

# EXCAVATIONS IN 'AQABA FIRST PRELIMINARY REPORT

by  
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The port of 'Aqaba is Jordan's southern window on the world and has become a commercial port and tourist resort of primary importance. Few economists or vacationers realize the fascinating history of 'Aqaba, or Ayla as it was formerly known. The castle of 'Aqaba, where pilgrims to Mecca rested in Mamluk and Ottoman times, was the focus of only the most recent settlement. Before Ṣalah ed-Dīn fought the Crusaders in this place, merchants of the Abbasid and Fatimid periods traded in goods from areas stretching from the Maghreb to China. And before this, a procession of Byzantine, Roman, Nabataean, and even Biblical peoples inhabited this town.

For the last 50 years, in the midst of the development of the modern city, little attention has been paid to these ruins in the heart of the city, which ran the risk of being sold for development. In these circumstances the Oriental Institute of the University of Chicago began limited soundings in the Spring of 1986, followed by major excavations in the Spring of 1987. The small soundings, now confirmed through more extensive exposures, have revealed a complex architectural and artifactual documentation of great importance for the history of 'Aqaba and, indeed, for

Jordan and the Middle East.<sup>1</sup>

## HISTORICAL BACKGROUND

Most of the history of Ayla is only vaguely known. There is little direct evidence for the Nabataean port, though the commercial prowess and proximity of Petra make such a port an obvious possibility. The Ptolemies took Elath from the Nabataeans and renamed it Berenice, beginning a pattern of Egyptian attempts to dominate this region. The Romans constructed the *via nova* to Boṣra (111-116 A.D.) and stationed the Xth legion Fretensis at Ailana. Bishops of the town are known from 325 until the early 7th century. The Prophet made a treaty with the town, represented by Yuḥanna ibn Ru'ba, in 630. This early submission greatly facilitated the first attacks on Palestine under 'Amr ibn al-'Aṣ in 634.<sup>2</sup>

One must turn to the geographers of the 9th and 10th centuries for descriptions of the development of Ayla. The commercial prosperity of the town is reflected in the account of al-Ya'qūbi, "The city of Ayla is a great city on the shore of the salt sea and in it gather the pilgrims of Syria, Egypt and al-Maghreb. There are numerous merchants and common people..."

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1. The limited excavations in 1986 and the full expedition during this Spring were made possible with the assistance of many people, especially Dr. Adnan Hadidi, Dr. Ghazi Bisheh, and Mr. Suleiman Farajat, from the Department of Antiquities, Mr. Nasri Attala of the Tourism Authority, and Dr. Dureid Maḥasneh of the 'Aqaba Region Authority. Special thanks are due to Dr. David McCreery for assistance and facilities at ACOR and to Mr. Rami Khouri, for initial encouragement and brilliant reportage.

The 1986 excavations took place from April 27th to May 15th, with staff mentioned below and Mrs. Eileen Caves as registrar. The 1987 staff included Ghazi Bisheh, Suleiman Farajat, Khairieh 'Amr, Ḥanān 'Azar, from the Department of Antiquities, Robin Brown, Rosa Frey, Jessica Hallett, Janet Johnson, Allison McQuit-

ty, Yvonne Seng, Guillermo Algaze, 'Essam Elhadi, James Knudstad, and Robert Smithers. Finally, and not least, we are indebted to the people of 'Aqaba, who took an active interest in the wonder of their past.

2. Perhaps the best historical summary remains that of P. Schertl, 'Ela-Akaba', *Orientalia Christiana Periodica* 2 (1936), p. 33-77; see also P. Mayerson, 'The Sarcens and the Limes', *BASOR* 262 (1986), p. 35-47. Other historical details are found in H.W. Glidden, 'The Mamluk Origin of the Fortified Khan at al-'Aqabah, Jordan', *Archaeologica Orientalia in Memoriam Ernst Herzfeld* (New York, 1952), p. 116-8; and his articles on Akaba and Ayla in the *Encyclopedia of Islam*, second edition, p. 314-5 and 783-4. See also A. Musil on Aila, in the first edition of this encyclopedia.

