

IMTO – Italian Mission to Oman

University of Pisa

SUMHURAM

Preliminary Report

May-July 2013 (SUM13B)



PRELIMINARY REPORT (SUM13B)

May-July 2013

The second 2013 season of IMTO's works at Sumhuram, directed by prof. A. Avanzini, took place from the 25th of May to the 18th of July, 2013, and as usual comprised both archaeology and restoration.

Archaeological investigations (June 15th – July 18th) focused on the area between the already excavated stores in area B and building BB3, namely in squares o-11, p-10 and p-11.

Close to this area, in square A74, some more limited intervention was conducted, also connected to a minor modification in the tourists path.

Further excavation was carried out in street A206, to the east of building BA13 (sq. l-9), and in street A156 (sq. i-8 and i-9).

Finally, a new trench was opened south of the tourists path in area H, along the ideal prosecution of street A206 (square m-8).

The excavations were conducted on the field by IMTO's archaeologists Michele Degli Esposti and Licia Diamanti, with the help of Mr. Said al-Mashani and of Mr. Said al-Aamri from the Office of the Adviser to His Majesty the Sultan for Cultural Affairs.

Restoration activities were carried out concerning the city walls (dismantling and rebuilding of the walls M89 - M131 and M132 on the north side, restoration of the wall M457 on the west side), as well as the restoration of the modern supporting wall for the basins located nearby wall M23 on the north side. Other restoration works are described in the technical report section.

The restoration of walls M89, M131, M132 and M457 can be considered a substantial intervention that involved the dismantling, the reconstruction and the rising up of the walls.

The restoration of the basins was conducted by Gianluca Buonomini, whilst the consolidation and restoration of ancient masonry structures was realized under the coordination of arch. Valter Filatondi.

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 Salalah and in Muscat; in particular it deserves acknowledgement the help of Ghanem al Shanfari, Ali al Kathiri, Dr. Said al Salmi, Hassan al Jabri and all the Museum's staff for their kind helpfulness.

Sumhuraam Preliminary Report SUM13A

May-July 2013

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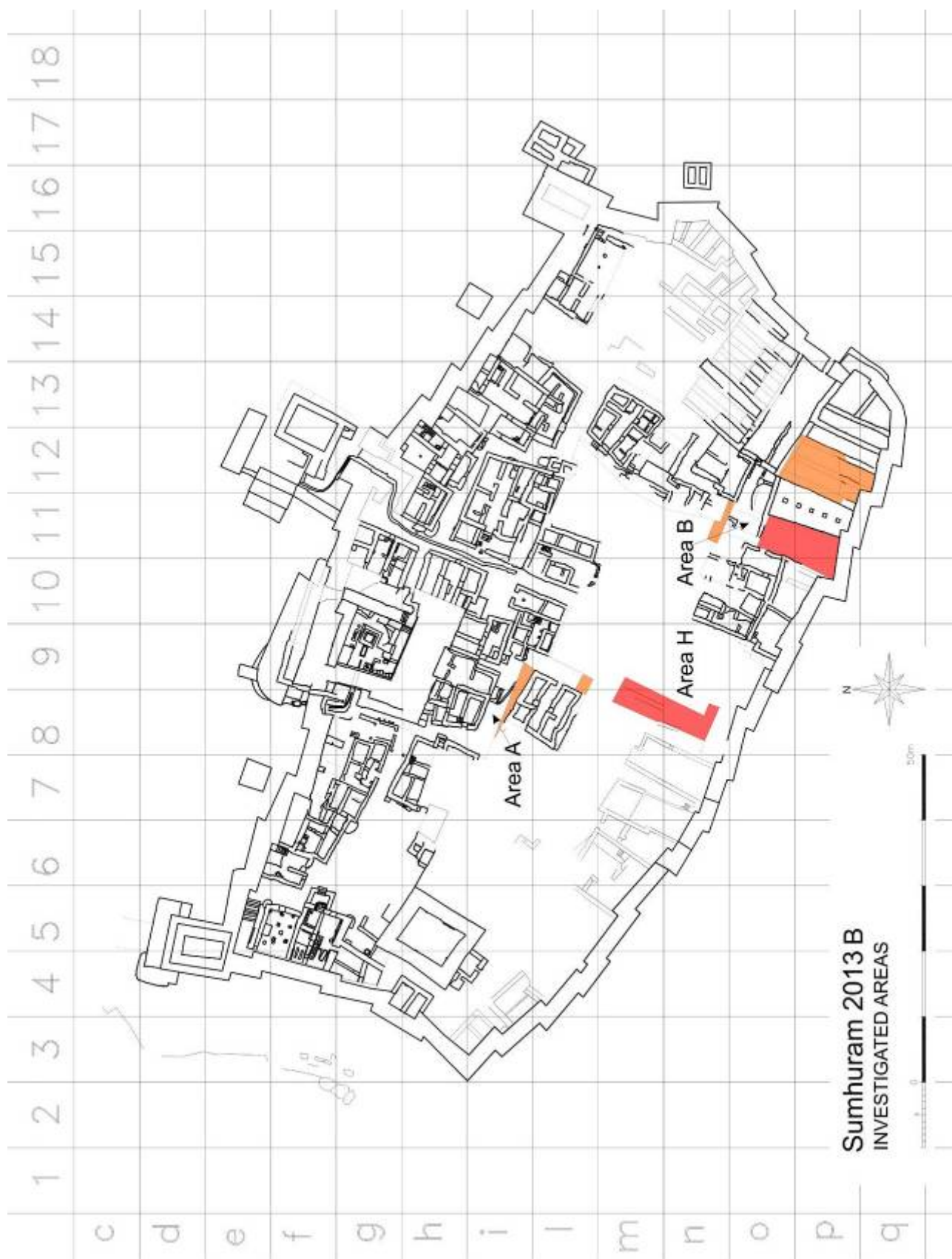
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Archaeological Report



Plan showing the location of the investigated areas. Red marks the main interventions.

