

THE ROMAN 'AQABA PROJECT: THE 2002 CAMPAIGN

S. Thomas Parker

Introduction

This preliminary report summarizes results from the project's sixth season of excavation in 2002 (from May 22 to July 10, 2002), conducted under a permit from the Department of Antiquities.

The team in 2002 included 14 senior staff, 18 students, and up to 60 local workers. As in all prior seasons, Sawsan Fakhiry served as representative of the Department of Antiquities. Other senior field staff in the field included Kim Cavanagh as photographer, David Clark as consultant for the church, Nasser Mansour as assistant geologist, Tracy McKenney as architect and surveyor, Tina M. Niemi as geologist, S. Thomas Parker as director, stratigrapher, and ceramicist, and John Rucker as camp manager. Area supervisors were Diane Grubisha (Area T- Qaṣr al-Kithāra (قصر الكيثارة), Mary-Louise Mussell (Area J- east), Alexandra Retzleff (Area M), Joseph Stumpf (Area K), and James Terry (Area J- west and Area U). Sharon Penton and Kenyon Reed served as assistant area supervisor for Area J- east. Senior staff who were not in the field in 2002 included John Betlyon as numismatist, Vincent Clark as Semitic epigrapher, William Grantham as faunal analyst, Janet Jones as glass specialist, Christina Kahrl as conservator, Eric Lapp as ceramic lamp specialist and metallurgy specialist, Mary Mattocks as drafts person, Joann McDaniel as small finds specialist, Megan Perry as human osteologist, David Reece as shell specialist, Andrew M. Smith II as director of the survey, and Peter Warnock as archaeobotanist. Kenyon Reed supervised field processing of faunal remains, including shell. Joseph Stumpf supervised field processing of glass. Sharon Penton and Diane Grubisha supervised field processing of small finds.

Student staff serving as trench supervisors in 2000 included Stephanie Bowers, Marilyn Brooks, Sarah Campbell, Elizabeth Colistro, Andrea Covington, Danielle Godard, Catherine Goodman, Carl Martel, Caroline Raynor, Jennifer Marie Sanka,

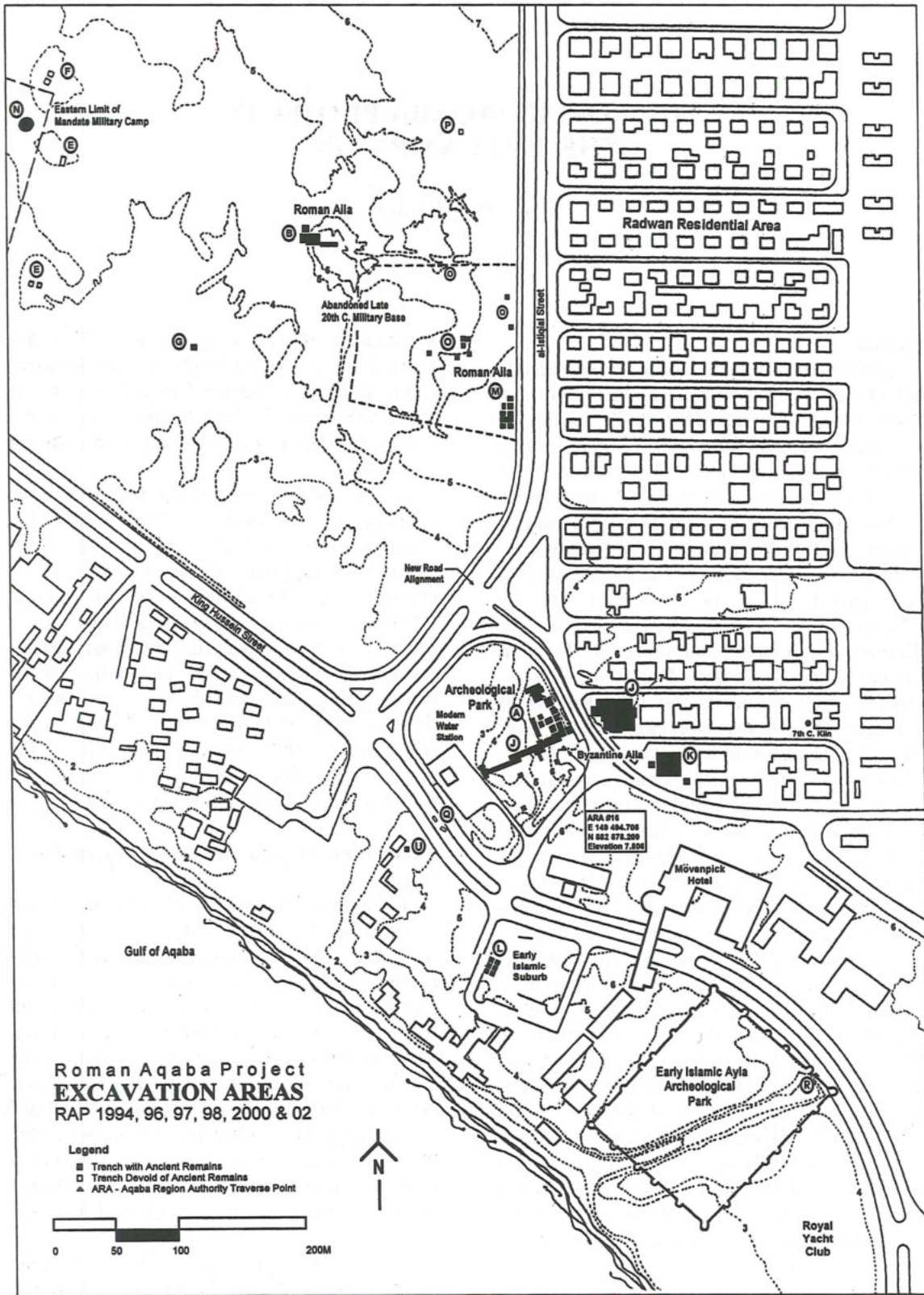
Michael Smith, Jenny Spruill, Ross Thomas, Genevieve Trottier, Walter Ward, Joanne Whitmore, and Cheri Williams. Hannah Lippard was the assistant architect/surveyor. Cheri Williams was pottery registrar and Sarah Campbell was assistant pottery registrar.

The project is examining the evolution of the economy of Aila from the first century BC to the seventh century AD. The project's research design includes a regional archaeological and environmental survey of the environs of Aila (completed in 1998) and excavation of Aila. One may consult previous reports about the regional environment, historical sources, earlier research, and the project's goals, research design, and prior results (Parker 1996; 1997a; 1997b; 1998; 1999; 2000; 2002; Jones 1999; Smith *et al.* 1997; Niemi and Smith 1999). The sole purpose of this report is to summarize some key results from the 2002 season.

