

IMTO – Italian Mission to Oman

University of Pisa

SUMHURAM

Preliminary Report

March - June 2014 (SUM14B)



PRELIMINARY REPORT (SUM14B)

March - June 2014

The second IMTO campaign of 2014 (SUM14B), under the direction of prof. A. Avanzini, started on 21th March and finished on 5th June 2014.

Excavations were performed in different areas with different goals.

In Area F four different operations took place. Excavation to the East of the building named Monumental Building 2 (BF5) unearthed important structures related to the earliest phase of the city. The excavation inside the Monumental Building 2, started in the previous campaign (SUM14A), have been carried on as well.

The digging in square A20 (A224) has been performed in order to expose the foundation layer of BF8 and the bedrock under the temple's square.

Excavations of the first layer found in the room A233, between A143 and A232, had the goal of clarifying the relationships were between the walls of this area.

Excavations were conducted on the field by dr. Silvia Lischi, Mr. Said al Mashani and Mr. Said al Hamri.

Arch. Simona Rossi was responsible of the architectural survey, the CAD digitalization and the updating of the plans of the city.

The restoration activities have been carried out at the city walls (partially dismantling and rebuilding of the walls M23, M135, M179 and M25 at the north side), rising up of the two small towers A61-A97, and some other restoration works as indicated in the technical report section.

The restoration of the walls M179 and M25 was a huge intervention that involved the partial dismantling, the reconstruction and/or the rising up of the walls.

The restoration and consolidation of ancient masonry structures has been done 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 Ghanem al Shanfari, Said al Mashani, Ali al Kathiri, Said al Hamri, Said al Salmi, Hassan al Jabri. We thank them all, together with all the Museum's team, for their kind helpfulness.

Sumhuram Preliminary Report SUM14B

March - June 2014

INDEX

1. Archaeological Report (3 May 2014 – 5 June 2014)

- Excavation in Area F, room A224, north of building BF8
- Excavation in Area F, room A233, northern part of modern platform
- Excavation in Area F, rooms A234, A235, A236; eastern part of Monumental Building 2
- Excavation in Area F, inside the Monumental Building 2, building BF5

2. Restoration Report (21 March – 5 June 2014)

- Completion of the restoration of the Monumental Building north side
- Restoration of the walls M23-M135-M179-M370-M25
- Rising up of the towers A61 and A97

Archaeological Report
(May 2014)

Deep sounding in A224, BF8, Area F (trench supervisor: Silvia Lischi)

With the aim to clarify the situation in the south-east area of the square A20, in front of the *intra-muros* temple, a deep sounding in A224 was carried out. Purpose of the excavation was to understand the phases under the square, before the moment of greatest expansion and monumentalization of the city.

When we removed the **US660 floor** (compact and grey surface with few pottery fragments, bones, shells, three objects: Sh583, G209, MB839 and coin Co861), excavated during the campaign SUM14A contemporary to the channel in A217, we found **US696**. This layer is characterized of medium and big stones that appear to come from intentional demolition of the walls M627, M647, M603. These walls are kept at the same height and they seem to continue under the square A20. In the south-west corner, between M679 and M603, have been found traces of a fireplace of medium size.

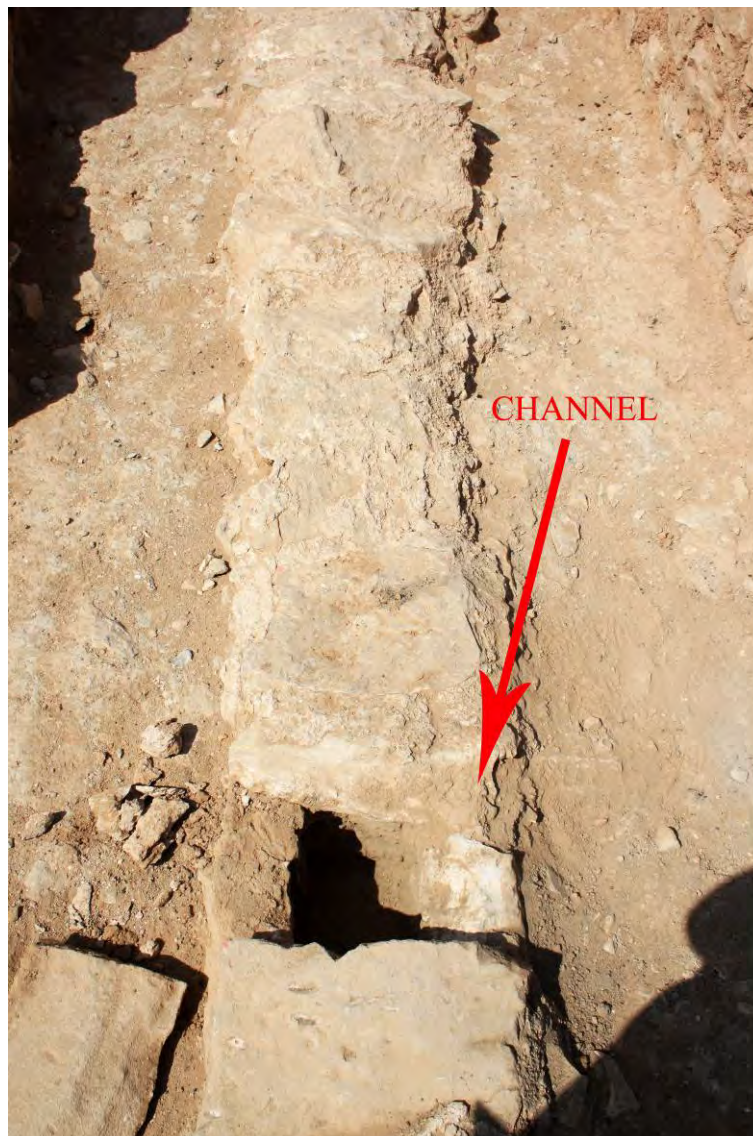
Below this layer, composed mainly of stones mixed with earth, we found the **US704**. This stratum is characterized by an extensive layer of ash and charcoal and a considerable quantity of iron slags (sample 2) has been found.

Under US704, which seems to confirm the use of the area for fireplaces, perhaps for the production of metals, has been found **US698**. This layer consists of compact clay and earth cooked by the overlying fireplaces covered by limestone chips mixed with earth used to level the bedrock (elevation 25,63 – 25,07). This was necessary to create the foundation of the surrounding walls.



A224 (east view): before excavation

During the excavation, it was decided to investigate the function of structure in stone slabs and plaster found in A217, during the campaign SUM14A (q. 26,35 – 26,50). The excavation of a small part, has allowed us to identify it as a **channel** in plaster, covered with stone slabs and plaster. It remains to explain the presence of the two stone basins, one with a lower hole and the other without. Maybe it will be possible to define better the use of this structure when the excavated area will be enlarged. It would be interesting to continue in the north direction to find the path to the channel, the hypothesis is that the channel goes in direction to the A129 for continue in direction to the exit channel in the wall near the west side of MB1.



A217 (north view): channel in plaster covered with stone slabs.

Excavations north from the modern platform, A233, Area F (trench supervisor: Silvia Lischi)

The survey at north of the modern platform was intended to clarify the profile of the wall M658 compared with M384 and M383, to be restored because of the needs of the tourist path.

The cleaning revealed a small room (A233), located between A232 (excavated during the last campaign) and A142 – A143 to the west. This room is defined by the walls M658 to the north, M661 to the east, M660 to the south and M384 to the west.

In addition to the cleaning a small excavation was carried on, to reach the foundation of the wall M658. The excavated layer was called **US699**. This layer consists of loose dark brown earth finishing at the end of the foundation of wall M658. Here a difference in compactness of the soil was evident, probably related to the presence of a floor, called **US699floor**, where the investigations stopped. In US699 we found few materials (pottery, shells and bones), one oil lamp (Sh586) and few iron slags (sample 3).