writing about a century later, bears careful consideration. He says that:

“Wayla, at the very end of the eastern arm of the China sea, is a chief-place (*madīnah*), very prosperous, having palms and fish; it is the port of Palestine and the storehouse of the Ḥijaz. It is usually called Ayla, but [the true] Ayla, ruined, is nearby [toward the mountains], about which it is written, ‘Ask them concerning the town by the sea’.” (178, 10-13)...  
“And in Wayla, there is disagreement among the people of Syria, the Ḥijaz, and Egypt, like in ‘Abbadān, but I join it to Syria because its customs and measures are Syrian. It is the port of Palestine, from which come its imported goods.” (179, 2-4).

This description testifies to the prosperity of Ayla and its connections with Egypt, Palestine and the Ḥijaz. The latter was its primary customer and, while Egypt may have been the primary supplier, the cultural identification of Ayla was with Bilād esh-Shām. An important impetus for these interconnections was the annual pilgrimage to Mecca; both the north African/Egyptian and the Palestinian/Syrian roads passed through ‘Aqaba, which was stocked with food supplies from Gaza.

For the end of this prosperity, one may allude to a variety of causal factors. An Egyptian Fatimid garrison was stationed at Ayla in 961, fighting revolts until the town was sacked in 1024. Ayla suffered an earthquake in 1072/3. Finally the Crusaders captured Ayla in 1116, after which it was retaken by Ṣalaḥ ed-Dīn in 1170. A decade later, there was a brief occupation by Renaud de Chatillon. Throughout the latter exchanges the town does not seem to have been fortified; it is therefore tempting to see the end of the site under discussion

pondingly, Abu’l Fidā’ says there was nothing left but a stronghold near the shore in the 13th century. This would seem to be the castle of the Ayyubid/Mamluk period, about a kilometer to the south of the site of Ayla, which became the focus for settlement until modern times.

## ARCHAEOLOGICAL BACKGROUND

While historical documentation for ‘Aqaba (or Ayla) is rare, it is possible for archaeological excavation to reveal new details and provide dramatic evidence of ‘Aqaba’s past because the archaeological remains of this great early Islamic port have been identified under the sands of the modern city. Visitors to ‘Aqaba usually see the old castle in the center of the old town (Fig. 1), which is being preserved and restored by Dr. Ghazi Bisheh of the Jordanian Department of Antiquities. This follows Glidden’s work on the late Mamluk inscriptions in the castle, and many have assumed that the earlier medieval and ancient settlement was located in the same area.

However, other ruins have been described by travellers and archaeologists, from Ruppell in 1822 to Glueck in 1936, as the remains of ancient Ayla.<sup>3</sup> An early traveller who wrote on the history of ‘Aqaba was Musil, who visited in 1898; he saw an extensive ruin field north of the castle and found fine pieces of marble. Burton noted in 1878, “Inland and to the north [of the castle] rise the mounds and tumuli, the sole remains of ancient Elath... A line of larger heaps to the north shows where, according to the people, ran the city wall... Between it and the sea the surface is scattered with glass, shards, and slag...” The first modern archaeologist to visit the site was Glueck, who identified the potsherds as “Roman, Byzantine and

3. Ruppell is given the honor of discovery of the site in 1822, according to Robinson, who visited in 1838. Laborde, in 1828, records “a few mounds of earth and rubbish ...[and] a single block of white marble...” His map shows the main drainage of Wadi ‘Arabah east of the ruins,

in the position of the drainage channel (*Journey Through Arabia*, London (1936), p. 131, Pl. 77). Burton’s comments are found in his *The Land of Midian (revisited)* (London (1879), volume 2, p. 240-1).

medieval Arabic” and also Nabataean.<sup>4</sup> But by far the best description is that of T.E. Lawrence, whose points should be summarized:

1. There were no signs of older occupation in the village, *i.e.* near the fort.
2. A huge bank ran parallel to the beach and “what little pottery appears in its strata is Arab.” This may well be the foundation of the modern Corniche road.
3. One column and one capital were found in houses. Further notice of isolated columns and capitals is given by Glueck.
4. “The ruin mound... of ancient Aila is now merely a sandbank running along the beach for a distance of 250 yds, and extending as far inland...”
5. “The ruin mound is about 10 ft. deep, and appears to be clean sand without any signs of stone walls; the Arabs say, however, that these are to be found a little under the surface.”
6. “The ground is covered with fragments of Arab glass... and a great deal of glazed pottery, some of it a metallic glaze, but much of it the kind of ware manufactured ...near Aleppo. Some Byzantine pottery is mixed with the later stuff.”

The above statements have neither been tested nor improved upon in the intervening 70 years. Lawrence’s conclusion that “this all pointed to an Arab settlement of some luxury in the early Middle Ages” may offer a possible explanation for this neglect. Not only were there no standing monuments but the materials dated mainly from the medieval period, one for which archaeological interest has developed only recently.

#### Results of the 1986 and 1987 Seasons of Excavations

The medieval city of ‘Aqaba is on a

slight rise above the beach near the center of the modern town (Fig. 1, inset). The ruins are cut by a deep drainage ditch, called the wādi, north of the Coast Guard station and extend between the Corniche road and the beach. Only flat sand and a palm grove could be seen on the surface before excavations. The excavations by the Oriental Institute, University of Chicago, lasting 3 weeks in 1986 and 8 weeks in 1987, revealed a great walled city, its walls and buildings preserved at least 4 m in height (Fig. 2). A historic sequence from a pre-Umayyad foundation (early 7th century) through the Fatimid period until destruction by the Crusaders (early 12th century) was identified. During this occupation, and particularly the Abbasid period, ceramics indicate participation in an extensive trade network connecting Egypt and Syria with Iraq and China.

The city of Ayla, medieval ‘Aqaba, was rectangular in plan, 120 x 160 m, enclosed by a stone city wall with towers, preserved 4.5m in height (Pl. XLVI,1). The projected limits of the enclosing wall are based on symmetrical distance from the City Gate (Pl. XLVI,2) to the southwest wall (based on the fragment in area B). This places the northeast wall beneath the Corniche road, which may have used the residual mounding. (Reports of graves found during building on the other side of this road suggest an extra-mural cemetery). Likewise the southeast wall is hypothesized on the basis of symmetry with the street in front of the Large Enclosure (area F) and existing contours south of the wādi, which closely follow the proposed reconstruction.

The features of the city wall, as well as the characteristics of the urban architecture within this enclosure, have been demonstrated through trenches divided into 5 areas (A-F; see Fig. 2). Usually each of these areas has at least one deep probe testing the full stratigraphic

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4. T.E. Lawrence wrote his observations in *The Wilderness of Zin*, London (1914-15), p. 128-30. Glueck’s references, based on visits in 1934 and 1936, are in *Explorations in Eastern Palestine*, III (1939), p. 1-4. Lankester Harding’s notes from about 1950 record that a large section was

cut by the military in 1942, through an “extensive site, few visible remains, some Nabataean sherds.” Frank provided the first vague map of the site in 1934, ‘Aus der Araba, I: Reiseberichte’, *ZDPV* 57, Plan 27.

