

IMTO – Italian Mission to Oman

University of Pisa

SUMHURAM

Preliminary Report

October – December 2008 (SUM08B)



Sumhuram Preliminary Report SUM08B
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ARCHAEOLOGICAL PRELIMINARY REPORT (SUM08B)

October – December 2008

The second IMTO's campaign of 2008 (SUM08B), directed by Alessandra Avanzini, started on 11.10.08 and finished on 11.12.08.

The main goals of this campaign were focused on excavations in Area A, Area F, Area G and Area E. Connected with the restoration works performed inside the Monumental Building 1, a general cleaning of the building which brought to light different constructional phases, has been done.

The excavations were conducted by prof. Alexander Sedov, as chief-archaeologist, and by dr. Said al Mashani, dr. Michele Degli Esposti, dr. Alexia Pavan with the collaboration of Stefano Francesconi, Marilena Scuotto and Silvia Zago.

Dr. Said al Mashani was responsible of the working operations in Sumhuram; Arch. A. Massa was the responsible of the topographic survey; Sergio Martelli was responsible of the drawing of the small finds.

The consolidation and restoration of the ancient masonry structures, under the direction of prof. M. Sassu (Department of Structural Engineering, University of Pisa), have been done on the field by eng. Marco Andreini, eng. Chiara Cei, eng. Francesco Stefanini and eng. Alessandro Soru.

The Mission had the pleasure to guest for the second time Prof. Ch. Darles which dealt in the study of the Monumental Building 1 and its building phases.

The work of IMTO has been possible thanks to the collaboration of the Office of the Adviser of His Majesty the Sultan for Cultural Affairs in Muscat and in Salalah. In particular, we would like to thank Ghanem al Shanfari, Said al Mashani, Said al Salmi, Hassan al Jabri and all the Museum's team for their kind helpfulness.

Salalah, 11.12.08

Archaeological Report

Excavations in area A (Trench Supervisor: Michele Degli Esposti)

After a few days spent removing part of the debris due to wall M18 collapse (squares g/h8), in order to make way for scheduled excavations in Area F - west of the so called Monumental Building 1 -, and cleaning the top of this latter to allow a clear understanding of its constructional evolution (see the detailed report), new excavations took place in square h/i8, south of the Monumental Building 1, aiming at the definition of the latest constructional phase in the area, already partially brought to light during SUM08A campaign (fig. 1). The previously dug area has been enlarged both westward, reaching MB western corner, and southward, to reveal the actual extension of room A110 (fig. 2). Some considerations made about the area arrangement needed to be rethought, specifically concerning the position of wall M248 and the foundation level of M249.

General stratigraphical sequence

The top of archaeological record was constituted, as already noted for this area, by US21, a massive heap resulting from the tumbling down of the upper part of wall M17 and subsequent aeolian earth accumulation. No difference in its composition has been noticed if compared to what emerged in last campaigns.

Finds in this portion of US21 were extremely scarce, with only three pieces worth of mention: one crucible fragment (G112), one stone lid (S1187) and the fragment of a stone vessel's wall with horizontal handle, bearing a wave decoration near the rim (S1188). No trace of possible squatter occupation came to light. US21 floor was almost inexistent in this area, where US248 and US278 have been individuated directly under the upper debris, between walls M17 and M247. This two strata could be considered equivalent (a greyish loamy soil, bearing white and light brown streaks), but have been separated due to stratigraphical evidence, since direct contact between them was impeded by the presence of the little N-S wall M270, with US248 located east of it and US278 on the opposite side. Their floors can be considered as one too, and constitutes the living ground of the latest occupational phase identifiable in the area.

South of wall M247, unearthed in its entirety, US247 has been redefined. It actually represents the outcome of room A110 walls collapse, standing as the upper archaeological deposit of this area, and can be described as a chaotic heap of stones amidst brown loamy soil with some charcoal lumps. What had previously been named US247 (due to the fact that the debris pertaining to wall M17 had not been distinguished from those imputable to A110 ruin), has now been defined as US281, a brown loose soil containing scarce inclusions, laying above its floor, consisting of a not accurately tramped brown-greyish loam, with a remarkable quantity of medium size stones interspersed throughout it. Some noticeable finds came to light in both these two strata. A human limestone head, S1193 (see object card), probably meant to be set jutting out a wall, has been retrieved amidst US247 tumbled stones, witnessing its probable reuse. From this US also came a rectangular worked limestone architectural element (S1196), with a central band constituted by four engraved lines and a passing through hole near one end.

Removing US281 a series of remarkable finds came to light, as well as a limestone fragmentary full-relief animal (possibly a lion – S1194), a complete rectangular stone basin (S1203), some bronze objects (MB523 – plaque; MB526 – ear-ring; MB528 – ear-ring), fragments of soft-stone vessels (S1214; S1215; S1216; S1227; S1232) and some stone tools (S1221- mortar; S1222 whetstone; S1224 – mortar). A number of incense burners with some of the most beautiful objects found, until now, on the excavations have been discovered in room A110 (see object cards): S1197 an extraordinary burner with lion and ibexes, S1200 with geometric motifs, S1201 with various animal representations (feline and eagle) and a series of burners of different quality as well as S1207, S1208, S1209 and S1218 or S1202 beside some *Chlamys Townsendi* shells probably used as incense burners (Sh313; Sh314; Sh315).

The latest occupational phase: building BA8

In the northern portion of the investigated area, adjacent to wall M17, a series of small premises has been unearthed, partially constituting the continuation of rooms A109 and 109a already identified during SUM08A campaign, and composing a new building that has to be dated to the very last period of life of the city, and is characterized by the poorness of its structures. The building, BA8, is composed by at least four little rooms (A109, A109a, A116, A117) connected by the short corridor A118 (fig. 3). Most of the walls pertaining to this building directly rest upon US278 floor or US248 floor. This is surely true for walls M250, M251, M255, M271, M272; two little soundings in the corners between M270 and M242 and between M247 and M274 revealed that wall M270 surely belongs to a more ancient phase and has probably been reused as a support for a late phase wall, possibly realized making use of perishable materials (an integration can be recognized, made up of mudbricks, to obtain a connection between this wall and M17); for what concerns wall M274 it seems that a slipshod setting had been prepared, reaching a quite reduced depth, but the certainty about this matter will only be gained with further excavation. For what concerns M273 a progress of excavation has to be awaited as well to acquire assured evidence.

The southern wall of the building was M247, reused as a base for lighter materials walls in its western portion, while the opposite one turned out to be excessively weak to support new structures and had to be flanked by the little wall M250.

So far as the investigations have been carried out, the entrance to the building seems to be located west, between MB and wall M274, thus leading into the corridor A118 from which rooms A117, A116 and A109a were reachable; the last room of the building, room A109, was probably reachable from room A109.

Room A110

The room, quite wide, is delimited by the walls M247, M248, M249 and M290, with a door opening in this latter's southern portion and giving access to what, in the first building phase identified so far, is an ambient characterized by a clear cultic/gathering function. Along all the walls of the room in fact ran low benches, made up utilizing the same dry masonry technique as that of the outside walls; at each corner of the room stood a squared feature, three of which consisting of an even surface delimited by the benches' end or even by some additional roughly dressed stones: that's the case in the north-eastern corner of the room, where a sort of rectangular tank stands, constituted by four roughly dressed stones delimiting an even mud-brick surface.

