

# IMTO FIELD REPORTS

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preliminary report  
excavation at Khor Rori  
(SUM12C – SUM13A)



# THE SUM12C AND SUM13A CAMPAIGNS

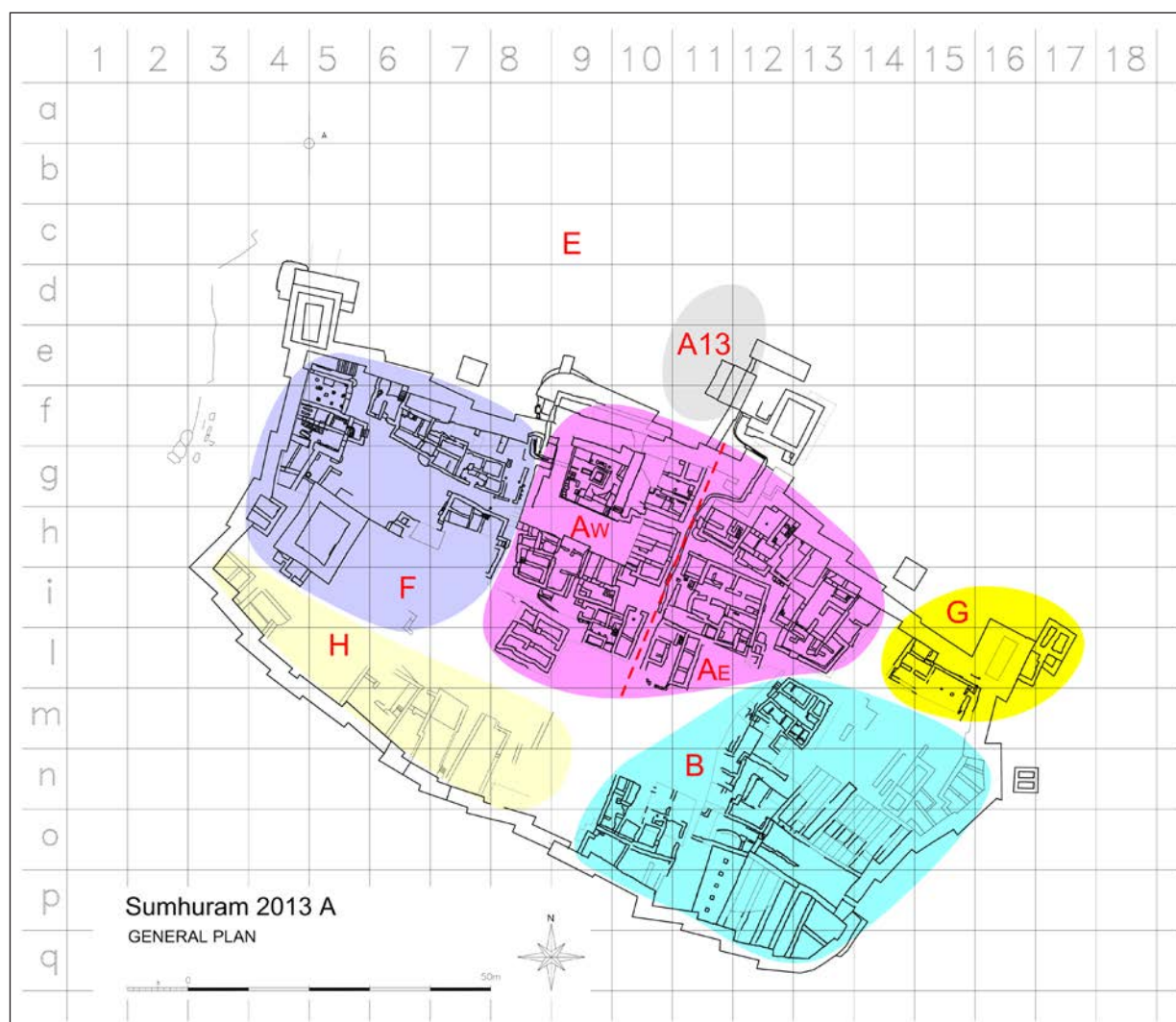
*Vittoria Buffa*

## ***Introduction***

In the most recent years our work in the field, under the direction of Prof. Alessandra Avanzini, has two major objectives. On one side to clarify the planning of the city; with this aim work has been concentrated in the central part of the town, South of the Monumental Building 1 and of the Monumental Gate Complex (Area A), with the excavation of several buildings and of the streets that constituted the ways of communication between the various sectors of town; on the other side it was important to understand the spatial relation between the storehouses and the city, in the south-eastern part of town (Area B). Limited work has been performed also in Area F, in the large square A20 to clear the area of remaining late deposits.

Since the beginning of excavations the town has been divided in sectors. The Area A has been divided in Eastern and Western part, the limit being the NS street A75 leading inside the city from the Monumental gate (fig. 1).

In this field report we present the results of excavations in Area A, western part: buildings BA13, street A206; Area A, eastern part: building BA12, street A113, room A179, rooms A188 and A194; Area B: square A180, square A184, building BB2, rooms A106 and A178, rooms A204 and A205, square A74, part of building BB3; Area F, square A20 (fig. 1).



*Fig. 1. General plan with division in areas.*

## AREA A

### AREA A, WESTERN PART

#### Surface (i8-9/l8-9)

All the investigated area was covered by a grayish-brown loam, loose in consistence, mixed with a quantity of well-dressed limestone blocks, of medium and large size and some sandstone slabs (US480). The layer had a superior maximum elevation of 30.70 m, with a gradient from North to South and a greater thickness on the northern side. Some animal bones, some shells, and many iron slags were recovered. Among the small finds several coins, stone tools, bronze objects and beads. US480 marks the final abandonment of the area.

<i>Small finds</i>	<i>Pottery</i>
<b>US480:</b> CI142, CI43, MB691-MB694, MB696, MB697, MB701, MB703, MB706, MB707, MI191, MI192, Sh444, S1860, S1863, S1878-S1881, S1898, S1899, S1902, S1905, S1908, S1953, S1954, S1956, S1963, S1992, Co746, Co747, Co755, Co757, Co758, Co759, Co760, Co761.	US480, 1-16.

#### Building BA13 (i8-9/l8-9) (fig. 2)



*Fig. 2. Building BA13 before excavation.*

Underneath the superficial layer US480 (see above), a building consisting of six rooms has been unearthed: rooms A166, A170, A196, A197, A200, A201. Building BA13, *circa* 8x6.50 m in size, has a NW-SE orientation. The plan of the building is well known in Sumhram (see for instance buildings BA12 and BB2, below) and is typical of Hadrami dwellings of the Ancient South Arabian period. The central corridor gives access to the rooms on both sides. This type of house has usually a staircase leading to the top floor. In the case of BA13 few hypothetical traces of the arrangement for a staircase has been detected (fig. 3).

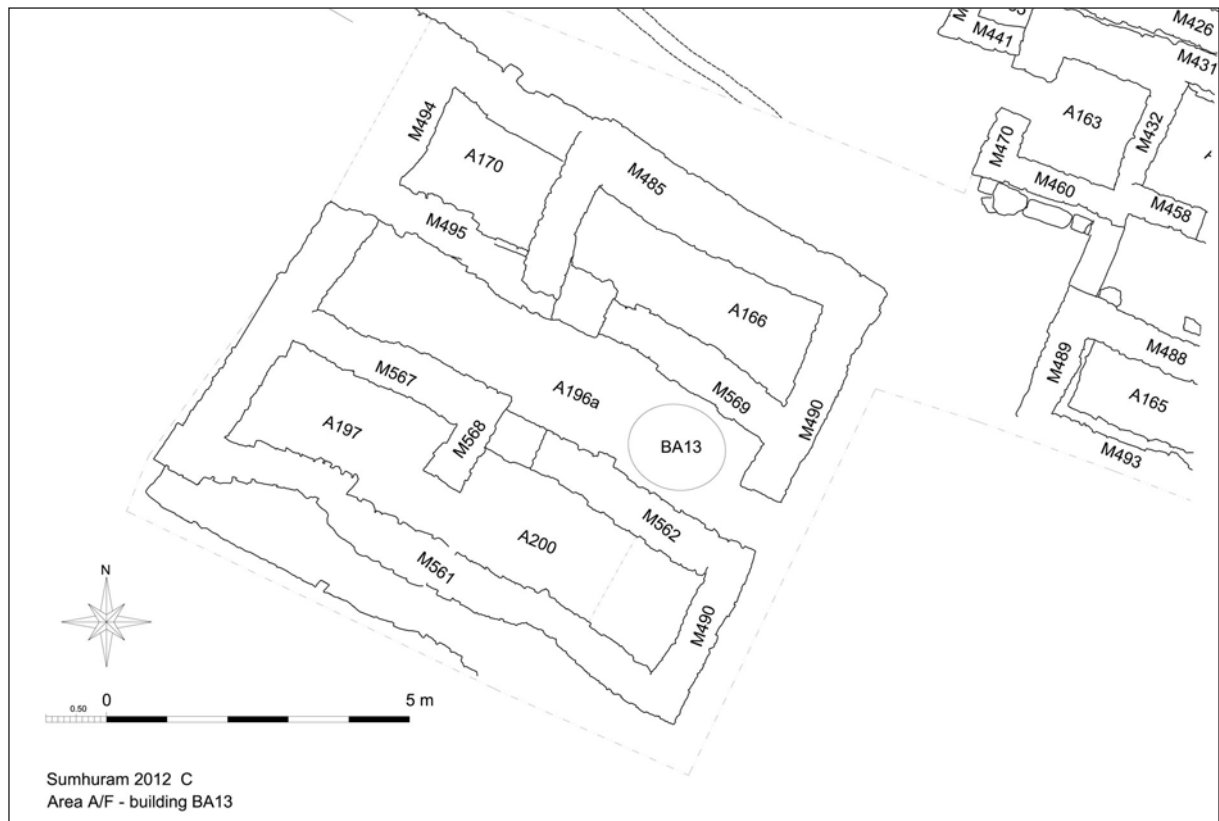


Fig. 3. Plan of building BA13.

Underneath the superficial layer US480 (see above), few signs of a scattered occupation have been identified only in room A200 and possibly A201 (see below). It probably took place when the building was already collapsing, possibly after a short period of abandonment.

We have distinguished two phases of occupation of the building proper, with minor changes in its layout.

A. In the *late phase* the access to the building was in room A196 with a door in wall M494. In the western part, room A196 gave access to room A170 and room A201. In the eastern part, room A201 gave access to rooms A166, A200. The access to room A197 was only from room A200 with a door in wall M562.

B. In the *early phase* a single room, the long corridor A196a, occupied the space of rooms A196 and A201. Now the entrance to the building was from the East with a door in wall M490. From the corridor A196a all the rooms of the building were accessible, except room A197 that was reachable only from room A200.

During the SUM11A campaign limited excavation in room A170 had unearthed a stratigraphic sequence that reached deeper layers (US491 and US492), attesting the existence of the building prior to our *early phase* (see below).

### Room A166

The room was partially excavated during the SUM11A campaign. The room is delimited eastward by wall M490, northward by M485, westward by M492 and southward by wall M569. During the excavation of US480, a threshold made of mud-bricks was found, marking the entrance to room A166 from room A201. The upper surface of the threshold was set at an elevation of 29.71 m. No floor was detected in connection with the threshold. Some mud-bricks discovered at the elevation of 29.26 m might be the remains of such floor. The threshold, and possibly the mud-bricks, could be related to the floor of our late phase, not preserved in this room. We can conclude that it has not been possible to distinguish the layer marking the occupation of the late phase from the layer marking the abandonment of the area (US480).



The deposit US483, below US480, consisted of brownish loam mixed with crumbled mud-bricks. US483floor, belonging to the our early phase, was reached at the elevation of 28.95 m. A small wall made of mud- bricks divides the room in two compartments. Some iron slags, animal bones and shells were also recovered.

***Small finds***

**US483:** G175, MB698, MB704, MI197, S1721, S1921, Co763.

***Room A170***

The room is delimited by the wall M492 to the East, M485 to the North, M494 to the West and M495 to the South. The room was excavated during the SUM11A campaign (see Preliminary Report SUM11A). It seems that, like in room A166, here no trace of a floor belonging to our late phase has been found. The reason could be that a huge pit (US488) had been dug in the deposit below US480 (US487). The pit was filled with ash and charcoal and contained also a small amount of animal bones. It could have obliterated a floor of our late phase. The previous existence of a floor is also proven by the threshold connecting the room with room A196; this threshold was set at the elevation of 30.00 m. US487 consisted in brownish loam. US487floor has been reached at an elevation of 29.16 m; it belongs to our early phase (phase B).