A233 (south view): after excavation the room and before restoration the wall M658.

Archaeological excavation east of MB2, Area F (trench supervisor: Silvia Lischi)

During this campaign the area east of the wall M109 (Monumental Building 2) has been investigated, while during the previous campaign the area was cleaned up with removing the surface layer accumulated over the time.

The first layer, covering the whole area, is **US700**: light brown and very compact loam; inside pottery fragments, shells and bones were found. There were a few lenses of ash and charcoal. In this layer were found some iron slags (sample 1 and sample 8), a bone handle (B89), a bronze object (MB840), a bronze ring (MB843), an oil lamp (Sh589), a stone vessel (S2507) and an incense burner (S2508).

This layer was leaning on **US700 floor**, where also **M667** and **M668** were leaning on, while **M666** was leaning on top of wall M669, but ended at the same height of the other walls. These walls have been removed during excavation. Three new rooms were so far identified: **A234**, **A235** and **A236**.



East of MB2 (north-east view and south east view): before excavation.

Area F, A234

This room was defined by the walls **M673** to the south, **M670** and **M671** to the east, **M666** and **M669** to the north. M669 was built before M666.

Under **US700 floor** we found **US701** characterized by a large amount of ashes and charcoals, probably attributable to several fireplaces. The layer is very compact and dark in colour. Inside were found pottery fragments, bones, shells and some iron slags (sample 5 and sample 9). Few objects have been recovered in this layer (Co862, S2504, Co863, MB844).

This room seems to have been used for a long time as an area for fireplaces, as attested by the thickness of the deposit. It should be verified if **M673** goes down.

The **US701** covers **US702** which was more granular and reddish in colour, without ashes or charcoal but it was clear that the earth was baked to the fireplaces found above. In this layer were

found pottery fragments, bones, shells and some objects: MB841, MB842, G210, Co864, Sh588, Sh591.

This layer was leaning on **US702floor**, compact and more reddish in colour. This floor has a slight deep placed centrally to the room. After this layer we started to remove **US703**, looser and dark in colour with bones, shells and pottery fragments. We also found a fragment of crucible (G211). The excavation of this layer has not been completed.



A234 (south view): during excavation.

Area F, A235

This room, between A234 and A236, appears to continue eastward. The perimetral walls are: M669 at south, M672 at north and M109 at west.

Here, once removed US700 and US700floor discovered in the whole area, we found US701. Layer is not very compact, there are sporadic traces of burnt but it seems similar to US701, found in A234 and A236. The layer covers US701floor. At this level the excavation was interrupted.

Inside US701 were found: pottery fragments, bones, shells, iron slags (sample 10) and many stone tools (S2509, S2510, S2511, S2512, S2513, S2514).

This suggests that the room was in some way connected to the room A234, in the processing of metals. . Some of the stone tool which were found had on the surface traces of the sharpening and iron residues.

Area F, A236

The room was defined by the walls M109 to the west, M650 to the north, M672 to the south and M636 to the east.

Under US700 floor even here we found the US701, slightly compact and with occasional traces of burning. Inside the layer we found few material: pottery fragments, shells, bones and objects (MB845, MB846, Sh592). In this room, there seem to be traces of metalworking.



A234, A235, A236 (south view): after excavation.

Archaeological excavation of Monumental Building 2 (trench supervisor: Silvia Lischi)

During this campaign we continued the work of removing the filling of MB2 started in SUM14A.

The filling is homogeneous throughout the room. The upper part, named in this campaign **US705** is very compact, with sporadic large stones inside. The lower part, **US678**, it is very compact, with few stones and there were inside pottery fragments, iron slags (sample 6 and sample 7) and some objects: oil lamps (Sh585, Sh587, Sh590, Sh593, Sh594), a shell pendant (Sh584), a crucible (G212), stone objects (S2505, S2506, S2515, S2517) and a sandstone slab with inscription (S2516).



Sandstone slab with inscription inside MB2, US678.

In addition to those exposed in SUM14A, other two bases of column were recovered, in line with the others to form two parallel rows. It is possible that in the part still to be removed there are other two bases so as to form two parallel rows with three column bases each. These columns were useful for hold the cover of the structure or the top floor. It's not sure that the stone with the circular recess discovered in SUM14A , near the west wall of MB2 is to be interpreted as a base of column; probably it was a support for something. During this campaign another similar stone was found.



Stone with circular recess found inside MB2, US678.

On the north wall of MB2 were found other three carved stones representing ibex.



Carved stones on north wall of MB2: ibex.




North wall of MB2 (M93) with highlight the carved stone found during SUM14A and SUM14B.

Goal of the next campaign is the removal of US705 in whole ambient to reach **US678floor**, at the base of the columns. Near the southern wall of MB2 there are some stones, probably leaning on US678floor. These stones may be the traces of some structures.




MB2 (south view): after excavation.


Object Index Card

Registration Nr. SUM14B, US700, 6, S2508			
Provenance Area F, A236			
Drawing code Nr.			
Definition Incense burner	State of preservation Fair	Measures l. w. h. th. 11 cm diam.	Shape Truncated-pyramid base
Material Limestone	Preserved part Almost complete		Section
Description <p>Almost complete limestone incense burner with truncated-pyramid shaped base (10x11 circa) surmounted by a projecting cuboid element showing an incised and a bas-relief decoration, fairly preserved. On the top there is a well defined recess. The rim is squared and badly preserved.</p> <p>The frontal face shows a bas-relief decoration with the astral motif with the crescent moon and the disc inside a squared panel. On the right side there are small incised squared panels to be interpreted as rielaboration of false-windows. The two lateral faces probably have the same decoration which is better preserved on the right face. On the top there is an incised frieze of vertical, rectangular panels. Under the frieze there is a decorative motif showing projecting and recessing big vertical and rectangular panels.</p> <p>Between the upper cuboid element and the base there is another element, projecting from the base and showing a dentil decoration. Burnt traces on the top.</p>			
Responsible Silvia Lischi		Date 31/05/2014	


Object Index Card

Registration Nr. S2516			
Provenance Area F, US678, 10			
Drawing code Nr.			
Definition Stone with inscription	State of preservation good	Measures l. 29 w. 16,5 h. 8 th. diam.	Shape
Material sandstone	Preserved part fragmentary		Section Almost flat
Description Two fragments of sandstone slab with South Arabian inscription.			
Responsible Silvia Lischi		Date 31/05/2014	

Object Index Card

Registration Nr. S2515			
Provenance Area F, US678, 9			
Drawing code Nr.			
Definition Decorative element	State of preservation good	Measures l. 8 w. 9	Shape
Material sandstone	Preserved part fragmentary	h. 1,5 th. diam.	Section Almost flat
<p>Description</p> <p>Fragment of sandstone with the lower surface smooth. The upper hand shows a herringbone decoration or a representation.</p>			
Responsible Silvia Lischi		Date 31/05/2014	

Object Index Card

Registration Nr. MB843			
Provenance Area F, US700			
Drawing code Nr.			
Definition Ring	State of preservation good	Measures l. w. h. th. diam. min 1,5 cm – max 2,7 cm	Shape Ring shaped
Material Bronze	Preserved part complete		Section circular
<p>Description</p> <p>Bronze object of circular shape. The section is circular too. On the surface are clearly visible corrosion products which however does not affect the reading of the finding. And 'likely to be interpreted as a ring.</p>			
Responsible Silvia Lischi		Date 25/05/2014	

**RESTORATION WORKS AT SUMHURAM
(ARCHAEOLOGICAL PARK OF KHOR RORI)**

(Sultanate of Oman)