Connected to this latter tank is a lightly irregular crescent, again realized using roughly dressed limestone blocks laid down with a whitish mortar, that circumscribes, together with the eastern bench, an area whose floor is characterized by an irregular plastering which includes a couple of stones of remarkable size. At its southern end, against wall M248, this area is closed by the fourth squared feature, interpretable as a sort of little altar, if its functional attribution has to rest on the finds retrieved in its proximity (namely incense burners). This "altar" is U-shaped, with a longer southern side in which a sort of niche or step is visible. It is open northward, where two little decorated pillars stand nearby the eastern corner, bearing the image of a snake (fig. 4). The trace of a removed stone identifiable in the surviving plaster level, indicates that the altar original shape had to be rectangular. In the space between this structure interpreted and the bench running along wall M248, a rectangular limestone tank has been individuated.

The plastered area in front of the altar bears traces of what could be interpreted as a couple of coarsely realized draining channels, possibly meant to lead liquids toward the "altar", that could actually be also interpreted as a basin, connected to some cultic function.

Some scanty remains of plastering survive both near the south-western and the north-western corners. Noteworthy is that the western end of wall M247 shows a different layout than the rest, being laid down above compacted earth amidst which are visible shells and ashy lenses. This fact, seen together with the botched layout of the north-eastern corner of the room (where walls M247 and M249 join each other), and with the plaster remains visible in the south-eastern corner, which

results to be earlier than the bench's construction, points to the existence of more ancient walls above which the new room was built. If this could turn out to be true (no need to mention that only further excavation could answer the question), it could explain the need of prolonging westward M247, giving the room its asymmetric plan. Aiming to define an earlier layout of the area, the complex structure of wall M249 must be kept in mind, particularly the fact that what seems to be a plastered face, possibly connected with that seen in the south-eastern corner of the room, is visible included in it.

The whole room seems to have undergone some modifications through time, as witnessed by the juxtaposition of reused stones to the altar structure, possibly to achieve the closing of the eastern portion of the room, whose plaster fitting could belong to a late constructional phase (indeed, it turned out to be subsequent to the building of the crescent).

The presence of a garbage pit nearby the western flank of the altar, filled with bones, shells, a large amount of charcoal and one large iron slag (US287), lends further evidence to the existence of a subsequent building phase for the room.

This new phase would then be represented by the realization of a sort of elevated platform, made up compacting brown loam and contained by means of a roughly set row of undressed stones (something similar to what is visible inside MB, beside the tank, and in room A105), describing a sub-oval shape, upon which was still lain the rectangular stone basin S1203, whose position cannot be reputed as the outcome of pure chance. The platform thus covered the southern bench and the abovementioned basin, and constituted the entrance level for the room's later phase. The connection with the northern and eastern lower parts of the room is not clear; these were most possibly reachable walking down a couple of steps located east of the abovementioned platform. Their actual layout can be less more than hypothetical, due to the bad conservation state, but the setting of other stones adjacent to the altar, as already said, and the construction of the crescent shaped structure could be linked with this new arrangement of the room.

Thus it seems that the irregular crescent, the platform and the unclear arrangement of the area between this latter and the "altar" could belong to a late phase of the room, with an earlier one in which only the benches, the altar and the tank delimiting it existed; the ascertainment of this matter will have to await further excavation and the removal of the mentioned features.

Sounding in room A108

As stated in the preliminary report of SUM08A campaign, US260floor could be identified as one of the earliest living surface of this room, but further investigation had to be carried out to ascertain his position inside the stratigraphical sequence. Hence, a sounding has been conducted in a small portion of the room, just against the MB wall M17 (fig. 5).

Here, under US260floor, the filling US282 has been removed, clearly identifiable as the setting meant to support the above floor. This layer, about thirty cm thick, consisted of a bed of irregularly sized *wadi* pebbles and stone flakes, upon which a brown-greyish loam had been compressed. It covered its floor that, alike what had been found in room A85, is characterized by an accurate plastering. Only few bones and non-diagnostic ceramic fragments were retrieved in the dug out part of US282.

Further excavation removed the preparation meant to support US282floor, namely US284, a 12 cm thick layer of small stone flecks immersed in a light brown-greyish compressed loam. The sounding removed just a small portion of this layer, which turned out to be extremely clean, with no inclusions. Its floor consisted of a hardly compacted brown loam, with a lower rate of stone flecks dispersed in it, corresponding to the top of what has been recognized in other part of the city as the original "foundation filling", meant to regularize the underlying mother rock (fig. 6). This latter has been located some thirty cm. under the top of the filling, and seems to be descending southward, even if the reduced dimensions of the sounding and the generally uneven surface of the mother rock doesn't allow a certain assertion.

Area F (Trench Supervisors A. Sedov and M. Scuotto)

During the 2008B season in Sumhuram (08.11 – 04.12.2008) the excavations at the Area F were carried out in different directions (squares f-g-h/7-8). We succeeded to remove several strata in the street A68 (corridor-like room along the city-wall M135), to re-open the extension of the channel in A12 and A80 draining water from the well inside the Monumental Building 1 (first excavated by AFSM), to start the extension of the Area F in southern direction along the wall M18 of the Monumental Building 1 and above the ruins of building BF6.

Channel in A12 and A80

According to F.P. Albright, “after leaving the tank the water drained off in a roughly built drain channel measuring externally about the width of the tank. The sides of the channel are composed of long, thin stones about 8 to 10 cm wide laid on edge. The bottom is of small stones of various sizes. The channel leads through a passageway 80 cm wide and 1.50 m high from the floor of the channel in the west wall of the temple. About 1 m outside the temple it turns right and leads through a small hole in the city wall where farther course was missing” (1982, p. 21). Later he described the construction for drain channel inside the western wall of the MB, the wall M18, as “space ... with two compartments” (1982, p. 25). Our research shows that drain channel construction and passageway inside the western wall of the MB were not so complicated.

It seems that originally the western wall of the Monumental Building 1, the wall M18, had a sort of niche or offset in its northern part (see report of Chr. Darles), and the passageway for the drain channel was constructed roughly in the middle of the thinner part of the wall (fig. 7). The opening for drain channel in the western face of the wall was similar to the opening in its eastern face with similar dimensions (c. 0.7 m wide and probably 1.5 m high). Later the northern part of the wall M18 was strengthened outside with additional wall M269A, while its southern part – with additional wall M276 leaving the space for drain channel outside the Monumental Building 1, c. 1.9x2.1 m in size (A12). The southern part of this construction A12 was occupied with a sort of bench (M277), c. 0.6 m wide. Most probably, the bench was constructed with the aim of helping the ancient inhabitants of the city to move up and down a sort of wooden door, which once blocked the drain channel. There are some features in the side-walls of the drain channel, i.e. holes for wooden bolt, which can help to reconstruct such wooden door like it was, for instance, in the small gates of the city (Area B).

Leaving the western wall of the Monumental Building 1, the wall M18, the drain channel immediately turned to the north towards the city-wall M23. Here it was quite large open space designated as street A80. It seems that AFSM mission excavated the area in 1952-53, and we again cleaned it out in 2005B season. The street A80 was blocked by the wall M182 from the east, which was running perpendicular to the city-wall M135 and the wall M180 of the building BF6. The US196 floor was reached in A80, but what kind of strata were above it remained unclear (there is no description of this excavations in the AFSM report). The US196 floor was partially plastered with lime mortar like the western face of the wall M182. A semi-circular fire-place made from re-used stone blocks was discovered against the wall M182 close to its southern end. There was a small staircase next to the fire-place, at the NE corner of the building BF6. The staircase led up to level, which didn't preserve (see also below).

The NE corner of A80 was occupied with drain channel running towards the city-wall M23. It was designed as an open tunnel, c. 0.7 m deep, dug down from the US196 floor of A80. Square stone slabs with central gutter for draining water were placed on the bottom of the tunnel. The tunnel was 0.7-0.9 m wide. Its side-walls were constructed from stone blocks making a sort of bench (M288) against the additional wall M269A, 0.75 m wide.