Excavation of Aila and Qaṣr al-Kithāra (قصر الكيثارة)

Excavation in 2002 mostly continued in existing areas (Fig. 1). These excavation areas extended from the eastern 'Circular Area' southwards to the northern edge of Early Islamic Ayla. One new area (Area U) was opened near the beach to trace the Byzantine city wall farther west. In addition, limited soundings were conducted at Qaṣr al-Kithāra, the first major road station on the *Via Nova Traiana* about 20km. north of 'Aqaba in Wādi al-Yutum (وادي اليتيم). The following summary of the results from each excavation area within Aila will proceed from north to south. It will then conclude with a summary of the results from Qaṣr al-Kithāra.

Area M. This area lies west of al-Istiqlāl Street on the eastern edge of the so-called 'Circular Area' (Fig. 1). Previous excavation of nine trenches (M.1-9) in 1994-2000 produced stratified evidence of Early Roman/Nabataean and Late Roman occupation in a mud brick complex with rich cultural



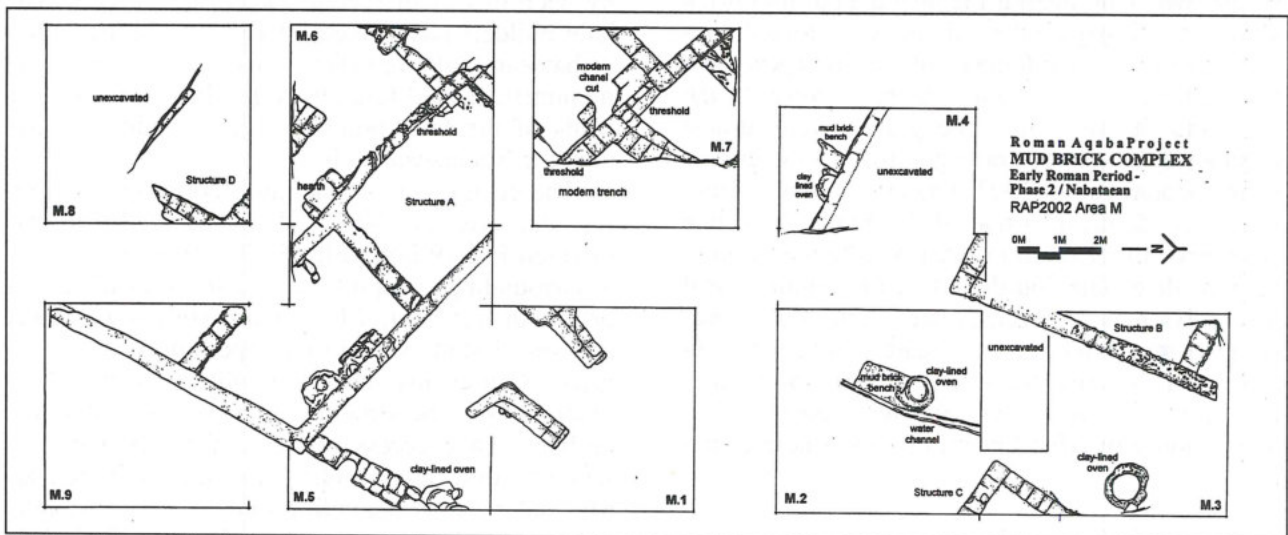
1. Excavation Areas of the Roman 'Aqaba Project, 1994-2002.

remains. Along with Areas B and O, this area represents the northern outskirts of Nabataean/Roman Aila. The complex appears to have extended south and east, under al-Istiqlāl street and into the Radwān residential district, and west and north towards Areas B and O. After its abandonment this complex was reused as a cemetery in the Early Byzantine period. In 2002 excavation continued in five existing trenches (M. 3-4, M. 7-9) to recover more evidence of this early period of Aila's history and to complete plans of the five major phases of occupation.

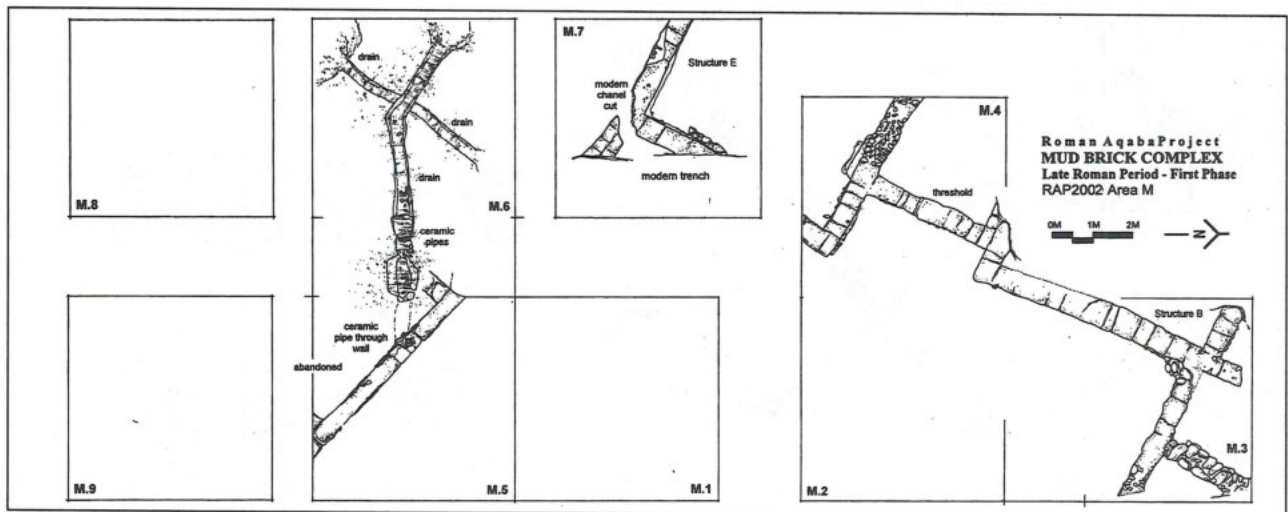
Closely datable Nabataean fine ware suggests that occupation began in the area in the early to mid-first century AD. This first Early Roman/Nabataean phase, evidenced by such features as cooking hearths, seems devoid of any structural remains. Notably, a piece of ceramic slag recovered from this context may suggest local pottery pro-

duction in this early period at Aila. The second Early Roman/Nabataean phase witnessed the erection of the mud brick complex in the mid-first century AD (Fig. 2). The complex yielded rich artifactual remains, including Eastern Sigillata A and much Nabataean painted and unpainted fine ware. Several clay-lined ovens and other evidence suggested that the complex was domestic in nature. Its abandonment around the turn of the second century may be associated with the Roman annexation of Nabataea in AD106.

The complex was reoccupied later in the second century. The first Late Roman phase (LR1) began with the razing of several existing Nabataean structures. The southern sector of the area was used as a dump, with a makeshift water channel system running through it. A structure was erected in the northwest sector and a courtyard in the northeast was used for cooking, as attested by hearths and



2. Plan of Area M in the Early Roman 2 phase.



3. Plan of Area M in the Late Roman 1 phase.

pits (Fig. 3).

The second Late Roman phase (LR2) began in the early third century and witnessed major architectural remodeling and rebuilding throughout the area. The phase 1 structure in the northwest sector continued in use and new structures were built both in the northeast over the courtyard and in the southern sector (Fig. 4). This occupation continued into the mid-third century.