CAMPAIGN from March to June 2014

IMTO

Italian Mission To Oman



Technical Report

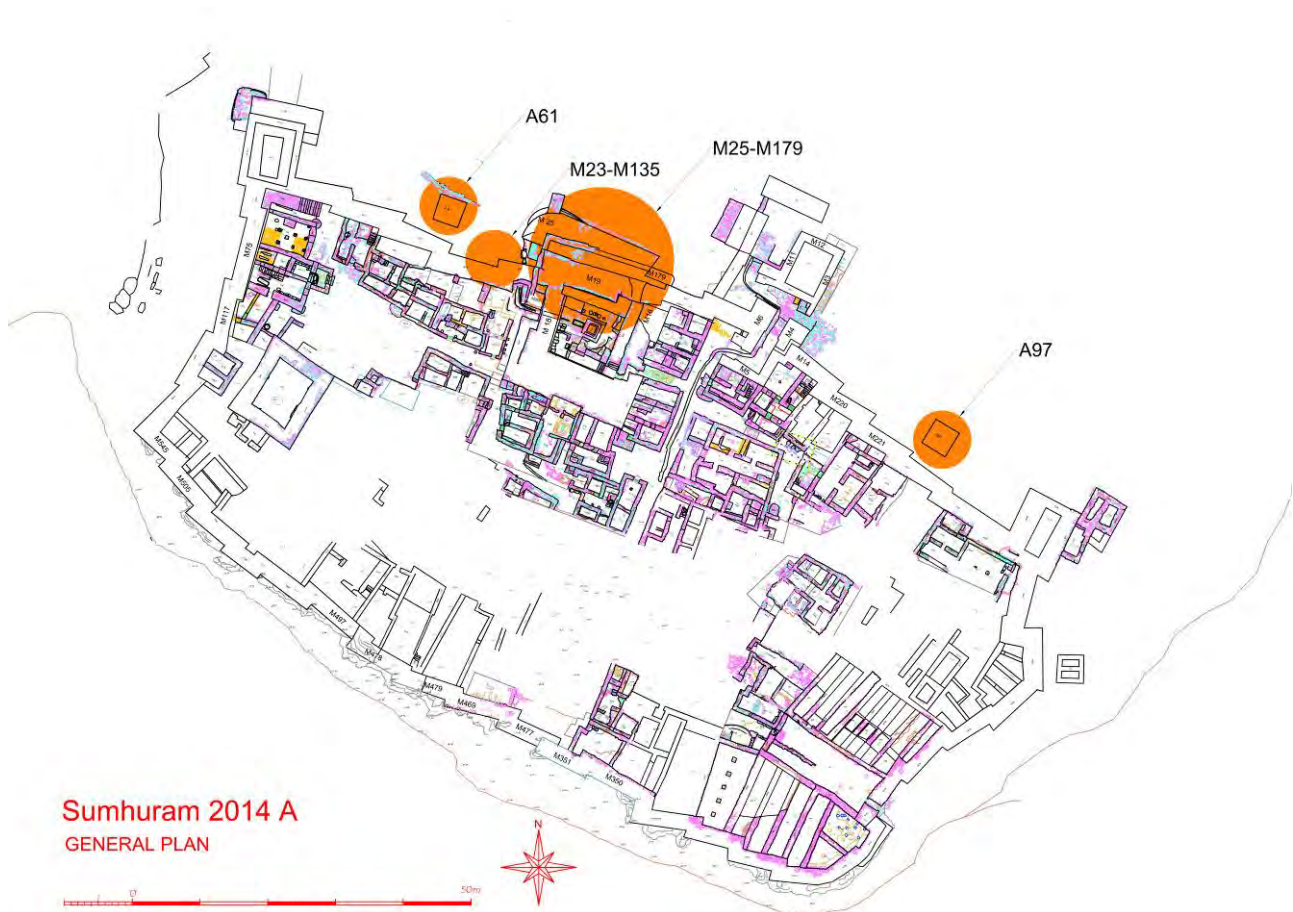
21th March – 30th May 2014

Valter Filatondi

Introduction

The restoration activities, during the campaign, regards the completion of the restoration of the walls of the Monumental Building 1. More in detail, the restoration regards the following walls: M19–M23-M135-M179-M25. Beside these works, the rising up of the towers A61, A97 and the walls M318-M335 will be done together with the rising up of the two walls: M545-M118 at the south-west corner of the city walls. All these walls are located at the north and west sides of the city walls.

The following map shows all the locations:



Worker Teams

Two teams of workers of fifteen people each have been engaged for all the needed operations to complete the reconstruction of the above mentioned areas. One team of seven people was engaged to prepare the mortar and it is also necessary other three masons to follow and control all the workers

Working progress status

In order to check the advancement of the works, we daily took a significant number of pictures of the areas. The number of the pictures and the point of viewing from which they are taken from, are those considered necessary for a good comprehension about the working progress status.

Mortar preparation

The mortar, to be used for the connection between the stones, is the same used during the previous campaigns: **80** parts of brown colour with **200** parts of yellow colour.

The mix of the mortar is composed by the oxide colours mentioned above plus **4 buckets** of sand with eight scoops (**600grams**) of lime powder.

Therefore we have two different kinds of mortar:

- **stone mortar**, used for the external leaves of stones, obtained by the mix of sieved sand, hydrated lime, brown and yellow oxides for the chromatic tone.
- **filling mortar**, used for the back filling of the structure, made with the same components, except the use of raw sand instead of sieved sand without any brown and yellow oxides.

Rising up of the wall M179

On 21st March 2014 we started the excavation at the area A15 searching the stones of the wall M179. We were sure that there should be an alignment between the starting point of the wall M179 on the east side of the monumental building and the west corner close to the basins. The picture below shows the found alignment.



As you can see on the picture, the previous restoration of the M179 has been considered the wall as a prop and therefore they made the external leave of the stones in slope. We decided to remove the three top level of the stones to rebuild them straight in the continuation of the discovered alignment. This wall therefore, can be considered the third and last phase of the construction of the monumental building 1.

The following picture shows the front north elevation of the wall on 21st March 2014.



On 22nd March 2014, we started the reconstruction of the wall keeping in mind the indication of the following sketch.



On 30th April 2014, the reconstruction of the walls at the north side of the monumental building were finished as shown on the pictures below.



Rising up of the walls M23-M135

The situation of the wall M22 on 20th March 2014 was as shown on the picture below.



On 10th April 2014 the restoration was finished as shown below.



Rising up of the tower A61

The situation of the tower A61 on 30th April 2014 was as shown on the picture below.



From west



From east

After the restoration the tower A61 is as shown on the pictures below.



From west



From east

Rising up of the tower A97

The situation of the tower A97 on 30th April 2014 was as shown on the picture below.



From west



From east

After the restoration the tower A61 is as shown on the pictures below.



From west



From east

Restoration of the wall M658

On 13th May 2014 the situation was as shown on the picture below.



On 29^h May 2014 the restoration was finished as shown below.