Excavations in Area A

Street A206 (square I-9)

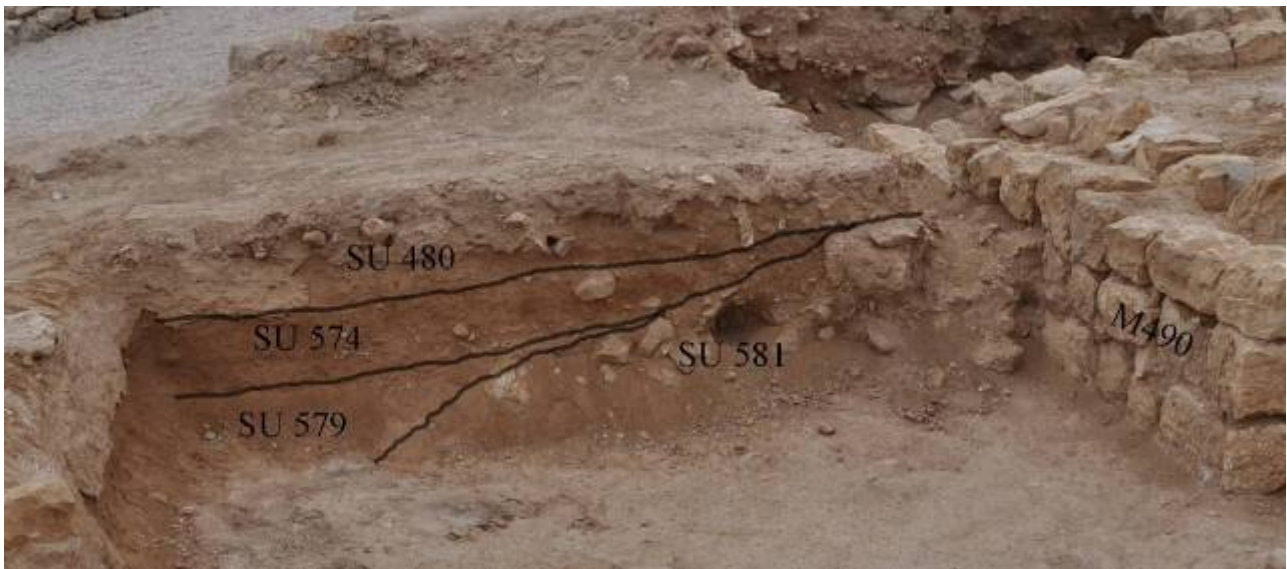
Supervisor: S. Al-Mashani, M. Degli Esposti

The street had already been partially excavated during the previous season SUM13A, reaching the floor of US579, which was recognized to be the same as US443 floor in street A156. The latter joins street A206 at right angle and run along the northern wall of building BA13.

Previous works only interested the northern portion of street A206, towards the junction with street A156 itself, while its southern part, abutting against the modern tourists path, still laid unexcavated. Thus, the removal of the deposits in this part of the street was undertaken, in order to reach US579 floor = US443 floor on the whole street (further deposits lay beneath this floor, which stands quite higher than the first phase occupation level).

As soon as the surviving section was cleaned, it was evident that the general stratigraphy previously defined could be maintained, although with a significant variation: the attitude of the rough stones that were visible in fact indicated that they were part of a collapse heap to be correlated with the decaying of wall M490. This new layer was named **US581**, and comprised some sandy loam deposited amidst the stones. The stones had collapsed directly on top of US579 floor, and were then covered by the loamy deposits US579, US574 and US480, as they were defined in 2013A.

No relevant artifact was recovered from the removed deposits.



A view of the deposits at the beginning of the works, from the north. The collapse heap US581 is already visible.



The excavated portion of street A156 halfway during this season's works (from the south)



A view from the south of Street A156 at the end of the works; the excavated portion now abuts against the deposits sustaining the modern side wall of the tourists path

Street A156 (squares i-8/9)
Supervisor: S. Al-Mashani, M. Degli Esposti

Also in this street previous works had not completely removed the archaeological deposits. One large triangular bulk of earth had in fact been left against the southern side of the street, namely against the northern perimeter walls of building BA13. This portion of the street had anyhow already been excavated down to the elevation of US443 floor, that is, to the same level of the excavated portion of street A206.

Also in this case, the stratigraphy had already been defined, and the exposed sections allowed an easy and quick reconnaissance of the different layers. Below US443 stood US425 with its associated floor, in turn covering US440. This is the last accumulation identified so far in the street, and covers its related floor. Clearly visible was a narrow draining channel running all along the street, cut through US440 floor: US468. A further stretch of this channel was revealed during this campaign: it looks now probable that it continues, bending northward, also along street A206.

The only new feature unearthed was what looks like a poorly made wall, made up of rough stones with no binder, placed against the north-eastern corner of building BA13. This feature has been named **M595**: further excavation in street A206 will hopefully reveal its actual nature and function. M595 rests on top of US425 floor, covered by the accumulation of US425 itself.



Street A156 before 2013B excavations, seen from the NE



Street A156 at the end of this campaign's works, from the NE



A detail of the botchy wall feature M595 placed against the NE corner of building BA13 (top); along street A156, the possible continuation of the feature southward is emerging through the deposit of US425 (bottom, in the middle).



Area A at the end of the excavation: the newly unearthed portion of channel US468 is highlighted in gray, and the different levels reached are indicated.



The portion of channel US468 unearthed during this campaign. It was cut through US440 floor.

Excavation in Area B

A new storehouse east of building BB3 (squares o11 – p10/11): room A207

Supervisor: M. Degli Esposti, S. al-Aamri

Apart from the western portion, partially cleaned from the topmost deposits during the works connected with the excavation of building BB3, the area was covered by an uppermost layer severely disturbed by recent activities, including the construction of a now removed tourists shelter, as well as the laying down of the tourists' gravel path. This layer was quickly removed, and the underlying US 582 was revealed. This deposit consisted of light brown – grayish loam, including several small stones, with little anthropogenic material in it (scarce potsherds, some fish bones and animal bones).

US 582 has been left in situ over a small rectangular area standing in front of the entrance to the late room A203, partially excavated during SUM13A campaign.

Actually, this rectangular area corresponded to a small sort of platform contained by a small, straight dry stone wall which was probably laid down inside a shallow foundation trench excavated through the lower part of US582. This wall was named **M589**. US582 likely continued to accumulate with further occupation of the building, and walking on the platform. A second small wall feature, **M590**, was built directly on top of US582 and was leant against M577, that is, the eastern perimeter wall of room A203. M590 is a small, roughly semicircular feature, made up of rough stones, totally similar to several others already found in various points of the city.

