fortification, now entirely covered by its own débris on the inside and on top. The four lowermost courses of this late reinforcement are preserved completely, the face of two more is heavily eroded. Some have mason's marks.

Apparently, the line of the original wall was somehow different, as it can be concluded from the course of the *proteichisma* in front, dismantled to the foundation because it was intersected by the northern part of the added polygonal curtain linking the corner bastion 4 and the earlier *tower* 6. This, left slightly behind the line as a result, measures 7 m in front, and its stone socle, 50 cm high, still bears some mudbrick courses on top. The gap between the tower and the end of the stone curtain has been filled with bricks.

Sector 7 represents an original mudbrick curtain on a socle of the same height and fabric that in tower 6, covered respectively with mud and lime plaster. It was 30 m long, but was later divided in two by a stone bastion 8. At one place South of the added battery, there is a flat stone, 50×30 cm, set into the face of the wall, containing a round nest intended for a beam 10 cm in diameter (Fig. 12).

Battery 8 (*Turm XXXIX* of Andrae) is shouldering the mudbrick curtain 7, leaving 13 m between itself and tower 6. It is a solid block built in mortar rubble faced with 15 courses of squared stones, each with smoothed edges and a patch in the middle, often bearing a mason's mark; some stones are clearly reused, such as fragmentary cornice identical to the one used in the exedra in front of sector 1. The battery is 8.20 m wide in front, 9.20 and 9.60 m sidewise. After the *proteichisma* had been interrupted by this construction, it was completed with a buttress advancing into the ditch. On top of the battery, an even, mortared surface bears two sets of hollows for *tric-trac*, being a proof that this was the floor of the artillery chamber, necessarily level with the *chemin de ronde*. A stump of a wall of this room still subsists at a corner.

The tower between curtains 7 and 9, 6.60 m in front, apparently damaged beyond repair, has been cut to a line advancing some 20 cm on the curtains, filled with bricks set in mortar, and plastered together with the adjoining walls. Instances of repairing can be also seen on curtain 9: a patch of brick in mortar (and not mud plaster), apparent also on the present top surface, and a stone patch nearby.

The thickness of the wall can be measured on top of this curtain. It is 8 bricks (3 m) deep. In front, there is a device of the type already described in front of sector 3.

Tower 10, a part of the original setup, has been also severely damaged and subsequently repaired. The corners of the socle were buttressed to support

masonry pillars, between which mudbrick fill is bound with the kind of mortar typical of the repairs observed in the neighbouring parts of the wall (Fig. 9).

Battery 11 (Turm XL), is built against the original curtain side by side with tower 10 (Fig. 4). The gap between them, only 50 cm wide, is filled with brick. This bastion is much smaller than the one described above (only 6.20 m wide), and its masonry is somewhat different than in the other added parts of the wall: most ashlar blocks are entirely smoothed, and mason marks differ from those found further south. On side walls, protruding stones had served probably as support for scaffolding; three are to be seen one over the other on the northern side of the bastion (Fig. 11). On the ground at the foot of the battery, fragments of rather coarse blue-glazed tiles are scattered, obviously from the excavated fill; as they are to be seen also near other batteries further along the line, it can be assumed that they had been used to cover the artillery rooms on top of these bastions, just as it was probably the case with the battlements.

The ditch in front of the first 70 m or so of the eastern wall (sectors 6-11) is deeper and larger than elsewhere, and the earthen wall outside considerably higher (Fig. 4). A hillock left in front of curtain 7 marks the limit of an older, narrower ditch, transformed in the same time as the stone curtains and batteries were added to the main wall. Other isolated mounds at the corner are all that is left of the original earthenwork, heavily eroded elsewhere (Fig. 3).

While the walk left between the main and the inner wall is fairly regular along the whole line of fortifications, the space behind sectors 4 to 20 (the latter beyond the stretch described here) is closed at both ends and three times wider than in other places (Fig. 7), over 30 m behind battery 20, where a postern has been located leading from town. This part of the inner wall could have served as a military camp. Right behind bastion 20, there is a breach in the main curtain down to the rock and the ditch has been filled even with the passage thus opened (Fig. 12). It is not excluded that we have there a trace of the final Sassanian onslaught.

APPENDIX I

New reading of the inscription Ibr. IX. J. KH. IBRAHIM, *Pre-Islamic Settlement in Jazirah*, Baghdad 1986, p. 200, pl. 235-236; J.B. SEGAL, *JSS*, 31 (1986), p. 76; B. AGGOULA, *Syria*, 64 (1987), p. 224 and 66 (1989), p. 311.