KHOR RORI ARCHEOLOGICAL SITE - Prof.ssa Alessandra AVANZINI

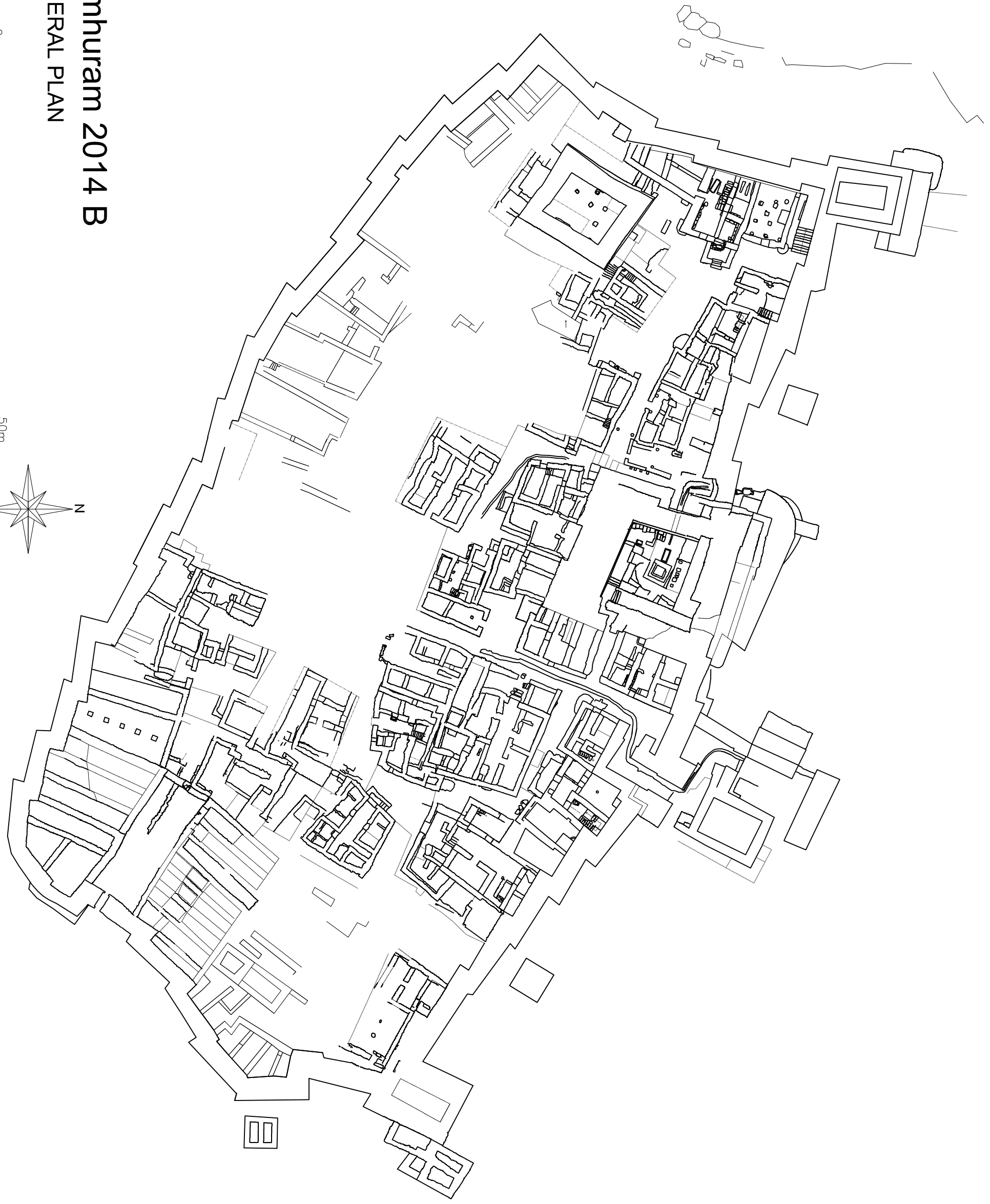
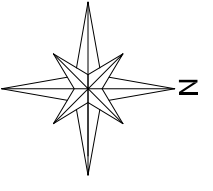
DAILY REPORT SUM14B by Arch. Valter Filatondi

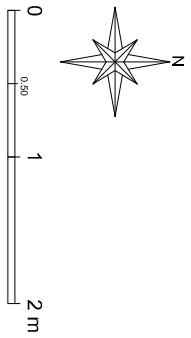
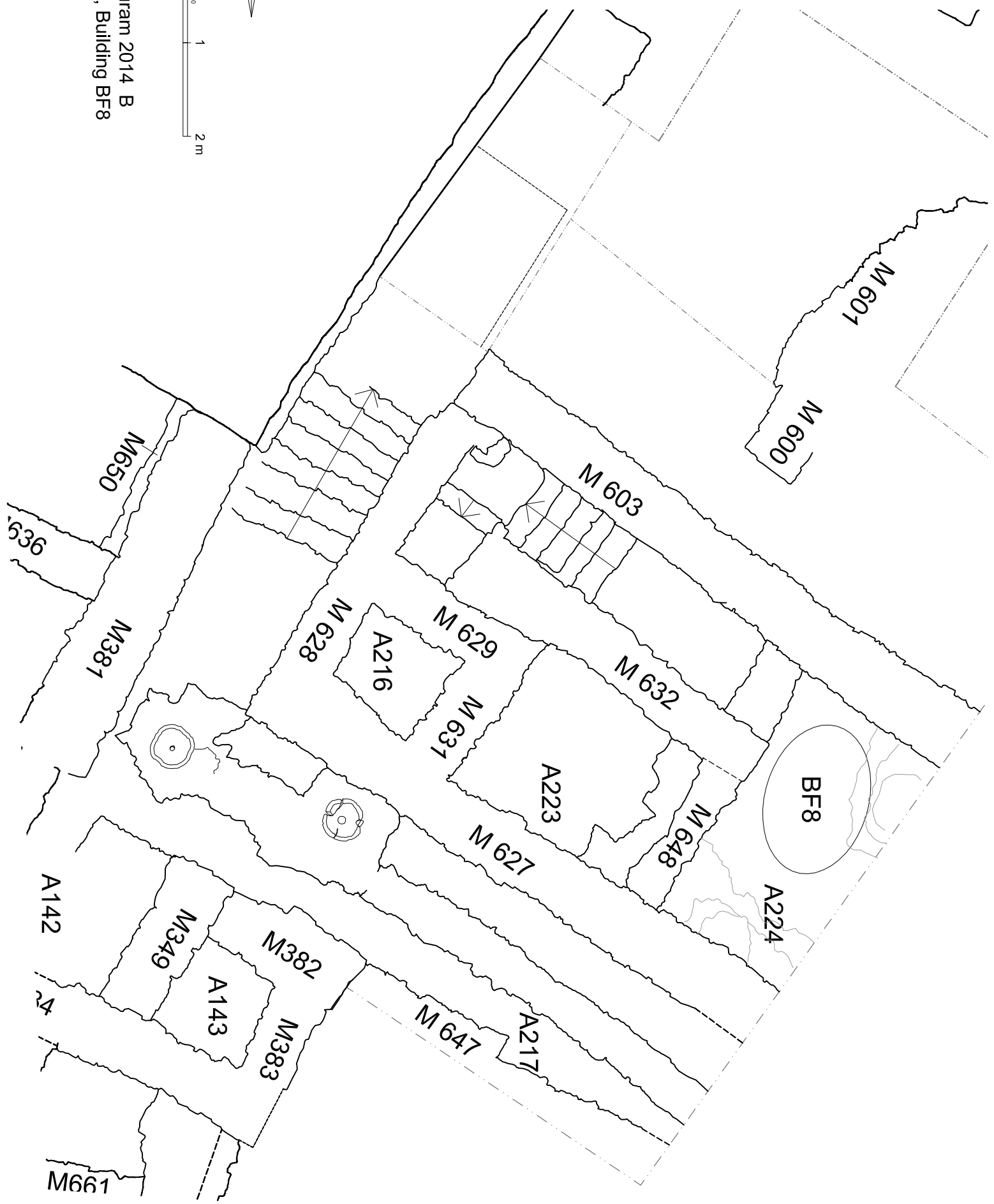
WEEK	MONTH	DAY		MEN	WORK HOURS	DAILY ACTIVITIES REPORT
1	MARCH	22	SATURDAY	40	6	Rising up of the wall M19. Beautification of the walls M16-M664-M665
	MARCH	23	SUNDAY	40	6	Beautification of the walls M16-M664-M665-M19
	MARCH	24	MONDAY	40	6	Beautification of the walls M16-M664-M665-M19. Cleaning of the area A16.
	MARCH	25	TUESDAY	40	6	Beautification of the walls M16-M664-M665-M19. Cleaning of the area A16.
	MARCH	26	WEDNESDAY	40	6	Cleaning of the area A16.
	MARCH	27	THURSDAY	40	4	Cleaning of the area A16. Rising up of the walls M23 - M135
	MARCH	28	FRIDAY			DAY OFF
2	MARCH	29	SATURDAY	40	6	Removing soil from the temple square. Rising up of the walls M23 - M135
	MARCH	30	SUNDAY	40	6	Removing soil from the MB2. Rising up of the walls M23 - M135
	MARCH	31	MONDAY	40	6	Removing soil from the nord side of the city. Rising up of the walls M23 - M135
	APRIL	1	TUESDAY	40	6	Removing soil from the nord side of the city. Rising up of the walls M23 - M135
	APRIL	2	WEDNESDAY	40	6	Removing soil from the nord side of the city. Beautification of the walls M23 - M135
	APRIL	3	THURSDAY	40	4	Removing soil from the nord side of the city. Beautification of the walls M23 - M135
	APRIL	4	FRIDAY			DAY OFF
3	APRIL	5	SATURDAY	40	6	Removing soil from the nord side of the city. Starting the reconstruction of the walls M179
	APRIL	6	SUNDAY			Strong Wind - No work
	APRIL	7	MONDAY	40	6	Removing soil from the nord side of the city. Starting the reconstruction of the walls M179. Basins soil alteration
	APRIL	8	TUESDAY	40	6	Reconstruction of the walls M179
	APRIL	9	WEDNESDAY	40	6	Reconstruction of the walls M179