The necessity of M589's erection was made evident when observing the exposed section in square A74 (see below), as well as the layout of US582 and of the underlying layers themselves. All were

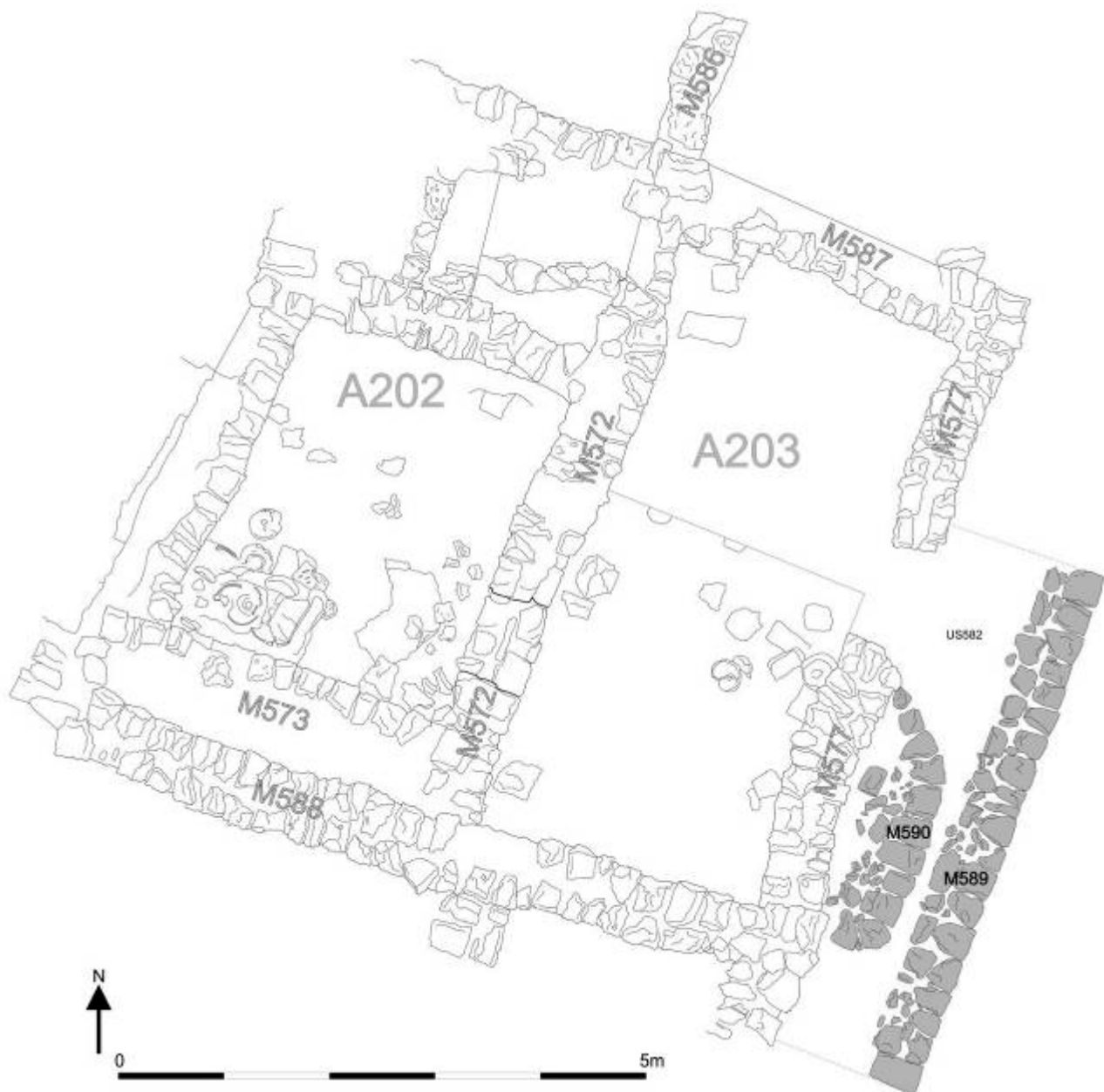
in fact sloping eastward, and wall M589 prevented the ground close to the late rooms' entrance from being eroded away.



The investigated area on the first day of works.



*The section under the low wall M589 clearly shows how US583 was laid down to level the area.
The eastern face of wall M591 is visible at the bottom of the section.*



Plan of building BB3's late phase, showing the newly unearthed walls M589 and M590, auxiliary features built in proximity of room A203's entrance

Below US582, a series of deposits with different compositions and morphologies were distinguished, which were all the outcome of intentional accumulation of loam and debris, unlikely to have ever constituted a durable occupational surface.

The sequence was topped by **US583**, a multilayered, compact unit, which was clearly laid down in order to regularize the area's surface, allowing the occupation of late building BB3. It is on top of this layer that wall M589 was laid down, although, as said, probably after the excavation of a trench through US582.

Below US583, two other deposits appear to be linked with an intentional raising of living ground elevation rather than with an accumulation connected with the area's use. These were the brown, quite compact sandy soil **US584**, and the loose sandy accumulation **US589**, also rich in pulverized charcoal. This latter US also filled a depression, located towards the southern end of the investigated area, inside which also a few stones coming from the city wall's collapse had fallen. This limited collapse was named as **US588**.

In the northern part of the excavated area, few different units were distinguished, whose significance in the reconstruction of the ancient events is actually minimal, given their poor state of preservation, undermined by previous excavation, modern works and erosion. These units were the rather wide, irregular pit **US585** with its loose, heterogeneous filling **US586**, and a series of thin layers of ash and charcoal, packed together possibly inside another garbage pit, which were named **US587**.

Once these layers were removed, two new, wide and rather thick accumulations came to light, which conversely turned out to be probably linked to an actual occupation of the area. This was shown by their composition, and by the fact that they both rested above what could be recognized as the main occupational surface of the second phase of the area's internal chronology: **US590** floor, or better, the upper surface of the thick accumulation **US591**.

These two units were **US593**, located in the southern part of the area, also abutting against the city walls, and **US590**, covering the remaining part of the excavation and overlapping **US593**. Both were quite rich in ash and charcoal, **US593** being richer. Their genesis can be linked with the activity of a probable open air (?) fireplace which was identified resting on the same floor as them and was named as **US594**. **US594** was in fact a small hump composed of silty sand, hardened by fire action, which also turned its colour to orange-red. The abundance of ash in the two layers which covered it (**US590** and **US593**) can thus be the result of this fireplace activity, together with secondary reshuffling and some loam accumulation, the latter mainly for what concerns **US590**.

As mentioned, this phase of occupation, whose main focus seems to be **US594**, took place above **US591** surface (corresponding to **US590** floor). This layer constitutes the uppermost unit of a second series of leveling deposits, intentionally laid down to seal the debris of an earlier room which was part of the storage quarter and has been named as **room A207**.

It is appropriated now to describe the stratigraphy excavated inside this room, 11,5 meters long and 2,5 wide, according to the chronological sequence and starting from the beginning of the area's history, that is, inverting the order followed until here.