Here excavation continued with a deep sounding below the US487floor with the excavation of the deposit US491. In the deposit US491 many animal bones and pottery shards, many of them with traces of murex were recovered. US491floor reached at an elevation of 28.72 m. Below US491floor the deposit US492 was excavated down to the elevation of 27.74 m without reaching a floor.

***Small finds***

**US487:** Sh406, S1689-S1695, S1698-S1702, S1704-S1718, S1720, S1722, S1723, S1730.

**US491:** Sh408, Sh409, S1727-S1729.

**US492:** G165, MB674, MB675, S1733, S1734, S1726, Co719.

***Pottery***

US487, 1-4.

***Room A196***

Room A196 is delimited by walls M495 to the North, M494 to the West, and M567 to the South. The room was divided from room A201 by a limestone threshold and some mud-bricks suggesting a kind of light wall in the same position as wall M568, dividing room A197 from room A200. The access to the building was in this room, with a door marked by a threshold (55x20 cm at an elevation of 30.00 m) in wall M494.

Below the collapse US480, here 30-40 cm thick, the deposit US544 was excavated. It consisted of reddish brown and soft loam. Some bones and shells were recovered. US544floor was set at the elevation of 29.86 m. The floor was compact, grey in colour, with some crumbled mud-bricks. It was badly preserved, just in some parts of the room. This floor belongs to our late phase (phase A). Previously the room was part of a wider corridor comprising also the room A201 (room A196a, see below).

***Small finds***

**US544:** MB708, Sh430, Sh431, S1991, Co746, Co747.

***Pottery***

US544, 1-2.

***Room A197***

Room A197 is delimited northward by M567, eastward by M568, southward by M561, westward by M494. The access to the room is from room A200 with a door in M568, 0.84 m wide. Underneath the layer of collapse US480, the deposit US545 consisted of rather soft, reddish brown loam. US545floor was reached at the elevation of 29.96 m. It was very compact and grey in colour, similar to US544floor in room A196 (phase A).

Under US545floor the deposit US560 consisted of reddish brown, very soft loam, with charcoals; several animal bones were present. US560floor was reached at the elevation 28.92 m. The floor is very compact, reddish grey in colour with several white inclusions and some charcoals. US560floor belongs to our early phase (phase B), contemporary to US483floor in A166 and US558floor in A196a (see below).

<p><b>Small finds</b>  <b>US545:</b> Co752.  <b>US560:</b> Cl42, Sh452, MB712, MB715-MB717, S1914, S1960-S1962, S1972-S1974, Co772.</p>	<p><b>Pottery</b>  US545, 1.  US560, 1-3.</p>
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### **Room A200**

Room A200 is the south-eastern room of the building. It is delimited northward by M562, eastward by M490, southward by M561, westward by M568. In M562 a door, 0.80 m wide connects the room with room A201.

Under the superficial layer US480, the deposit US555 has been excavated. It was made by reddish brown loam with few limestone blocks, many medium and small blocks of sandstone, some of which dressed. No pottery was recovered in US555. US555floor was set at the elevation of 29.86 m. The floor consisted in very compact, grey loam. In some parts the floor was badly disturbed by the presence of many sandstone blocks, which were probably the result of a collapse from surrounding walls. In the western part of the room there was a series of small sandstone slabs fitted upright in the hard packed floor. They could attest a frequentation of the area when the room (and the building?) was already abandoned. In US555, possibly connected with the small sandstone slabs set upright in the floor, two sandstone pillars (beatyls?) were found (figs 4 and 5).



*Figs 4 - 5. Sandstone pillars.*

US559, excavated under US555floor, consisted of brownish soft loam. Near M562 a quantity of charcoal and some burned bones were collected. US559floor, very badly preserved, has been identified at an elevation of 28.86. It was light grey in colour with patches of charcoals. US559floor belongs to our early phase (phase B).

<p><b>Small finds</b>  <b>US555:</b> S1932, S1933, MB702, S1915, Co753.</p>
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### Room A201

The room is one of the two central rooms of the building in our late phase. It is delimited northward by wall M569, eastward by M490 and southwards by M562. A limestone threshold and some mud bricks suggest a kind of light wall dividing the room from A196. A limestone threshold in front of M562 connected room A201 with room A200.

Underneath the collapse US480, the deposit US556 consisted of dark brownish loam incorporating many dressed stones, of large and medium sizes. At an elevation of 29.75 we found some crumbled mud bricks. US556 floor has been reached at an elevation of 29.57. It was badly preserved. A sandstone block (78x35 cm) at an elevation of 30.57 could be the remain of the arrangement for a staircase to reach the top floor. US556 floor belongs to our late phase (phase A). During our early phase the room was part of a wider corridor comprising also the room A196 (room A196a, see below). In US556 an eye stele (S1931, fig. 6.) was recovered.



Fig. 6. Eye stele (S1931).

<b>Small finds</b>	<b>Pottery</b>
US556: S1922, S1929, S1931, Co766.	US556, 1.

### Room A196a

Removing US544 floor in room A196 and US556 floor in room A201, it became clear that in the earlier phase the area was occupied by a single room, denoted as room A196a. The faint wall that was dividing A196 from A201 did not reach down in the deposit below; it was built at the same time as the floors US544 and US556. Room A196a was in this phase delimited to the West by M494, to the North by M495 and M569, to the East by M490, to the South by M562.

In M495 a door (0.75 m wide) connects room A196a to room A170; another door in M569 connects A196a to A166. In this phase the wall M494 closes the building from the West; now the only access to the building is from the East, with a door in wall M490.

Under the two floors US544 (in A196) and US556 (in A201), US558 consisted in compact dark reddish brown loam, incorporating some lime-stones, sandstones and few broken mud-bricks. At an elevation of 29.34 a fireplace (0.40x0.53 m) was present next to M567. Some charcoals and burned bones were scattered in the room. US558 floor was set at an elevation of 29.00 m. The floor is compact, light brown in colour with some white inclusions. In the eastern part of the room a small block (base for a pillar?) stands at an elevation of 29.22 m. Two short walls, made of hard packed loam and undressed limestone blocks, were leaning on M567 (fig. 7).



Fig. 7. Room A196a: US558 floor.



In the corner formed by the western short wall, M494 and M567 a large fireplace delimited by a oblong slab (0.80x0.24 m) was found. US558 floor belongs to our early phase (phase B). On the floor a seal pendant in soft stone (S1903), troncipyramidal in shape with a hole in the upper part, bears on the bottom four ASA letters: anticlockwise 'd's' (figs 8, 9).



Figs 8 - 9. Soft-stone seal pendant.

#### **Small finds**

**US558:** G177, G180, Sh450, Sh451, Sh453, MB711, S1903, S1920, S1923-S1925, S1927, S1928, S1930, S1937-S1939, S1941, S1943, S1945, S1951, S1952, S1955, S1985, S1987, S1993, Co762, Co767.

#### **Pottery**

US558, 1-3.

### Street A206 (1-9)

The N-S street runs along the eastern peripheral wall, M490, of building BA13, and M489 of room A165, excavated in previous campaigns. A door in M490 gave access to the building in the early attested phase of occupation (see above). (Fig. 10).



Fig. 10. Street A206 before excavation.



US574. Underneath the superficial deposit US480 (see above), an accumulation layer of earth mixed with stones of big, medium and small dimensions, with a brownish red colour and a quite compact consistence can be interpreted as the first moment of abandonment of the area. On the top the stones were very scattered and their number increased in the lower part of the US. Several blocks, collapsed probably from walls of BA13, were found. In the lower part a more compact zone with a large amount of scattered stones of small dimensions along the North side was recognized. In the north-western corner a fireplace with burnt stones small in size was noted. The layer had a gradient from North-West to South-East and was completely excavated down to the elevation of 29,24. US574 corresponds roughly to US316 in the WE street A156, North of BA13. It is to be noted nevertheless that in A206 no US574 floor was recognizable, while in street A156 the presence of US316 floor was detected.

US579. Underneath US574, the deposit US579 consisted in an accumulation of earth mixed with stones big, medium and small in size, with a brownish gray colour. A large amount of animal bones and some crumbled shells were present. The layer had a very compact consistence in the northern part, while toward South the layer shows a silty composition and a lower compactness. A greater concentration of stones was visible on the West and East sides. A zone dark gray in colour was present in the north-western corner and a burnt area with small burnt stones in the south-eastern corner. US579 floor was reached at the elevation of 28,86 m. It consists of earth packed soil that loses compactness in the southern part. On the western side, in correspondence with the door in the eastern wall M490 of BA13, a collapse of stones of medium and small in size was noted. Three lined small stones with an irregular shape could be the remains of a threshold. The floor corresponds to US443 floor in street A156. The level US579 floor in the street belongs to our early phase (phase B) (fig. 11).



*Fig. 11. Street A206 after excavation.*

<b><i>Small finds</i></b>	<b><i>Pottery</i></b>
<b>US574:</b> G194, MB756, MB5757, S2207, Co794, Co795.	US574, 1-3.
<b>US579:</b> CI55, S2210.	US579, 1-5.

## AREA A, EASTERN PART

### Building BA12 (i10-11/i10-11)

The building stands West of the street A75, leading into the city from the Monumental Gate Complex. BA12 has been partly excavated by the AFSM (Albright 1982: 35; V L20, K22). According to the AFSM report, rooms A198 and A199 had been excavated as a single room, and room A195 had not been excavated. The undocumented excavation prevented the precise reconstruction of the stratigraphy in the rooms tested by AFSM.

The building has a N-S orientation, with the entrance placed in wall M185 from street A75. The internal size of BA12 is about 8x7 m. The building consists of a central corridor (A192) with access to three eastern rooms (A195, A198, A199). To the West of the corridor two rooms are well preserved (A191, A190); it is not clear if a third southern room existed, or if the central corridor ended to the South in a rectangular wider space. At the northern end of the corridor a staircase leads to the first floor, not preserved. The southern end of the building is not preserved. The plan of the building is typical of houses in Hadramawt (see for instance above, building BA13) (figs 12, 13, 14).



*Fig. 12. Building BA12 before SUM12C excavation.*



*Fig. 13. Building BA12 after excavation.*

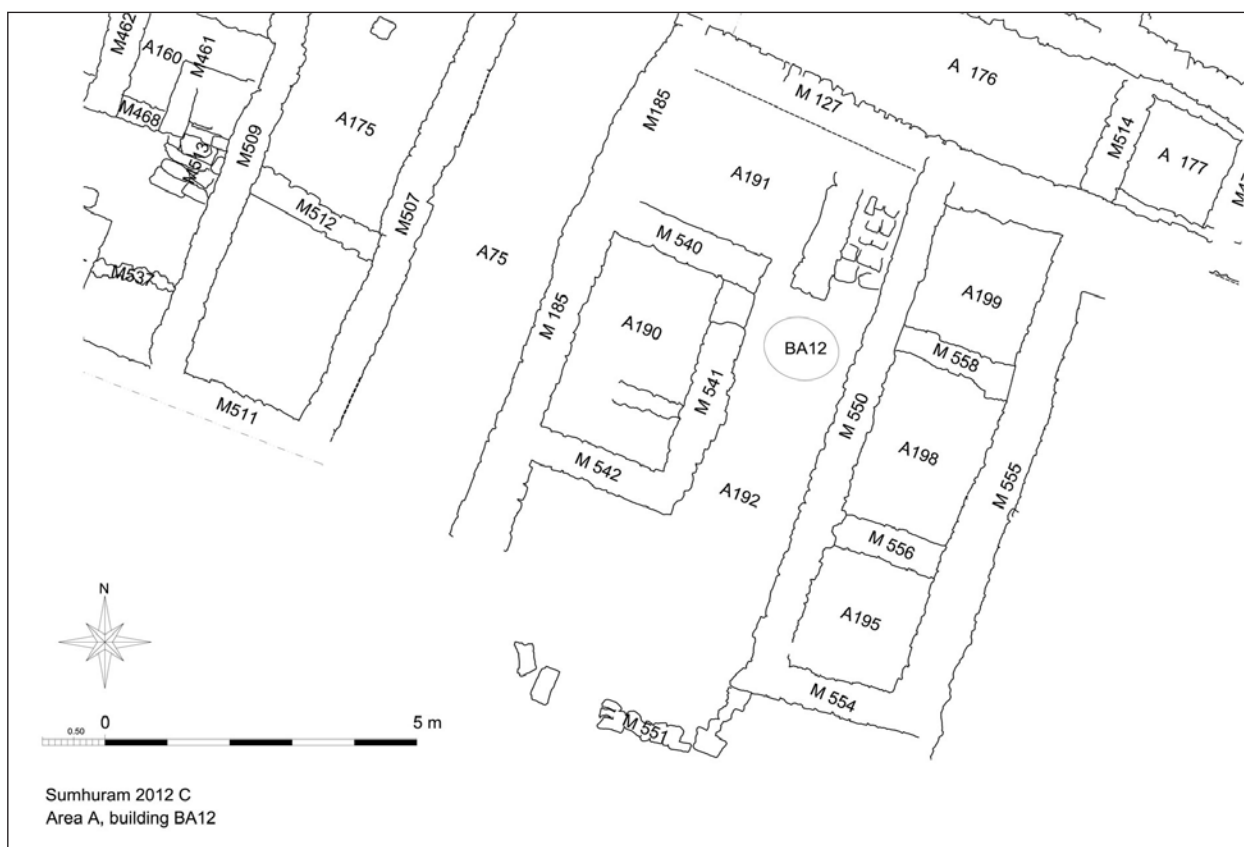


Fig. 14. Plan of building BA12.