A third and final Late Roman phase (LR3) began in the mid-third century. But the scanty evidence of this phase is preserved only in the northern sector of the area just below the modern ground surface. The complex was abandoned in the late third century. There was no evidence of destruction.

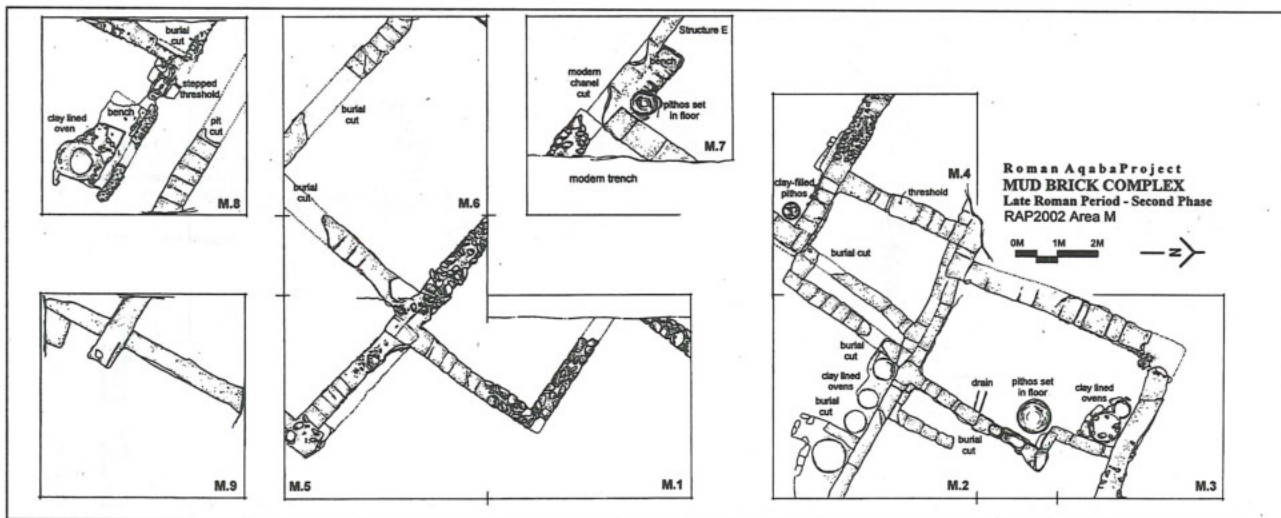
The area was reused in the early fourth century as a cemetery. Fourteen human skeletons were laid into simple pits (one for each individual) cut into windblown sand among the abandoned mud-brick structures. Nearly all the individuals, a mixed population of males and females of varying ages, were oriented east - west, with the head towards the west and facing south. The graves were almost completely devoid of grave goods. No new burials were encountered in 2002. The orientation of these burials is identical to that of the Early Byzantine cemetery farther south in Area A, which is slightly later in date (late fourth/early fifth century). But the individuals in Area A were interred in rectangular mud brick tombs, a feature noticeably absent from the Area M cemetery. This might suggest that the Area M cemetery contained a population somewhat lower in socioeconomic status.

Area J. This area lies along both sides of al-

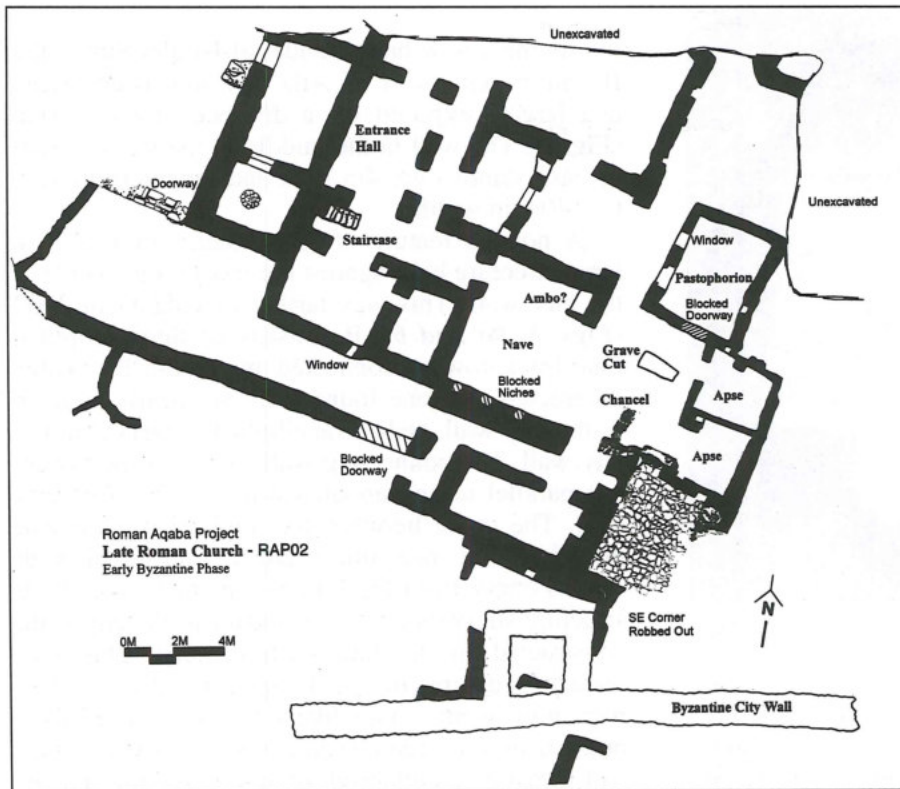
Istiqlāl Street (Fig. 1). Excavation in both sectors since 1994 has uncovered two major structures. Excavation east of al-Istiqlāl Street (Trenches J.1-3, 11, 19-22, 29) revealed a monumental mud-brick structure constructed at the end of the third or beginning of the fourth century AD. This structure clearly extended to the south, where it was cut into and partly built over by a stone curtain wall and projecting tower, the city wall of Byzantine Aila, in the late fourth or early fifth century, as exposed on both sides of al-Istiqlāl Street in Trenches J. 4-7, 9-10, 12-18, 23-26.

Excavation in 2002 revealed more of the overall plan and internal architectural details of the monumental mud-brick structure. It now seems clear that the structure was founded directly atop an Early Roman/Nabataean structure of the first century AD. This earlier building, constructed of mud-brick walls laid atop stone foundations, was uncovered by deep probes in several sectors of the area. The later builders had shaved off and leveled the earlier Nabataean building before construction of the later monumental mud-brick building. In some cases the walls of the later building were founded directly atop the Nabataean walls.