The opening for drain channel in the city-wall M23 was *c.* 0.7 m wide. Its height is unknown because of the poor state of preservation of the face of the city-wall M23. We succeeded to discover the opening of the drain channel on the other side of the wall M23, outside the city (figs. 8-9). Here it was arranged as a sort of cascade made from two stone basins placed one under another. A short stone gutter, *c.* 20 cm long, directed the water from the drain opening to the upper basin. The length of the upper basin is 95 cm, the length of the lower basin is 120 cm. The cascade was not in function during the latest phase of city-existence – it was blocked with additional wall M24B strengthening the fortification of the ancient city, and this is the reason why we couldn't study it completely.

Street A68

The street or corridor-like room A68 is located along one of the offshots of the northern city-wall designated as M135 (fig. 10). It separated the building BF6 from the north. The western part of the street was excavated by AFSM mission in 1960 (R.Cleveland) and by IMTO in 2005B season. In 2005B season the upper part of the entire street was also cleaned removing completely the stratum US187 and the «late» wall M159 connected with US159 floor. In the present season two more strata were removed (fig. 11).

The street is trapezoidal in lay out measuring *c.* 10.1x2.2-3.8 m. Two pilasters M181 and M182bis were built against the wall M135 dividing the street into three compartments: M181 is 0.8x1.1 m in size, M182bis is *c.* 0.9x1.0 m in size. Later the pilaster M182bis was incorporated into the wall M182 closing the street A68 from the east. The southern face of the pilaster M181 has a vertical semicircular cavity, *c.* 15x15 cm in size, for wooden (?) pillar strengthening the pilaster (fig. 12). Most probably, M182bis has similar construction. There are two cavities for holding wooden (?) beams of the roof ceiling in the wall M135 just above the pilasters. The third cavity was discovered in the wall M135 between pilasters. It seems that the wall M80 of the building BF6, which is parallel to the wall M135, preserved traces of similar corresponding cavities on the same height.

Two strata were removed in A68 in the present season. The US172 is 0.8-1.2 m thick. It consisted of crumbled rather compact brown loam mixed with small size stones, flecks of charcoal, pottery fragments, animal bones and marine shells. The following small finds came from the stratum: whetstones (S1204, S1240), stone mortars (S1205, S1239, S1241), grinding stone (S1237), stone pestle (S1236), stone ball (S1238), fragments of soft-stone vessels (S1217, S1219), two oil lamps made from marine shells *Chlamys townsendi* (Sh316, Sh320), bronze bell or weight (MB529), bronze rivet (MB530) and hook (MB532), unidentified bronze object (MB531), bone spindle-whorl (B58) and bead (B59), four bronze coins (Co474, Co476, Co478, Co479). The packed US172 floor separated it from the stratum US162, which was 0.8-0.9 m thick and consisted of crumbled more compact dark brown loam mixed with small and medium size stones, flecks of charcoal, ashes, pottery fragments, animal bones and marine shells. The lower part of the stratum especially in the eastern part of A68 near the wall M135 was rich in large stones collapsing from the surrounding walls. The US162 floor was made from heavily packed clay and raised up slightly in the eastern part of A68. The following small finds were discovered in the stratum: stone pendant (S1235), fragments of stone incense-burners (S1243, S1250, S1255), whetstones (S1244, S1251-1253, S1258-1264, S1269), stone mortars (S1245, S1249, S1265, S1272), hammer stone (S1246), fragment of stone basin (S1254), fragments of soft-stone vessels (S1256, S1257, S1275), grinding slab (S1270), fragment of what could be a stone capital of a pillar (S1271), complete crucible and fragment of such object (G118, G120), shell bead (Sh322), oil lamp made from marine shell *Chlamys townsendi* (Sh323), fragments of bronze plaques (MB535, MB539, MB541), fragment of bronze finger-ring (MB538), bronze stamp or weight (MB536), unidentified bronze object (MB537), 17 bronze coins (Co477, Co480-495).

The street A68 was closed from the east by the wall M182. It is 1.2 m wide and is preserved up to 3-4 courses of stones. Its eastern face was plastered (excavated in 2005B season). It seems quite probable that the wall M182, which incorporated the pilaster M182bis, was constructed after the abandonment of A68, when the street was filled up with debris. In fact, the wall M182 has only one, the eastern face and was used to strengthen the filling of A68. In this case the level, which was reached in A80 (US196floor, see above), was the real floor serving at the time when the channel draining water from the well inside the MB was in use and small staircase discovered against the NE outer corner of the building BF6 led up to the floor-level above ruins of A68 and building BF6, which didn't preserve (probably it was US187floor in the western part of A68 excavated in 2005B) or was destroyed during the construction of "modern" structures (wall M159, stratum US80 and unclear remains visible on the modern surface above the ruins of BF6).

Extensions of Area F

In order to join two areas, Area A and Area F, the extension of the Area F was made in the direction to the south along outer face of the wall M18 of the MB and above the ruins of the building BF6. The extension along the wall M18 is 5x5 m in size, the extension above the ruins of the building BF6 is c. 6x6 m in size (fig. 13).

The top stratum in both extensions was US80, almost sterile wind-blown very soft grayish layer with ash lenses, mixed with stones, flecks of charcoal and very limited number of pottery fragments (body-shards), animal bones and marine shells. In the western part of the trench there was number of large stone blocks falling down from the top courses of the wall M18. The thickness of US80 was 25-40 cm.

Below US80 was the stratum US187 consisted of rather compact grey-brownish loam mixed with pebbles, concentrating sometimes in lenses, medium size stones, fragments of mud-bricks, flecks of charcoal, pottery fragments, animal bones and marine shells. Its thickness is 0.8-1.3 m (high in the eastern part of the trench along M18). It was completely removed only in the extension along the wall M18, where well-packed US187floor was reached. The following small finds were discovered in US187: fragments of soft-stone vessels (S1266-1268), whetstone (S1274), fragment of glass vessel (G119), shell bead (Sh324), fragment of bronze clamp for repairing stone vessels (MB540), two bronze coins (Co506, Co510).

In the extension along the wall M18 the following structures were discovered: the continuation of the eastern external wall M188 of the building BF6 (the total length of the wall M188 is 3.4 m), the wall M295 adjoining the external SE corner of the building BF6 (the wall M295 is 2.1 m long and 0.5-0.55 m wide), part of the wall M296, which most probably is the southern external wall of the building BF6 (the wall M296 is 0.45-0.55 m wide, its traced length in western direction is 2.5 m), the wall M297, built as continuation of the wall M296 and run perpendicular to the wall M18 (the wall M297 is 3.1 m long and 0.5-0.55 m wide; it has a pilaster, 0.25x0.55 m in size, projecting south near the eastern end of the wall), small wall M298 or pilaster (0.6x0.6 m in size) constructed against the wall M18. It seems that the last two walls, M297 and M298, were connected with US187floor and represented a structure somehow connected with the access to the drain channel during the last period of city existence; both walls were preserved only on 2-3 courses of stones. Upper part of one more structure, M299 (1.95 m long and 0.45 m wide), was discovered against the wall M295. It seems quite probable, that these are remains of a sort of staircase once leading up on the level above the ruins of building BF6.

Future research

In the next seasons it is absolutely necessary to complete excavations at the Area F in following directions:

- 1) to complete excavations of the building BF6, which occupied a rather important place in the western part of the ancient city closing the “market” square in front of the temple; it seems it was one of the earliest buildings in the city and its state of preservation (the northern wall of the building, M 180, preserved on the height of more than 3.0 m) looks very promising;
- 2) to complete excavations of the street A68 down to the bedrock; so far, it gives us the earliest material in Sumhuram;
- 3) to complete excavations of the street A80, which help us to understand how the access to the drain channel outside the Monumental Building 1 was arranged.

