

Final Report

Islamic Aqaba Project - Season 2008

Area: Ayla

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Introduction

The following is a short summation of the results of 7 weeks of excavation (21st January – 6th March 2008) at the archaeological site of Ayla, located in Aqaba in southern Jordan. The excavations constitute a part of a larger archaeological venture, the *Islamic Aqaba Project*, which is funded by the University of Gent and directed by Prof. Dr. Johnny De Meulemeester. Among the central scientific aims of the project is the mapping of settlement patterns in Islamic Aqaba (650-1922 CE) in order to achieve an understanding of the site's occupational morphology.

Previous seasons have centered on Aqaba Castle and its immediate surroundings, however, this season the archaeological work conducted in Aqaba was expanded to include the early Islamic (c.650-1100 CE) urban core – the site known as Ayla – as well. Due to the preliminary nature of this season's investigation of Ayla, our main ambition for this season was to lay out two diagnostic excavation units in order to establish an indicative stratigraphy for the more large scale excavations in coming seasons. The excavation units were placed inside and outside the walls, and the areas termed IM (*intra muros*) and EM (*extra muros*) accordingly.

The area under investigation inside the city walls, as uncovered and defined by Donald Whitcomb during the Oriental Institute (University of Chicago) excavations between 1986 and 1993, is the southwestern quadrant of the city. This part of the site was originally selected for a number of reasons. Firstly, no archaeological exploration had been undertaken in this quadrant of the city before. Secondly, although the topography generally slopes downwards towards the beach, this quadrant, though closest to the sea, is the highest part of the archaeological mound. Thirdly, because this project attempts to understand the organisation and morphology of Islamic Aqaba, identifying specific composite parts of the urban environment is central to extrapolating patterns and off-beats from the archaeological data. Whitcomb's identification of an Abbasid market (*suq*) constructed against the exterior of the western end of the south wall, indicated that there was a distinct possibility that this may have constituted part of an expanding market place, and that the southwest quadrant may have been the core of that market (*i.e.* an area of commerce and small scale production).

Outside the walls a trench was laid out from the Egypt Gate's southern tower. This specific area was selected because it constituted the only part of city's west wall that had not yet been excavated and, perhaps more importantly, because previous excavations have shown that the Egypt Gate seems to have had particular significance in the early Islamic period. It was adorned with a stone carved Qur'anic inscription – the *Ayat al-Kursi* (Throne verse) – one of the earliest known Qur'anic inscriptions in the world. Moreover, it was the city's welcoming face to pilgrims and traders coming from Egypt, North Africa and Spain – an area that we know brought a significant amount of people and wealth to Ayla. It is thus not unlikely that this area would have seen considerable activity and that if *extra muros*

expansion indeed was tolerated, that this area in particular would have been susceptible to such a process.

So, two units were laid out (Fig 1). Inside the walls an arbitrary 10 by 10 meter grid was established and an excavation unit defined in its center (IM1). At the end of the season this was expanded slightly northwards (IM2). Outside the walls a 5 by 2 meter trench was extended from the Egypt Gate's south tower along the reconstructed city wall (EM1). This was later extended slightly to the west in order to establish a good section against the wall.