### Surface

The superficial deposits were, at least partially, the result of the undocumented excavation by AFSM. Parts of the building were covered by a superficial layer, brownish gray, medium compact loam, incorporating some limestone blocks fallen from surrounding walls (US507). In the southern part of the building a huge quantity of limestone blocks has been brought to light. Bones and shells and some iron slags were recovered. So far we have not completed the excavation South of wall M554 and in the southern part of A192.

<b>Small finds</b>	<b>Pottery</b>
US507: MB687, S1855, S1856, S1868, S1869, Co745.	US507, 1-4.

### Room A192

The central corridor is delimited by the western wall M541 and the eastern wall M550. In the northern part of the corridor a staircase leads to a top floor, not preserved. A short wall made of limestone blocks constitutes the arrangement for the staircase; five steps are preserved. West of the short wall a door gives access to the western room A191. The southern part of the corridor is not preserved, because of the presence of the quantity of limestone blocks. The southern wall was not preserved. To understand the provenience and nature of the blocks we need to further investigate wider area to the South of the building.

US542. Under US507, many limestone blocks were present, mixed with reddish loam. US542 floor, hard packed grey loam, was set at the elevation of 29,31 m. The floor was not been preserved in all the room.

<b>Small finds</b>
US542: S1858.



### **Rooms A198 and A199**

The two rooms occupy the NE part of the building. They are delimited by the northern wall M127, the western wall M550 and the eastern wall M555. The space occupied by the two rooms had been excavated as single room by AFSM. Afterwards debris of different nature had filled up the space. The area, during the SUM12C campaign, was cleaned. This operation allowed the identification of a wall (M558) dividing the space in two rooms: the northern room A199 and the southern room A198.

### **Room A195**

Room A195 is the SE room of the building. It is delimited by walls M555 to the East, M556 to the North, M550 to the West and M554 to the South. A badly preserved threshold marks the entrance to the room from the corridor A192. The southern part of room A195 was filled up with large limestone blocks. The same situation had been observed in the SUM11C campaign in room A192.

Under US507, US546 was excavated. Its upper surface was set at the elevation of 29.96 m. US546 consisted of reddish brown, medium compact loam. US546 floor, made of whitish gray and very compact loam, was reached at the elevation of 29,72 m. Some animal bones, few shells, some iron slags were found in the layer.

<b><i>Small finds</i></b>	<b><i>Pottery</i></b>
<b>US546:</b> C140, MB688, MB690, S1871, S1872, S1874, S1875, Co749, Co751.	US546, 1-3.

### **Room A190**

Room A190 has been partially excavated by IMTO in the SUM11C campaign. It is delimited by wall M185 to the West, M540 to the North, M541 to the East and M542 to the South.

Under US507, US 536 and US539 have been excavated.

<b><i>Small finds</i></b>
<b>US536:</b> G169, MI186, S1800-S1802, S1804, S1807-S1813.
<b>US539:</b> D29, Sh417, S1820, S1821.

## **The corner between street A45 and street A113 (i12)**

From the main street A75, the street A45 leads eastward along buildings BA3, BA4 and BA6. At its eastern end it meets the street A113, that runs NS along BA6 and BA7. Here several very large limestone blocks, left *in situ* in previous campaigns have been removed and the deposit removed down to US516 floor, equal US22 floor in streets A74 and A45 (fig. 15).



*Fig. 15. Street A113 after removal of large limestone blocks.*

## Room A179 (I12)

The small room A179, delimited from north to south by walls M473, M482, M483, had been shortly excavated during the SUM11A campaign. Here below the superficial layer US458, US471 had been only partly removed. During the SUM13A campaign US471 was completely removed. US471 was an accumulation quite loose in consistence, grey-brownish in colour, with many small white inclusions, stones and burnt sandstone. Many bones were found, in conglomerates with earth and white spots (burnt limestone?). The limit with the US563 below was defined by a medium compact accumulation with limestone blocks of medium-large size. US563 has not been excavated. It is not clear if the limestone blocks can be identified as remains of a staircase (fig. 16).



Fig. 16. Room A179.

<i>Small finds</i>	<i>Pottery</i>
<b>US458:</b> D30.	US458, 16-21.
<b>US471:</b> S2066, S2067.	US471, 1-3.

## Rooms A188 and A194 (I12-13)

During the SUM11C campaign, at the southern end of street A113 a wall was discovered, closing the street to the East (M486). Excavation to the East of the wall revealed part of a building with a complex stratigraphy. In the area the surface was sloping down from East to West from 31.25 m to 30.77 m. The superficial deposit US458 consisted of reddish brown loam, incorporating animal bones, some shells, some fish vertebrae. Some very large amorphous limestone blocks were found in the eastern part of the trench; they were also emerging from the deposit underneath. No floor was detected, but the average elevation of the base of US458 was 30.50 m (fig. 17).





*Fig. 17. Area of rooms A188 and A194 before excavation.*

Under the superficial deposit US458, so far two rooms have been excavated, A188 and A194 (fig. 18).

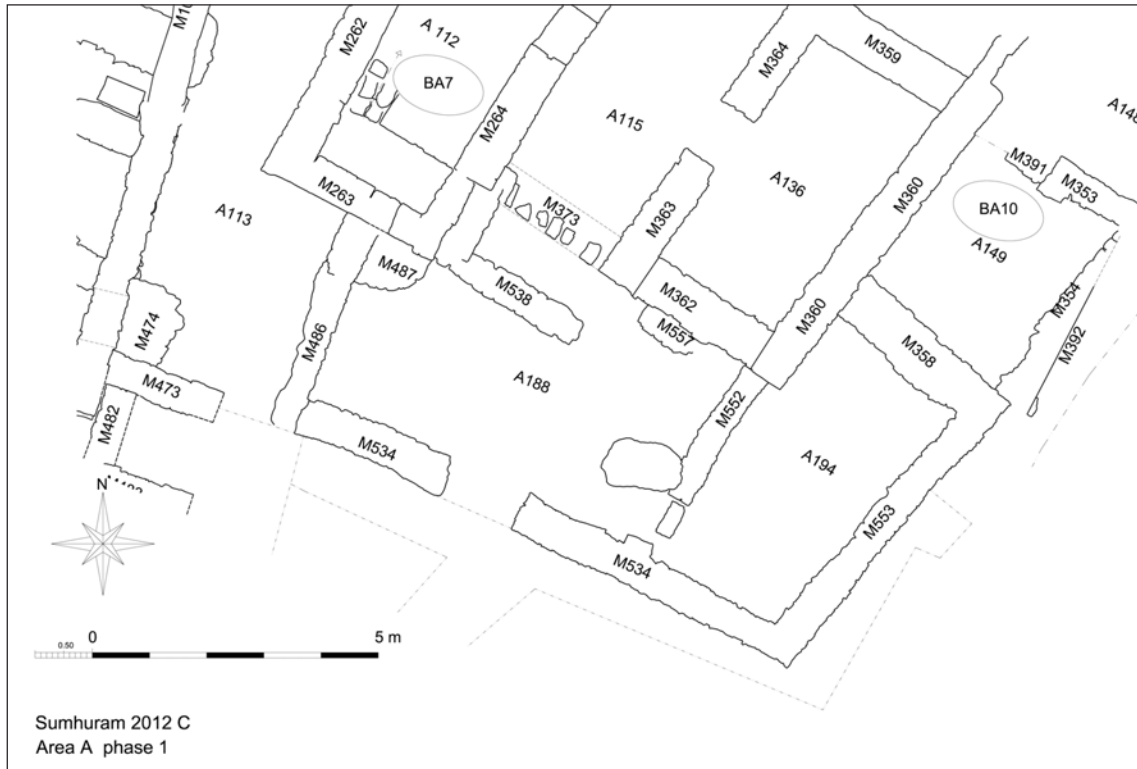


*Fig. 18. Rooms A188 and A194 after excavation.*

The stratigraphic sequence can be summed up as follows, from top to bottom.

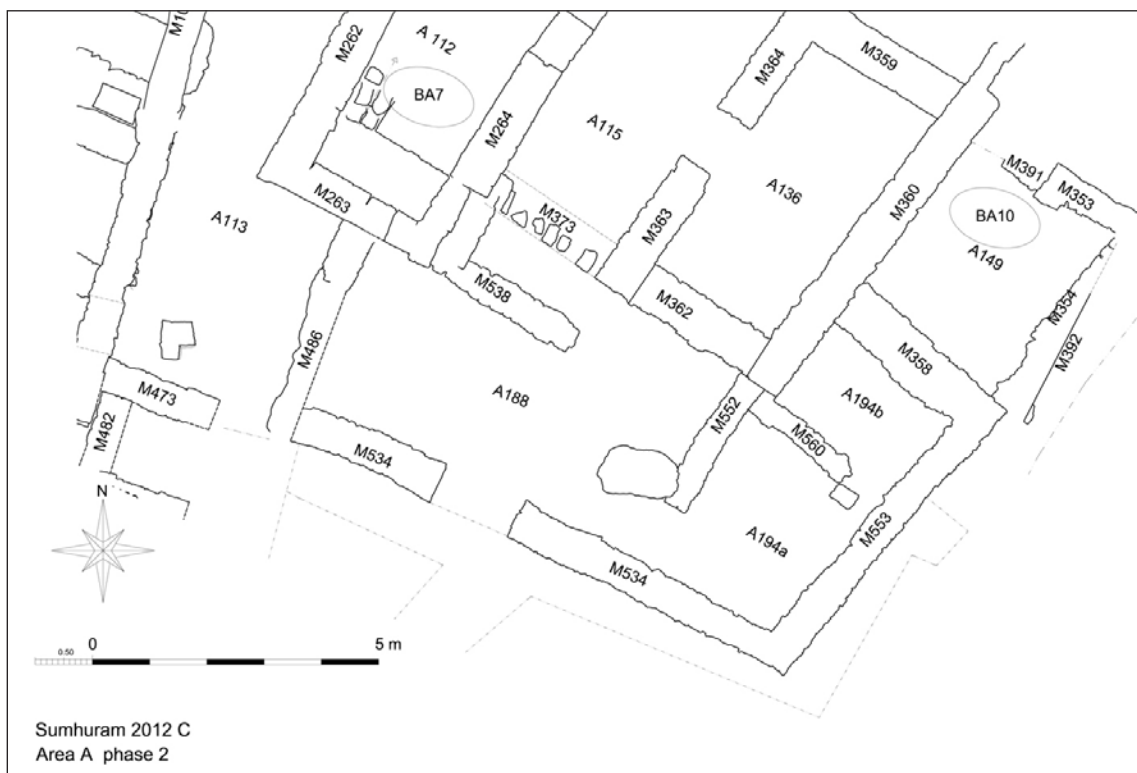
Phase A. During the latest phase attested in the area, the abandonment, at least partial, of the area is proven by the presence in the deposits of very large limestone blocks and of blocks fallen from the surrounding walls. Nevertheless the two rooms remained at least partially in use as proven by US534 floor (room A188) and US543 floor (room A194). The entrance to room A188 is with a door in the southern wall M534. The access to room A194 is from A188 (fig. 19).





*Fig. 19. Plan of phase A.*

Phase B. During the earlier phase room A194 was divided into two different rooms: the northern one A194a and the southern one A194b. A door with a threshold in wall M552 connected the two rooms. The entrance to the A188 remained unchanged. On street A113 it corresponds to US508floor. This floor has been put in relation with US29floor in streets A45 and A75 (fig. 20).



*Fig. 20. Plan of phase B.*

Phase C. In the lowest level reached so far in rooms A188 and A194a and b, massive walls M559 (0.93 m wide), M563 (0.95 m wide), the wall under M553, walls M358 (0.93 m wide), M360 (0.70 m wide) and M362 (0.90 m wide) – all plastered – delimited the space. They are probably originally the walls of a single room. Walls M538 in the northern part of room A188, narrow wall M552 dividing the area in two rooms (A188 and A194) and narrow wall M560 dividing again A194 in rooms A194a and A194b are probably additions made not long time afterwards. Wall M538 closing the room to the North appears also to have been built sometime afterwards. The entrance to the hypothetical large single room was originally from the North, from room A147, where a threshold, 1.66x1.10 m, height 0.35 m is visible under unexcavated room A147 (fig. 21).