Excavations in area G (Trench Supervisor: Alexia Pavan with Stefano Francesconi and Silvia Zago)

With the purpose of linking the area excavated by the Americans in the north-eastern corner of the city with the residential quarter partially dug in the '50s and re-excavated by IMTO during last campaigns, in SUM08B a trench has been opened in squares I14/15 (fig. 14).

The area, named "Area G", is delimited on the north by the segments of city walls M280 and M281, on the east by towers A102, A103 and by the segment of city wall M287, on the west by wall M282 and on the south by the southern edge of the trench made by the Americans which has been partially enlarged towards south with the purpose of cleaning the area.

During this campaign we proceeded with excavations of the area west from VI B 16 until wall M282 already drawn in the plan of Albright and with the cleaning of rooms VI B16 and VI E 19. The space delimited from wall M282 on the east, the city wall's segments M223 and M280 and the eastern wall of rooms III O 8 and VI B 8, dug by the Americans, has not been excavated during the present campaign to leave the space for the operations connected with the removing of the dumps.

At the end of the campaign the general arrangement of Area G, measuring ca. 17 x 10 m, could be divided in two sections: the eastern one, which seems to consist in a big room connected with a small premise conducting to tower A102, both excavated by the Americans but presenting, after the cleaning operations, an arrangement quite different from the one described by Albright, and the western one where a series of three new rooms (A119, A120 and A121) have been exposed (fig. 15).

Eastern section (VI B 16 and VI E 19 according Albright's report)

The work in this sector of area G was dealing with a general cleansing of the previous excavated structures and with an enlargement towards south linked with the necessity of re-arrange the section resulting from the American excavations and almost totally collapsed (fig. 16).

The architectural lay-out brought to light is quite different from the description of Albright above all for the room VI B 16. In the plan recorded in the American report the room appears quite small and delimited by three walls and a balustrade, but, during our excavations, we did not find traces of this last feature so, at the present moment, VI B 16 has the aspect of an open courtyard closed by the city wall M281 on the northern side, the wall M292 on the north-western side and by room VI E 19 on the eastern side. It has not been possible to clarify the limits of the room in the south-western and southern sides also if some stones aligned at the level reached after the cleaning could suggest the existence of a wall.

The cleansing let us also to expose the general setting of the bench (M291) running along wall M281, measuring 7.50x0.50 m, and made in dry stone masonry covered by plaster. The bench ties to the small wall M282, of which remains just a row of stone of medium size, built on a compact reddish layer (US286) brought to light in room A120. On the area in front of the bench it has been possible to recognize the plastered floor described by the Americans, preserved but in bad state of preservation. No traces of the balustrade has been exposed, however the difference in elevation between the raised plastered floor (elevation 29.49) and the plan already exposed by the Americans and cleaned during this campaign (elevation 29.17) suggests the existence of a similar element. A very interesting element ignored by the Americans but useful in the reconstruction of the architectural lay-out of the room are two bases, one circular in shape (diam. 48 cm; h. 29) and one rectangular in shape (33x20; height not measured) placed at a distance of 1.50 metres, which could be used to sustain pillars connected with the covering of the room.

It's so possible to suggest the existence of a kind of roof, necessary also considering the plastered bench and the floor, supported by pillars, hypothesis that could be confirmed just with the extension of the excavations towards south and with the discovering of a good floor in the southern portion of the sector, not reached yet.

The connection between VI B 16 and VI E 19 and, from here, to tower A102, was through a raised basement delimited from three flat stones measuring 55x26; 56x35 and 47x30, with two steps reaching a level of 29.72.

Western section (rooms A119, A120 and A121)

The excavations of this campaign brought to light three rooms A119, A120 and A121, oriented east-west and quite similar in dimensions. The comprehension of the general lay-out of the area has not been completely clarified and it will be necessary to extend the limits of the area to have a clear picture of this part of the city.

Room A119

Leaning on the northern side to the city wall M280, the room was delimited from west by wall M282 which represents the western side also of room A120 and A121, from east by city wall M281 and from south by wall M283.

Stratigraphically four US have been exposed beside the top surface: US279; US280; US283 and US285. We stop at a level of 29.46 and the lower limit of US285 has not been reached.

US279 is a layer individuated below 20/30 cm from the surface and represents the remaining of the collapse of walls M280 and M282. Beside dressed stone of medium dimensions, the layer (40 cm) was characterized by the presence of ashy lenses with pieces of charcoal. One coin (Co470), some bronze objects (MB518; MB520; MB521; MB525), two beads (G115) and a fragment of glass vessel (G113) have been discovered together with a fragment of mortar and a complete small unguentarium (G121). US279 is related also with the circular fireplace discovered on the corner between M280 and M281, on the top of the staircase M284, 45 cm below the top surface of the two walls. The fireplace seems to be connected with a squat occupation of the settlement by Bedouins.

Below US279 we discovered US280, a reddish more compact layer with remains of mud-bricks. The layer gives just some pottery shards and no objects. It's connected with the higher part of the portion of wall M282 in room A119 where, below a basement in stones, we found a super-structure in mud-bricks. The layer was cut by a pit, US283, with a huge quantity of shells and fish bones, recognizable in the more eastern part of the room, and, we'll see, also in rooms A120 and A121. Below US280 and US283, we stopped at US285, of which 20/30 cm have been removed, a sterile layer made from mud-bricks, representing a kind of filling for the room. An amorphous structure made of plaster and tied to wall M283 has been exposed. The bricks were not disposed according to rows, but in a quite chaotic way. The average measures of the bricks are 28x20x7 and the most striking thing it's that they appeared baked, attesting a second type of bricks which before have never been found in Sumhuram. Bricks of US285 appear made with a better quality of mud, the colour is reddish and not greenish and are more compact and more resistant. Finger prints are recognizable on the main surfaces of them.

Beside the presence of probably baked bricks there are other two elements quite interesting in room A120: the staircase M284 (fig. 17) and the series of six holes, placed at the same elevation, both in wall M280 and in wall M283 (fig. 18).

Staircase M284, as well as the staircase discovered in area F, lead directly to the top of the walls where we supposed a control trench was placed. The top of the stair was reachable by the means of steps from the eastern portion of wall M283, while the relation with room A119 was not clarified and necessities of a deeper sounding.

In room A119, the cleaning of the walls M280 and M283 brought to the individuation of a series of holes (six for each wall) with an average diameter of 16 cm. These holes, placed at close range, were used to fix the wooden beams to support a ceiling.

Room A120

Placed between room A119 and A121, A120 has a rectangular shape and it's delimited by northern wall M283, eastern wall M292, western wall M282 and southern walls M286 and M293 with an opening between them. A flat sandstone slab, measuring 36x25, could be related with the entrance also if it's not clear the relation with the living plan. A niche was individuated on wall M283. At the end of this campaign we can just suppose that the entrance to the courtyard was through a door in room A120, but further investigations are needed.

A deep sounding in the corner between walls M282 and M283 was arranged, trying to reach at least one occupational level, but we were not able to find traces of it for the first 40 cm.

As well as in room A119 the stratigraphy shows the same sequence: surface, US279 and US283. Below this we reached US286 a more compact reddish layer which seems to be connected with wall M292 with some pottery shards and just one bronze object (MB533).

Room A121

Almost no data are available at the moment regarding A121 which was interpreted as an other probably room. Just the northern side, closed by walls M286 and M293, the eastern one (wall M282) and part of the southern one (M285) have been exposed. The stratigraphy, brought to light cleaning the section on the south side, shows the presence of US279, US293 and another layer, not named which will be named during further excavations.