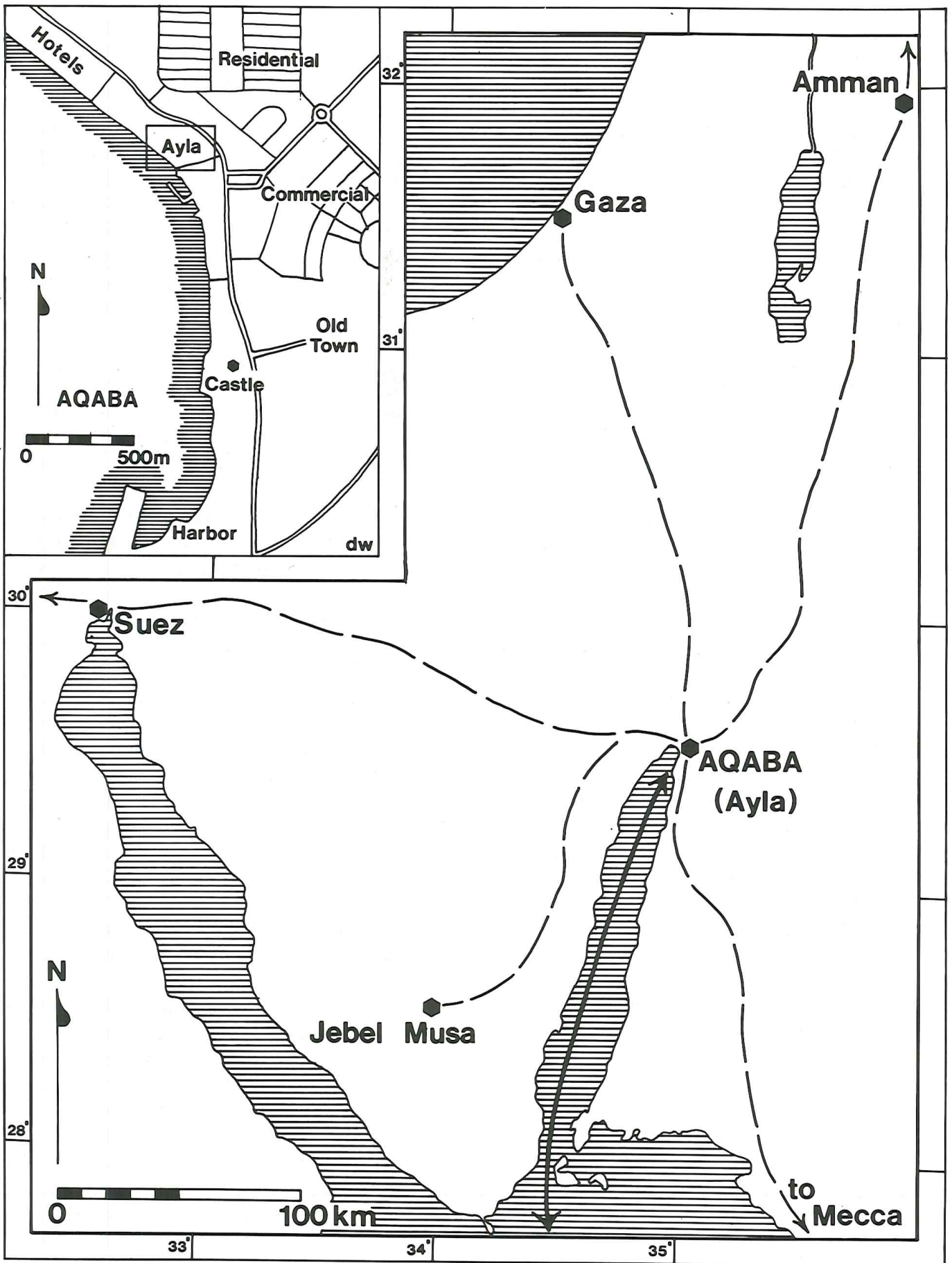


Fig. 1: Map of 'Aqaba and its routes; inset of the modern town and the area of the site of Ayla.