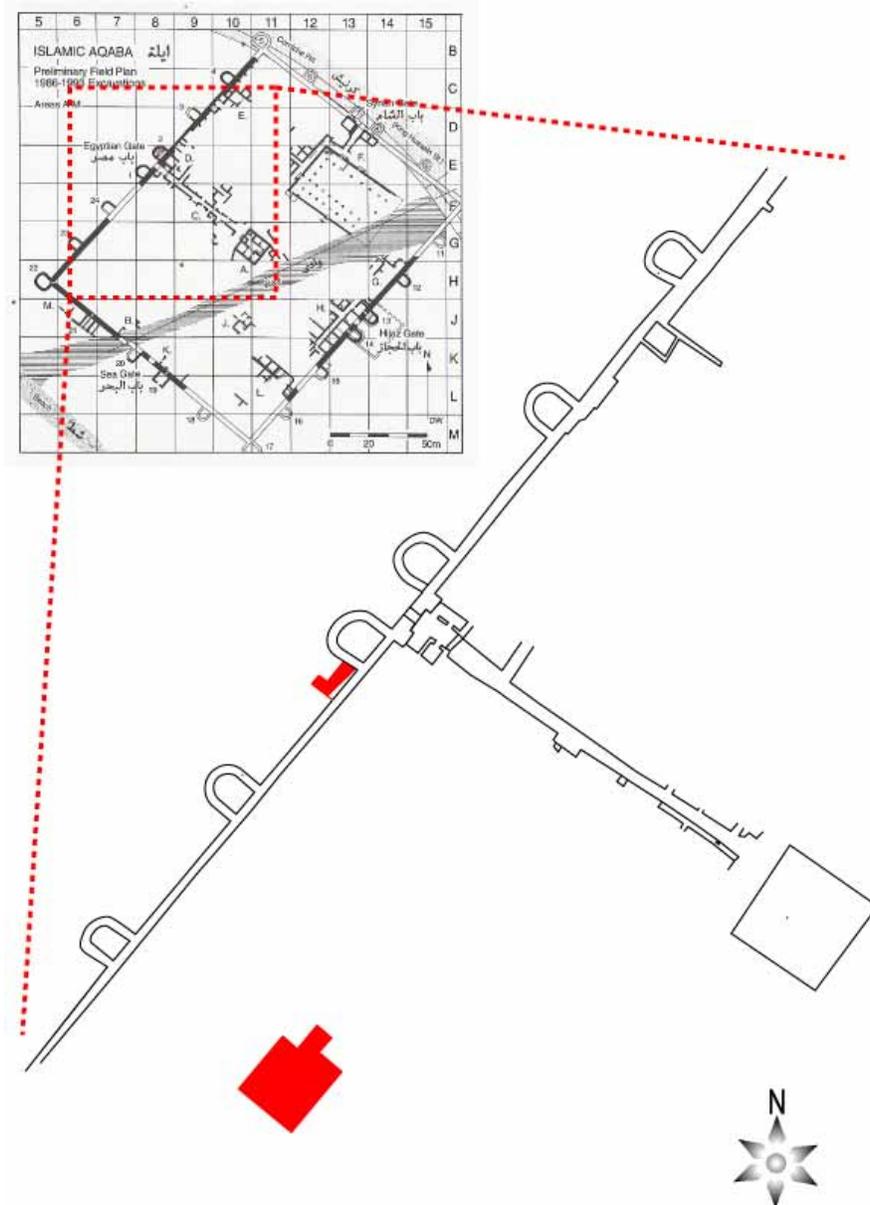


Figure 1: Placement of trenches at Ayla in relation to Whitcomb's plan. The areas that have come under excavation by the *Islamic Aqaba Project* this season are marked in red.

IM

From the beginning, excavation confirmed that Ayla has a long and complex depositional history, including numerous periods of destruction, re-use, rebuilding, cutting and in-filling. In some areas of the excavation unit there was a good and clearly defined stratigraphy, but due to the long history and numerous disturbances, stratigraphic unity could not be established throughout the unit.

From a perspective of occupational history, five distinct medieval phases could be defined. These were sealed by a single early 20th century occupation layer (Fig 2.), which was removed after it had been recorded. Most of the subsequent architectural features were left in situ; increasingly limiting the area available for excavation.



Figure 2: 20th century occupation phase

Out of the five phases of occupation that have been identified, the latest one (Phase 1) was the best represented, and the definable architectural elements decreased accordingly, so that only a single wall with a short return was defined in phase 5. Each phase has a number of sub-phases with specific surfaces associated with them. A tentative chronology has been created on the basis of the ceramic yield from those surfaces and fills, allowing the five phases to be defined as follows:

Phase 1 – Fatimid (10th – 11th century CE):

The majority of structures found in IM during this campaign belonged to the most recent identified level of medieval occupation, which corresponds roughly to the occupation levels termed 'Phase D' by Whitcomb.

This phase consists of three main clusters of architecture and the intermediate open spaces created between these structures. In the southern end of the excavated area the corners of two individual building units were identified. In the southeast corner, a north-south running wall (L24/W6) was butted on its east side by a somewhat lower return running east-west into the baulk (L35/W7). These are the earlier structures in the SE cluster.

Whatever they constituted, they were at some later date enhanced by a smaller wall (L38 & 85/W18), in the same L-shape as wall 6 and 7. This was built directly against the east face of wall 6 and on roughly the same level. At an even later stage, wall 6 was prolonged with about 1 meter to the north (L44/W9), but it remains unclear whether this was an actual expansion of space, or a reinforcement of the extant structure (perhaps following seismic activity).