	APRIL	10	THURSDAY	40	4	Reconstruction of the walls M179
	APRIL	11	FRIDAY			DAY OFF
4	APRIL	12	SATURDAY	40	6	Reconstruction of the walls M179
	APRIL	13	SUNDAY	40	6	Reconstruction of the walls M179
	APRIL	14	MONDAY	40	6	Reconstruction of the walls M179
	APRIL	15	TUESDAY	40	6	Reconstruction of the walls M179. Rising up one row of the wall M22.
	APRIL	16	WEDNESDAY	40	6	Reconstruction of the walls M179. Filling of the wall M22.
	APRIL	17	THURSDAY	40	4	Reconstruction of the walls M179. Filling of the wall M22.
	APRIL	18	FRIDAY			DAY OFF
5	APRIL	19	SATURDAY	40	6	Reconstruction of the walls M179. Finishing top of the wall M22.
	APRIL	20	SUNDAY	40	6	Reconstruction of the walls M179. Rising up of the wall M664
	APRIL	21	MONDAY	40	6	Reconstruction of the walls M179. Rising up of the wall M664
	APRIL	22	TUESDAY	40	6	Reconstruction of the walls M179. Rising up of the wall M664
	APRIL	23	WEDNESDAY	40	6	Reconstruction of the walls M179. Rising up of the wall M664
	APRIL	24	THURSDAY	40	4	Rising up of the wall M664 and M24
	APRIL	25	FRIDAY			DAY OFF
6	APRIL	26	SATURDAY	40	6	Rising up of the wall M664 and M24. Filling of the walls M179 and M664.
	APRIL	27	SUNDAY	40	6	Beautification of the wall M664 and M24. Beautification of the wall M179
	APRIL	28	MONDAY	40	6	Beautification of the walls M664-M179
	APRIL	29	TUESDAY	40	6	Beautification of the wall M179. Cleaning of the wall M25
	APRIL	30	WEDNESDAY	40	6	Beautification of the wall M179. Cleaning of the wall M25. Preparation to rising up towers A61-A97
	MAY	1	THURSDAY	40	4	Cleaning of the wall M25. Preparation to rising up towers A61-A97
	MAY	2	FRIDAY			DAY OFF
7	MAY	3	SATURDAY	40	6	Rising up of the towers A61-A97
	MAY	4	SUNDAY	40	6	Rising up of the towers A61-A97
	MAY	5	MONDAY	40	6	Rising up of the towers A61-A97
	MAY	6	TUESDAY	40	6	Rising up of the towers A61-A97
	MAY	7	WEDNESDAY	40	6	Beautification of the towers A61-A97
	MAY	8	THURSDAY	40	4	Beautification of the towers A61-A97
	MAY	9	FRIDAY			DAY OFF
8	MAY	10	SATURDAY	40	6	Beautification of the towers A61-A97

	MAY	11	SUNDAY	40	6	Demolition of the wall M658. Cleaning of the site.
	MAY	12	MONDAY	40	6	Reconstruction of the wall M658. Cleaning of the site.
	MAY	13	TUESDAY	40	6	Reconstruction of the wall M658. Preparation of the bases for panels
	MAY	14	WEDNESDAY	40	6	Reconstruction of the wall M658. Preparation of the bases for panels
	MAY	15	THURSDAY	40	4	Reconstruction of the wall M658. Preparation of the bases for panels
	MAY	16	FRIDAY			DAY OFF
9	MAY	17	SATURDAY	40	6	Reconstruction of the wall M658. Preparation of the bases for panels
	MAY	18	SUNDAY	40	6	Reconstruction of the wall M658. Preparation of the bases for panels
	MAY	19	MONDAY	40	6	Reconstruction of the wall M658. Preparation of the bases for panels
	MAY	20	TUESDAY	40	6	Reconstruction of the wall M658.
	MAY	21	WEDNESDAY	40	6	Preparation of the area for the staircase installation in front of the wall M658.
	MAY	22	THURSDAY	40	4	Preparation of the area for the staircase installation in front of the wall M658.
	MAY	23	FRIDAY			DAY OFF
10	MAY	24	SATURDAY	40	6	Preparation of the area for the staircase installation in front of the wall M658.
	MAY	25	SUNDAY	40	6	Finishing of the area for the staircase
	MAY	26	MONDAY	40	6	Cleaning of the site. Panels installation
	MAY	27	TUESDAY	40	6	Cleaning of the site. Panels installation
	MAY	28	WEDNESDAY	40	6	Cleaning of the site
	MAY	29	THURSDAY	40	4	Cleaning of the site
	MAY	30	FRIDAY			DAY OFF
Total Hours				13,360	334	hours/workers