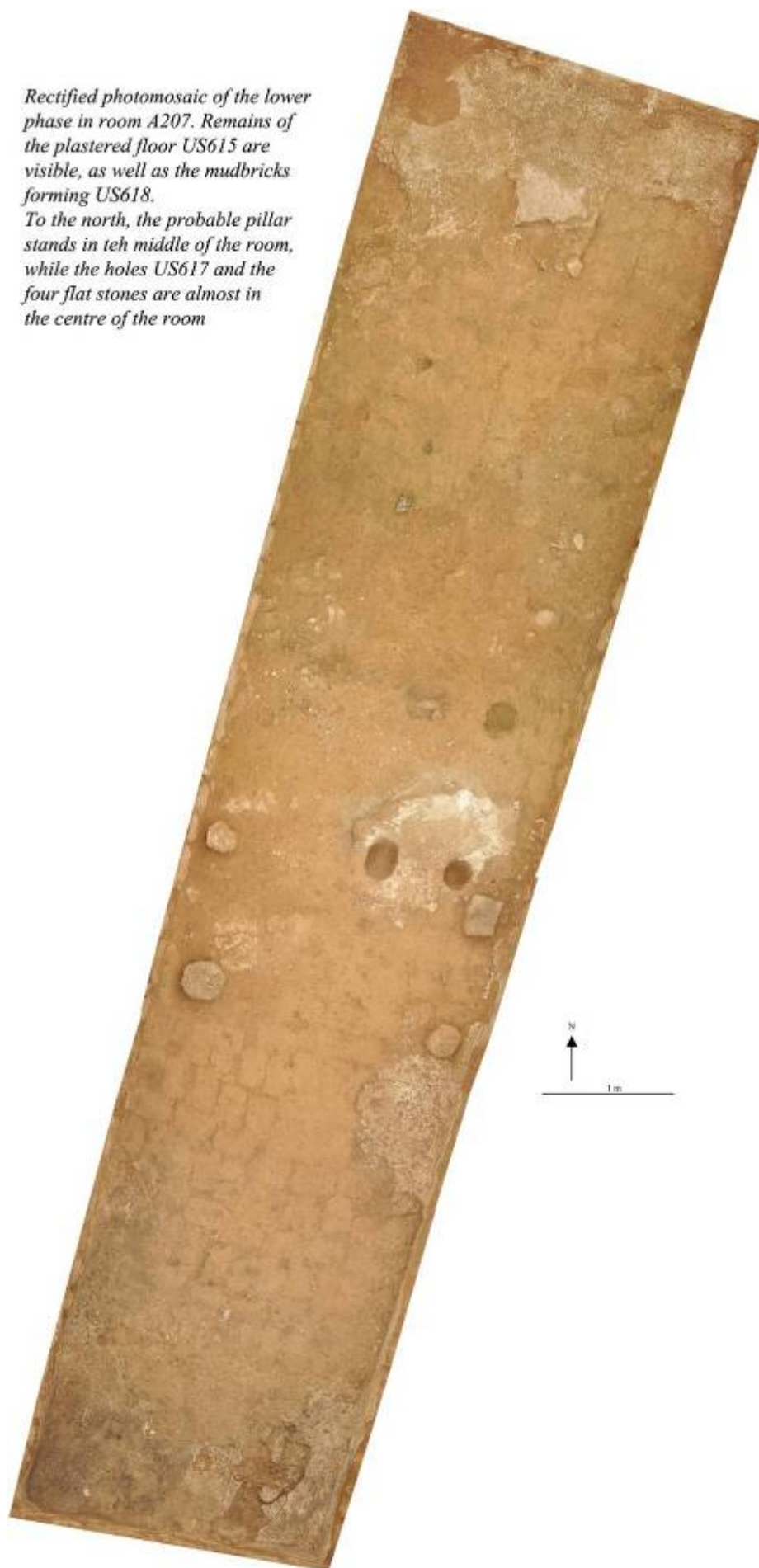
The room was delimited by wall **M594**, which divides it from the large, pillared storehouses standing immediately to the east, already excavated by the AFSM team. This long, stone wall, whose eastern face was already visible, was tied to **M169**, which constitutes room **A207**'s northern perimeter and that at its western end is in turn tied also to **M591**, the newly unearthed western wall of room **A207**.

The bedrock was reached only accidentally in the few spots where the above standing floors had been disrupted by high-energy collapse events. Its elevation was almost the same as in the nearby "market square".

The first peculiar characteristic of this room resides in the preparation which was laid down above the bedrock in order to level it and enable further construction. Instead of the expected "foundation filling" made up of stone chips and loam, commonly found all over the city and serving as a base for the buildings, regular light brown-yellow mudbricks were in this case laid down (**US618**) to form a sort of platform. This is the first attestation of mudbricks used to realize an horizontal platform ever found on the site. The joints between the bricks were filled by a different kind of clay, very compact and of a reddish colour. This preparation, above which a thin layer of clay seems to have been laid down (badly preserved only in places – **US616**), served as the basis for a nicely plastered wall which covered the whole room, **US615**. This plaster was also used to cover all the walls' faces, with no interruption between these and the floor. It is interesting to note that, below the plaster and directly adhering to the walls, a layer of clay was laid down, which also was used as a binder between the walls stones. This clay was the same used as a binder between the mudbricks.

Rectified photomosaic of the lower phase in room A207. Remains of the plastered floor US615 are visible, as well as the mudbricks forming US618.

To the north, the probable pillar stands in the middle of the room, while the holes US617 and the four flat stones are almost in the centre of the room



Moreover, the upper part of wall M591 also was realized using the same clay. Apart from a short stretch close to its northern end (for which a later reconstruction can not be excluded), this wall in fact showed a regular, flat upper crest, above which the remains of a mudbrick superstructure were recognized. Actually, more than real mudbricks, it would seem that for this part off the wall a *pisè* technique was used, compacting scattered small stones amidst the mentioned reddish clay.

M591, that as said was tied to M169's western end, was conversely leant against an earlier wall, for the moment left unnamed, the corner of which was already visible from the north, if one was standing in the excavated portion of square A74. This wall likely constituted the western perimeter of building BB3 in its first phase.

The fact that M591 was build after the mentioned wall is proved by the layout of its western face, which appear rather irregular, neatly different from the nice face visible from room A207. This could just be verified in two small soundings carried out on top of M591's crest, removing the remains of the clay and stones *pisè*: a more extended removal would have undermined the wall stability. Besides, much of the northern part of M591 still lies beneath the earthen baulk which as left to support the late walls US589 and US590.

It remains to be ascertained where the wall standing east of M591 ends: it would seems that it did not reach the city walls. In their proximity stands in fact what looks like a different wall features, apparently very thick.

Going back to the room stratigraphy, the plastered floor US615 was preserved only at the opposite ends of the room, with the exception of a small portion near the centre.