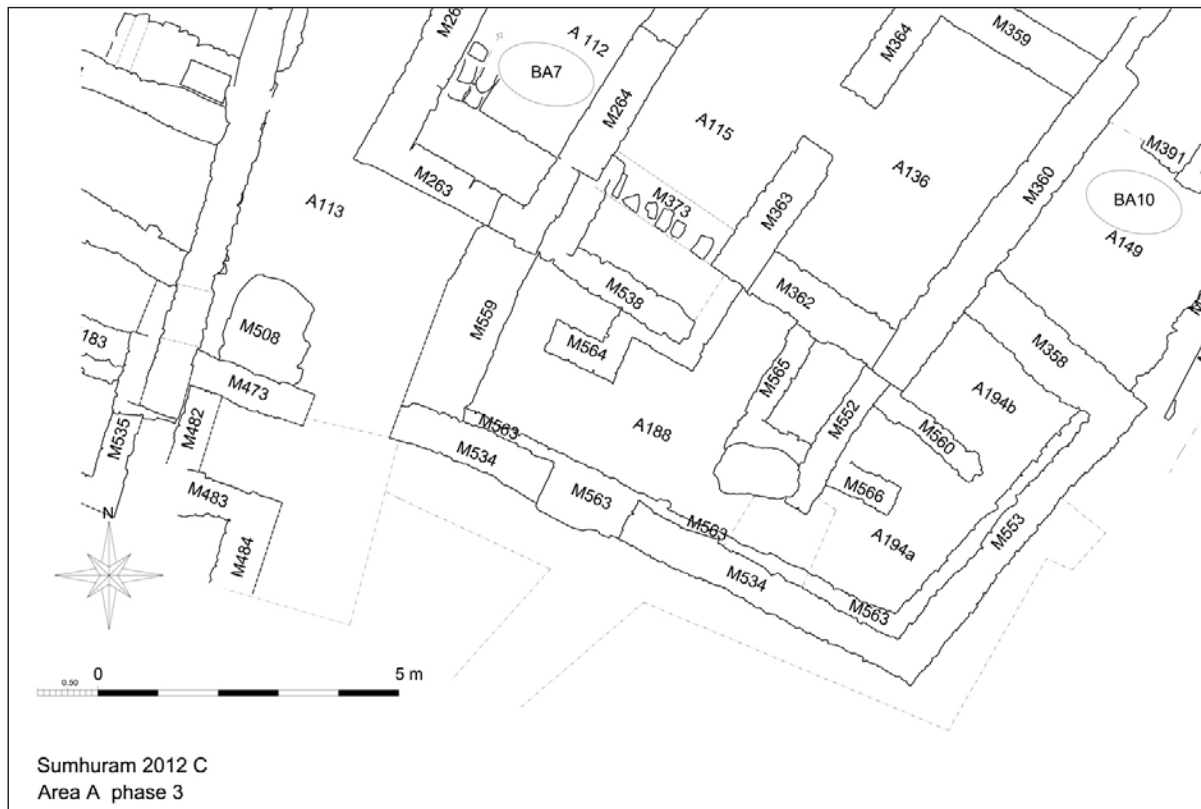


Fig. 21. Plan of phase C.

The lowest floors excavated so far in the rooms in question (US548 floor in A188, US554 floor in A194a, US553 floor in A194b) can be stratigraphically related to the floor US516 in street A113. US516 floor equals US22 floor in streets A45 and A75.

### Room A188

The western room is delimited by external walls: M486 to the W, M534 to the South, M552 to the E, and M362 of building BA9, room A136, and M538 (already uncovered in previous campaigns). Wall M552 had a door, 0.30 m wide, connecting the A188 with adjoining room A194 (see below). It had a threshold made of a well smoothed limestone slab and a limestone block at the elevation of 30.06 m. The NW-SE wall M534, about 9.30 m long and 0.60 m wide, had an opening to the South, 1.50 m wide; the sides of the opening were made of well dressed limestone and sandstone blocks.

### Phase A.

US534. Under the superficial deposit US458 (see above), US534 consisted of grayish loam, rather crumbled. In it many animal bones, few shells and some iron slags were found. US534 incorporated still some of the very large amorphous limestone blocks mentioned above and some rough-

ly dressed limestone blocks fallen from the surrounding walls. US534floor was reached at the average elevation of 30.00 m. US534floor had been disturbed by the falling of the very large blocks. Where preserved, the floor was well trumped with medium size pebbles and topped with limestone slabs. In some area of A188 unstructured fireplaces, marked by ashes and burned pebbles, were present. We can conclude that during the accumulation of US534 the room has been abandoned as a structure, but still frequented as attested by the fires and the few finds. The reason of the presence of the very large unworked limestone blocks inside the area remains unclear.

Similar blocks were uncovered excavating the junction between streets A45 and A113, more or less at the same levels and also in other areas of the city. Very heavy to transport, they could have been transported there to be later dressed for masonry work. The largest block still in situ in the room presents in its upper surface a series of smooth, shallow cavities (fig. 22).



Fig. 22. The large limestone block left in situ in A188.

These appear natural, as observed on the bedrock around the site and on a block of similar size on the shore at bay at Khor Rori. Similar blocks with shallow cavities, but roughly shaped, constitute the benches lying along M11 in area A2 of the Gate Complex.

On floor US534 a rectangular structure (M557) was built against wall M362. Made of one single row of limestone blocks, it was 2.00 m long and 0.80 m wide, raising from the floor for a height of about 0.50 m. Four *chlamys townsendi* shells (Sh433), commonly used in Sumhuram as oil lamps, and two *strombus* shells (Sh434) stood on its surface. A similar structure has been found in building BA4, room A32. There a storage pedestal bowl was lying on the surface. M557 has been removed after documentation.

Slightly raised from US534floor a curved solid structure (M487) had been built in the corner between M486 and the southern wall of room A112. It was made of rows of roughly dressed limestone blocks filled with lime chips. Like similar structures in the city, it was built to sustain wall 263 in danger of collapse. M487 was removed after documentation to clarify the relation between M486 and M559.

#### Phase B.

US547 was excavated under US534floor. The deposit US547 consisted of reddish brown crumbled loam with areas of fire, ashes and burned pebbles. It incorporated animal bones, few fish vertebrae and iron slags. US547floor was reached at the elevation of 29.57 in the middle of A188. It was made of hard packed grayish loam incorporating white specks; in some areas it was trumped with small stones. On the floor lines of well dressed limestone blocks protruding from the base of walls M534 and M486 were visible.

#### Phase C.

The meaning of the row of blocks protruding from walls M486 and M534 became clear removing US547floor. In the opening in wall M534, under US547floor, a massive wall (0.95 m wide) was uncovered (M563). A second massive wall (M559) was uncovered next to wall M486.

US548. Underneath US547floor, US548 consisted of reddish brown loam, rather fine. In US548 several pottery fragments, some animal bones and fish vertebrae. US548floor was reached at the average elevation of 29.35 m. The floor was made of very hard packed grayish to reddish loam mixed with tiny white lime specks. The impression was that of plaster. On the floor a platform (M564) 1.30x0.85 m 0.52 m, raised from the floor for 0.52 m, was made of sandstone oblong blocks. It was connected to wall M538 by two rows of sandstone blocks. Along M538 another row of blocks was followed to the end of the wall and turned North, making an angle to meet a threshold made with a large, well



smoothed block. The threshold was set at the elevation of 29.58 m. In front of wall M362 a large block, 0.73x0.30 m, (a threshold?) had two holes on one side and another larger one on the other side; it was slightly higher than the US548floor. In the corner of walls M362 and M552 a large fireplace (M565) was made of two rows of sandstone blocks; it was 2.50x1.20 m. Inside the fireplace grayish brown loam, charcoal, limestone chips, few animal bones. The fireplace was set directly on US548floor (fig. 23). US548floor was left *in situ* at the end of the SUM12C campaign.



Fig. 23. Fireplace in room A188.

<b>Small Finds</b>	<b>Pottery</b>
<b>US534:</b> C139, C144, G174, MB700, MI188, MI189, Sh432-435, S1854, S1857, S1861, S1864-S1867, S1876, S1904, S1919.	US534, 4-20, 22.
<b>US547:</b> B81, G171, G173, MI190, S1870, S1877.	US547, 1-8.
<b>US548:</b> G172, Sh436.	US548, 1-9.

### Room A194

The eastern room is delimited by northern wall M358, southern wall M534, western wall M552, eastern wall M553.

#### Phase A.

The deposit US543 was excavated under the superficial deposit US458. It corresponds to US534 in room A188. It consisted of fine, compact dark brown loam. Like in room A188, some very large unworked limestone blocks were present in the deposit. US543 was marked by areas of fire with very loose dark brown loam with ashes. Some animal bones and some iron slags were found in the deposit. US543floor was badly preserved; it was reached at the elevation of 29.93 in the middle of the room.

#### Phase B.

Underneath US543floor, the shallow deposit US549 consisted in loose, reddish brown loam incorporating some medium size stones, ashes, burnt pebbles. Also in this area the deposit was badly disturbed by the presence of very large limestone blocks. In US549 many animal bones were present. Covered by US549, a NW-SE wall (M560) was dividing the room in two parts. M560 had a base of limestone blocks and an upper part made of mud-bricks. The door between the two rooms was at the eastern end of the wall and was marked by a sandstone slab, well smoothed. The southern part of room A194 was designated room A194a, the northern part room A194b (fig. 24).



*Fig. 24. Rooms A194a and A194b.*

<i><b>Small finds</b></i>	<i><b>Pottery</b></i>
<b>US543:</b> Sh440, S1853, S1882-S1884.	US543, 1-10.
<b>US549:</b> S1885.	US549, 1-5.

### ***Room 194a***

#### **Phase B.**

In room A194a US551 was excavated under US549. It consisted of rather fine reddish loam, compact with areas of ashes and burnt pebbles. Animal bones were also found. Removing some 20 cm of layer, a row of blocks protruding from wall M534, like in room A188, was uncovered. US551 floor was reached at the elevation of 29.65 m. It corresponds to US547 floor in room A188. It was made of packed reddish soil.

#### **Phase C.**

Removing US551 floor a row of stone blocks was uncovered under M534 and under M553. They are the continuation of wall M563 in room A188. Under US551 floor, the deposit US554 was excavated. US554 consisted in crumbled reddish brown loam. In US554 some animal bones and iron slags were

recovered. US554floor was reached at the elevation of 29.32 m. It corresponds to US548floor in room A188. The floor was grayish hard packed loam with some small over fired lamps of clay underneath. A platform (M566) stood on the floor; it was made of sandstone blocks, 1.10 m long and 0.50 m wide, similar to the one discovered in room A188 (M564), on the corresponding floor US548. US554floor was left *in situ* at the end of the SUM12C campaign.

<b><i>Small finds</i></b>	<b><i>Pottery</i></b>
<b>US551:</b> MB695, Sh437, S1889-S1897.	US551, 1.
<b>US554:</b> MI193, S1907, S1910-S1912, S1926.	US554, 1-3.

### ***Room A194b***

Phase B.

In the northern room, US552 was excavated under US549. It corresponds to US551 in room A194a. It consisted of crumbled reddish brown loam. Some iron slags were recovered. US552floor was reached at the elevation of 29.56 m. It was lined with mud-bricks. Because of the presence of many fires in the room the mud-bricks were burnt to a red color.

Phase C.

The layer US553 was excavated under US552floor. It consisted of crumbled, reddish brown loam. US553floor was reached at the elevation of 29.24. It corresponds to US554floor in room A194a and to US548floor in room A188. Like US548floor in room A188, it was made of a thick hard layer of clay/mud mixed with tiny angular fragments of limestone. The appearance is that of light grey hard packed surface, but where broken it reveals a reddish kind of mortar underneath (intentionally exposed to heat of fire?). US553floor was left *in situ*.

<b><i>Small finds</i></b>	<b><i>Pottery</i></b>
<b>US552:</b> Sh438, Sh442, Sh443, S1886-S1888, S1906.	US552, 1.
<b>US553:</b> CI41, G176, MB699, Sh439, Sh441, Sh445, Sh446, S1909, S1913, S1916-S1918.	US553, 1-5.