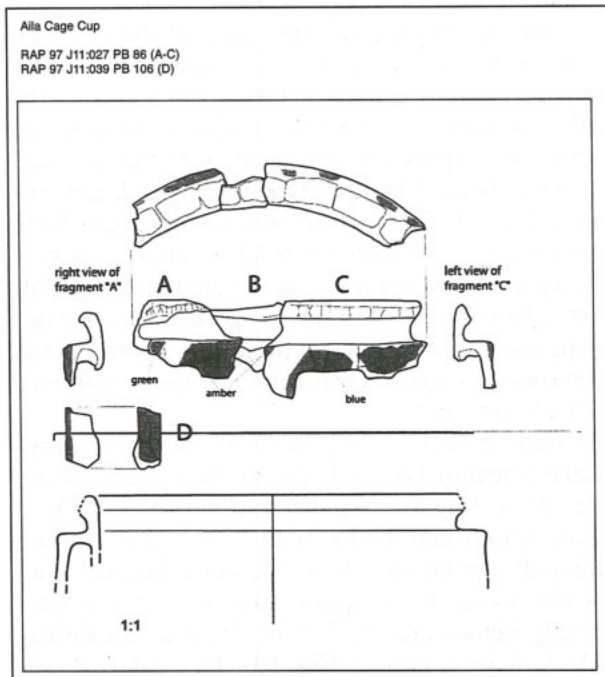
The central core of the later monumental building measures ca. 26m E-W by 16m N-S and is oriented ESE-WNW (Fig. 5). There is evidence of a surrounding complex of structures in all directions but the east. Most walls consist of lower courses of stone supporting upper courses of mud-brick. Some walls supported arched doorways and vaults within the structure. A stone-built staircase probably gave access to the roof rather than to a second story. The building yielded more rich artifactual remains, including much Early Byzantine pottery (including imported African Red Slip



4. Plan of Area M in the Late Roman 2 phase.



5. Plan of the Late Roman church (Early Byzantine phase).

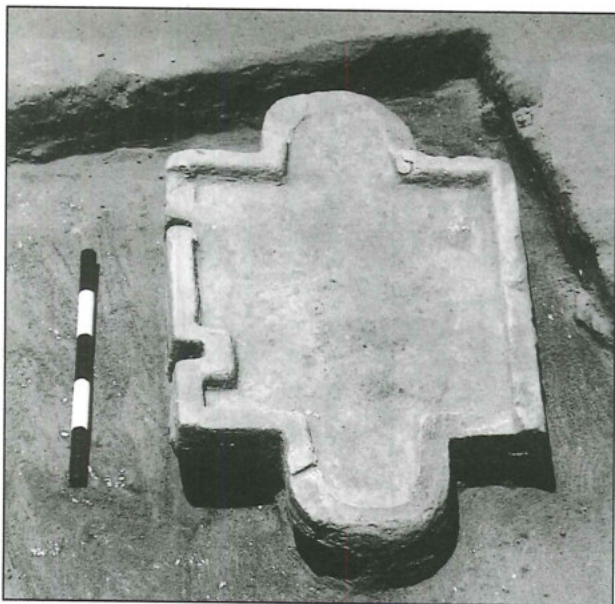


6. The reconstructed fragments of a cage cup (diatretum) from the church.

ware), several hundred coins, and many fragments of conical and stemmed glass oil lamps, probably once suspended as (chandeliers). Especially significant among the finds of glass were four fragments recovered in 1997 but only recently identified as pieces of a diatretum or "cage cup", a rare

type of luxury glass vessel (Fig. 6). The three joining fragments from the rim and upper body of the vessel are colorless glass with colored overlays; one body fragment appears to be part of a strut in colorless glass with an emerald green overlay. Traces of overlay in colored glass are apparent on the three joining fragments. There are three transparent colors – blue, yellowish-amber, and green – in the horizontal band just below the shoulder level. This type of *diatretum* appears elsewhere in Christian contexts in the Roman Empire as a ceremonial container for holy water (Jones forthcoming). All four fragments were recovered from a room identified as a pastophorion, typically used by clergy to store vestments and objects associated with worship in the adjacent chancel. A rectangular ancient trench appropriately sized for a human burial was discovered in the putative chancel area in 2000. This could reflect the prior burial of an important person, presumably later moved elsewhere after the building went out of use.

A major find this season was a complete flat rectangular sandstone object (ca. 1 x 0.65 x 0.10m) interpreted as an offering table (Fig. 7). It was found near the entrance to a corridor leading to the putative chancel. A room just south of the putative chancel yielded a well-preserved flagstone floor. Some walls were decorated with painted plaster in several colors, but fragmentary preservation makes



7. The sandstone artifact, possibly an offering table, found just outside the church.

it difficult to discern any images. The structure, apparently erected around the turn of the fourth century, experienced three main phases of use before its destruction in the late fourth century.

The pottery and numerous coins, the latest of which date to the last years of Constantius II (337-361), suggest that this destruction may be associated with the earthquake of 363. The structure was then extensively robbed of its stone architectural elements. A few rooms of the partially ruined structure then experienced limited domestic reuse and dumping of refuse in the late fourth and early fifth centuries as it slowly filled with wind-blown sand. This final, seemingly squatter-like occupation was perhaps associated with construction of the adjacent city wall.

The eastward orientation of the structure, the overall plan, and some artifactual evidence (such as the glass lamp and cage cup fragments and the presumed offering table) suggest that the building was designed as a Christian church. A Christian bishop of Aila is attested in 325, implying a substantial local Christian community in this period. This structure, if in fact a church, may be the earliest known church in Jordan and quite possibly the oldest purpose-built church in the world.

The Byzantine city wall just south and west of the church also continued to be explored this season. A 30m long segment of the city wall east of al-Istiqlāl Street was uncovered in 1994. In 1996-2000 excavation west of al-Istiqlāl Street traced the city wall farther west to the modern pumping station on King Hussein Street. *In toto*, counting