Above it was found a rather thick layer, **US603**, which can be interpreted as the result of a massive collapse of the room, likely caused by a great fire. US603 actually comprised three different sub-levels, which speak in favour of the fire hypothesis, given their layout and attitude. Directly on top of US615 and US618 in fact, stood a thin layer of burnt soil and ashes which can be related to fire action on the inside of the room; above it, an irregular accumulation of loose clayish soil can be interpreted as the decaying of minor parts of the upper walls; lastly, a layer containing a large quantity of carbonized wooden elements stood on top of this sequence. Several chunks of such charcoal were sampled, hopefully enough to allow the characterization of the used species and supply a radiocarbon date for the room's destruction. Against the northern perimeter wall of the room, i.e. M169, a small heap of stones collapsed from the same wall supply further strength to the proposed reconstruction. They in fact (named as **US614**) lay directly on top of the lower sub-level of US603, and lay amidst the upper one: this is consistent with they coming from the upper courses of the wall, involved in the first collapse episode linked with the roof's burning.

It has to be stressed how US603 was poor in cultural material. This can only be explained admitting that, when the room was destroyed by fire, it had already been abandoned, or at least had fallen in disuse. Several stone tools were found, all concentrated in the northern part of the room, but they came from different deposits and can not be used to determine any peculiar function fro the room.

After all, other indications were pointing in the same direction. When US603 was removed, in fact, two sets of features emerged in the middle of the room, which looked like being pertinent to a moment in which the well-plastered floor US615 was already laying in a state of disrepair, but the room still in use.

The first one comprised four flat-topped stones, roughly square or circular, located near the centre of the room and close to the side walls, two on each side. Their function can not be ascertained, but a few hypothesis can be put forward: stands for large storage jars; supports for low wooden shelves; basis for wooden pillars supporting the roof. The last hypothesis would seem not consistent with their position close to the walls, also considering the that the width of the room could easily be spanned with a single beam/plank. On the other hand, a roof sustaining function could be realistic if one envisage this stones being laid down in a second moment of the room's life, when the side walls were maybe starting to decay and were no longer considered strong enough to support the roof. The plaster floor was completely lacking close to the stones, so that it is impossible to

determine whether they were laid down on the mudbricks of US618 and then englobed in floor US615, or they cut through it, or they were placed after US65 complete decaying.

*Rectified photomosaic of the
fire-related collapse layer US603
in room A207*



The second set of features comprises four holes, grouped under the label **US617**, which were surely cut through the mudbricks and clay of US615 and US616; their relation with the plastered floor is more uncertain, again due to US615 bad preservation. The disposition of these holes suggest that they could indicate the place where a removed piece of furniture once stood. It could be some sort of table/desk (working desk), or even a shelves structure. A second hypothesis could be that these holes actually where housing the feet of a wooden ladder, necessary to enter the storehouses from the roof¹.



Detail of the four flat stones standing in the middle of the room and of the four holes grouped under the label US617.

Like the other stores so far unearthed in Sumhuran in fact, also room A207 had no door allowing entrance at ground floor. Thus, the hypothesis of completely closed rooms has long been put forward and accepted. Actually, the four holes of US617 can be subdivided in two couples, with slightly different characteristics. The southernmost two were found in an area where some plaster remains were still surviving, which could belong to US615, and they seems to be cutting through such plaster. The other two, which are also less deep, stand in an area where plaster was no longer visible. Could it be that the southern holes reflect the original position of the ladder, during the very first phase (or rather sub-phase) of the room existence, when the plastered floor was intact, while the other two indicate a replacing of the ladder, during a moment in which the room's structures were already decaying?

Be that as it may, one last feature was discovered, which belongs to the original layout of the room, when floor US615 was in use. It is a squared feature, standing in the centre of the room not far from wall M169. It comprises a foundation setting made of small stones and pebbles, driven into US616 and US618 and then covered by plaster. This plaster clearly goes on top of US615. The

¹ The suggestion about the ladder setting is owed to A. Sedov

nature of this feature appeared more clear when a stone found nearby was recognized as part of it. It was in fact found amidst other stones coming from M169 collapse, but its neatly more accurate shaping indicated that it had a different origin. Indeed, it fitted into a gap left on top of the squared feature: this was thus recognized as almost identical to the pillar bases visible in the adjacent pillared storehouse. Why a pillar was needed in this point of the room is not clear; the structure could then also represent just a base for some other feature, maybe a rotary quern? A fragment of such an instrument was actually found on the same spot (S2261).



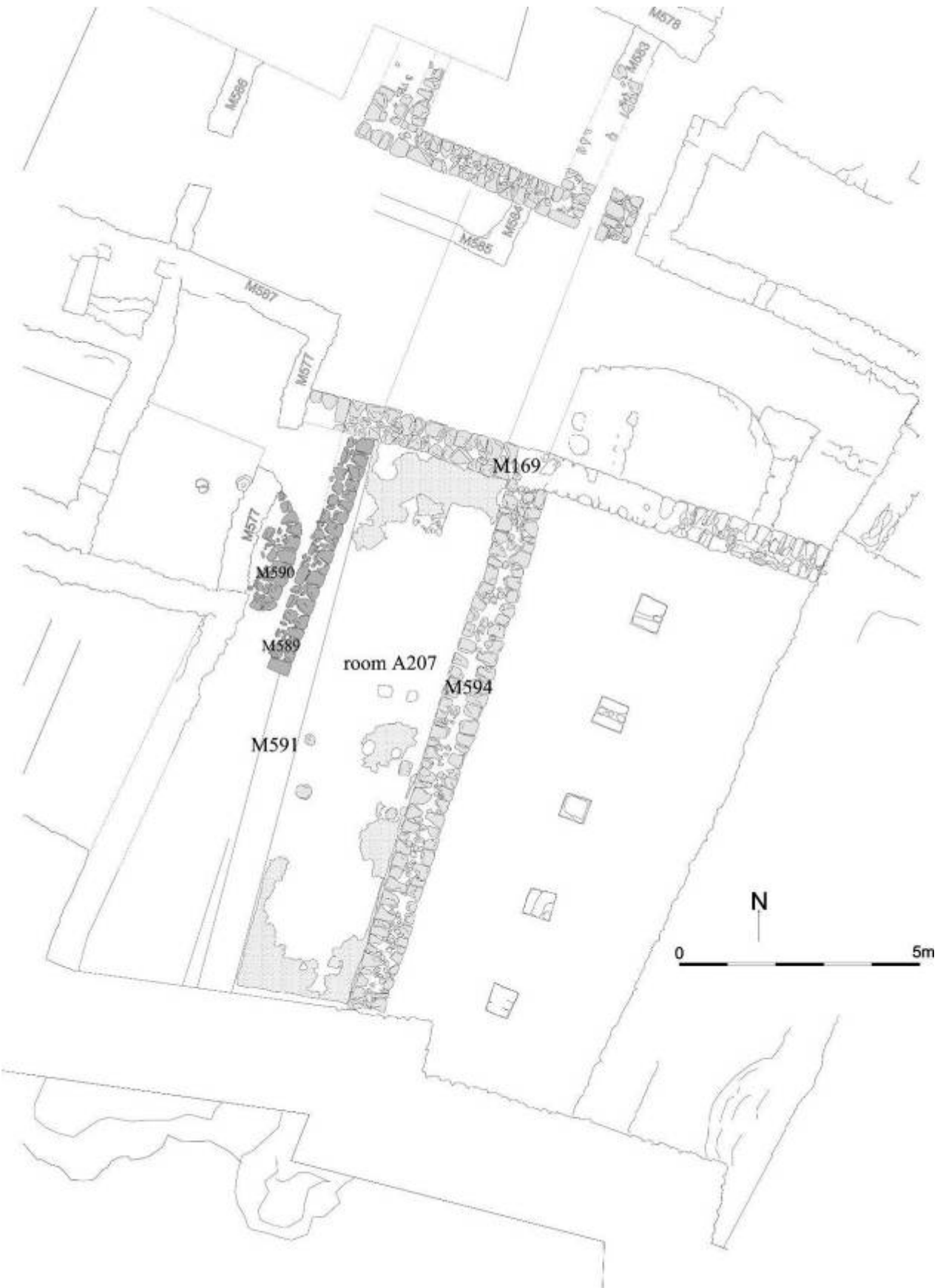
Detail of the probable pillar based discovered in the northern part of the room. See the rectified photomosaic to see how the feature was before the large stone found in its proximity was placed back in its presumed original position.