The Monumental Building 1: first results from the cleaning of the structure (Trench Supervisor: Alexia Pavan)

The Monumental Building 1 is surely one of most interesting features of Sumhuram and, because of its different phases, one of the most problematic.

Connected with the restoration works, during SUM08B we started a cleaning of the top surface with the aim of individuating the sequence of the constructional phases.

As emerges from the relation of prof. Ch. Darles (see below), we have been able to understand the progression of the building phases.

Here will follow the description of the archaeological works in the area.

The operations started from the recess placed in the middle of wall M18 where, during SUM08A, the top of a series of walls have been individuated. Just one day of cleaning revealed that wall M18, as appears today, was the results of two different additions: to the original M18, was in fact added an external skin, wall M276, probably built when the corner of the previous wall started to collapse. This hypothesis seems be confirmed by the fact that, following the line of the wall, the original corner of M18 has not been found.

On the top of wall M18 we proceeded with the cleaning of the upper surface which has revealed a layer of mud-bricks quite bad preserved (fig. 19), to be related with a flooring or, more probably, with a platform with the function of basement for an upper storey.

An interesting aspect deals with the fact that between the mud-brick layer and the filling of the wall we noticed a small depression, quite concave, resembling a channel, which we argue could be connected with the flowing of water.

Digging the top of wall M17 we noticed that, in correspondence with the mud-brick layer and with the depression, also if the filling of a wall has been individuated, the internal face is lacking.

More interesting have been, however, the works on the north-western corner, between M19 and M18 which brought to light a quite clear sequence of building phases.

The first important result concerned the relation between the city wall and the Monumental Building 1 which does not result an unique body, but two different structures. Surely it was built in the first phase of Sumhuram and it's highly probable that it has been thought inside a unitary project comprising the edification of the city walls and the Monumental Building 1; however the relations among the walls attested that they do not lean but just tie to each others.

The excavations made in the northern sector of wall M18 revealed, below a compact level of small stones used to fill the area (US276), the continuation of M23 and its corner with M19, in correspondence with A16. In this filling a fragmentary incense burner (S1186) a bronze nail (MB516) and a probably coin (Co465) have been unearthed beside some pottery, bones and shells. Just one row of stone of M23 has been brought to light, but enough to follow the line of the wall and its intersection with M19.

The excavations reveal that this part of the Monumental Building 1 was object of a long building activity.

It's probably that the first phase connected with the enlargement of the structure was wall M278, tied to the city wall M23. With this addition, in the corner between M19 and M23 we would have an almost square space which could be connected with a tower or something similar.

Linked with the operation of enlargement of this sector could be also the external buttress wall M24 with A15 and, later, M25 and A16, already exposed and discussed during the previous campaigns (SUM00A).

Maybe belongs to a later phase wall M279 which constitutes a kind of "bridge" upon the more ancient walls M278 and M268 (see below).

The door

One of the most problematic aspects connected with the restoration of Monumental Building 1 was the individuation and the restoration of the small door on the internal side of wall M18 and already walled up in antiquity. The removal of the dumps let us to individuate the original position and, following the measures given by Albright and the setting of the wall, to rebuild the walled up door as it was.

The door measures 1.76 m from the bottom of the channel and 1.36 from the top of the lateral edges of the channel. It was walled up with stones of small/medium dimensions above a thick pack of earth (h. 65 cm), attesting that the small door was probably built up when the channel was not more in use from some time.

The basin

The huge basin placed eastern from the wall measures 1.70x0.76x0.54 (dp. 0.31) and it's provided of two quite large holes (diameter: 12 cm and 10 cm). If the one placed on the short side, towards west, was connected with the flowing of the water in the draining channel, more enigmatic appears the hole in the eastern side, the one faced to the well. The water in fact was kept by the means of baskets, as attested by the rope impressions left on the blocks inside the well, and so the presence and the function of this last hole appears quite unusual. The cleansing of the area between the basin and the two walls M20/M21 revealed that the basin was not placed on a floor but on a very irregular support made from blocks of sandstone and fragments of limestone channels.

If we consider the connection between the basin and the channel, we argue that the actual arrangement of the basin belongs to the last occupational phase of the settlement also if some kind of re-arrangements have been surely done by the Americans or by the Omani during the placing of the protective structure above the well as attested by the modern mortar and by the fragments of modern glasses and plastic found scattered around the basin and inside the channel.

The basin has a slightly inclined position to facilitate the flowing of the water.

The channel

The basin is connected with the channel through a slab measuring 35x50, placed diagonally and fixed on the top and on the edges with mortar (fig. 20). Below the oblique slab there is a step measuring 34x40, fixed with mortar, and the channel itself with a central cavity.

The channel is long 1.45 m. for a total width of 80 cm: however, considering also the presence of thick layer of mortar along the walls of the channel, the space for the flowing of the water is smaller with a cavity long 1.45 m. but width 18 cm and deep 3 cm. The mortar put on the sides, giving to the channel a trapezoidal section, had different functions: to fix the different part of the channel, to waterproof the feature and to force the water to pass through a specific space.

The channel is delimited on the sides by some long regular slabs in sandstone or limestone and by fragments of re-employed basins.

It was found filled by mixed material (US288) with some modern glass, a fragment of not-diagnostic soft-stone vessel, some pottery and scanty bones.

Excavations in Area E (Trench Supervisor: Said al-Mashani)

At the beginning of the campaign we spent a big effort outside the city wall city wall (area E) where the bedrock has been reached in the north-western sector, in correspondence with walls M134, M133, M89 and the tower A62 (figs. 21, 22). We started from the isolated tower A61 cleaning the area in front of it where it has been discovered a quite long wall made from irregular stones of different size (very bad masonry), M267, running in west-east direction.

The function of this wall was connected with a sort of terracing placed all in front to the city wall with the purpose of levelling the different height of the bedrock.

Considering the necessity of work near wall M24 and M25 during the next campaign the wall M267 was not dug for all its length towards east.

US275, covering the bedrock in all the area, has been characterized by a huge quantity of materials, above all pottery and small finds. Among them a complete stone lid (S1190) and a stela with eyes (S1192). Quite a number of coins (Co426; Co466-469; Co471; Co473) have been also unearthed.