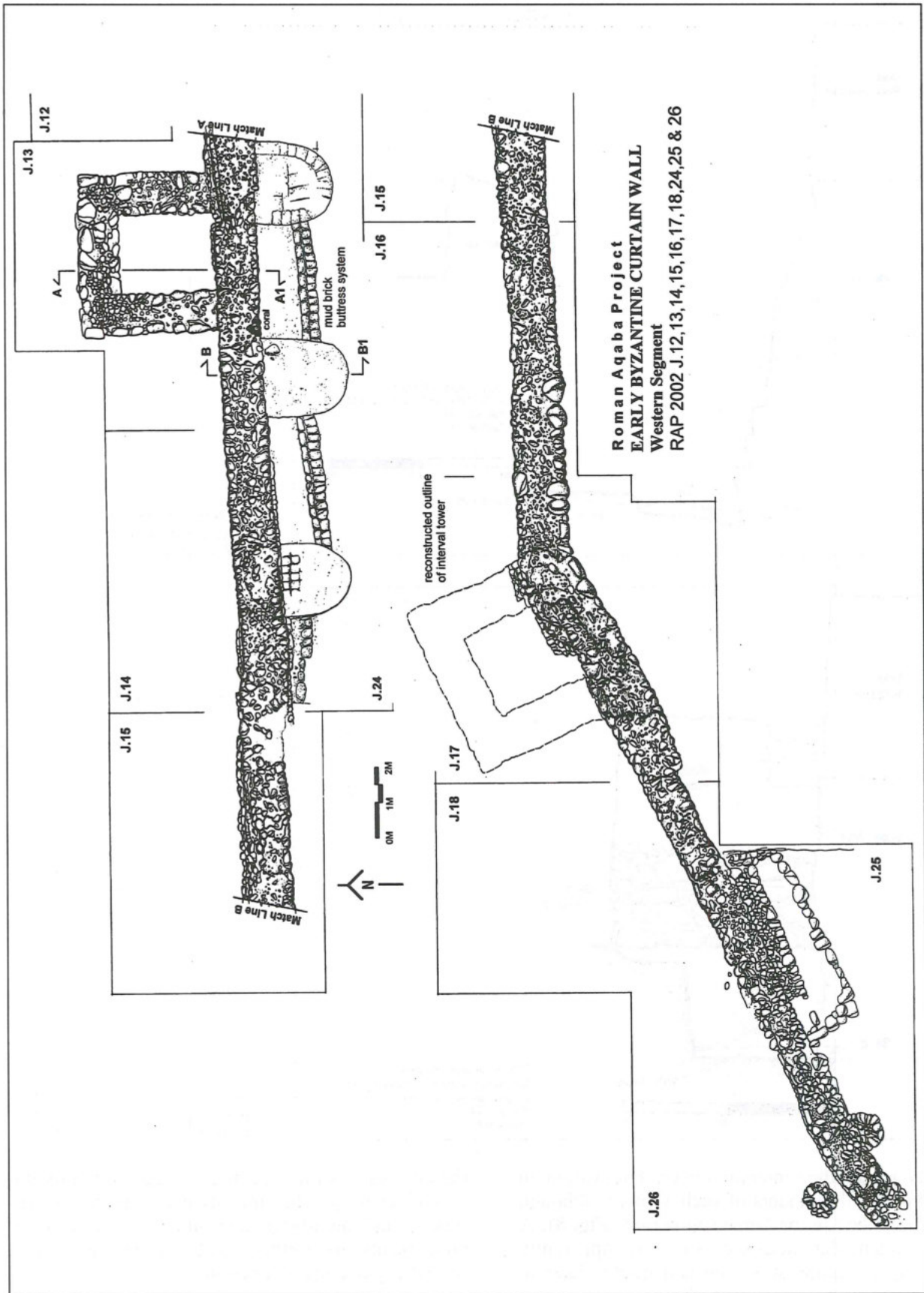
the segment now buried under al-Istiqlāl Street, the Byzantine city wall of Aila has now been traced and largely exposed for a distance of *ca.* 120m. (Fig. 1). The wall in the middle of the western sector still stands over 4m high and ranges from 1.10 to 1.40m in width.

A notable feature of the western segment is a large structure built against the inner (south) face of the city wall. This was further elucidated in 2002 (Figs. 8, 9a and b). It consists of three elliptical mud-brick towers connected by mud-brick walls, all erected on stone foundations set nearly as deep as the city wall itself. The elliptical towers abut the city wall. The connecting walls between the towers run parallel to and about one m. south of the city wall. The space between the mud-brick walls and the city wall was immediately back-filled with sand. Pottery from the foundations of this abutting structure suggests it was secondary to the city wall, constructed in the late sixth century. This secondary structure, originally interpreted as a rampart, now seems more likely to have served as a buttress to reinforce a segment of the city wall that had previously collapsed, then was rebuilt and reinforced in the late sixth century.

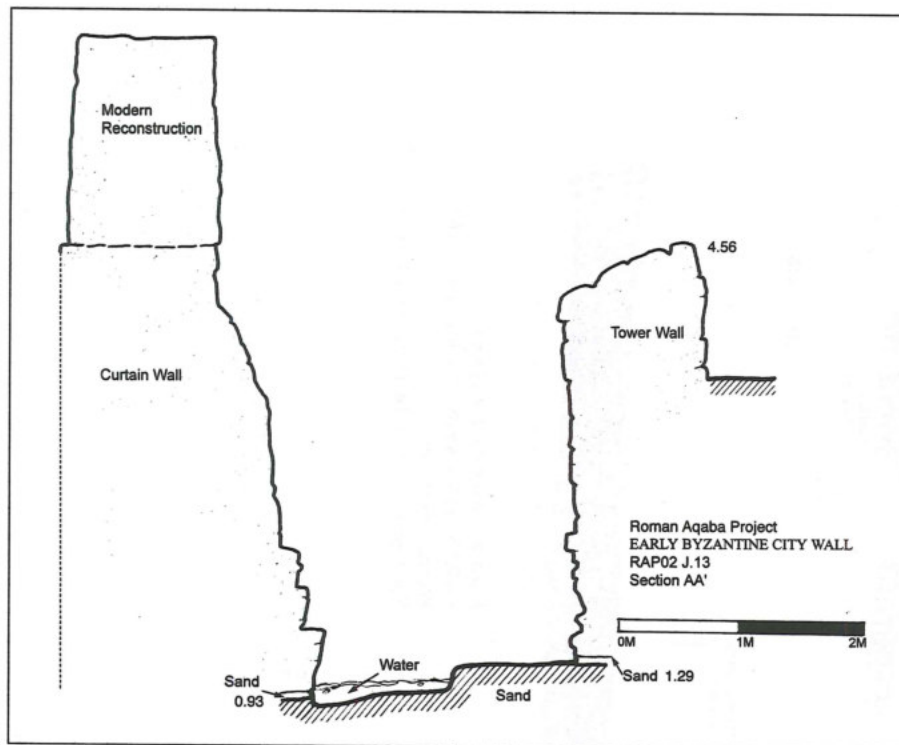
On the adjacent northern face of the city wall in this sector in Trench J. 13 is another rectangular interval tower, projecting from the north face of the wall, discovered in 1998. It is similar in size and plan to that exposed on the segment of the city wall east of al-Istiqlāl Street. Both towers lack any entrance through the city wall and seem to have been back-filled with sand immediately after construction, presumably to create an elevated fighting platform. The tower in J. 13 later experienced some domestic use in the Umayyad period. A doorway was cut through its eastern wall and the interior was partially cleaned out.

Farther east along the city wall, just west of al-Istiqlāl Street in Trench J. 23, are the remains of another projecting rectangular interval tower spaced nearly equidistant between the two other towers. Although similar in size to the other interval towers, this tower is exceptional because it was later partially demolished and then rebuilt as a gateway in the Umayyad period (Fig. 10). This gateway was subsequently blocked with mud-brick later in the Umayyad period.