Above these fire-related collapse, a series of layers was distinguished, all of which can be interpreted as intentional waste dumping / earthen deposits and further localised collapses whose function was that of covering the ruins of the room's first phase and raising the floor levels. Indeed, we can no longer talk of a proper room A207 after the described phase.

Waste dumping must be given as an explanation for US601, the lowest of these deposits, rich in ash and disaggregated mortar, directly covering US614 in the northern part of the room. It also covers US603, a yellowish layer including abundant gravel, rather compact, found on a wide area, for which on the other hand an intentional transport from another location must be envisaged.

While for US598, US597 and US596 no peculiarity deserves mention, different is the case for US595, a thick deposit standing just below US591 that, as seen above, was the last of such layers and constituted the surface of a new occupation of the area. The composition of US595 greatly differed from the other layers: it in fact comprised almost exclusively a reddish clay, often aggregated in hard compact lumps, with small angular stones interspersed though it. This clearly mirror the composition of the above discussed upper part of wall M591. It seems clear then, that one of the ways in which the dwellers managed to cover earlier ruins aiming at a new layout of the

area, was dismantling the surviving upper part of the walls, namely that made in the described *pisè* technique.



Plan of Area B at the end of the excavation



A view of the late wall features M589 and M590 (left) and a detail of the plaster of US615 overlapping the city walls' plaster in the southeastern corner of room A207 (right).

Comments (*M. Degli Esposti*)

On the basis of the stratigraphy just described, the excavation of this area confirms the general reconstruction of the site chronology and phasing recently reaffirmed by A. Sedov in a couple of papers given at the Rencontres Sabéennes conferences².

Although many of the excavated areas of the city actually bear evidence of more constructional phases³, these can finally be assigned to just three main phases within the city's history. As seen, three are also the substantial living surfaces discovered during the excavation in the area of room A207: the plastered floor US615; the earthen floor US290 (=US291 surface); the leveled surface made up by US583 and by the gradual accumulation of US582.

The first phase corresponds to the actual period of existence of room A207 and to its use as a storehouse. Also in this case, several rearrangement of the room took place, including a remarkable decay, which are anyway part of this first phase. The passage to the following one is marked by a dramatic event, in all likelihood a violent fire which destroyed the roof and consequently the whole room.

It is worth underlining here that the room had likely fallen into disuse by the time that the fire destroyed it and also, as said, that its internal layout speaks of a general deterioration of its features. This can confirm the hypothesis, based on evidence from other areas of the city, that the end of the

² “New data on Sumhuran: fortification, city planning, stratigraphy and datation” (Rencontres Sabéennes 16°, Pisa 2012); “New data on Sumhuran: stratigraphy and datation” (Rencontres Sabéennes 17°, Paris 2013).

³ See the description of the different areas evolution published in A. Avanzini (ed.): A port in Arabia between Rome and the Indian Ocean (3rd C. BC – 5th C. AD). Khor Rori Report 2. Roma 2008.

first phase came along after a general period of slow decay of the city, possibly almost an abandon of certain areas within it (see Sedov, RS 17°).

The second phase witness a radical change in the area's general plan: room A207 is definitely buried under the fire's debris and a massive sequence of earthen deposits, mixed with waste dumping, is used to seal the earlier ruins. Some activity, probably related to an open air fireplace, took place above the new floor and caused the formation of further deposits characterized by abundant ash and pulverized charcoal. The genesis of the strata covering first phase's ruins, explains the general problems encountered when trying to build a more detailed internal chronology for the first phase: while the room was in use, it was probably kept clean, and we have thus no element to assign a precise date to the decay of the plastered floor or to the probably secondary setting of the four flat stones: conversely, the deposits brought in to raise the occupational floors prior to the new setting were taken randomly from different locales and could include any artifact that accidentally laid beneath the removed soils.

Similar, massive sequences of intentional fillings covering the first phase ruins and amounting up to more than one meter were excavated in many points of the city; what it interesting in this case, is that there is a clear change in the use of the area, while in other instances rooms could maintain their original function albeit at a higher elevation (it is the case, among others, of the little shrine in area A).

The end of this phase is less neatly marked than the first's. However, also in this case it seems that some earthen deposits (US589, US584, US583) were laid down to build up a surface on top of which the new layout of the area was set. This third phase apparently is characterized by a sharp reduction in the activities taking place in the city, as well as by a contraction of the overall occupied surface. It is interesting to note, regarding the late layout of building BB3, the continuity in the use of those enigmatic features such as the semicircular low wall M590, something that was common also in the previous phase in several places scattered throughout the city.

“Square” A74 and modification of the tourists path

Supervisor: M. Degli Esposti

In the middle of this area, which looked like a possible square within the city's road network, an earthen transept was left untouched during the previous season, when the areas standing on both sides of it were excavated.

Previous excavation work lead to the identification of the thick deposit US181, immediately below a thin Aeolian sand layer. The transept itself thus resulted to comprise just this layer, and it was then deemed appropriate to remove it in order to allow a nicer view on the whole area.



The short surviving portion of M593, standing on top of US181, at the eastern end of the earthen transept left after 2013A's season (maximum length 1,10 m.)