## AREA B

### Square A180 (m12)

Excavation in this area started in the SUM11C campaign, and continued in SUM12A and SUM13A. The wide square, *circa* 5.50x9.90 m in size, is located SW of the building BB2 (see below), along its external wall M529 (fig. 25). The ‘passage’, *circa* 2.0 m wide and 2.6 m long, connected squares

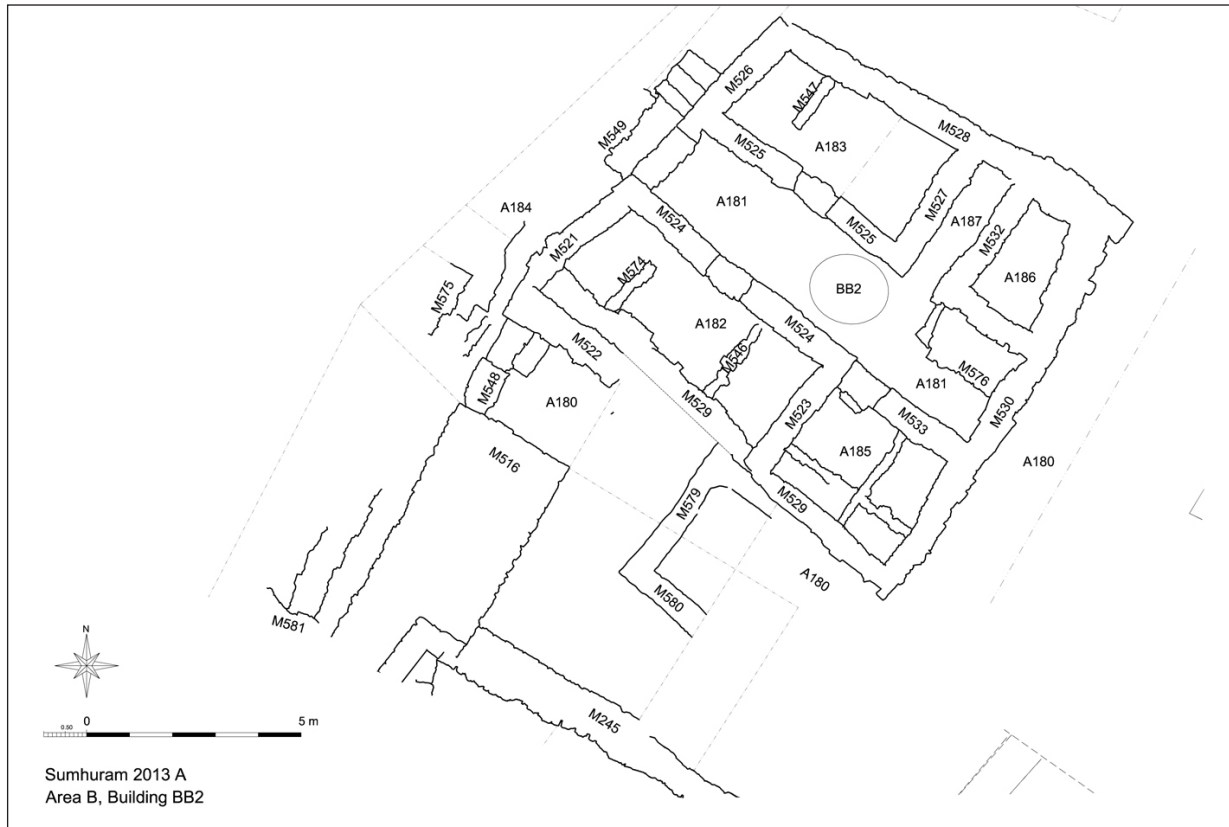


Fig. 25. Plan of square A180.

A180 and A184. From A180 it has a door, *circa* 1.0 m wide, with stone threshold. Very hardly tramped US523 floor was traced in the passage at 30.65 point. The door of the ‘passage’ had an inner step made from three solid limestone blocks, *circa* 12-15 cm high (one block was placed next to the door and two others – along the pylon M548). Very hard and compact greyish deposits continue under US-523 floor, and they were not separated from the floor with any horizontal level. Round polishing stone was found in the SW corner of the ‘passage’ (in US523).

It seems that during the last phase of occupation the northern side of the ‘passage’ as well as the external SW corner of the building BB2 was formed by the late additional wall M522 (southern external ‘late’ wall of BB2), but originally, when the original southern external wall M529 of BB2 was in function, the width of the ‘passage’ was *circa* 2.4-2.8 m. It seems also that the pylon M548 was the ‘late’ addition as well and was built contemporary with the wall M522. Big part of the ‘late’ additional wall M522 was demolished during the present campaign.

The superficial deposit US523 consisted of greyish rather compact loam mixed with lime- and sandstone blocks, mostly from wall M516. Pottery fragments, animal bones and marine shells were discovered in the stratum, as well as several stone tools, fragmented and intact, mostly concentrated against the NE corner of the wall M516. A whale vertebra was found in the entrance in situ against the “late” additional wall M522.

Under US523, US567 (sup. elevation 30.20 m) was a rather compact loamy accumulation, brown-reddish in colour, with a quite regular surface, running from SE to NW. In the central portion of the area a grey accumulation, concave in section and elongated in shape was visible, with a large amount of charcoals and ash lenses. This grey accumulation leaned to the mud-brick wall M580 to the north. Along wall M245 to the south-east, the limestone blocks collapsed from the wall were preserved, covering US567 (30.28-30.60 m). More than one hundred pottery shards were collected from US567, mainly storage and table vessels and three coins were found. While excavating US567 the top of the mud-brick walls M579 and M580 was accidentally removed; while the top of M579 was already visible in US523 (30.10 m), the original height of M580 is reconstructable just from the eastern baulk, while the height preserved in the trench is 29.72 m. The accumulation inside the walls (US577), not distinguished at the beginning from US567, was not further excavated (preserved height 29.65 m) (fig. 26).



Fig. 26. Square A180.

US572, excavated under US567 (sup. elevation 29.75 m), consisted of a loamy accumulation, brownish in colour and rather compact in consistence. Many plaster fragments were found along wall M579. US576 floor was reached at the elevation of 29.61 m to the north, 29.66 m to the south.

In the western portion of the trench, under US572, US576 consisted of a loose soil. US576 was not completely excavated.

<b>Small finds</b>	<b>Pottery</b>
<b>US523:</b> S2095-S2102, S2107, S2108.	US523, 3-5.
<b>US567:</b> MB737, MB748, MB751, S2180, Co780, Co783, Co788.	US567, 1-10.
<b>US572:</b> G191, MB749, MB750, MB755, Co784, Co785, Co786, Co787, Co791, Co793.	US572, 1-6.

## Square A184 (I12/m12)

Excavation in A184 along the western façade of the building BB2 (fig. 27) and along the ‘passage’ revealed two staircases: one leading to the entrance of the building BB2 and another – leading to the door of the ‘passage’. Both staircases had identical constructional features – L-shaped walls (M549 and M575 respectively) protecting the stairs from accumulations on the square (or street?) A184.

The staircase leading to the entrance of the building BB2 had five steps made from solid limestone blocks and a porch in front of the entrance, which horizontal surface was paved with limestone slabs (fig. 28). The second staircase leading to the door of ‘passage’ had more amorphous character and





*Fig. 27. Passage leading to building BB2.*



*Fig. 28. Staircase leading to building BB2.*

looked more likely as pavement with two low steps made from limestone and sandstone slabs. The superficial deposit US530 consisted in blown sand. Underneath, US540 has been excavated. It consisted of greyish and dark brown compact loam mixed with lime- and sandstone blocks collapsed from the walls of building BB2. The hard packed US540 floor was set at the elevation of 30.54-30.70 m. It seems that the US540 floor corresponds with US523 floor in the square A180 and in the 'passage' and with US29 floor in the Area A.

***Small finds***

**US540:** Sh419, S1840, S1841.



## Building BB2 (I12/m12-13)

The building BB2, 8.20x9.90 m in size, is oriented along SE-NW direction (fig. 25). Its external and internal partition walls were 0.55-0.60 m wide and were made from two horizontal rows of limestone blocks. The entrance with a stone threshold, *circa* 1.3 m wide, was located in the centre of the NW façade of the building (fig. 25).

The building BB2 represents, according to its layout, the typical ancient Hadrami dwelling, known from the excavations in Shabwa, Raybun, Qani' and Makaynun. The rooms of the ground floor – A182, A183 and, probably, A185 – served, as we can judge from the stone tools recovered, as workshops for producing some items from soft material such as marine shells and fish bones, while room A186 was a staircase well, and A187 – probably, a kitchen. It seems that the ruins of the building were re-occupied in mediaeval times, when several small houses and shelters were built on the remains of the ancient town.

It seems quite probable that building BB2 and the wall M516 separated the storage quarter from the rest of the city. In this case we can consider the 'passage' between BB2 and M516 as the only access on the roof of long storage rooms A89-A95, from where, as we hypothesized, the storages were accessible, at least at the final phase of the city existence. To proof this supposition we need to excavate the squares A180 and A184 completely.

### ***Room A181 (central corridor)***

The rectangular oblong room, 1.8-2.0x8.0 m in size, occupies the central part of the building. The deposit US527 was excavated. It consisted in greyish and dark brown compact loam mixed with big amount of lime- and sandstone blocks (collapsed from surrounding walls). Charcoal flecks and ashes lenses were recorded in the stratum indicating, probably, activities of "late" occupants of the ruins of the building. The stone structure in the NE corner revealed remains of the staircase leading to the top floor of the building: three steps of staircase and its side-wall M576 were discovered. US527 floor was reached at the elevation of 30.05 m. On the floor a step made from solid limestone block was found next to the threshold of the entrance to the room A183. One more step made from square solid limestone block was found against the threshold of the entrance to the room A182. In the middle part of the room, on the US527 floor, remains of round stand for a large storage jar were found (against the wall M524) (fig. 29) and next to it – two whale vertebrae standing *in situ* (fig. 30). Almost complete stone mortar was found in US527 (S2084).



*Fig. 29. Stand for jar in room A181.*



*Fig. 30. Whale vertebra in room A181.*

<b><i>Small finds</i></b> US527: Sh477, Sh478, S2084-2086, S2219.	<b><i>Pottery</i></b> US527, 16-18.
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### ***Room A182***

The room occupies the SW corner of the building. It has rectangular plan and an entrance, 0.85 m wide, in the centre of its northern wall M524. It seems that the south wall of the room, the wall M522, is not the original wall of the building, but a sort of “late” addition, constructed already above the ruins of the original external wall of the building (wall M529). It was irregularly built from large roughly dressed stones. The original size of the room was 1.85-2.15x5.6 m and after reconstruction its width was enlarge up to 2.4-2.6 m (fig. 31).



*Fig. 31. Room A182.*



The deposit US528 was excavated in the room. It consisted of limestone blocks mixed with loose dark brown loam, fragments of mud-bricks (upper parts of partition walls?), small amount of pottery fragments, marine shells and animal bones. The compact hardly packed floor with lime inclusions US528floor was reached at the elevation of 29.88 m. In the eastern part of the room a low partition wall M546, made from two rows of flat sandstone slabs, separated a sort of compartment, *circa* 1.3x2.0 m in size. Five whale vertebrae were found standing *in situ* on the US528floor in this compartment. Its upper surfaces bore traces of cutting and hammering. Probably, they were used as stands or working places in a sort of workshop, in which different shell (?) items were produced. South Arabian character was incised on the side surface of one of the vertebrae. One more whale vertebra was found standing *in situ* in the central part of the room, next to the wall M529. In the western part, a structure almost symmetrical to the one in the eastern part: a low partition wall M574, made from two vertical rows of flat sandstone slabs, separated a compartment, *circa* 0.9x1.9 m in size. A whale vertebra and a round polishing stone were found standing *in situ* on the US528floor in the central part of the room, next to the wall M574.

<b><i>Small finds</i></b> US528: S2025, S2030-S2048.	<b><i>Pottery</i></b> US528, 2, 3.
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### ***Room A183***

The rectangular room, 1.85x4.20 m in size, occupies the NW corner of the building. The entrance to the room, 0.85 m wide, was located in the centre of the south wall M525, and connected A183 with the central corridor A181.

Cultural deposit was denoted as US529 and consisted of greyish compact loess mixed with stones, little amount of pottery fragment, marine shells and animal bones. The US529floor was reached in the NW part of the room at points 30.15-30.25. An open fire-place, 0.5x0.7 m in size, was discovered on the US529floor in the centre of the room. The fire-place was filled with flecks of charcoal, ash and dark brown loose loam. Ash layer, 10-15 cm thick, was traces above the US529floor all over the room (fig. 32).



*Fig. 32. Room A183.*



Under the US529 floor the cultural deposits US541 was excavated. It consisted of crumbled rather compact brownish loam mixed with flecks of charcoal, small amount of animal bones, marine shells and pottery fragments. Quite a number of raw-material was found also in US541 such as *Anadara* marine shells and other species, some of them – with traces of manufacturing, pebbles, etc. A lot of stone tools were also found (see below). US541 floor was only 10-12 cm deeper than US529 floor. It has hardly trampled compact surface with lime inclusions. A low partition wall M547, made from two rows of flat sandstone slabs, separated a sort of compartment, *circa* 1.0-1.2x1.7 m in size, in the NW corner of the room. Two whale vertebrae and a stone block were found *in situ* on the US541 floor in this compartment.