Fig. 1: Area A before the excavations



Fig. 2: Area A after the excavations



Fig. 3: Area A, Building BA8 with the small premises



Fig. 4: Area A, room A110, U-shaped altar with decorated pillars



Fig. 5: Area A, Room A108, deep sounding

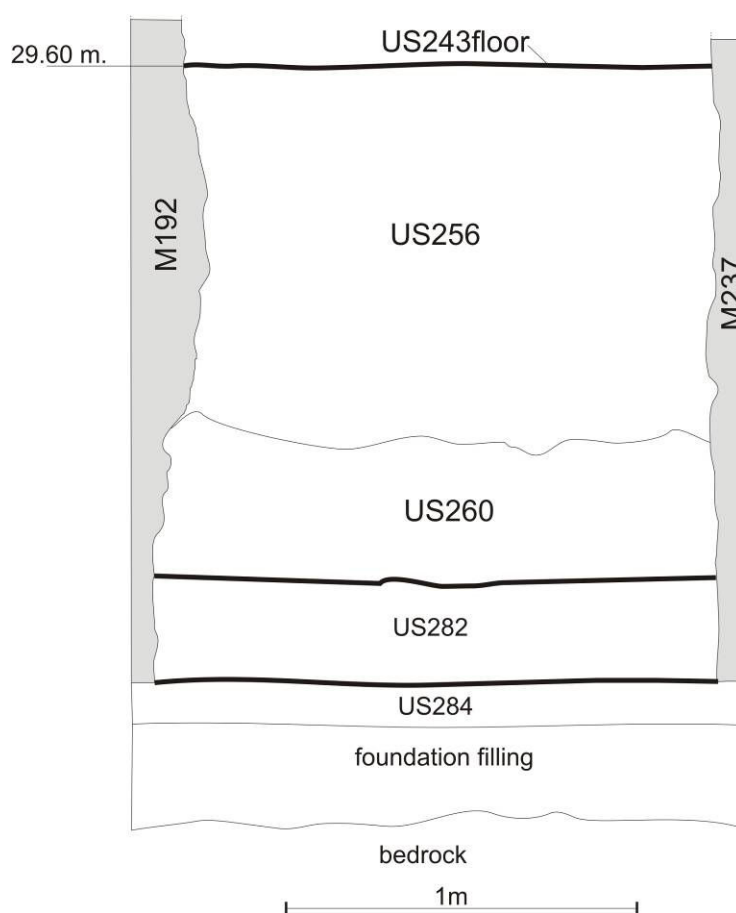


Fig. 6: Area A, room A108, section



Fig. 7: Area F, A12, opening for drain channel in M18



Fig. 8: Area F, cascade outside wall M23



Fig. 9: Area F, cascade outside wall M23



Fig. 10: Area F, wall M135 from south



Fig. 11: Area F, room A68 from west



Fig. 12: Area F, room A68, pilaster M181 from south



Fig. 13: Area F, extension along M18 and above ruins of BF6



Fig. 14: Area G, western sector before excavations



Fig. 15: Area G, western sector after excavations



Fig. 16: Area G, general view of the area after excavations



Fig. 17: Area G, room A119, staircase M184



Fig. 18: Area G, room A119, holes in wall M280



Fig. 19: Monumental Building 1, mud-bricks on top of wall M18



Fig. 20: Monumental Building, the basin and the channel



Fig. 21: Area E, before the excavations



Fig. 22: Area E, after the excavations

18Novembre 2008

**Quelques remarques relatives à la construction du
« MONUMENTAL BUILDING » Khor Rôri –Sumhuram –**

Pr. Christian Darles (Laboratoire de Recherche en Architecture : Les Métiers de l'Histoire de l'Architecture - Archéologie du patrimoine Bâti, de l'Ecole nationale supérieure d'architecture de Toulouse)

Quand on regarde attentivement le plan général de *Sumhuram*, on ne peut qu'être surpris par l'importance de la superficie des parois d'une part du rempart et d'autre part du *Monumental Building* en regard de l'espace urbain dense et organisé. Nulle part le rapport entre la surface constructible et la surface consacrée aux fortifications ne semble autant en défaveur de l'habitat et des espaces publics. De nombreux sites antiques possèdent la même disposition : un bâtiment important est adossé aux fortifications (Shabwa, Henu az-Zurayr, Sirwah...). Il est pensable que ces bâtiments participaient de la défense générale de la cité d'une part en tant que point fort surélevé du système fortifié, et d'autre part en tant que « dernier refuge » pour les défenseurs. *Sumhuram* semble ainsi, à sa façon, avoir disposé d'un double rideau défensif avec l'implantation au centre de sa face nord, au-dessus de la porte monumentale hors d'échelle, d'une ville en miniature : le *Monumental Building*. Deux enclos gigognes avec chacun une poterne, mais l'un, *Sumhuram*, possède une porte monumentale et pas le second, *Monumental Building* (!!!). La morphologie de cet édifice pose aussi différentes questions d'ordre typologique que nous ne pouvons pas aborder maintenant. Par exemple comment situer le *Monumental Building* dans la série des édifices à ressauts successifs des parois extérieures, ou dans celle des bâtiments à redans ?

L'étude des techniques de construction mises en œuvre dans cet édifice fera l'objet d'un document complémentaire. Nous soulèverons simplement quelques points qui pourraient devenir des pistes de réflexions.

- Du lieu d'extraction des roches à à pied d'œuvre, comment les constructeurs ont-ils géré l'approvisionnement ainsi que le choix des pierres (dimensions et natures) ?
- Des échafaudages ont-ils été utilisés ?
- Le crépi a-t-il été appliqué depuis le haut par des ouvriers suspendus au couronnement ?
- Quel est l'influence des techniques de la navigation sur le bavardage des blocs, leur transport et leur mise en œuvre ?

- **Comment expliquer la différence dimensionnelle notable entre les blocs des parois internes et les pierres des parois externes alors que l'ensemble a été recouvert par un enduit ?**

CHRONOLOGIE RELATIVE

Nous formulerons ci-dessous un certain nombre d'hypothèses que les données archéologiques, issues des recherches menées depuis de longues années et précisées lors de cette dernière campagne de novembre 2008, nous permettent de proposer. En premier lieu il est nécessaire de poser la question légitime de la chronologie relative liée à la réalisation de cet impressionnant édifice.

Le puits est-il antérieur à tout aménagement urbain ? En fait la question est peu importante car il y a de fortes chances pour que l'implantation de *Sumhuram* soit liée à la fois à sa position stratégique défensive sur un promontoire rocheux dominant la baie, et à la fois à la présence d'une eau semble-t-il très abondante. Il faut cependant noter que si des sources sont relativement proches, à quelques centaines de mètres au pied de la ville, aucun autre puits n'a été signalé ni découvert au cœur de la ville. Cet approvisionnement en eau est donc une des données importantes sur laquelle se fonde l'apparition de la ville. A ce puits, semble-t-il, répond très rapidement un aménagement et un contrôle de la distribution.

Quand le rempart est implanté et quand l'intérieur de la ville est séparé de son environnement immédiat, les bâtisseurs réservent une partie de l'eau à un usage interne, une autre à un usage externe. Le rempart M23, au Nord, est ainsi bâti en aménageant sa traversée par la canalisation qui mène à plusieurs petits bassins successifs.

L'édification du *Monumental Building* semble liée à la présence de ce puits. Il l'entoure avec ses parois puissantes et vient s'adosser contre le rempart avec un savoir faire technique maîtrisé : la paroi M18 est implantée à cheval sur le retour en angle des courtines M23 et M19 A alors que le mur M16A l'Est sur le retour en angle des courtines M15 et M19A. Ces deux parois Nord-Sud sont reliées, au Sud, par le mur M17 parallèle au rempart. Ce mur est le vestige conservé le plus élevé, visible sur l'ensemble du site ; il mesure plus de 5,00 m au-dessus du substrat rocheux qui a été atteint dans un sondage situé sur sa face Sud au cœur de la ville. Les parois Nord-Sud ont une largeur similaire à celle des courtines, alors que la paroi orthogonale M17 est beaucoup plus large. L'étude de son élévation et de sa surface n'a pas permis d'identifier l'adjonction d'un mur en parement extérieur qui aurait élargi notablement une première paroi, à l'origine de même nature que ses mitoyennes— nous retenons cependant l'hypothèse d'une telle construction. Il est à noter cependant que la partie en retrait du mur Sud M17 est exactement disposée dans son axe. Les

retours de M17, à ses deux extrémités jusqu'aux décrochements intérieurs des parois M18 et M16A, ont également des longueurs proches. Ce premier édifice possède des murs épais dotés, au Sud, d'un rentrant axial et de deux décrochements sur les faces latérales

La paroi M18 est consciencieusement bâtie au-dessus de la canalisation. Le passage est maçonné avec des blocs taillés avec soin et bien mis en œuvre. Il est suffisamment haut pour un accès facile nécessaire à l'entretien. Lors de la construction de cet édifice imposant, un passage en chicane (A11) est réservé dans le mur M16A près de sa jonction avec M17. Très étroit et doté de plusieurs portes, fermant toutes de l'intérieur, il a pu certes empêcher le passage des animaux mais correspondait-il réellement à « l'entrée principale » du bâtiment. Il faut plutôt rapprocher ce passage A11 de la poterne qui complète le dispositif de la porte monumentale nord, principal accès à la ville.