The area of “square” A74 before excavation, seen from the east.

First, a short stretch of a dry masonry wall, preserved for just one course of stones, NE-SW oriented was named (**M593**), planned, and removed. It showed no evident connection with any other structure in the area, and surely belonged to a very late moment in the city’s history.

Immediately afterwards, the removal of US181 caused the discovery of a new straight wall, SE-NW oriented and tied to M583, with which it forms a right angle. This new wall was named **M592**.

It was conserved up to a slightly higher elevation than the average for M583; the latter also started to become more clearly visible, although it lays below US181 floor.

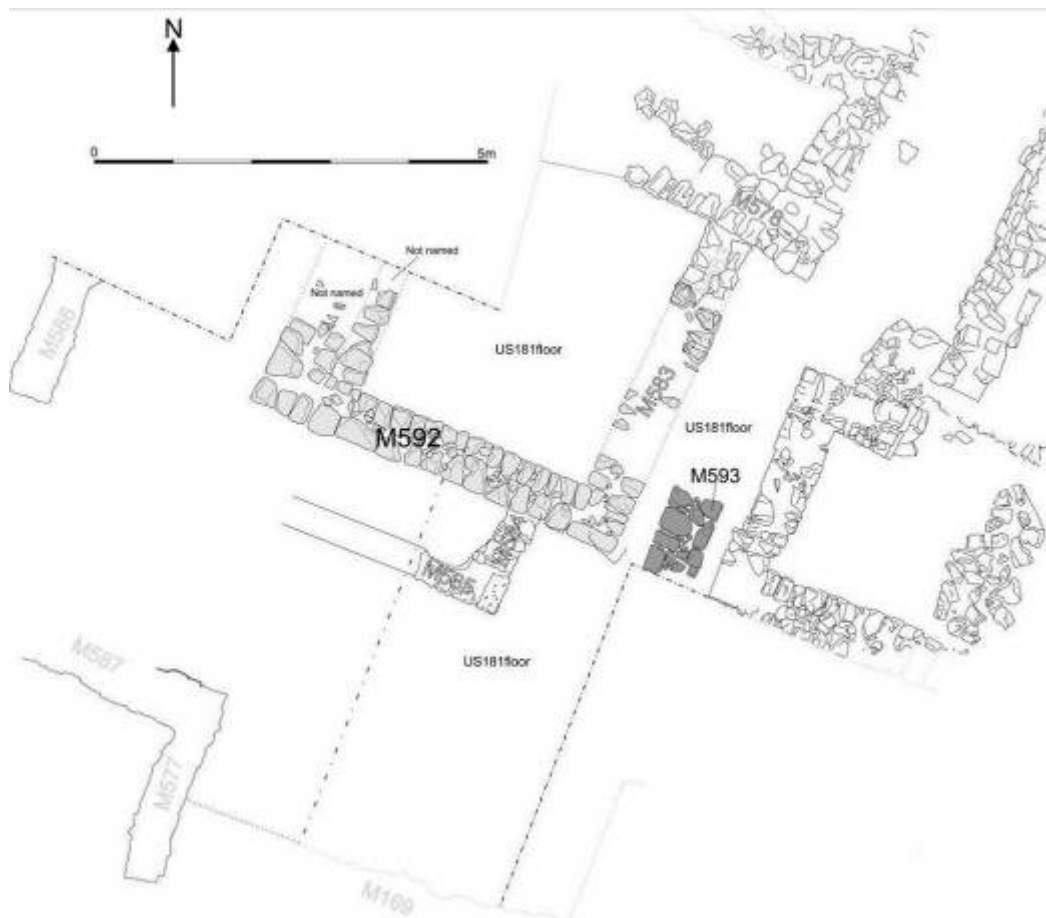
This discovery prompted us to enlarge the excavated area in order to see if M592 could be reached, as seemed to be indicated by a couple of stones which looked likely to constitute its northwestern corner. This turned out to be true, and the initial portion of yet another wall, parallel with M583 and tied to M592, was discovered. Apparently, this wall is of the same width as the other two, and would form with them a new room. In a later moment, a second wall made up of a single row of stones was built against the inner face of this new wall. Here these two new walls were much worse preserved than M592, and their plan could not be ascertained. Also for this reason they, as well as the probable new room, were for the moment left unnamed.

The unearthing of M592 also showed how the short, poor late wall M584 was leant against it in a very late phase of occupation of the area. Together with M585, which is tied to it, it formed some sort of structure whose extension still needs to be clarified. This structure exploited the surviving crest of M592, and all these late walls probably served as supports for perishable material walls.

Another point which deserves mention, is the fact that during previous excavation, the upper part of a multi-layered deposit laying underneath US181 was removed. The exposed stratigraphy, and the morphology of M584, clearly indicate how, during the late phase of occupation of this area, the ground was laying inclined eastward, something that is consistent with what noted during the excavation in the adjacent squares occupied (during the city’s first phase) by the storehouse A207.



A view of the area at the end of the excavation, from the south. The inclined surface on which the late wall W585 (foreground) was built is clearly visible.



Plan of the excavated area in “square” A74, with the newly discovered walls in gray (darker gray indicates a different, later phase.)

Preliminary removal of recent soil on the southern storehouses block (square p12)

Supervisor: M. Degli Esposti

In order to allow a better presentation of the storage area to visitors, as well as relieving the underlying walls of some pressure, the removal of the most recent deposits was undertaken in the area east of the pillared storehouse.



The recent accumulation of collapsed materials and Aeolian sand on top of the storehouses before excavation, as visible from the north (corresponding to the “market square” panel)

Here, the long walls defining two further storehouses, probably very similar in plan to room A207, were already partially visible. Works only interested the upper layer, which can be considered equivalent to the surface deposit all over the city. This operation will obviously also facilitate an eventual future thorough excavation of the two rooms.

Works were interrupted at the elevation where a different layer was starting to emerge, containing abundant pulverised charcoal. A more compact, reddish clay soil was also visible in places.

The lateral walls of the two storehouses were further unearthed, as was the central wall which separates them. Close to the city walls, this central wall shows a slight offset which creates a small step in the wall's eastern face. What deserves mention already in this early stage of the works is that both faces of the central were plastered up to their surviving elevation, something consistent with what retrieved in room A207. Whether this plaster is actually one and the same, covering the whole wall, or just the remains of a secondary plastering possibly when a higher floor was occupied, must be left at future works to be ascertained.



Detail of the slight offset in the wall separating the two storehouses preliminarily cleaned, from the east. The plaster covering the wall's eastern face is visible, also adhering to the little offset corner. A similar plaster is visible, though much worse preserved, on the opposite face of the same wall.