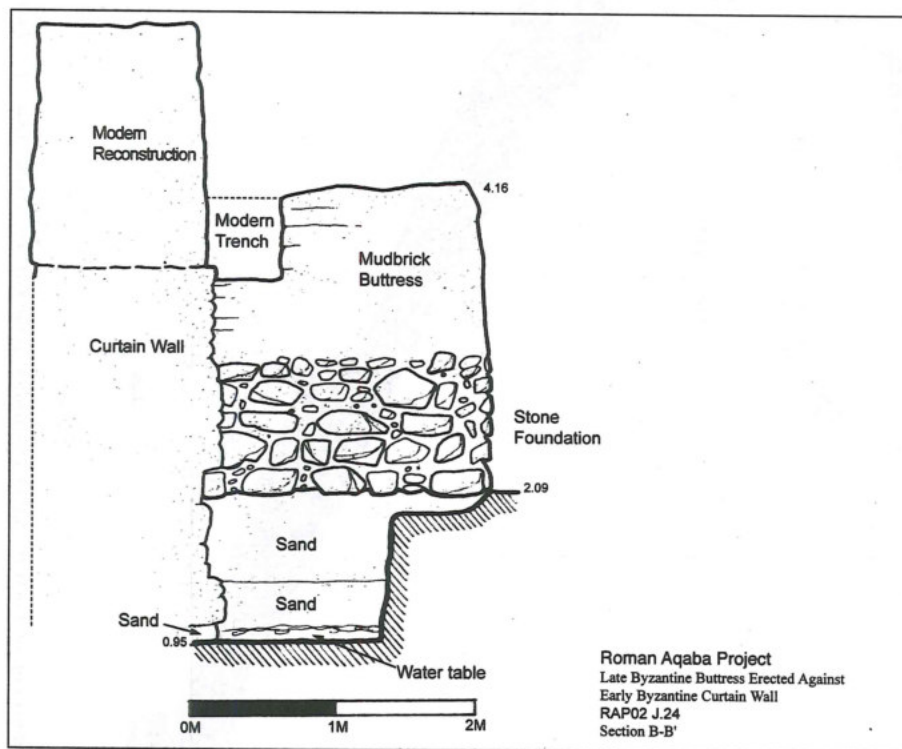
Given the uniform spacing observed between these three known interval towers, it was decided to search for a fourth tower at the same distance farther west, in Trench J. 17. Here the city wall turned about 30 degrees to the southwest and a thickening of the exterior face of the wall suggested the pos-



8. Plan of the western segment of the Early Byzantine city wall with the Late Byzantine rampart or buttress.



9a. Section through the Early Byzantine city wall and interval tower (Trench J. 13).

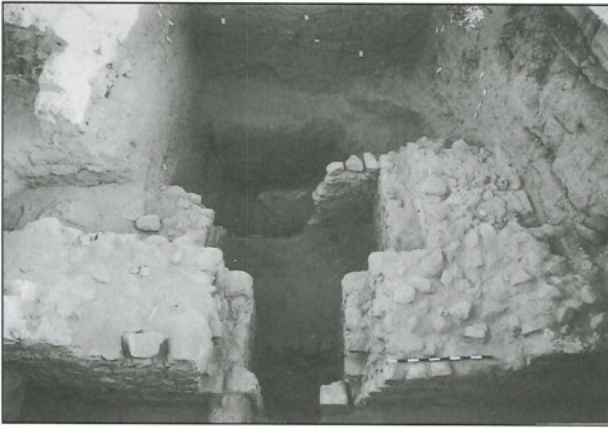


9b. Section through the Early Byzantine city wall and the late Byzantine buttress (Trench J. 24).

sibility of another interval tower. Excavation in fact did reveal remnants of such a tower, although heavily robbed in the Umayyad period (Fig. 8). A small rectangular mud-brick structure, apparently domestic in nature, was then constructed later in the Umayyad period against the exterior face of

the city wall. All this evidence suggests that by the seventh century, when the city wall was extensively robbed and mud-brick and stone structures were built against its northern face, the wall no longer served any defensive function.

Therefore, four rectangular interval towers have



10. Remains of an interval tower along the Byzantine city wall. A gateway apparently cut through the city wall and tower in the Umayyad period, is visible just to the left of the meter stick, which rest on the city wall. View to north.

now been revealed along the line of the city wall, all projecting from the north face. It is notable that there is no evidence for a gate along this ca. 120m segment of the city wall when it was originally constructed (remembering that the gate in Trench J. 23 was constructed only in the Umayyad period). The only remaining possibility for an original gate within this segment of the city wall is within the unexcavated segment now lying under al-Istiqlāl Street.

Area U. This new area was opened south of King Hussein Street, across from the modern pumping station, in a former military zone close to the modern shoreline. Surface collection of artifacts in 1994 surveys had suggested rich cultural remains of the Early Islamic periods. But all previous attempts to obtain permission to excavate in this sector had been unsuccessful. This season, with this sector now slated for imminent private development, permission was forthcoming near the end of the season. Area U was opened in an attempt to trace the line of the Byzantine city wall between King Hussein Street and the modern shoreline (**Fig. 1**). Two trenches were opened (U. 1-2). A ca. 4m long segment of a substantial wall was uncovered in Trench U. 2, along with other wall lines, just below the modern ground surface. Although constraints of time prevented reaching the foundations of this substantial wall, its alignment, dimensions, and constructional features all suggest that it was another segment of the Byzantine city wall. As expected, rich remains of the Abbasid period (late eighth to 10th centuries) were associated with these walls.

Area K. This area lies ca. 50 meters southeast of Area J in a vacant lot east of al-Istiqlāl Street

(**Fig. 1**). Eight trenches (K. 1-8) were excavated in 1994-2000 to recover evidence of Aila inside the Byzantine curtain wall. Previous excavation revealed remains of the 'Abbasid periods (mid-eighth to 10th centuries), including stone and mud-brick domestic structures. Removal of these structures revealed substantial stone and mud-brick structures of the Umayyad period. These Umayyad structures were laid out along both sides of a street that extended from northeast to southwest through Area K. It appears that the Early Islamic street followed the alignment of an earlier Byzantine street.

By the beginning of the 2000 season fifth century Byzantine strata had been reached in this area only in small probes at deep levels. The archaeological remains in this area were faced with imminent destruction by development planned immediately after the season. Therefore the remaining overlying Umayyad structures (now fully documented) were removed by mechanical equipment to expose a large horizontal area of the pre-Islamic Aila. Six trenches (K. 9-14) were laid out in a grid over the newly exposed area covering some 15.5 x 10.5m. Excavation revealed stone and mud-brick structures of the Early Byzantine period (fourth and fifth centuries) erected along the east side of a street. A variety of imported fine ware ceramics, imported amphorae, and imported glass all suggested something of Aila's extensive and far-flung trade in this period. By the end of the 2000 season Late Roman (second to third century) strata had been reached in deep probes in several trenches.

At the beginning of the 2002 season the anticipated development of the area had not yet occurred, allowing one more season of excavation. This was conducted in three trenches (K. 10-11, K. 14). Eastern extensions of 1m in K. 10-11 exposed more of the Early Byzantine architecture, which included plastered walls and a partially preserved flagstone floor. Excavation in all three trenches continued through the Late Roman levels and reached the Early Roman/Nabataean stratum (first century AD) by season's end. There was evidence of at least two occupational phases in the Nabataean structures, which apparently served both domestic and other functions. One structure from the later Nabataean phase contained a fine cobble floor with a stone-lined hearth, trough, and stone-working platform. Another structure from a transitional phase from Early Roman/Nabataean to Late Roman featured a variety of working surfaces in stone, brick, and beaten earth, a water channel, plaster-lined trough and large pile of raw clay chunks, perhaps harvested from cleaned-out cisterns. The clay may have been collected for some

sort of local industrial activity, such as brick and/or pottery production.