This important inscription, engraved and inlaid with bronze on a lintel found in the East Gate, comes presumably from the inner passage of this gate, 4 m wide, and is preserved in four fragments measuring together 4 m in length. The text was published by J.B. Segal, without photograph or facsimile, and by J. Kh. Ibrahim. It was studied by B. Aggoula, who had only access to Segal's paper. The present reading was made directly from the stone (cf. Fig. 16, with the crucial passage in line 2).

1. [...] NŠRW 'B[Y]' RB' 'PKL' [RB'] DY ŠMŠ 'LH' [QŠYŠ' ...]
2. [...]LY ŠWR' DY KP' GWY' 'L HYWHY WHY' BNWHY
3. [...] ŠMŠ 'LH' LD/R [...] W [...]
4. [...] ŠMHWN W 'QBH DY NŠ[RW ...]
5. [...] ŠMŠ[Y]HB DKYR L 'LM WMQYMŠMŠ BR[H ...]

Line 1. The titles of Našru, «great patrician, high-priest of the god Šamš, the elder (?)...», cannot apply to a person different from Lord Našru, even if the title of *marya* is here omitted. I don't think the adjective *qšyš'* refers here to the god. The translation of 'by' by «patrician» could be misleading, as the Roman title had an entirely different meaning; however, «patriarch» would be even less satisfactory. There seems to be a general agreement that the title applied to some kind of tribal chief.

Line 2. Aggoula has rightly seen that *šwr' dy kp'* means «wall of stone» and not «of the arch» [Segal and Ibrahim]. What follows is my new reading; in the following lacuna, the *gimel* of *gwy'* is the only possible letter to fit the remaining traces, and there is a hint of the *waw* and the final *aleph*. The «interior stone wall» refers obviously to the temenos wall, built by Lord Našru in or before 138 A.D. (H 272).

Translation: «...Našru, the great patrician, high-priest of the god Šamš, the elder... the interior stone wall, for his life and the life of his sons... the god Šamš... their names and the offspring of Našru... Šamšyahb may be remembered for ever, and Moqimšamš his son...».

APPENDIX II

Inscription H 416. W. AL-SALIHI, *Sumer*, 42 (1985/86), p. 109-110, fig. 21-22; B. AGGOULA, *Syria*, 67 (1990), p. 419, and *Semitica*, 38: 1 (1990), p. 1-7.

The stone was found among the débris of the main wall, near a tomb reused as a tower north of the East Gate (sector 44 in our survey). It is not certain whether the inscription comes really from this funerary monument.

1. [...]M (I)II B'DR ŠNT
2. [...]C XX XX XX VII BLY' DY PRHYR
3. BR 'LKWD MRY' BR NBWDYN
4. LBLY' DBNY 'LKWD W'HW-
5. HY LPRHWR ('BWHY)

«[Day] 2 (or 3) of Adar, year [...]67, the tomb do PRHYR son of Lord 'LKWD, son of Nabodayyan, for the tomb of the sons of 'LKWD (his father) and brothers of PRHYR.»

The translation of *bly'* as «tombe», proposed by Aggoula, results from the context, here and in the inscription from Qabr Abu Naif, dated in 137 A.D. (F. SAFAR, *Sumer*, 17 [1961], 41-42; A. CAQUOT, *Syria*, 40 [1963], 14; B. AGGOULA, *RIH IV, MUSJ*, 49 [1975/76], p. 469-488).

The name of the owner was understood by Safar as the Persian *Farband*, but Aggoula reads *prbnr*. However, the last but one letter of the name is identical to the *yod* in *mry'* or *nbwdyn*. Line 4 begins with a *lamed* and not a *waw*.

The date numeral is damaged, leaving the number of hundreds a matter of conjecture. While al-Salihi supposed the year to be 667 or even 767 Sel., Aggoula has rightly seen that the latest possible date is 467 Sel., that is 156 A.D. However, he finally chose 167 Sel. (146 B.C.). Both proposals fall quite out of range of the Hatrean epigraphy, and while the dating after 240 A.D. must be rejected outright, the early date is highly questionable, especially as there is no marked difference in script compared with the whole epigraphical corpus dated between 98 and 238 A.D. (only a few uncertain texts are supposed earlier).

Assuming with Aggoula that the tomb concerned is indeed identical with the tower of the main wall, the latest date possible, 156 A.D., should also be rejected, as the wall itself was built already in the 140's. This would make the inscription the earliest known in Hatra, even if not earlier than 367 Sel. (55 A.D.).

However, the stone might very well have come from another tomb and

simply be reused in the wall in the course of later repairs. There is, in any case, no reason to think that the monument was built as a part of the fortification, as Aggoula would have it. On the contrary, the builders of the wall found it convenient to incorporate this tomb and several others in the fabric of the rampart, because they were already standing there; the relation of the tombs and the wall is quite clear from the archaeological point of view. The date of the inscription, in whatever way restored and if relevant for this tomb at all, has in any case no bearing on the dating of the rampart.

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