The western face of the central wall lay in a bad state of preservation, most of its southern portion being collapsed. Situation before excavation: the collapsed stone have now been removed.



The two storehouses at the end of the works.

Excavations in Area H

A new trench in squares m/n8

Supervisor: L. Diamanti, S. al Mashani

The area was chosen for investigation for two main reasons connected each other: creating a completely excavated N/S transect of the city – a sort of transversal section -, and shedding some light on the bedrock's layout.

The morphology of the rocky hill on which the city was founded had in fact strong influences on its general layout, mainly due to the elevation gaps from one area to the other. The choice of the Monumental Building location, for example, and of the well inside it, was dictated by the presence of a natural depression in the bedrock's surface.

The remarkable difference in elevation between Area A and Area F, or between the latter and Area H, is something which makes the reconstruction of the city's overall plan in the different phases quite difficult, and peculiarly for the earlier ones. Progress in Area A excavation, namely in its part located south of the Monumental Building, had shown that the gap with Area H can be likely traced close to the tourists' path, and for that reason excavations were conducted immediately south of it.



The northern part Area H before excavation, from the southeast

Excavation started with the removal of the surface Aeolian sand and late collapses. The highest heap of tumbled stones coming from ancient structures was named as **US599**. It was recognized all over the area.

This layer reached its highest elevation at the northern end of the excavated area, sloping down southwards as it followed the attitude of the underlying deposits.

Below it, in the northern part of the area, against the tourists path, an ash and disaggregated mortar rich layer was unearthed, **US600**. This in turn covered the poor remains of a plastered floor, delimited by two stone walls, one of which was named **M596** (to the east), the other left unnamed awaiting a more detailed investigation. The plastered floor was numbered **US612**: it was probably part of a continuous plastered surface which also englobed the wall delimiting this possible ambient from the west, that is, the one left unnamed. While this new wall at this stage seems to comprise just a row of surviving stone, and to belong to a late phase, M596 was part of the first layout of the area, and its use in connection with the floor US612 was actually a late reuse.

The excavation of this small square at the northern end of the excavated area was interrupted at the level of US612. Below it, a complex stratigraphy is visible in the exposed section, which will need investigation. In particular, several medium and large stones were discovered at the bottom of the section, leant against the western face of wall M596: whether they are part of a structure or just of a collapse remains unclear.



The scanty remains of US612 (centre top) were probably originally linked with the plaster which covers the wall on the left, for the moment left unnamed. At this point the excavation of this small portion of the area was interrupted.

In any case, US612 was realized above some of these yet not investigated layers, which in turn covered a more extended layer of collapse and debris accumulation, found all over the area: **US604**. This was quickly removed to reveal the underlying US604 floor, which corresponds to the upper surface of US605, a 10/15 cm thick accumulation of yellow-reddish silty clay, which was also found all over the area. This surface constituted the second occupational surface distinguished in the area, prior to the massive decaying which led to the shifting of the occupation to a much higher elevation (that of US612).

On top of US605, a localised accumulation of a ash rich loam was distinguished as **US606** in the southern central part of the area.

Once these layers were removed, the original layout of the area was revealed, which has clearly to be related to the “industrial” district discovered during the 2011A campaign.

At least two, large and shallow plastered “basins” were in fact discovered in the southern half of the investigated area, quite close to the four aligned, rectangular basins which abuts against the city walls. These two basins were actually connected, and as such have been, for the time being, named as one under the label of **US613**. Also these basins, as those previously excavated, were defined by low mudbrick walls, plus probably a short stone one, M599, which has likely to be considered as part of a mixed technique wall rather than a wall standing on its own.

Unfortunately, the plastered surface of the two basins was surviving in nothing more than small patches. Besides, a wide pit (**US608** with its filling **US609**) which was cut right in the middle of the area in a later phase, probably at the end of the occupational phase taking place on top of US605, removed the most of US613 northern part. The southern one, if the reconstruction of it having a remarkably wide squared plan is accepted, exceeds the excavation limits westward and thus has to be still fully unearthed.



The plastered “basin” US603 at the end of the excavation. On the right, the large pit US608 is visible, cutting US613, while in foreground, close to the bottom left corner, the thin layer US611, filling depression US510, is characterized by its craquelè effect.

Several stones were found *in situ*, laid down above US613 surface, likely used as stool or as anvils or similar features. Also the fragmentary stone mortar S2279 was retrieved on top of the same surface. The double basin US613 was realized above US607's upper surface (=US605 floor), which was the first living surface of the area. **US607** comprises a compact light brown silty sand layer which was laid down directly above the bedrock in order to realize a regular surface.

One last feature was recognized on US607 surface; it was a shallow depression, US610, filled by a very thin layer of compacted ash, US611. Also this small feature was likely part of the workshop area which included the plastered basins.

Which activity was carried out in the area is impossible to define. The only peculiar finds were two skilfully decorated shell lids, similar to a few other specimen already known from the site. One was found in the uppermost deposit UD599 (Sh496), while the other was found in US605, that is, the accumulation above US607 (Sh497). These two specimen represent the best preserved ones discovered so far, specifically Sh497 which is complete with the exception of a small hole.

A remarkable number of *oliva bulbosa* shells were recovered in the area, all of which showed a perforation on top of the *columella*. Indeed, such a perforation is likely to be of natural origin; nevertheless, its presence would in any case exclude a consumption destination for the shells, which maybe were collected in order to be used as personal ornaments. Some support to this hypothesis is given by the presence of a few shells of different species, which also were pierced. The co-occurrence of the two shell lids in the same area is intriguing, and could suggest the tentative hypothesis of a shell workshop, although no definitive evidence was collected.

Lastly, two new stone walls unearthed in the area deserve mention. These were **M597**, a short straight wall taken as the western limit of the excavation, quite puzzling in its isolated position, and **M598**, a short stretch of wall which was completely demolished in ancient times and that original

was tied at right angle with a wall going westward, of which almost nothing remains. M596 was leant against the surviving northern corner of M598. All these walls, standing on the evidence collected in relation to M596, were likely founded directly on the bedrock, with some small stones set to afford them stability. Bedrock was in fact reached a few cm below US607's surface (average elevation 28.10): it would thus seem that the main level drop occurs in the area covered by the tourists' path.



A small test trench was excavated against M596 in order to reveal the bedrock's elevation



Wall M597 seen from the east (left); wall M598 seen from the west, where the remains of the other wall once defining a right angle with it are visible (right)



Wall M596 (right) abutting M598, seen from the east. Behind M596, US612 is visible, covered by US600.



Two views of area B at the end of the excavation



Plan of the excavations in Area H, including some of the plastered structures unearthed during SUM11A campaign



The two decorated shell lids discovered in area H: Sh496 (top) and Sh497 (bottom)