#### ***Small finds***

**US529:** S1825, S1826, S1827, S1995-S2008.

**US541:** B79, MB684, Sh420, Sh422-Sh424, Sh462, Sh463, S1823, S1824, S1845-S1852, S2011-S2023, S2054, S2055.

#### ***Room A185***

The rectangular room, 2.25x3.20 m in size, occupies the SE corner of the building. The entrance to the room, 0.9 m wide, was located in its NW corner, between walls M533 and M523, connecting the room and the central corridor A181 (fig. 33).

The superficial deposit has been divided into two different US: US531 on top and US566 below. They consisted of a rather compact brown-greyish loam, mixed with mud-bricks and medium-large limestone blocks; animal bones and marine shells were recovered. A large amount of stone tools was found scattered in the US. Under US566, US568 was excavated. US568 was a very loose, grey accumulation with black lenses, ashes, charcoals of medium-large size, burnt bones and shells. A large amount of stone tools and different small finds were found. US568 floor, greyish brown packed soil, was reached at the elevation of 29.75 m. Different features have been discovered on the floor. A one-row mud-brick wall, leaning on M533 to the north and to M529 to the south, stood in eastern part of the room. A second alignment of stone (small-medium size sandstone and limestone blocks), leaning on M523 to the west and to M530 to the east, was in the southern part. This alignment was partly covered by the mud-brick row along its SE side; a broken squared limestone basin was set into it. The top of a stool (made from a whale vertebra) stood in the centre of room.



*Fig. 33. Room A185.*

<b>Small finds</b> <b>US566:</b> Sh475, Sh476, S2106, S2121- S2129. <b>US568:</b> Iv6, Cl49, B82, G189, MI208, Sh479, MB738, S2146-S2162, S2166, S2176, S2192 - S2194.	<b>Pottery</b> US568, 1-3.
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### Room A186

The rectangular room, 1.4x2.3 m in size, occupies the NE corner of the building. It represents probably the so-called staircase well, and that's why there was no entrance to the room. The cultural deposit US532 was excavated only down to the elevation of 30.46 m.

### Room A187

The small rectangular room, 0.8x2.95 m in size, is located in the centre of the northern part of the building. It has a wide opening to the central corridor A181. Most probably, it represented a staircase (not yet found) leading to the upper floor of the building. Cultural deposits were denoted as US533 and consisted of dark brown to black loose loam mixed with stone blocks (collapsed walls), little amount of pottery fragments, marine shells, animal bones, flecks of charcoal and ash lenses. The lower part of a large storage vessel on a ring base reused as a fire-place was found in the upper layer of US533, representing remains of "late" occupation of the ruins of the building.

#### Pottery

**US533:** US533, 1.

## Rooms A106 and A178 (n12)

South of wall M245, delimiting to the South the Square A180, lie the two rooms, belonging, at least in a late phase, to building BB1 (fig. 34).

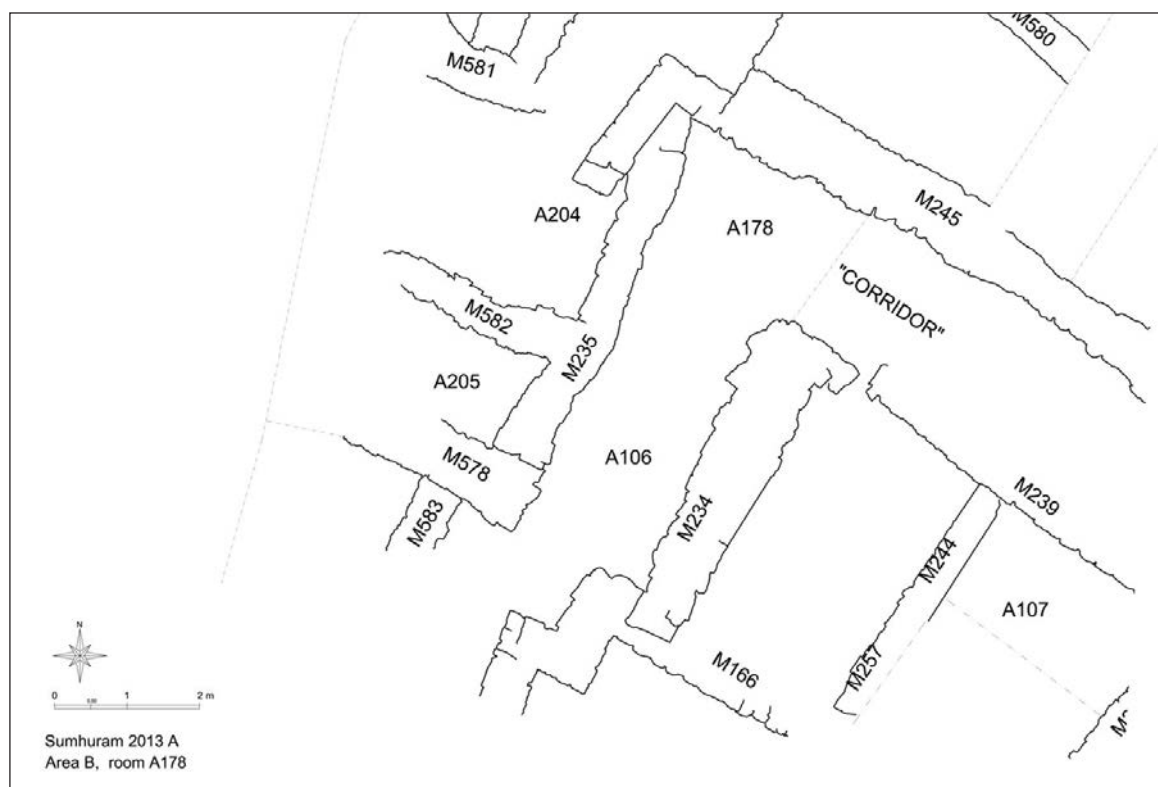


Fig. 34. Plan of rooms A106 and A178.

Previous excavation, during the SUM07B campaign, had shown that the wall M236 existed only in a late phase; earlier the two rooms had been a single space.

The northern part, A178, was delimited by wall M245 in the northern side, M215 in the eastern side and M239 and M236 in the southern side. It was excavated during the SUM07B campaign. Below the surface different kinds of accumulations have been individuated: in the western part US238 and US242, in the eastern side US239.

US238 is a garbage heap, with a large quantity of organic remains and pottery shards, many of them with traces of repairing. Ashy lenses and charcoal samples have been discovered. The consistence is soft, the colour reddish.

Below US238, US242 consisted in a more compact layer with less organic material, small charcoal remains, animal bones, marine shells and pottery shards.

In the late phase, the southern space consisted in a room, A106, delimited by wall M234 on the eastern side, M236 on the northern side and M235 in the western side. Here the removal of 15 cm of surface gave evidence of animal bones, pottery shards and marine shells. Below the top soil, the deposit US235, quite similar for consistence and character of findings to the surface, was excavated. It consisted of soft brown loam, mixed with collapsed stones, animal bones, marine shells, of the average thickness of 1.00 m. Towards the lower part of the layer lenses with big amount of fish-bones were recognized.

Below US235, US236 consisted in a garbage heap according to the huge quantity of organic materials (above all fish-bones but also mammals bones), ashy lenses and large amount of charcoals (fig. 35).



*Fig. 35. Room A106 after excavation.*

After the removal of the wall M236, the space, now a single room, was excavated only in the western part (former A106 and western part of A178). In the layer below US236, US237, a fireplace partially delimited by stones of medium and small size, roughly worked, occupied the southern part of the area (previously A106); in the northern part (formally NW part of A178) in the layer US237 a large amount of bronze scraps, charcoal, fragments of vitrified clay, large crucibles and few pottery shards and bones were found. The floor, reached at the elevation of 29.47 m, was made of packed earth with white inclusions. Near the corner between M235 and M245 three clay molds for bronze inscribed plates were discovered (Cl49, Cl50, Cl51) (figs 36, 37, 38).





*Figs 36 - 37 - 38. Fragments of mould for South Arabian raised inscription on bronze plate.*

Below the floor US237, in the northern part, the corner formed by walls M235 and M245 was occupied by a structure delimited by a row of stones of small size that proceeds from M234 to M235 (E/W orientation) and seems intended to isolate this zone (fig. 39).



*Fig. 39. Bronze workshop.*

On the floor two small fireplaces, circular in shape, with a diameter of 0.40 m, one of them, near the corner between M235 and M245, and the other one next to the row of stones in the north-western part of A178. In the center of the area a small pit, irregular in shape, with a large amount of charcoals and bronze scraps; close to it, remains of a rectangular bronze plate (20x8 cm) is still visible. In the north-eastern part, close to M245, a semicircular structure (diameter 50 cm) has been interpreted as a furnace probably used for the firing of the molds for bronze inscribed plates. The most internal part of the furnace is made of an accumulation of loam, loose in consistency and gray in colour, with ashes; this part is delimited by a semicircular course of fired clay (pale yellow in colour) and by a more eastern one, brown in colour and softer in consistency. Outside the workshop, in its southern part, below US237 floor, the deposit US564 consisted in very compact brownish grey loam; in it a large amount of bronze scraps (200 gr), charcoal, a large amount of vitrified clay fragments, some small sandstones, some iron slags, large crucibles and few shards and bones were recovered (fig. 40). Here excavation stopped at the level of US181 floor in square A74 (see below).

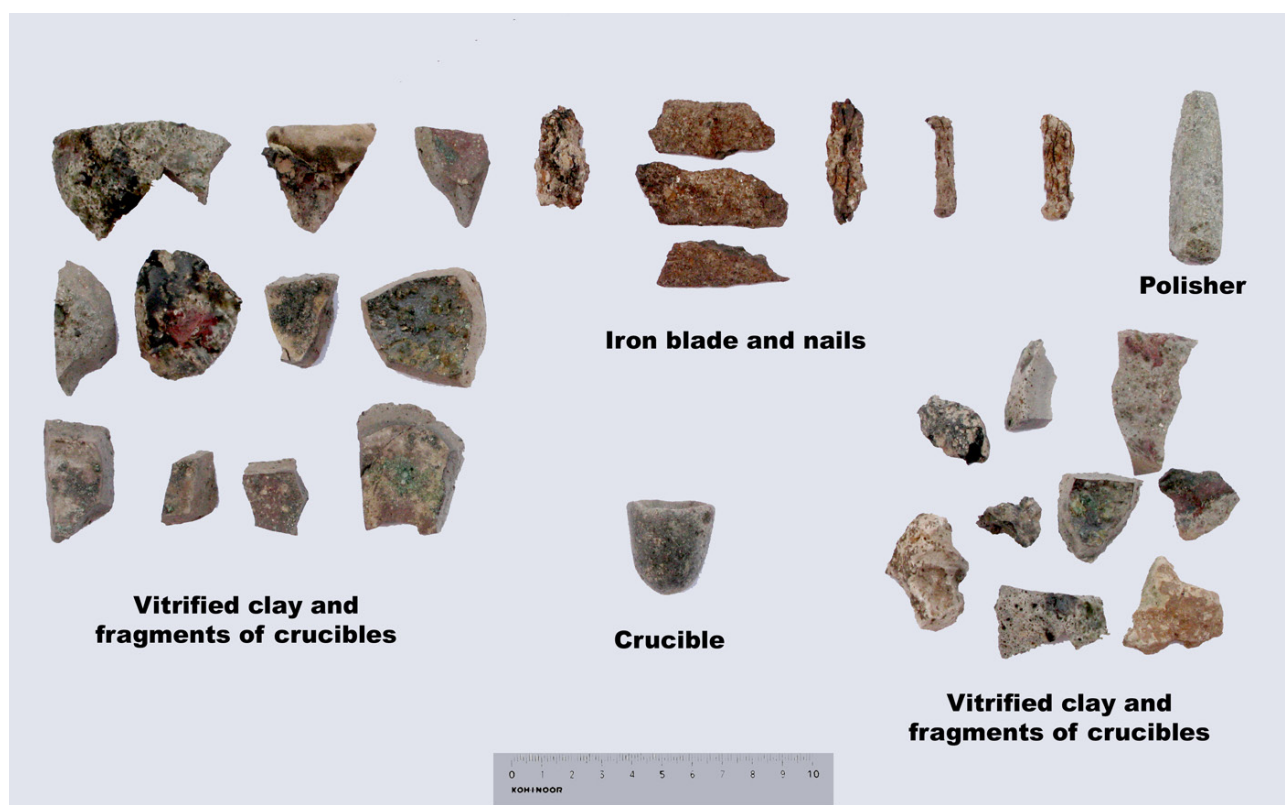


Fig. 40. Finds in the area outside the workshop.