One notable fact about Area K is that the street running NE-SW through the area in the Umayyad and Byzantine periods was established in the Early Roman/Nabataean period. The alignment of this street remained basically unchanged through the following eight centuries, remarkable evidence for continuity in the city plan.

Area K has thus produced a complete stratigraphic profile of Aila's history from the first through 10th centuries and represents the only large area within the Byzantine city wall not yet covered by modern structures. Because the loss of this area to development would be a major blow to the antiquities of 'Aqaba, we now hope that the 'Aqaba Special Economic Zone Authority will preserve Area K, perhaps through an exchange of land with the current private landowners.

Soundings at Qaṣr al-Kithāra (Area T). This site lies about 20km north of 'Aqaba in Wādī al-Yutum, just south of the modern Desert Highway. It sits atop a spur composed of fluvial gravel at the intersection of Wādī al-Yutum and Wādī 'Imrān (وادي عمران). In antiquity the site served as the first major road station along the *Via Nova Traiana* running north from 'Aqaba. The *qaṣr* is a small fort in the form of a roughly shaped diamond measuring 49 x 48 x 35.5 x 31.6m. with rooms surrounding a central courtyard (Figs. 11, 12). The main gateway appears to lie midway along the north wall. Surface surveys have collected pottery ranging in date from the Early Roman/Nabataean to Late Byzantine periods (Parker 1986: 109-10, 177-78; Kennedy 2000: 190-92). The date of the extant structure, with its projecting corner towers, has remained unknown. The purpose of the soundings in 2002 was twofold: to date the extant fortifications and recover any artifactual evidence that might suggest what products were exiting Aila from the south and entering Aila from the north. Three trenches (T. 1-3) were opened as soundings at al-Kithāra.

Trench T. 1 (2 x 5m) was opened against the external face of the fort at the intersection between the northwest corner tower and the western curtain wall. Excavation was completed down to the gravel layer on which the fort was founded. Notably, the curtain wall abutted the tower wall, suggesting that the tower was constructed first. This might explain the rather odd plan of the fort, which has been aptly described as essentially a square fort with one tower pulled out to create a diamond outline (Gregory 1995-97: 409-11). The curtain wall



11. View of *Qaṣr al-Kithāra*.

seems to have been founded at the beginning of the Late Roman period, *i.e.* early second century AD, perhaps by adding the fort to an existing Nabataean tower.

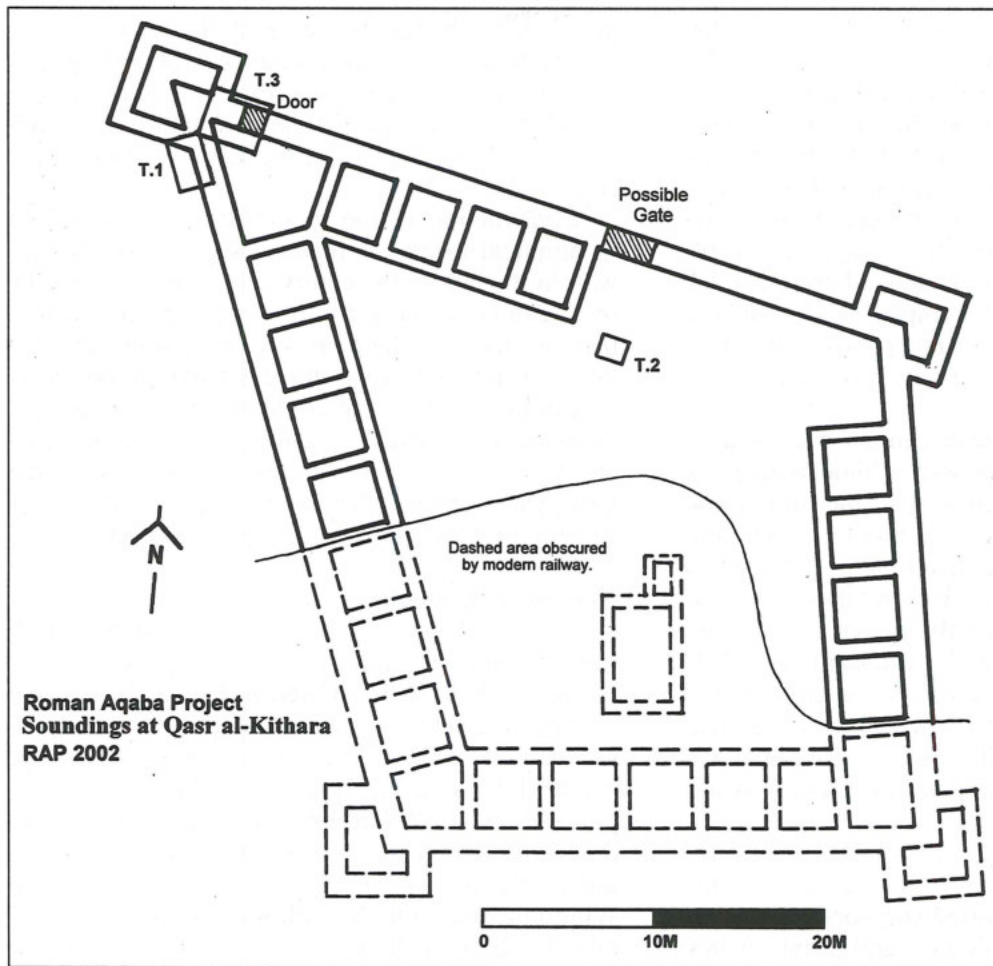
Trench T. 2 was a small (2 x 2m) sounding within the central courtyard. It yielded some significant quantities of pottery within three shallow soil layers directly overlying the natural gravel surface but revealed no evidence of structures.

Trench T. 3 (4 x 4m) was laid out within the triangular-shaped interior room in the northwest corner, immediately adjacent to and east of Trench T. 1. Excavation in T. 3 exposed a doorway into this room from the central courtyard. Excavation also unexpectedly revealed an external doorway, preserved with its lintel still *in situ*, in the north wall just east of the corner tower. Given the existence of the main gateway in the same wall just to the east, the location of this second doorway seems puzzling. Excavation also uncovered the remains of a plastered installation built against the northwest corner of this room. Flue pipes extended up the walls of the installation, suggesting that a furnace lies directly under the plastered installation. The installation, presumably a small bath, was choked with tumbled debris and only partially excavated. Its date is unclear. Early Byzantine was the latest pottery recovered from the tumbled debris.

Among the artifacts recovered from al-Kithāra were sherds of imported amphorae from Gaza and Egypt as well as Egyptian Red Slip ware. The Egyptian pottery presumably reached al-Kithāra by way of Aila, where large quantities of both Egyptian amphorae and Egyptian Red Slip wares were recovered by the present project. All this suggests that a full-scale excavation of al-Kithāra would produce significant results.