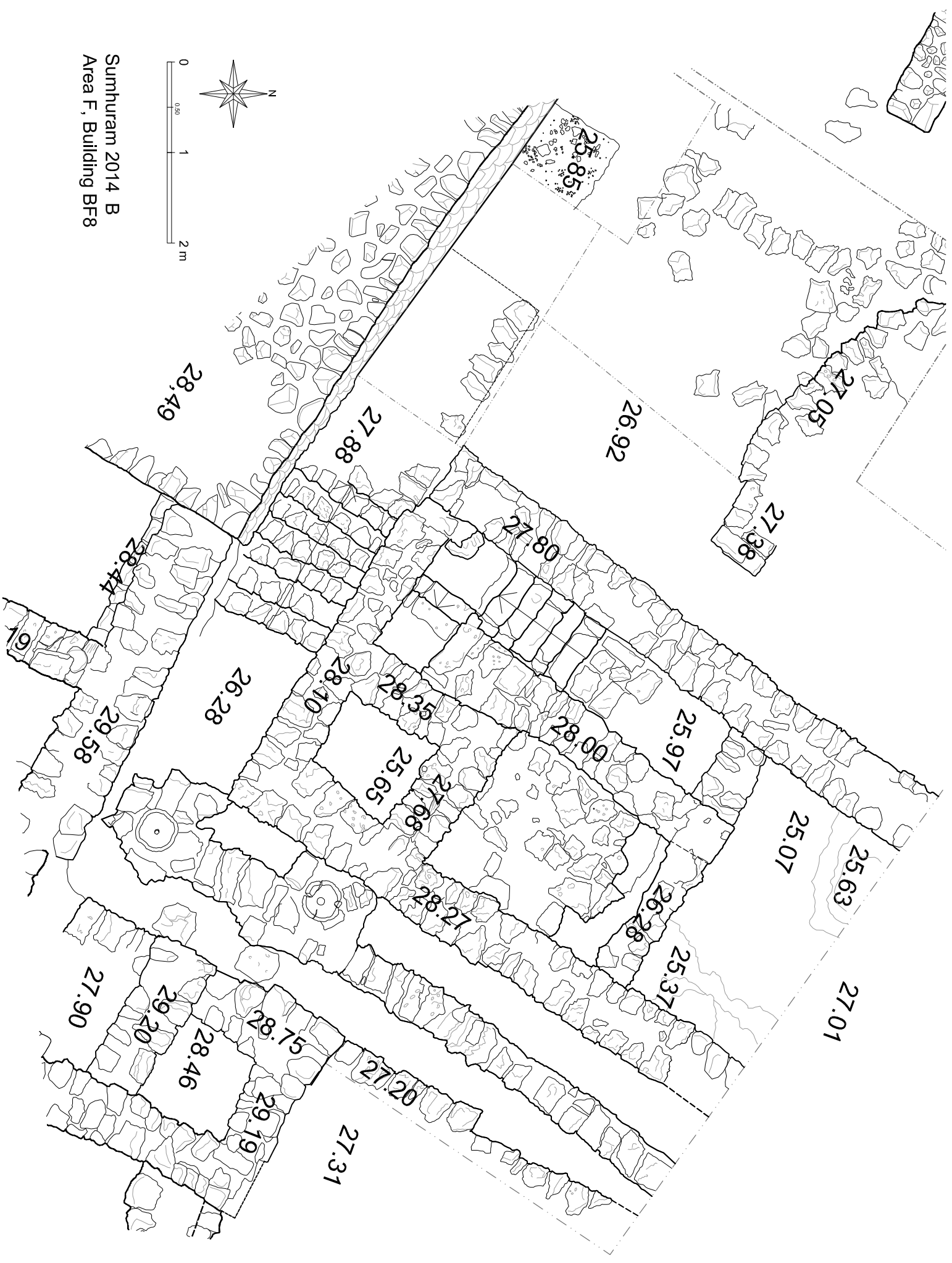
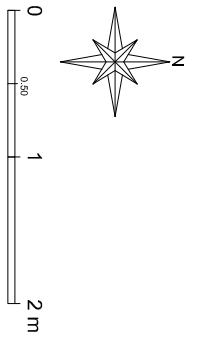
Sumhuram 2014 B
GENERAL PLAN