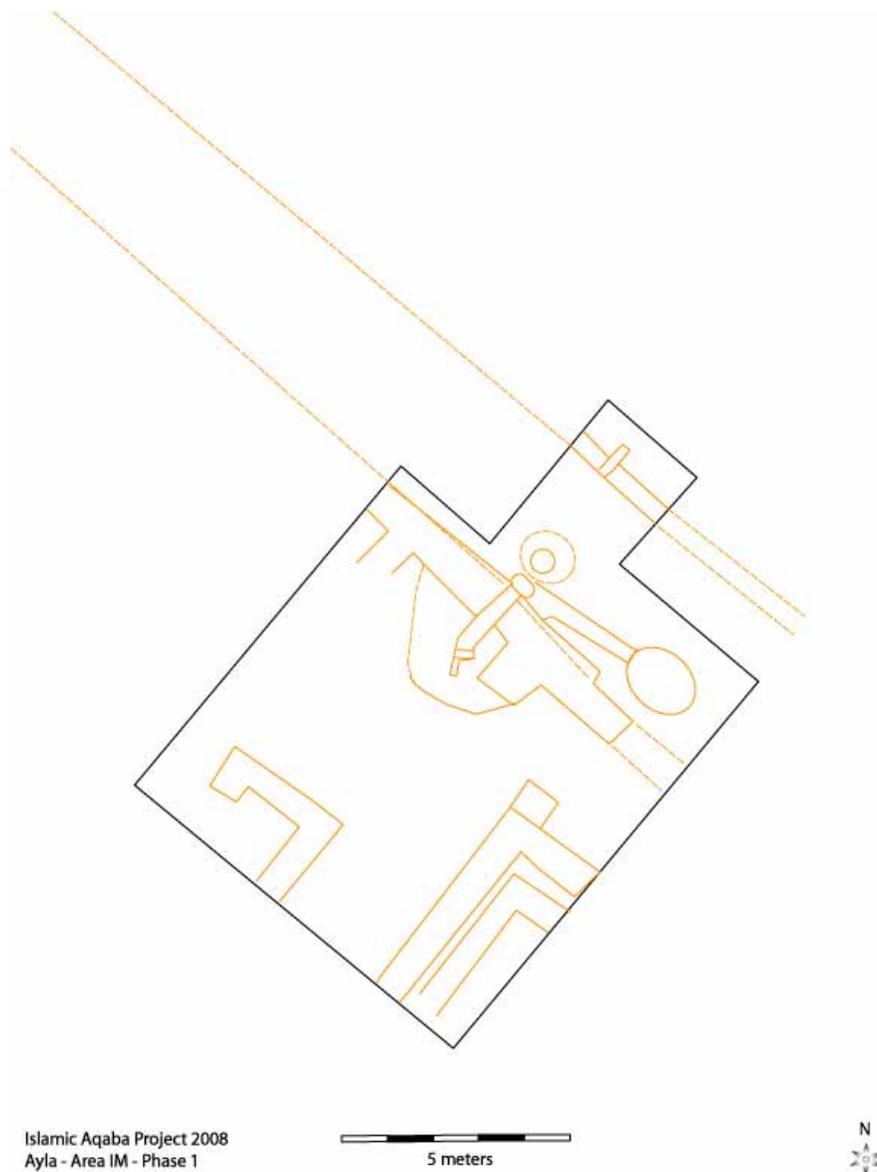


Figure 3: Plan of area IM in Phase 1. Dashed lines constitute conjectured walls or structures.

All the walls were constructed of uncut stone – mostly local limestone and highly salinised granite. These were set in a mud-slurry that served as the bonding agent. In a few places cut blocks do appear, but these are likely to be spolia. The earlier walls seem to have been the more sturdy constructions and generally apply a larger size of stones. This may indicate that wall 18 was constructed as a means of internal subdivision rather than reinforcement, though this does not explain the parallel walling directly against wall 6. Wall 9

on the other hand may well be the culmination of a re-building of all of wall 6, for there is an evident phasing in the upper coursing of this wall as well (Fig 4).

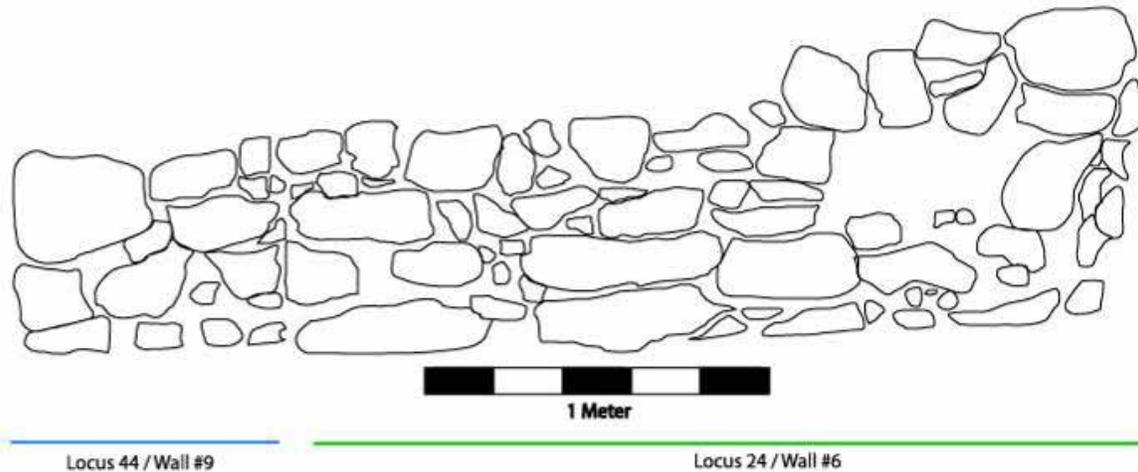


Figure 4: West face of walls 6 and 9

In the SW quadrant of the square the corner of a similar square unit was identified (L22 & 23/W4 & 5). Again, one is left with the impression of a building unit, and in this case no additional structures appear to have been added (although the short return of wall 4 requires further excavation to confirm whether it is bonded or it butts wall 4). From the exterior it seems that these walls were constructed as a single phase, but excavation inside the walls (L84) showed that the two upper courses constitute a later addition, as they extend beyond the original wall line of the lower courses. It is noteworthy that the corners of the two abovementioned structure adhere to the presumed orthogonality of the original grid, and there is a clearly definable open space between them. On the surfaces associated with phase 1 in this space a rich and varied artefactual yield was retrieved. Worth mentioning was the presence of many sherds belonging to small amphora, as well as an almost intact one. Also a number of basalt grinding tools were discovered. The accessibility of this space may thus indicate that it was a public domain, but the artefactual yield could also suggest it as being associated with some kind of manufacture, treatment or packing of goods.