The area A106/A178 with the three fragments of mould-forms for South Arabian raised inscriptions on bronze plaque, the crucibles and the bronze scraps are the first clear remains of a bronze workshop in Sumhuram. Previously, in the SUM05B campaign, a stone structure found in room A73, to the East of room A106/A178, has been interpreted as a furnace for iron working. It seems that the area have been used as metal workshops for a long time.

<b>Small finds</b>	<b>Pottery</b>
<b>US235:</b> CI15, CI16, G188, MB731-MB735, Sh467, S1121, S1222, S1124-S1126, S2109-S2113.	US235, 11-26.
<b>US236:</b> B52, MB487, MB729, MB730, Sh302, Sh303, Sh465, Sh468, S1127, S1133, S1136, S1137, S1140, S2103, S2104, S2105, Co435.	US236, 4.
<b>US237:</b> CI50, CI51, CI54, G187, MB490, MI207, Sh480, Sh481, S1163.	
<b>US238:</b> B53, B55-B57, MB496, Sh305, S1143, S1144, S1146, S1147, S1151-S1155, Co441.	US238, 2-3.
<b>US242:</b> G108, G109, MB501-MB503, Sh307-Sh309, S1160, S1161, S1166, Co444	
<b>US564:</b> B83, G184, G185, G186, MI200, MI201, MI202, MI203, MI204, S2064, S2065, S2164.	US564, 1.

### Rooms A204 and A205 (n11-12)

The two rooms lye to the West of wall M235 and to the South of the large wall (M516) that separates the city from the storage quarters. Preliminary work began during the SUM13A campaign with the clearing of the superficial layers in the two rooms (fig. 41). In both rooms only the eastern part has been investigated (fig. 42).



*Fig. 41. Area of rooms A204 and A205 before excavation.*



*Fig. 42. Rooms A204 and A205 after partial excavation.*

### ***Room A204***

The room is delimited by M235 to east, by M581 to the north and by M582 to the south. Here two superimposed layers (US570 and US573) were marked by fireplaces, sometimes delimited by worked stones. Faint traces of floors were made of compact loam with white inclusions. Excavation reached the elevation of 30.16 m.

<p><b><i>Small finds</i></b>  <b>US570:</b> G190, MI206, Sh489, Sh490, MB747, S2177-S2179, S2181-S2183, Co790.  <b>US573:</b> MB752-MB754, S2191, Co789, Co792.</p>	<p><b><i>Pottery</i></b>  US570, 1-9.  US573, 1-3, 4-5.</p>
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### **Room A205**

Room A205 is situated South of A204 and it is delimited by M235 to east, by M582 to the north and by M578 to the south. The collapse layer US575 consisted in an accumulation of loose brown loam and a large amount of large limestone blocks fallen from the surrounding walls. Animal bones, shells and iron slags were found in the layer.

Traces of the floor, made of compact gray loam with white inclusions, were preserved only near wall M582. Excavation reached the elevation of 29.68 m.

<i>Small finds</i>	<i>Pottery</i>
<b>US575:</b> MB760, S2204.	US575, 1-2.

### Square A74 (o11)

The square is the central core of the storage quarter. It has been excavated in various previous campaigns (SUM05B, SUM06A, SUM07B, SUM08A). During the SUM13A campaign investigation concerned the western part of the square, where a modern path for tourists had been laid (fig. 43).



*Fig. 43. Square A74 before the SUM13A campaign.*

The excavation started with the removal of path, then the top accumulation US181 was excavated. US181 consisted in very soft light brown loam mixed with some mudbricks, and few animal bones and marine shells. Some pottery fragments, some iron slags, three coins, a nail, three crucibles, four fragments of soft-stone vessels, a spindle-whorl, an anvil, two whetstones, a loom-weight and an oil lamp were recovered. The floor of packed loam with white inclusions was reached at an elevation of 29.01 and was left *in situ*.

The removal of the layer US181 unearthed the continuation of the southern wall of the square M169. The wall reaches the south-eastern wall of building BB3 (see below). Other parts of walls were brought to light in the square: the two (probably superficial) walls M584 and M585 with an orientation north-south/east-west forming a corner and M583 that leans to M578 with orientation north-south.

During the same SUM13A campaign, the area North of building BB3 (see below) was cleared of the massive collapse of blocks and soil accumulated after AFSM excavation. North of the NW-SE wall M587 the collapsed blocks and soil were removed down to the elevation of 29.65 m. All the deposit has been named US571. It consisted of loose reddish brown and brownish soil with limestone blocks, sandstone slabs, few pottery shards and animal bones. Three coins, two stone tools, an iron nail, a bead and a pendant were found. US571 has been completely removed. A wall of sandstone slabs, M586, leaning on M587 going in a northern direction was brought to light. It has an opening 1.50 m wide. Excavation reached the trench in square A74. It was possible to expose the connection between M577 and M169, the latest set at a lower elevation than M577. This latest operation in the area proves that A74 and the area north of BB3 are part of the same open (?) space. In the area North of BB3, under US571, the layer left *in situ* will be equal to US181 (fig. 44).



Fig. 44. Square A74 after excavation.

<b>Small finds</b>	<b>Pottery</b>
<b>US181:</b> G181-G183, MI199, Sh461, S2024, S2049, S2050-S2053, S2056-S2058, Co773, Co774, Co775.	US181, 1-13, 14-17.
<b>US571:</b> MB746, MB765, MI761, Sh487, Sh488, Sh495, S2189, S2208, S2217, S2218, Co782, Co796, Co797.	US571, 1-8.

### Building BB3 (squares o10-11, n10-11)

The area in question (fig. 45) has been partially excavated by the AFSM in 1952-53 (Albright 1982: 33-34, fig. 5, VIII, rooms J24 and another room not numbered). Albright mentioned a building of four or six rooms. He reports the finding of coins blanks on and under the floors.

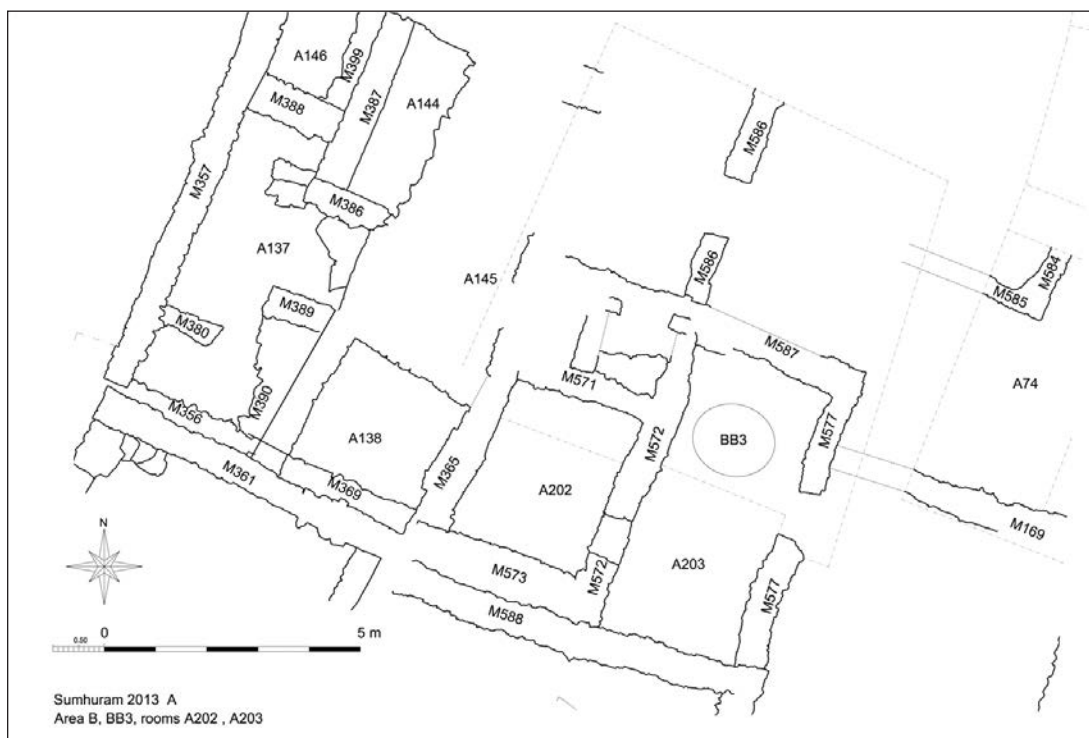
Unfortunately it is impossible to know exactly which room or rooms have been tested by Albright and to which depth. At the beginning of the IMTO SUM13A campaign walls delimiting two rooms mentioned by Albright were visible on the surface. Excavation must be completed in the two rooms, but some facts can be high lightened about the function of two rooms. It seems that A202 and A203 were not part of a residential building, as can be inferred from the scarcity of pottery and bones. The presence of several stone tools and of the objects recovered (mainly beads and pendants, some unfinished, and raw material for beads and pendants) could be an indication that the spaces were used as workshops. The whale vertebrae *in situ* in the two rooms could have been used as stools or working surfaces.





*Fig. 45. Area of building BB3 before excavation.*

Moreover on the floor of room A202 (US569 floor) the structure US580 can be tentatively interpreted as a furnace for iron smithing, similar to the one discovered, not far away, in room A73 during the SUM06B campaign. The iron slags could have been part of the smithing process, as the large whetstone with rust marks. In this case the reused jug, lying next to the whale vertebrae could have been used for holding water needed in the smithing process. Analysis of the incrustation on the inner surface of the jug are under way and could confirm or reject this hypothesis (fig. 46).



*Fig. 46. Plan of excavated part of building BB3.*



### Room A202

The room measures 3.50x4.40 m. It is delimited by the northern wall M571, the eastern wall M572, the southern wall M573 and the western wall M365. A door with threshold in wall M572 leads to the eastern room A203. The deposit inside the room has been divided in two layers, according to the lithology. A very superficial floor mentioned by Albright must have been removed, because its traces were not found at present.

US561. The superficial layer, US561, consisted of reddish brown loam, incorporating several sandstone stones and several broken mud-bricks. No animal bones, but 5 complete whale vertebra were found in the deposit. Finds included few pottery shards, bronze and iron objects, beads, an incense burner, coins, oil lamps and 15 stone tools. 2.5 kg of iron slags were also recovered. US561 floor was marked by some sandstone slabs and some ashes. It was set at the elevation of 31.20 m.

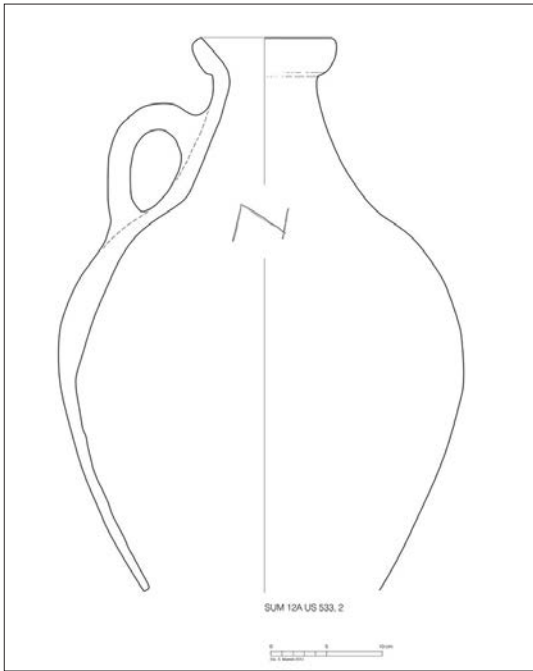
US569. US569, below US561, consisted in rather loose reddish loam mixed with ashes. Finds included: 27 stone tools (handstones, rubbing stones, polishers, pestles, mortar, platter, whetstones), metal tools, several shell, clay, stone beads, a necklace made of beads of different materials, some unfinished beads, a coin, 0.5 kg of iron slags. Only three fragments of Egyptian amphorae, and few other pottery walls were recovered.

US569 floor, made of hard packed loam blackened by exposure to fire, was reached at the elevation of 30.30 m. In the corner formed by walls M365 and M573 one jug stood *in situ* upside down (fig. 47).