Analysis of Artifacts and Organic Remains

A summary of some important kinds of artifactual and organic evidence was presented in the



12. Plan of Qasr al-Kithāra.

Preliminary Reports on the 1996 (Parker 1998: 387-89) and 2000 seasons (Parker 2002). Several specialist studies have appeared (Jones 1999; Grubisha 2001; Perry 2002) or are forthcoming (Dolinka 2003; Jones forthcoming). Further quantities of most categories of evidence were recovered in the 2002 seasons. Although much analysis remains, the new data largely reinforce the preliminary conclusions presented in these earlier reports. Detailed presentation and analysis of this evidence will appear in the final report.

Conclusions

We await more analysis of the evidence recovered in 2002, but the following summary highlights some points of historical interest.

Much more was learned in 2002 about Early Roman/Nabataean Aila. There is now unquestioned evidence of significant Early Roman/Nabataean occupation in the southern areas, specifically Areas A, J, and K. It now appears that the heart of Nabataean Aila was close to the modern shoreline and that the northern domestic areas excavated by the project (Areas B, M, and O) repre-

sent only the northern fringe of the Nabataean and Late Roman city. Unfortunately, the thick overburden of later remains in the south limits our knowledge of Nabataean and Late Roman Aila in this sector.

There was significant Nabataean pottery production at Aila. Analysis of charcoal associated with dumped ceramic production refuse suggests that local wood resources (i.e., palm, acacia, and tamarisk) fueled the city's ceramic industry. There is also evidence of copper-working, bone-carving, and other industries in this period. Various trade goods, such as wine, oil, glass, fine ware pottery, metal, and other products passed through the port in this era. There is a clear pattern of discontinuity around the turn of the second century in all three northern areas (Areas B, M, and O), which were all abandoned about this time before being reoccupied in the early second century (Late Roman period). This widespread abandonment, without evidence of destruction, may relate to the Roman annexation of Nabataea in 106. It is as yet unclear whether there

is similar evidence for such discontinuity in the southern excavation areas.

Similarly, the northern (B, M, and O) and southern (A, J, K) areas experienced significant re-occupation in the Late Roman period. This appears largely domestic in nature, although there is evidence of continued ceramic production in the vicinity and other industries. The complexes in Areas M and O were both abandoned by the third century and the Area B complex was probably abandoned by the fourth century, when the now ruined Area M domestic complex was used as a cemetery.

At the turn of the fourth century the putative church in Area J was erected. Although there is still no definitive evidence that the mud-brick structure is in fact a church, its eastern orientation, overall plan, and associated artifacts still suggest this as the most plausible interpretation. If so, it was probably erected shortly before the church building program launched by Constantine in Palestine after 325 and thus represents an entirely private initiative. It implies the existence of a local Christian community with surplus economic resources sufficient to erect this monumental structure.

The fourth century also witnessed intensification of trade at Aila, as evidenced by increased quantities of imported amphorae (especially from Egypt and Gaza) and fine wares (especially African Red Slip, with smaller quantities of Egyptian Red Slip, Cypriote Red Slip, and Phocaeen Red Slip). This may be explained at least in part both by the revival of Red Sea commerce and the arrival of *legio X Fretensis* at Aila at the beginning of this period.

In the late fourth century the church was severely damaged, presumably by the earthquake of 363, and then abandoned. Soon after, construction of the city wall began. The line of the new fortifications partially extended over the church, which otherwise lay outside the new city wall, perhaps explaining why the now ruined church was not rebuilt. The construction of the city wall in the late fourth or early fifth century clearly demarcated the northern limit of Byzantine Aila and there is no evidence for any significant Byzantine occupation in the northern suburbs. Instead the region north of the wall was now used for cemeteries. The two Early Byzantine cemeteries in Areas A and M yielded a total of 45 individual skeletons, promising some insights into the demography of Aila in this period (Perry 2002). The city wall with its projecting interval towers testify to the availability of sufficient economic resources (whether local, im-

perial, or both) for its construction and some perceived threat to the city's security in this period. Inside the city wall, excavation in Area K revealed a complex of impressive stone and mud-brick structures that lined a street in the Early Byzantine period.

Construction of the mud-brick buttress system of elliptical towers to repair a segment of the city wall in the late sixth century surely implies that the fortifications remained in use in this period. It was perhaps not until the early seventh century that the city wall fell out of use for defensive purposes, as its exterior (north) face could be incorporated into domestic complexes. A gateway was cut through the walls of one of the interval towers in the Umayyad period. Other portions were robbed for stone to build the adjacent Early Islamic Ayla.

Acknowledgements

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Bibliography

- Dolinka, B.
 2003 *Nabataean Aila from a Ceramic Perspective*. British Archaeological Reports International Series. Oxford: Hadrian Books.
- Gregory, S.
 1995-97
Roman Military Architecture on the Eastern Frontier. 3 vols. Amsterdam: Hakkert.
- Grubisha, D.
 2001 *An Analysis of the Steatite Artifacts from the Archaeological Site of Aila, Jordan*. Unpublished M.A. thesis. University of Wisconsin-Milwaukee.

- Jones, J.D.
2000 Roman Export Glass at Aila (Aqaba). Pp. 147-150 in *Annales du 14e Congrès de l'Association Internationale pour l'Histoire du Verre*. Lochem: Association Internationale pour l'Histoire du Verre.
- Forthcoming
Recently Discovered Cage Cup Fragments from Aqaba. *Journal of Glass Studies*.
- Kennedy, D.L.
2000 *The Roman Army in Jordan*. London: British Academy.
- Niemi, T.M. and Smith, A.M. II
1999 Initial Results from the Southeastern Wadi Araba, Jordan Geoarchaeological Study: Implications for Shifts in Late Quaternary Aridity. *Geoarchaeology* 14 (8): 791-820.
- Parker, S.T.
1996 The Roman 'Aqaba Project: The 1994 Campaign. *ADAJ* 40: 231-57.
1997a Preliminary Report on the 1994 Season of the Roman 'Aqaba Project. *BASOR* 305: 19-44.
1997b Human Settlement at the Northern Head of the Gulf of 'Aqaba: Evidence of Site Migration. Pp. 189-93 in *SHAJ* 6. Amman: Department of Antiquities of Jordan.
- 1998 The Roman Aqaba Project: The 1996 Campaign. *ADAJ* 42: 375-94.
1999 Brief Notice on a Possible Fourth Century Church at 'Aqaba, Jordan. *Journal of Roman Archaeology* 12: 372-76.
2000 The Roman 'Aqaba Project: The 1997 and 1998 Campaigns. *ADAJ* 44: 373-94.
2002 The Roman 'Aqaba Project: The 2000 Campaign. *ADAJ* 46: 409-428.
- Perry, M.A.
2002 *Health, Labor, and Political Economy: A Bioarchaeological Analysis of Three Communities in Provincia Arabia*. Ph.D. Dissertation, University of New Mexico.
- Smith, A.M. II., Stevens, M. and Niemi, T.M.
1997 The Southeast Araba Archaeological Survey: A Preliminary Report on the 1994 Season. *BASOR* 305: 45-71.