The most prominent and complex set of structures is found in the northern part of the excavation unit, and extends across into the extended excavation surface termed IM2. The basic line of these structures is a substantial east-west running wall, the north face of which constituted the southern border of a substantial east-west running street. This basic line is created by two walls (L40/W8 & L52/W11) breached only by a well-built drain gutter (L33/F8). This drain gutter, which originally had a superstructure of fired brick, runs along the west side of a large installation (L25/F6), the exact nature of which remains unclear. Yet it seems that it had a water related function. This is both due to the presence of the drain, but also because it appears to have been a stone-lined feature with an earth fill that was topped with more large stones. This may have given the impression of a solid installation, while allowing liquid to seep between the top course and into the earth fill below. The feature is not intact, and from the section on its fractured south side, the fill appears to have

a clear micro-stratigraphy, indicating that the in-filling may have been gradual (*e.g.* a cess pit). The large installation was constructed using wall 8 as its structural foundation.

The drain divides the walls and slopes downwards into the associated street surface. The part of the drain in the actual street was, although subterranean, covered by large blocks and culminated in a large cesspit (IM2, L6/F2) that remains unexcavated. The opening to this cesspit was sealed with a circular basalt lid (possibly a reused quern-stone). Extending from the part of the covered drain located in the street was a second covered drain canal (IM2, L4/F1). This culminated in what seems to be a re-used well, but further excavation is required to confirm this.

That the open space north of these installations was in fact a street was of course indicated by the drain leading into it, but also by the well built façade facing north. Furthermore, it created a line that appeared to run exactly perpendicular to the city's west wall, and the north section of IM1 revealed numerous horizontal strata of varying thicknesses. In order to confirm the presence of a street here, and thus to associate our structures to the rest of the known urban grid, the excavated area was expanded between 1.5 and 3.5 meters north (IM2). This revealed many of the features described above, but most importantly a parallel wall was discovered on the other side of the street, which had the same fine facing towards the thoroughfare. Remarkably, the small section of street excavated this season appears to have the same width as the central *decumanus* (at least in the west end by the Egypt Gate).



Figures 5 & 6: Surfaces and features associated with Phase 1

Phase 2 – Late Abbasid (late 9th – 10th century CE)

Not very many structures were discovered as associated to this phase, and it may indeed be considered an intermediary between phases 1 and 3, or perhaps even a later augmentation of phase 3 (Fig 6). It corresponds roughly to the occupation levels termed 'Phase C' by Whitcomb, which indeed were mentioned as being intermittent and difficult to identify.