L'escalier, fondé sur le substrat rocheux, est implanté à l'intérieur de la cour contre le mur M16A. Il est difficilement pensable que ce dispositif permette l'accès direct au chemin de ronde. En effet, les escaliers qui desservent le rempart de *Sumhuram* sont soit calés dans un retour soit disposés le long des courtines. Cet escalier M22, dont on ne connaît pas la longueur exacte, peut s'arrêter rapidement et desservir par un palier le haut du mur M16A. Si nous admettons qu'il se prolonge, il peut aller rejoindre la courtine M19A et monter à 7,50 m au-dessus du niveau du sol de la cour.

Nous posons l'hypothèse que l'escalier M22 est un dispositif qui permet de descendre dans la cour et non pas de monter dans les parties supérieures. Dans ce sens nous notons que les portes d'accès à l'espace intérieur, le passage A11 et la canalisation Ouest, se ferment toutes de l'intérieur. La largeur utile de cet escalier dépasse les 1,80 m alors que la poterne, accès de service, laisse un passage de 0,50 m seulement. Se pose cependant la question de l'accès aux parties hautes de cet édifice, depuis l'extérieur. Nous restituons hypothétiquement un escalier en brique, non liaisonné aux parois, dont le seul emplacement pourrait être au centre de la paroi sud M17, dans le retrait central. Il est nécessaire de préciser que la nature de cette maçonnerie est différente des pans de murs mitoyens, il s'agit de modules de blocs caractéristiques des parois intérieures (18 à 20 cm de hauteur) et non pas extérieures qui sont généralement de dimensions plus importantes (25 à 30 cm de hauteur). Ce panneau central, contrairement à l'ensemble du bâtiment, ne possède aucune trace de mortier ou d'enduit. Aucune donnée archéologique ne permet aujourd'hui d'étayer cette proposition. Seule la fouille de cette zone permettra de nous procurer de plus amples informations.

Une première transformation majeure est réalisée sans que l'on puisse comprendre si elle correspond à une opération de soutènement ou à agrandissement de la plateforme sommitale. Il s'agit, avec M19B, de la réalisation d'un nouveau redent extérieur du rempart. Une paroi, M276,

alignée avec la face ouest de ce massif double à l'extérieur le mur M18 et permet de refaire soigneusement l'angle Sud-Ouest du *Monumental Building*. Enfin, le mur M16B semble redoubler la paroi M16A en venant s'appuyer contre le rempart M15 – seuls des dégagements et de nouvelles recherches permettront de confirmer ou d'infirmer cette hypothèse. Le nouvel édifice se présente comme un parallélépipède doté sur chacune de ses trois faces urbaines de rentrants, de 2,00 m sur la face Ouest et de 0,80 à 1,00 m environ sur les faces Sud et Est.

L'aménagement du circuit hydraulique perturbe la mise en œuvre d'un massif qui remplirait la niche Ouest. Pour laisser passer la canalisation les constructeurs réalisent deux massifs, M277 au sud, appuyé contre M27 -M18, et M269 A au nord appuyé contre le rempart M23 et le mur M18. L'existence d'une porte, au nu extérieur, qui se ferme depuis l'intérieur, indique que le passage continue d'être traversé pour l'entretien du système d'évacuation et que ces deux structures forment un même massif dont nous aurions conservé uniquement les deux pieds-droits.

La création du mur en retour M24 et du massif interne A15 semble bien être un agrandissement du sommet. On ne peut cependant pas écarter l'idée que ces travaux aient également eu un rôle de soutènement et de renfort pour la face Nord (le rempart M19) du *Monumental Building*.

Au-dessus de M19B, M23 et M269, nous trouvons une paroi continue composée de trois murs qui enjambe les structures inférieures. Nous pensons que les structures M 278 et M 268, reliées par le mur M279 en pontage au-dessus du rempart M23, peuvent correspondre aux vestiges d'une paroi destinée à contenir un blocage en remplissage afin de reprendre et de rattraper les niveaux de la plateforme sommitale.

Il est difficile de relier en chronologie les aménagements internes à ceux mis en œuvre sur les faces extérieures de l'édifice. Ils procèdent pourtant du même état d'esprit : l'élargissement du sommet de l'édifice avec pour conséquences un rétrécissement notable de la surface de la cour et un réaménagement de cet espace intérieur. En effet, nul désordre d'importance n'apparaît sur la face interne de la courtine M19A quand les constructeurs le redoublent à l'intérieur à deux reprises que l'on peut chacune diviser en deux temps. Tout d'abord, contre l'angle des murs (M18 et M19A, les constructeurs édifient un massif en briques crues, A10A, qu'ils doublent avec le mur M20 bâti en parement sur un soubassement légèrement débordant. Ils répètent la même opération plus tard – les fondations de M21 sont sensiblement plus hautes- en montant soigneusement le massif A10B puis en l'habillant avec le mur M21 dont nous ne connaissons pas exactement la limite Est mais qui présente la particularité d'être édifié sur un soubassement de trois assises en ressauts successifs.

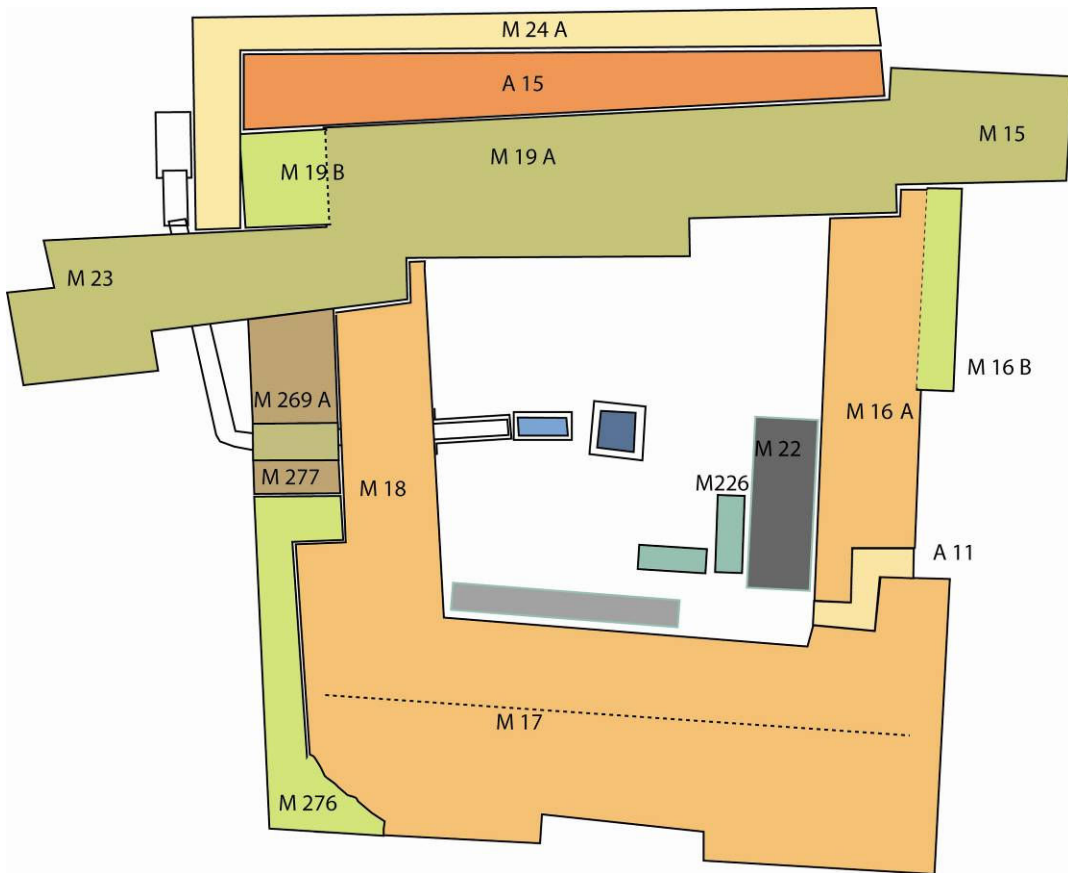
La création de cet aménagement permet de créer un espace de plus de 100 m² d'un seul tenant au sommet du *Monumental Building*. L'étude des techniques de construction ne permet pas