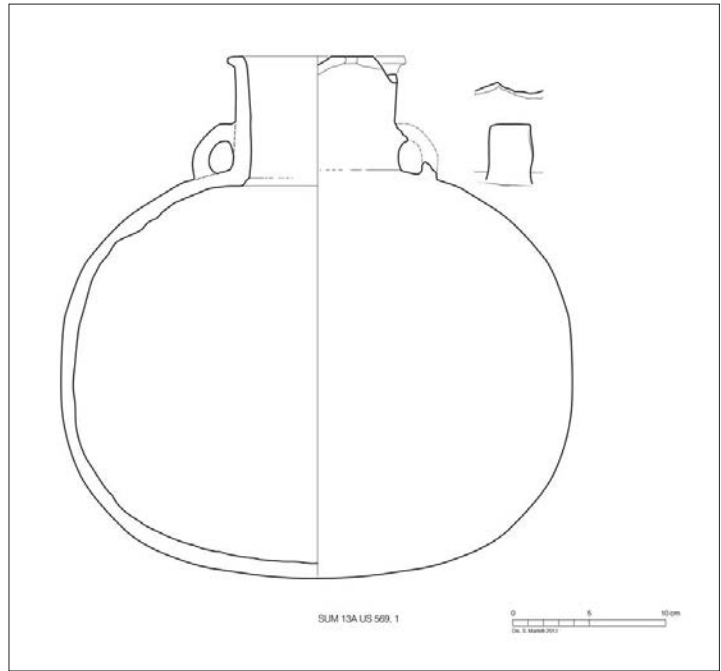


Fig. 47. Room A202, jars and whale vertebrae during excavation.

The handmade jug, (US569, 2: fig. 48), completely reconstructed, had the mouth closed with a stone and some fine grey silt. The bottom of the jug is missing and the fracture is smoothed. The vessel was kept *in situ* by a lining of hardened reddish clay and on the eastern side by a “wall” of mortar, on the western side by a limestone block. The jug must have been reused upside down as a container. US578 has been named the deposit between the jug and the mortar. In US578 one iron slag has been found. Another vessel (US569, 1: fig. 49), a complete Axumite amphora, was found upside down between the jug and wall M365. It is possible that the amphora had been suspended from the ceiling by the two small handles. In front of the two vessels stood *in situ* three whale vertebrae, slightly rising from the floor; two of them show signs of having been exposed to fire or to high temperatures on the upper surface. A large squared whetstone/anvil with traces of rust lied next to them.



*Fig. 48. Room A202, South Arabian jar US569, 2. (left)*



*Fig. 49. Room A202, Axumite jar US569, 1. (right)*

The northern part of the room was occupied by the remains of an installation lying on US569 floor: US580. In the western part the structure is round and it is defined by medium size limestone undressed stones. It is separated from the eastern part by a square, flat stone with the function of a whetstone or anvil, lying south of a small hole filled with loose black soil with some ashes. In the eastern part larger limestone undressed blocks define a oval or rectangular structure that seems to be missing its southern side. Inside the structure (or structures?) US580 a base of hard packed reddish clay was topped by a mixture of loose red and black soil, mixed with ashes and charcoals, small pebbles burned, few burned bones and some stone tools also with traces of fire: a handstone (S2216), a rubbing stone (S2215), and a rectangular “mortar” with blackened upper surface and an iron slag. The stones forming the structure are often blackened by fire or whitened by high fire (fig. 50).



*Fig. 50. Room A202, structure North of the jars on US569 floor.*



<p><b>Small finds</b>  <b>US561:</b> MB724, MB736, MB739, MB740-742, MB758, MB764, MI205, MI211, Sh460, Sh485, Sh486, S2026-2029, S2167-2172, S2196-2201, S2163, S2202, Co777, Co778, Co779.  <b>US569:</b> CI52, CI53, D31, MB743 - MB745, MB759, MB762, MI209, MI210, Sh482, Sh491-494, S2130-2145; S2165, S2173-2175, S2185-2188, S2195, S2203, S2205, S2206, S2211-S2213.</p>	<p><b>Pottery</b>  US561, 1-2.   US569, 1-4.</p>
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### Room A203

The room stands West of A202. In Albright publication it is neither mentioned nor numbered. It is possible that it has not been excavated.

The room is longer than A202, measuring 3.50x7.70 m. It is defined by northern wall M587, western wall M577, southern wall M588. The western wall M572 with its threshold and door is the partition wall between A203 and A202. M588 is probably a wall belonging to a more ancient structure that was used for A203 when BB3 was built, while for room A202 another wall M573 was built against M588, probably because M588 was in bad conditions. M577 has a door connecting the room with the outer eastern space. Excavation so far regarded only the southern half of the room, leaving a bulk for section.

US562. The superficial layer consisted of brown loam, incorporating several sandstone slabs fallen from the upper part of the surrounding walls, especially M588. US562 was loose on surface, becoming crumbled underneath. No floor was detected at the same elevation as in room A202. The bottom of US562 was reached at the elevation of 30.50. No real floor was present, but a difference in color and consistence marked the interface between US562 and the US below. Eighteen stone tools (hand-stones, whetstones, grinding slab, mortar, polishers, anvils, a pestle), shell and clay pendants, an oil lamp, and some pottery fragment were recovered. Four whale vertebrae were found in US562.

US565. Below US562, US565 consisted of crumbled grayish brown loam and ashes, incorporating a quantity of sandstone slabs. No animal bones and few fragments of pottery were present. US565 floor was reached at the elevation of 30.23 m. It was marked by some limestone slabs. On it stood three whale vertebrae and a large whetstone *in situ*. Some areas were blackened by fire (fig. 51). Almost half of the room remained unexcavated at the end of the SUM13A campaign.



Fig. 51. Room A203, partially excavated down to US565 floor.

<p><b>Small finds</b>  <b>US562:</b> CI47, CI48, Sh469, Sh483, S2059-2083.  <b>US565:</b> CI45, CI46, MB725, Sh463, Sh466, Sh470-472, Sh484, S2068, S2069, S2087-2094, S2114-2120, Co776.</p>	<p><b>Pottery</b>  US562, 1-2.</p>
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## AREA F

### Square A20 (g6-7/h6-7)

In Area F, in the western part of the city, a large square A20 lies in front of the *intra muros* temple, BF3. A series of streets (A129, A80 and A156) leads from the square to the Monumental Building 1 and to the residential quarters in the eastern part of the city. The level reached in the square in previous campaigns corresponds to the moment of the construction of the temple in the second constructional phase of Sumhuram. In the SUM12C campaign the last part of the later layers still occupying the south-eastern part of the square A20 was removed. The deposits US71, US56 and US54 were excavated. Pottery shards, animal bones and fish vertebrae were found in the three US. Excavation reached US54 floor. On it, slightly covered by the wall M343 of rooms A132 and A132a of building BF7 a complete mortar was discovered. It is 0.55 m high with a diameter of 0.32 m; its bottom was worn out by use. It was lying on a squared limestone basin and it was protected by one slab on one side and by a small wall of three rows (figs 52 and 53).

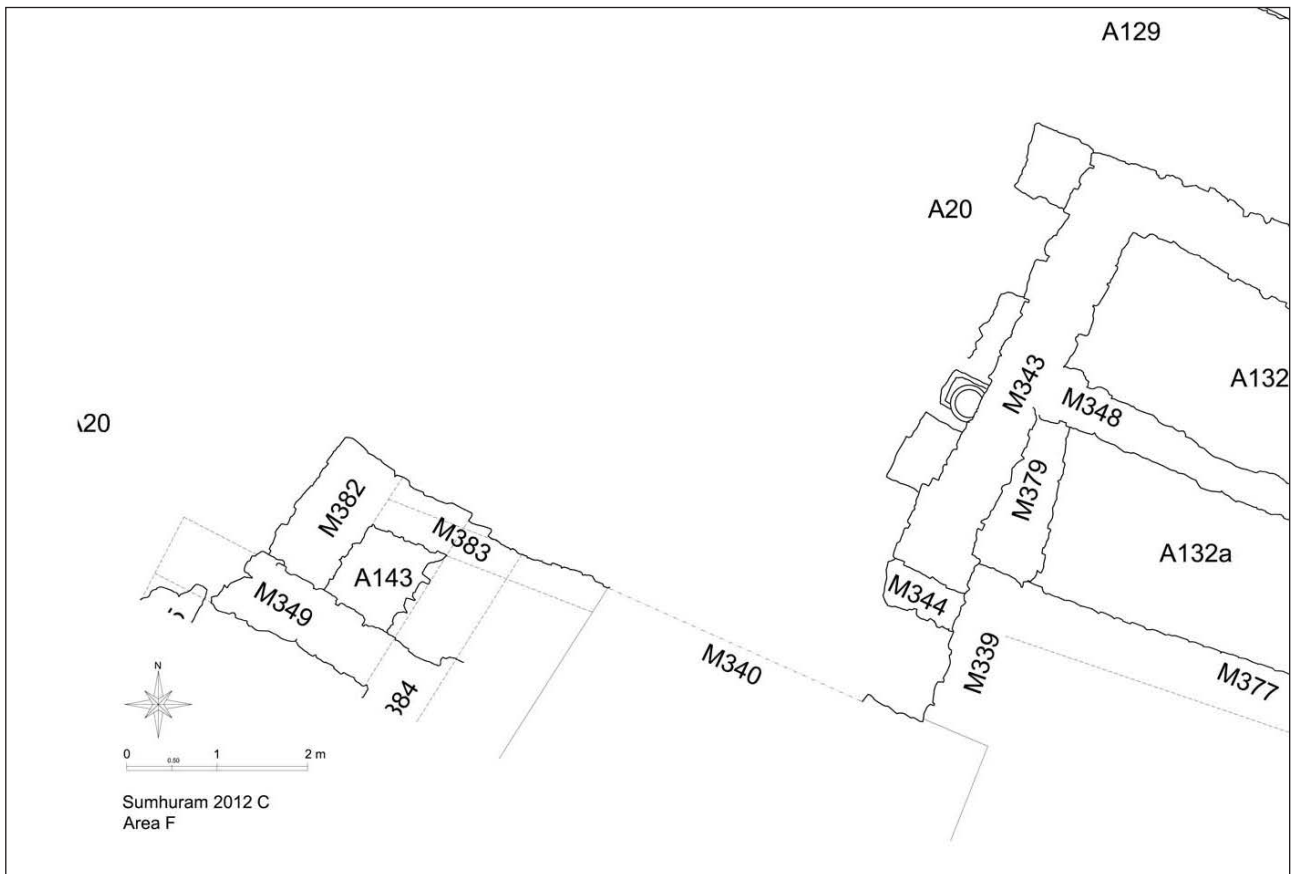
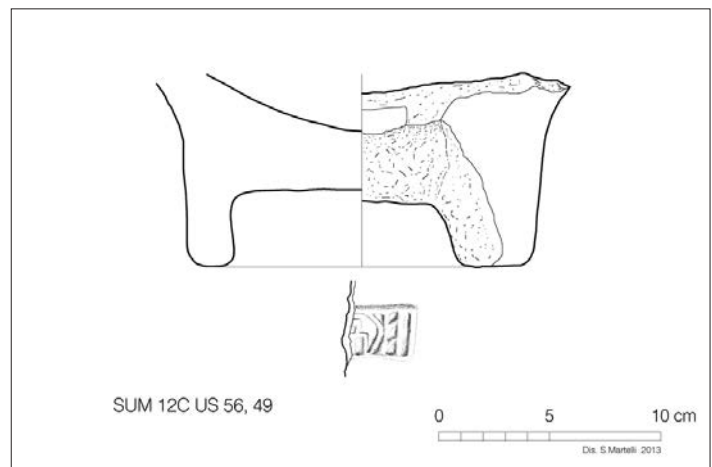


Fig. 52. Plan of portion of square A74 excavated in the SUM12C campaign.



*Fig. 53. Portion of square A74 excavated in the SUM12C campaign.*

A ring base of a straw tempered storage jar of a type well known from South Arabian sites (US56, 49), was discovered in US56. The bottom of the base has a seal impression with four ASA letters: *dr'* (figs 54, 55). The same seal impression with the same letters (not obtained with the same seal), a known Qatabanian proper name, were found on the bottom of three jars of the same type recovered in one of the rooms bordering the courtyard of the palace/temple TT1 in Timna', capital of the kingdom of Qatabān.



*Figs 54 - 55. South Arabian jar with ASA seal impression.*

A cylindrical seal-pendent with two holes in the upper part, bearing the one letter, *m* incised on the base (S1950) was discovered in US54 (figs 56, 57).



*Figs 56 - 57. Cylindrical seal pendant with incised ASA letter.*

<p><b>Small finds</b></p> <p><b>US54:</b> G178, G179, MB710, MB713, Sh449, Sh4456, S1935, S1936, S1940, S1944, S1950, S1957, S1975, S1980, Co769, Co771.</p> <p><b>US56:</b> MI195, Sh448, Sh454, MB709, MB714, S1942, S1946, S1958, S1959, S1976, S1977, S1976, S1979, S1986, S1994, Co768, Co770.</p>	<p><b>Pottery</b></p> <p>US54, 90-111, 113-135, 137-140, 142-168.</p> <p>US56, 45-53, 54, 55-57, 59-80.</p>
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