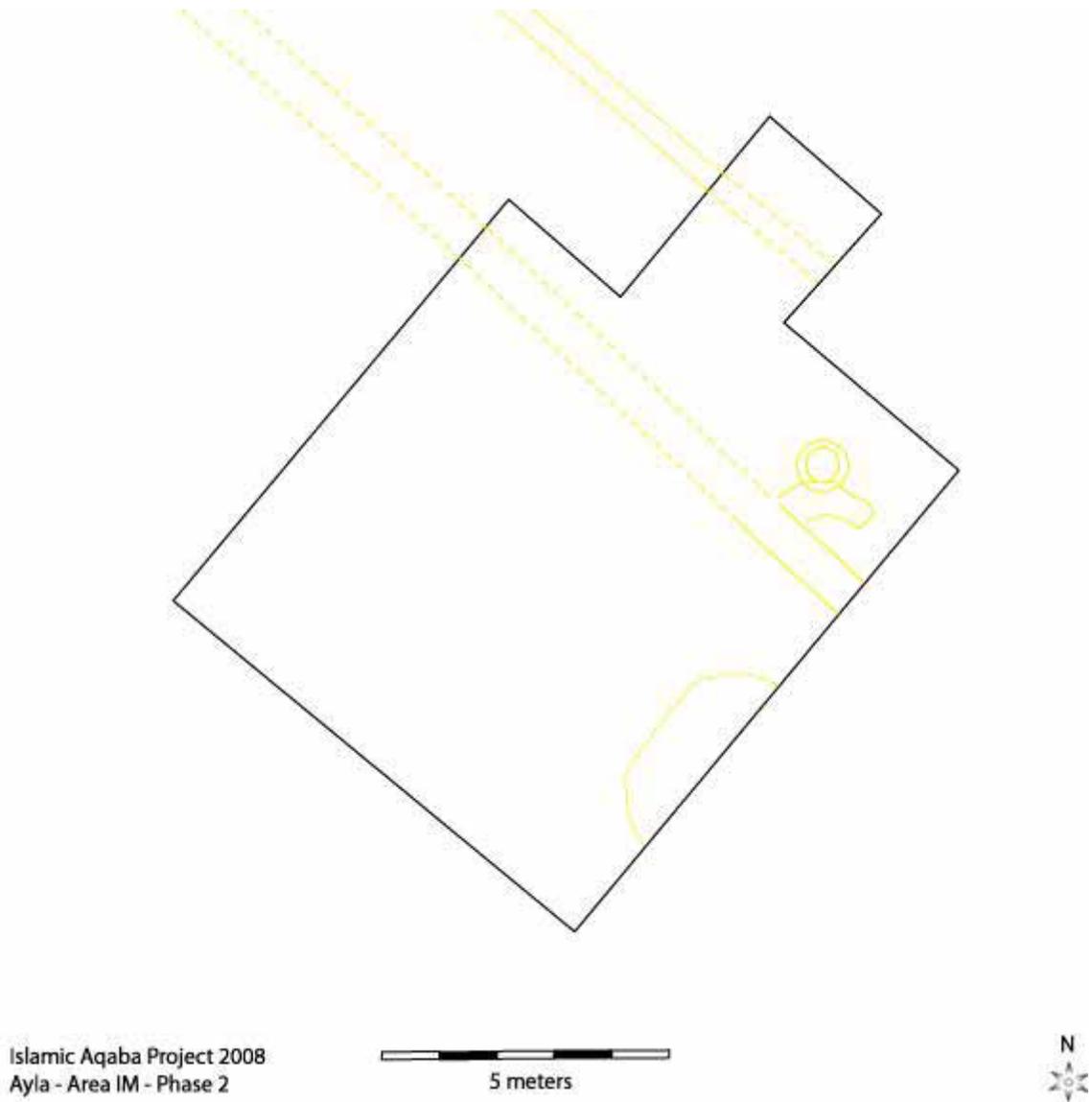


Figure 6: Plan of area IM in Phase 2. Dashed lines constitute conjectured walls or structures.

The only structures associated with this phase of construction are an earlier wall phase (L53/W12) maintaining the axis of walls 8 and 11, but extending further east and separated from them by a sand fill roughly 50 cm thick; a fragmented crushed limestone floor surface (L46/F10); and an area of plaster covered paving (L47/W12) associated with a circular stone lined installation currently considered a well or cesspit (L67/F11) (Fig 7). The latter is the original installation that in phase 5 was reused as the secondary pit for the overflow of excess drainage. This feature was only partially excavated as it extends into the north baulk of IM1, and its original function remains unclear for now. It is located in the area identified as a street in phase 5, and may have been a public source of water as still seen in many of the medieval metropolises of this region.

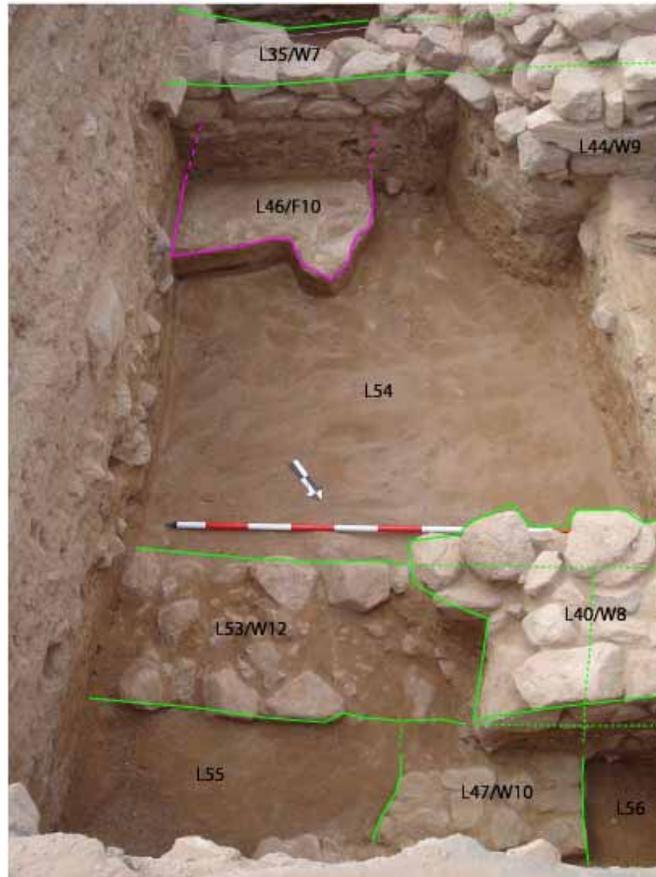


Figure 7: Eastern third of IM1 showing the features and walls associated with phase 2.

Phase 3 – Abbasid (mid 8th to late 9th century CE)

Phase 3 is another substantial period of construction, which, based on its artefactual yield, must be considered Abbasid in date. It corresponds roughly to Whitcomb's 'Phase B'. The surfaces and features associated with this phase were somewhat easier to identify than in phase 2, since it seems that at some early stage in the period most of the area was subjected to substantial infilling and subsequently levelled using the coarse and pebbly pink sand native to Aqaba. This levelling appears to be associated with a period of widespread reconstruction following a significant collapse – most probably due to the 748 CE earthquake. Most of the structures are built directly on the levelled gravel surface and unlike the previous phases seem more closely bound together as a single (perhaps communal) space (Fig 8).

The general area is defined by a number of walls. To the east the area is delineated by a north-south running wall (L57/W13), of which only the two lowest courses remain. It is constructed of the same locally occurring stones as the architecture of phase 1, but seems to be built using small to medium size stones exclusively. The axis created by this wall is met by an east-west running wall, of which only the negative profile (robber trench) remains. This wall is particularly interesting for although nothing of its foundation remains, the negative created a clear delineation that divided the previously open area in two. That the negative was in fact the remnants of a wall now gone was confirmed by a patterned collapse of mud-brick (including a carbonised wooden beam) on its south side (Fig 9 & 10).