de nous assurer avec précision d'une chronologie, mais il ne fait aucun doute que ce bâtiment aux dimensions hors du commun a constamment été en chantier soit pour des raisons de renforcement de sa structure maçonnée, soit pour des agrandissements successifs peut-être liés à des transformations d'usage.

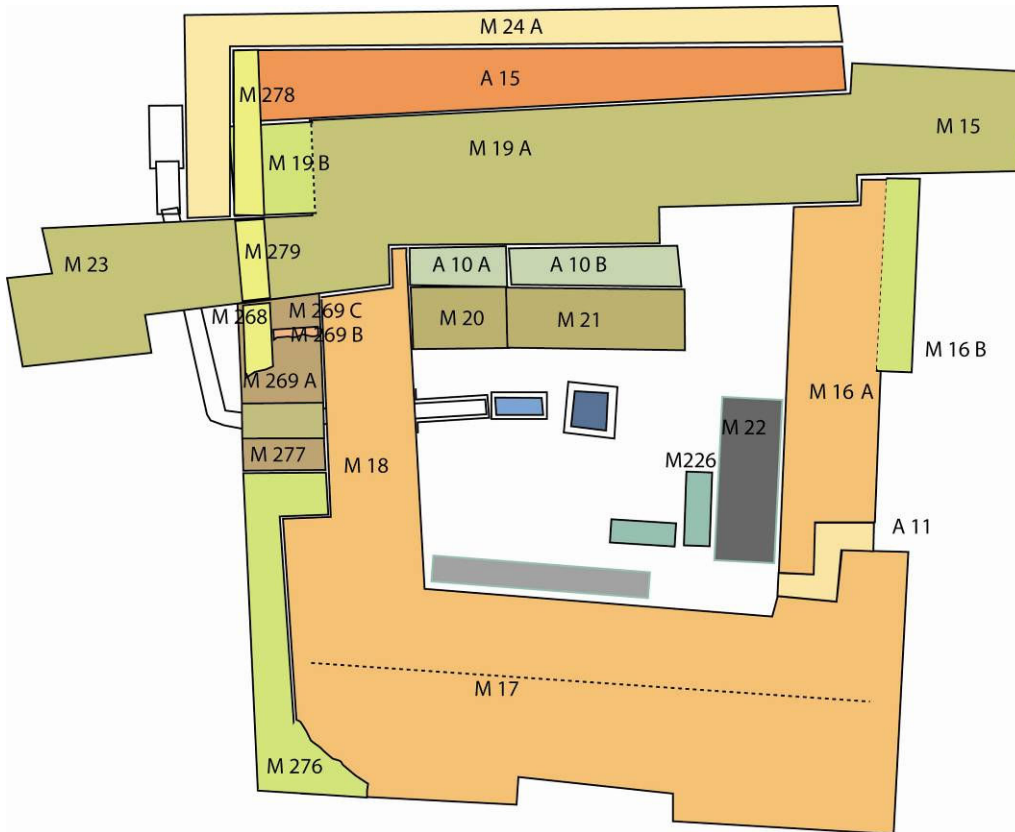
Ainsi les phases finales sont toutes liées à des confortements qui font suite à des désordres structurels. Ainsi l'implantation du mur M25 et du remplissage A16, doublé du blocage M179, semble correspondre à la destruction de la face Nord du mur M24, alors que cette même destruction de la face occidentale recouvrait à jamais le système d'évacuation des eaux mis en œuvre par les habitants de *Sumhuram*. Entre temps l'aménagement du quartier mitoyen Ouest avait poussé les constructeurs à réaménager le canal d'évacuation des eaux en créant les murs M288 et M289.



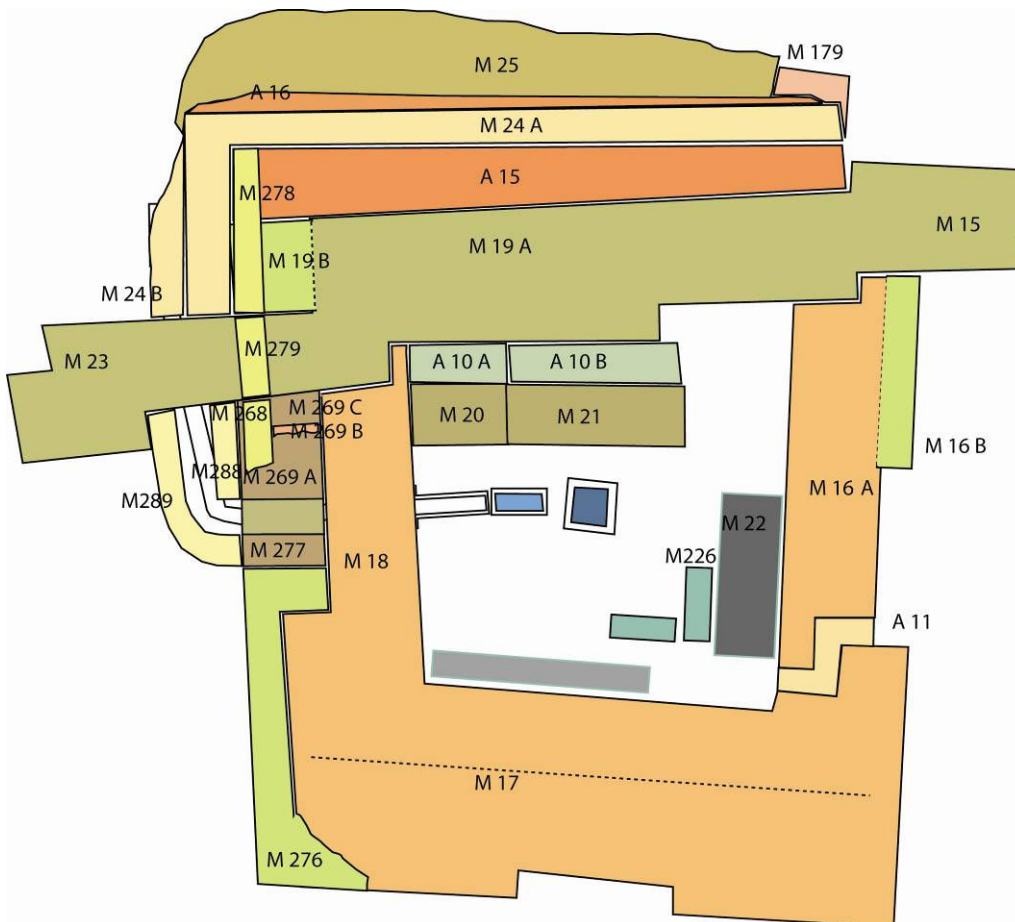
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