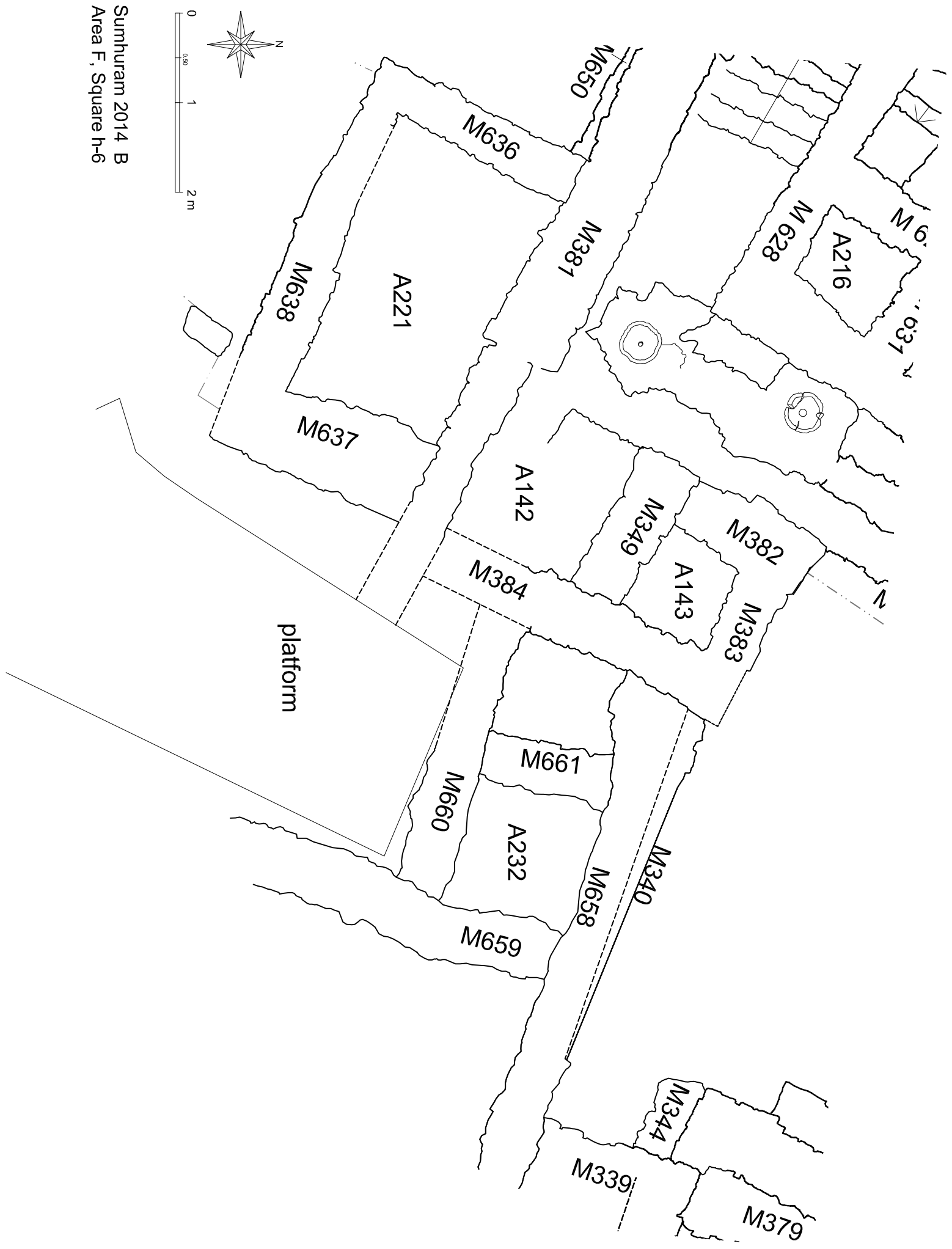




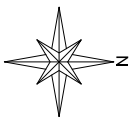
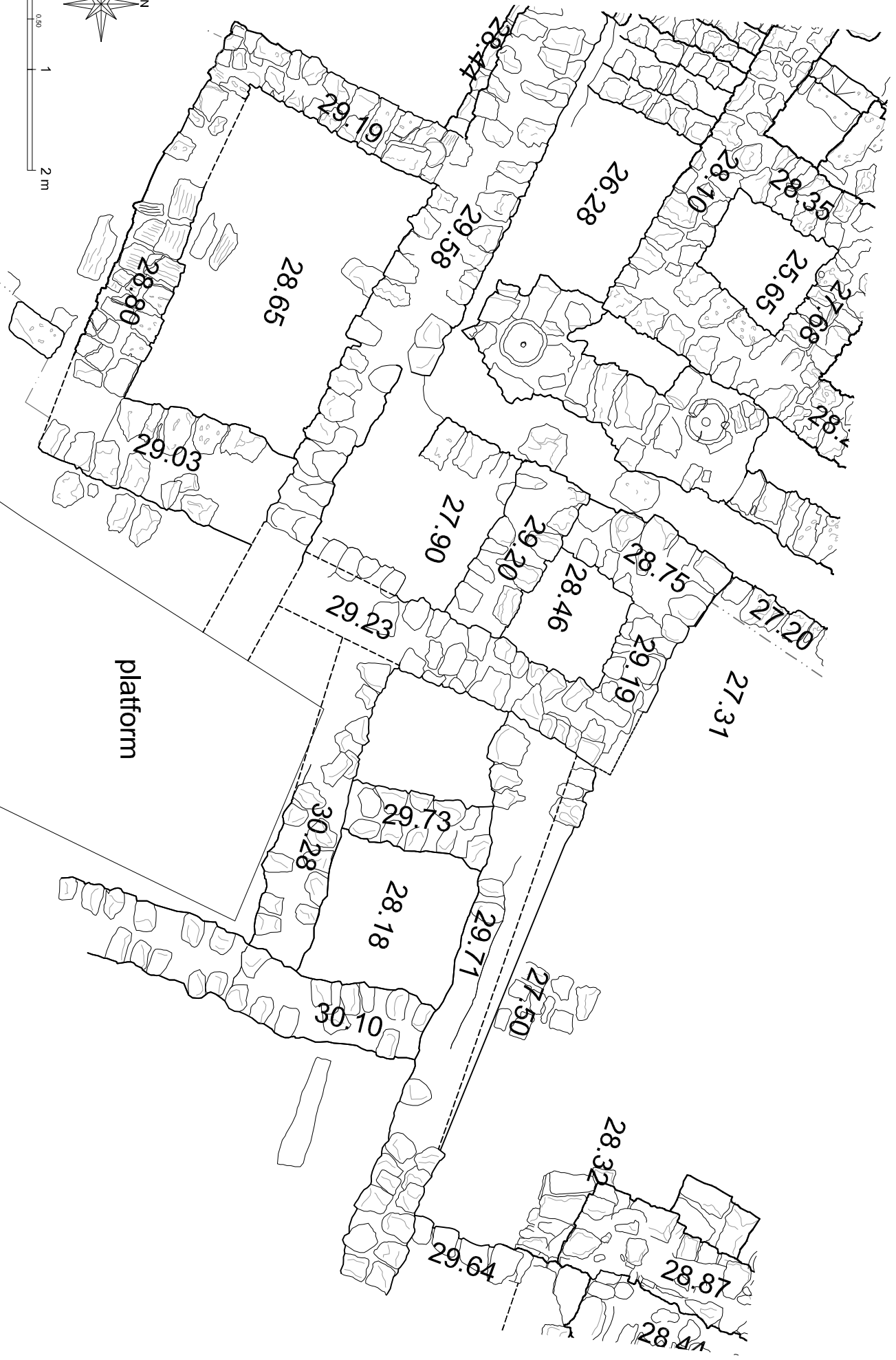
Sumhuram 2014 B
Area F, Building BF8

Sumhuram 2014 B
Area F, Building BF8



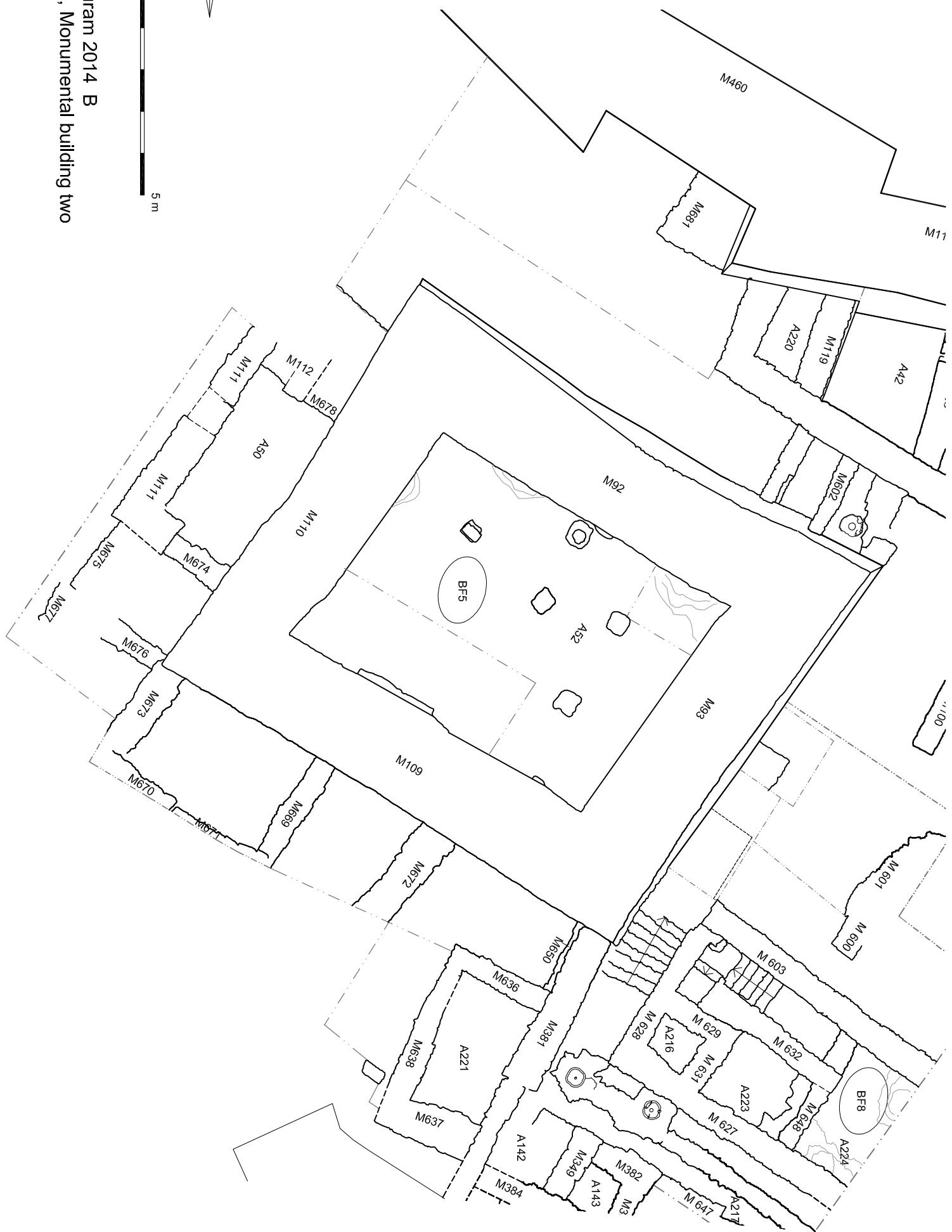
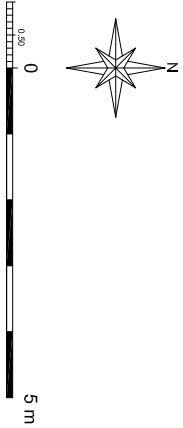