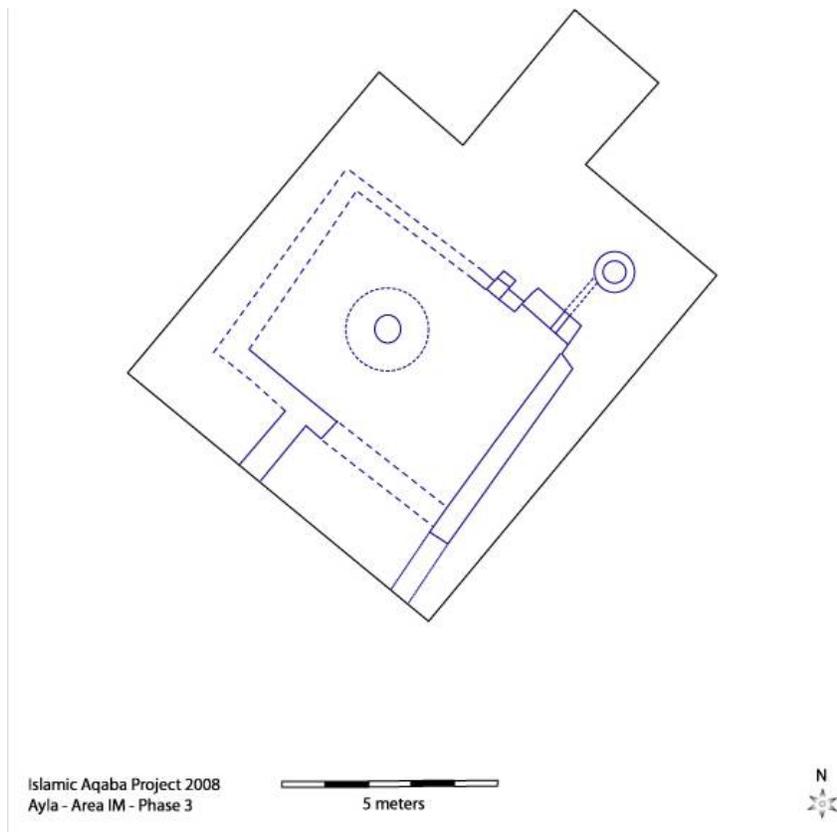


Figure 8: Plan of area IM in Phase 3. Dashed lines constitute conjectured walls or structures.



Figures 9 & 10: Negative of the early Abbasid wall (L77) and the associated mud-brick collapse (L86)

The wall collapse contained numerous air pockets under and between the individual bricks, confirming that its destruction must have been sudden and unintentional. The fact that the architecture of this period consisted of a couple of foundational stone courses with a brick superstructure is consistent with Late Antique building techniques in Aqaba (as seen for example in the architecture of the Byzantine town - Fig 11). The wall negative runs across the open area and aligns with a stone built wall phase under walls 4 & 5 (L71/W16) that belongs to phase 3. This includes a small buttress protruding to the east from the corner and in line with the wall negative. The fact that the negative did not seem to extend all the way to this buttress may signify that a doorway of some sort originally was found here.



Figure 11: A view of the architecture in the Byzantine town. Note the stone foundation with mud-brick superstructure.

In the northern end of the excavation unit a second east-west running wall, parallel to the one described above was identified. Most of this walling remains hidden under the phase 1 structures, and once it extends from under the fill of L25 it is interrupted by two distinct features that span the area to the northern tip of wall 13 (Fig 12). These features are independent but set so as to delineate the wall's axis. Immediately west of wall 13 are two substantial blocks covered in a thick limestone plaster (L97/F15). The space between them is covered with the same thick plaster and once functioned as a type of drain. Its axis extends directly towards the well associated with phase 2 (which thus may be an older structure), but a direct relationship remains hypothetical. West of the small drain is a well built stone feature consisting of three large dressed limestone block set in an L-shape (L81/F12). Once again the exact nature of this feature remains elusive, but it resembles the foundation of a substantial upright structure such as a pier or the springer for an arch. No evidence of such has, however, been discovered in the surrounding fill deposits.



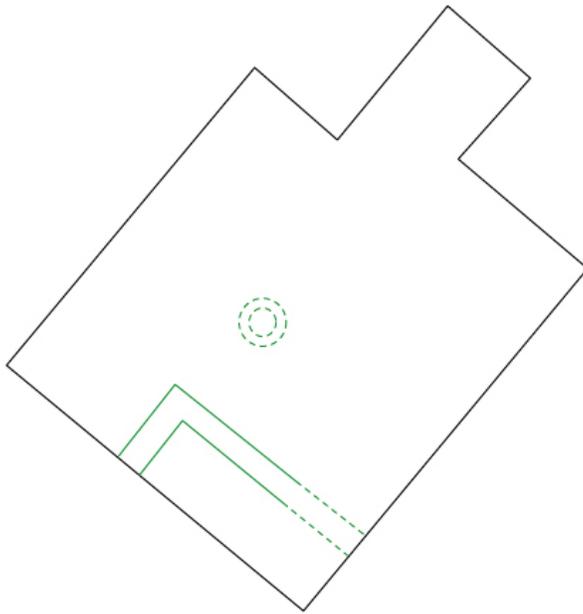
Figure 12: The stone feature (L81/F12) and small drain (L97/F15) associated with phase 3.

Immediately north of the wall negative (L77) a well-built well was identified (L93/F14). Although clearly reused in later periods (a substantial pit had been cut into the surface of phase 2 in order to reach it), this installation appears to have been cut into the fill level that was topped by the gravel levelling. It may be an earlier installation, but this remains unconfirmed. Excavation took place inside the well until the current water table was reached, after which it was abandoned for safety reasons. The bottom of the well had, however, not been reached at that stage, and it yielded practically no ceramic material to indicate its date of use. When excavation was halted, we had reached a depth of 2.70 m below its top course.

Phase 4 – Umayyad- early Abbasid (8th century CE)

This early phase in the occupational history of Ayla is only represented by a few features, but this is mainly due to the fact that only very little of the excavated surface was penetrated to sufficient depth to identify this occupational phase. It has been termed Umayyad both because it is the phase that predates the destruction indicating the beginning of Abbasid occupation, and because the ceramic material associated with it increasingly takes on characteristic Umayyad traits (*i.e.* fine red-orange wares, ribbed wares, wavy line wares, many with cut rims – also, glazed wares no longer occur). It is consistent with the latter half of Whitcomb's 'Phase A'.

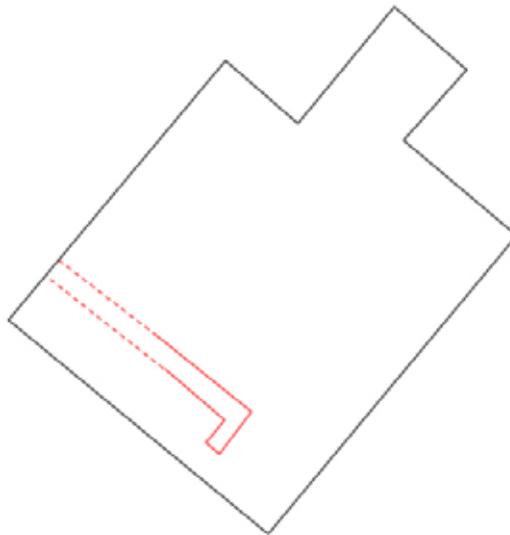
The structures dating to this period consist of a single phase of walling (L89/W17) following the lines of wall 5 and the wall negative in phase 3. It was constructed using larger blocks than in the later periods, but the stones continue to be uncut or spolia. The main line of this wall rests upon an even earlier phase, though separated from it by a fill of approximately 40 cm.



Islamic Aqaba Project 2008
Ayla - Area IM - Phase 4



Figure 13: Plan of area IM in Phase 4. Dashed lines constitute conjectured walls or structures.



Islamic Aqaba Project 2008
Ayla - Area IM - Phase 5



Figure 14: Plan of area IM in Phase 5. Dashed lines constitute conjectured walls or structures.

Phase 5 – Early Umayyad (mid 7th – mid 8th century)

The earliest architectural phase identified this season consists of a single east-west running wall with a small north-south return (L100) (Fig. 14). The main part of this wall runs exactly under wall 17 (phase 4). It was only identified because the last week of excavation was concentrated on the area south of wall 17 (between the pedestalled walls 5 and 6) in order to achieve as representative stratigraphy. The surfaces and their interfaces associated with phase 5 were difficult to identify due to the high level of moisture in the fill. However, at least one distinct surface was identified (L101). This deposit contained an extremely high density of ceramic remains, most of which could be allocated to the transition from Byzantine to Islamic rule. They included clearly Umayyad types, but also burnished Byzantine and even Roman types. Also characteristic was a considerable presence of ceramic discs – the characteristic lids for the Aqaba amphora (Fig. 15). No thorough analysis or reading of these wares has taken place yet because the season is coming to an end, and the above identifications are solely based on an in-field reading prior to washing.

The deposit also contained a high density of ash and charcoal (of which a sample for dating was taken), and a preliminary suggestion based on these aspects could be that we have entered an Umayyad dump. Nevertheless, further excavation and study is required to confirm this. Whatever the case, it is clear that even at our deepest point (approx. 5 m from the surface), sterile layers have still to be reached.



Figure 15: Examples of the amphora lids retrieved from lowest encountered deposit (L101).

EM

Outside the city wall a 5 by 2 meter trench was laid out. This extended from the Egypt Gate's south tower alongside the city wall. The occupational phases identified in area IM were not as clear here, although at least two phases of construction and several operating surfaces were identified. Most distinct was a seemingly Fatimid construction phase and associated walking surfaces (L21 & 22). The structure consisted of a single wall built perpendicularly against the city wall and extending westwards beyond the limit of our excavation unit. Based on its contextual artefact yield it has been tentatively allocated to phase 1 in our chronology, however, there are aspects which may bring this dating into question. Clearly the Egypt Gate takes on additional importance in the Fatimid period (although administratively, Ayla was allocated to Egypt from the Umayyad period onwards), and it does not at all seem unlikely that the area outside this gate would have enjoyed a great deal of activity – commercial and otherwise – in this period. The main aspect that may force a questioning of the chronological allocation was clear evidence that this walling was constructed using a similar technique to that of phase 3 inside the walls.

Although highly disintegrated, the profiles of mud-bricks were clearly identifiable in the deposits on top of the low stone coursing (L20/W3) (Fig.17 & 18), and it is clear that whatever this structure was, it consisted of a long east-west running wall made of a stone foundation with a mud-brick superstructure. Further indication that the dating may have been set too late, is the fact that the dimensions of this wall are very reminiscent of the Abbasid *suq* identified against the south side of the city wall. Further excavation is therefore necessary to establish an unequivocal date, the function and extent of these structures.