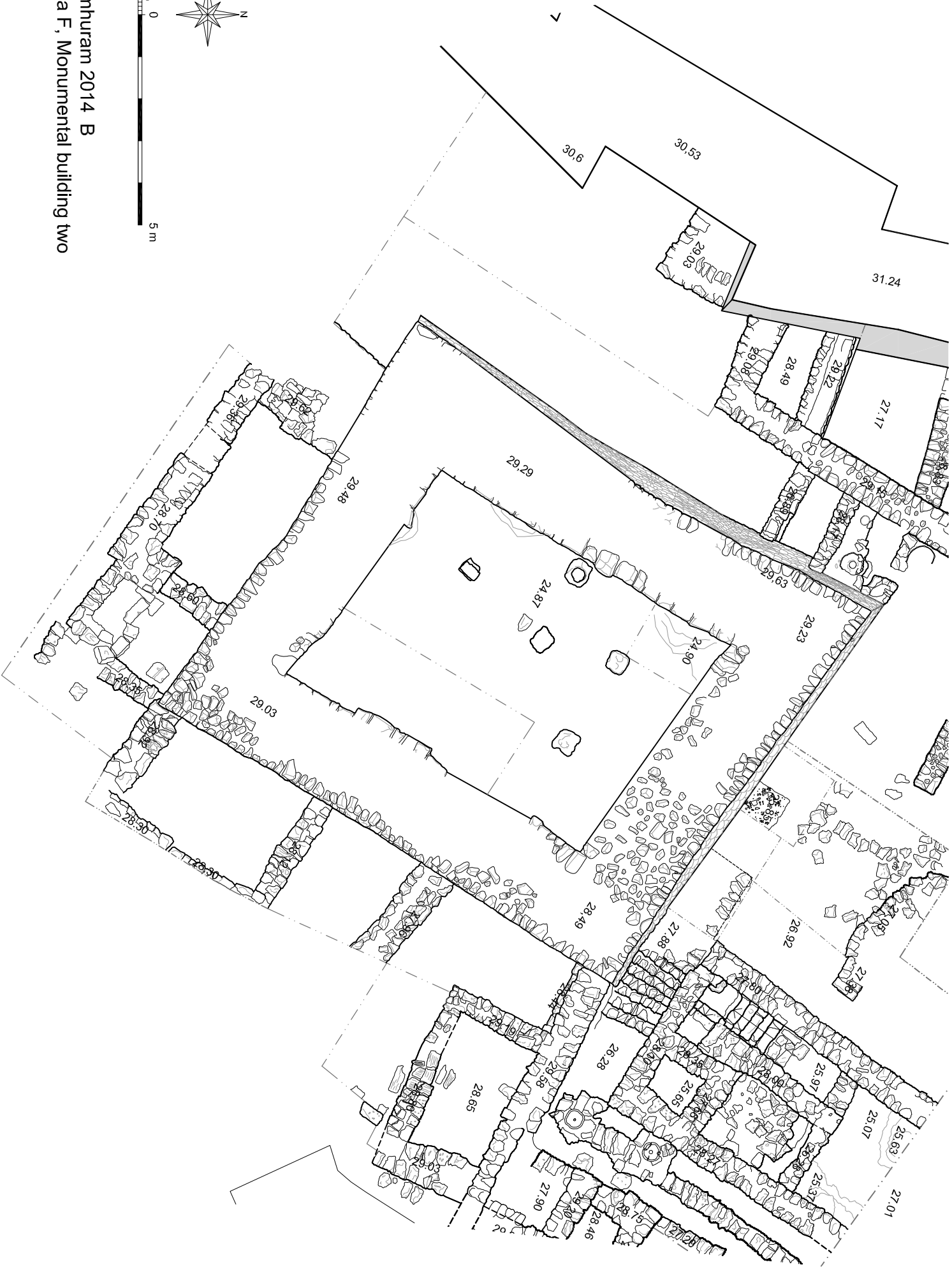
Sumhuram 2014 B
 Area F, Square h-6



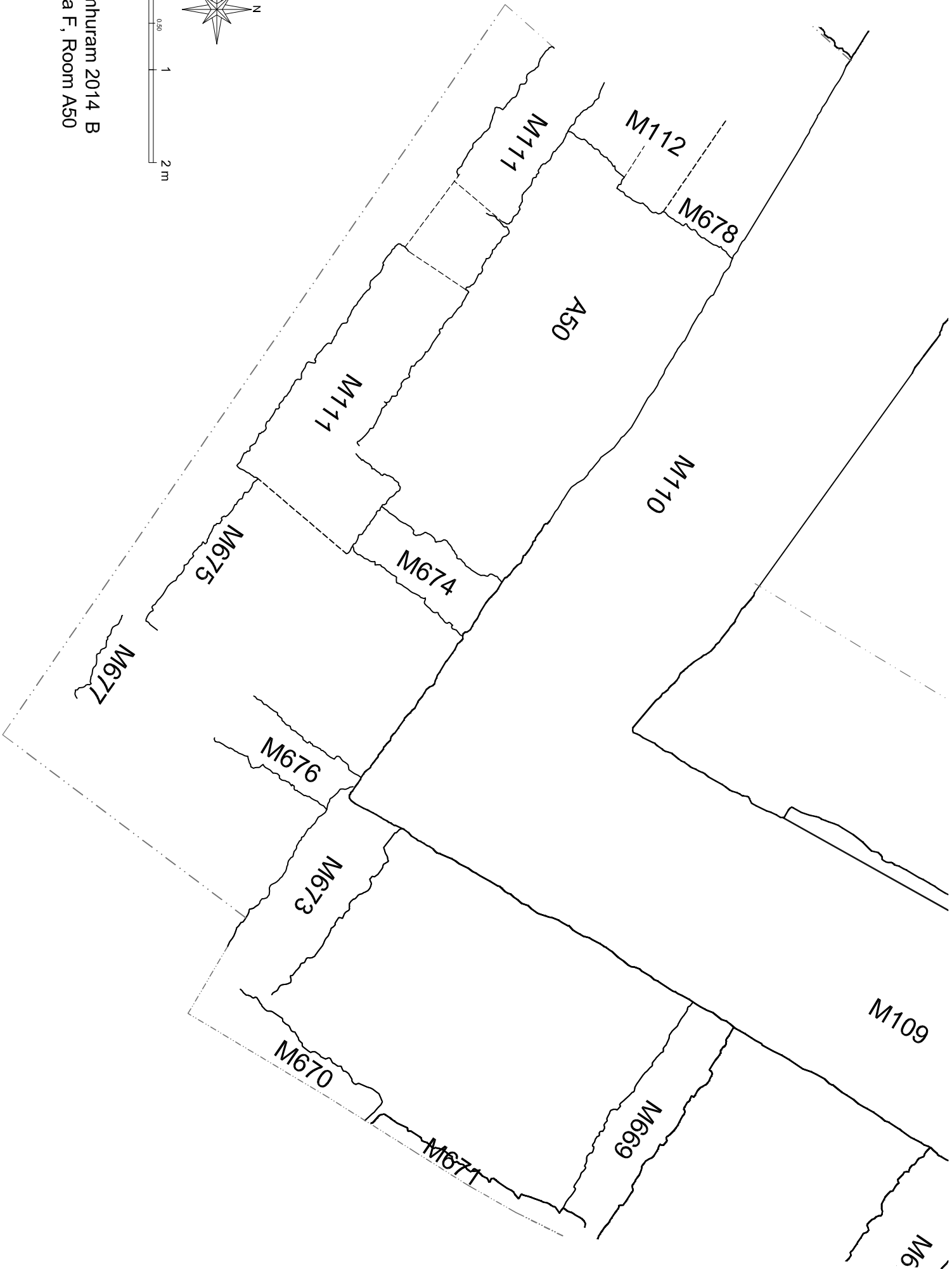
Sumhuram 2014 B
 Area F, Square h-6

Sumhuram 2014 B
Area F, Monumental building two





Sumhuram 2014 B
Area F, Monumental building two



Sumhuram 2014 B
Area F, Room A50

Sumhuram 2014 B
Area F, Room A50