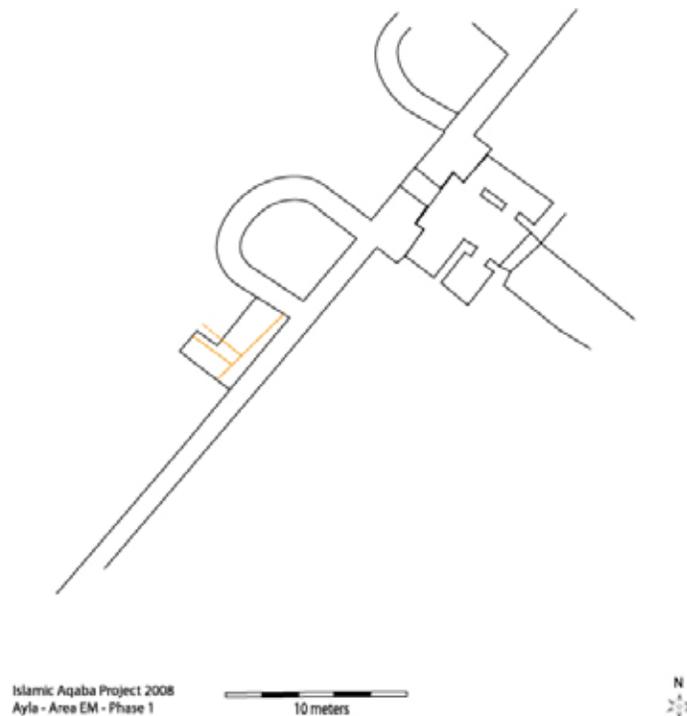


Figure 16: Plan of area EM in Phase 1. Dashed lines constitute conjectured walls

The Fatimid wall was, however, not the only structure discovered here. Because excavation was taken to the deepest level in the southern end of the trench, an earlier phasing of walling was discovered in the section. This appears to run directly below the Fatimid wall, but is separated by approximately 50 cm of fill. The material yield from the fill and surfaces associated with this earliest wall phase is predominantly Abbasid, and the wall has tentatively been allocated to occupation phase 4. Once again, further investigation is nonetheless necessary to confirm this chronological allocation.



Figures 17 & 18: The Fatimid wall built against the exterior of the city wall. Fig 17 shows the profiles of the mud-brick superstructure, whereas Fig.18 shows the stone foundation after the mud-brick had been excavated.

A note should be made on the fact that the EM trench showed that the city wall itself has been significantly offset from its original axis. This is most likely due to the violent seismic activity of the 1068 CE earthquake, but uncovering a segment of the city wall to under its foundation has also revealed that even this monumental structure has construction phases, and that the original wall seems to have been subjected to significant damage and rebuilding long before the site was abandoned (Fig.19).



Figure 19: City wall showing multiple phases of rebuilding

Preliminary conclusions and suggestions for the future

Despite the relatively limited area excavated by the *Islamic Aqaba Project*, it is obvious that Ayla has a long and complicated occupational history. The work conducted this season was intended as preliminary and diagnostic, and it is perhaps not surprising that little can be concluded about the exact nature of the area excavated, or indeed of the individual structures identified. However, what is evident is that the south western quadrant remained occupied and maintained for the entire lifespan of the city. Furthermore, there appears to have been changing conceptions of urban space over time, and that these changing conceptions (possibly related to ownership and the organisation of land plots within the city) were manifested in physical reality.

Nevertheless, Ayla's inhabitants also appear to have possessed a certain insight into the occupational history of the city, for in many cases, both in- and outside the walls, completely new structures were built directly in line with earlier phases – in spite of an earth fill interceding them.

The finds, and the surfaces and fills from which they were retrieved, give no clear indication of function, nor whether we are dealing with public or private space. Ultimately, the data retrieved this season has given us some indication as to the occupational history and stratigraphical phasing, but little as to the district's character and the social interaction therein.

Two suggestions may be put forward as to excavation strategy in the coming seasons. Either excavation is vertically based; essentially continuing this year's strategy of limiting excavation to the available space, but expanding it over a larger area. This has a number of obvious difficulties. Primary among these is that even though it seems that there was an adhesion to certain axes in the various construction phases, the long and complex occupational history of this site has created a situation in which the deeper one goes, the less space is available for excavation. This has in past excavations of the site limited the understanding of the city's morphology – especially in the earlier phases. A better approach would perhaps be to base the excavation strategy on a horizontal understanding. This would entail the excavation of a larger area, but limiting the first season of work to uncovering and understanding the Fatimid phases. The subsequent season could then be dedicated to the Abbasid phases and so on. An obviously problematic aspect of this strategy, and one that needs to be considered carefully, would be that it entailed deciding what phases are worth preserving for posterity. If one excavated a substantial area of the Fatimid town in one season, and wished to do the same for the Abbasid town the following, this would of course entail that substantial parts of the Fatimid city would be removed after thorough recording.

Either way, the strategy for coming seasons should on the one hand be defined in accordance to the scientific goals of the project (*i.e.* mapping urban morphology and understanding settlement history), and on the other hand to the wishes and requirements of the Jordanian antiquities authorities.