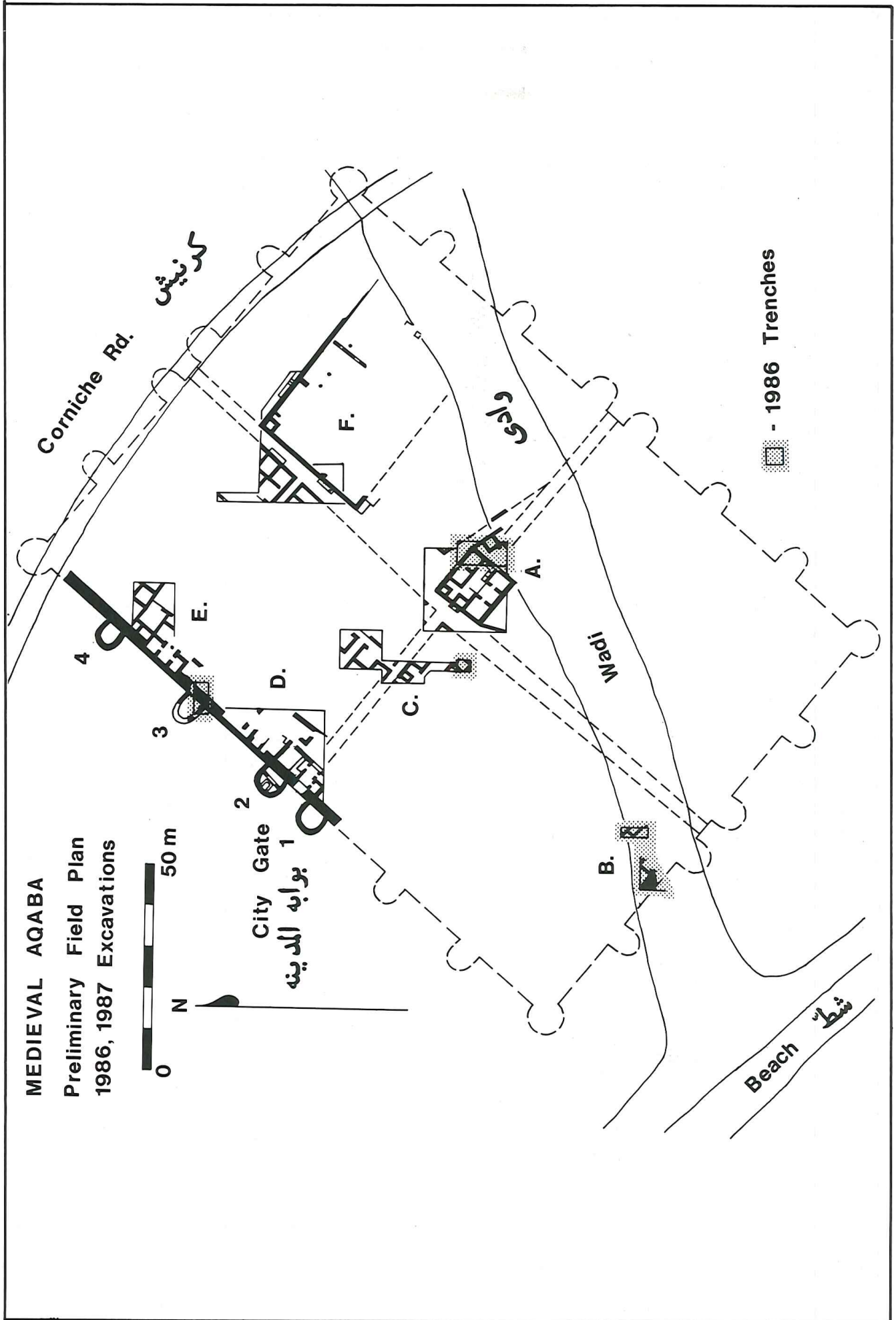


Fig. 2: Medieval 'Aqaba; preliminary field plan of the 1986 and 1987 excavations.

sequence of that area. Unfortunately much of this information, excavated only a few months ago, is still being analyzed. Fortunately, the soundings made in 1986 (named coincidentally A-D) have proven typical of the range of architecture and stratigraphy. The following report is thus a presentation of these 1986 soundings with preliminary comments on the wider context revealed in 1987.

### *Area A: The Pavilion Building*

The outline of this building was discovered in 1986, lying next to a sequence of street levels. This sequence was reconfirmed in a deep probe against the north corner, showing a total preserved height of 3.5 m and at least 2 rebuilds. The present plan shows the last configuration of rooms around a small court, entrance stairs on the northwest, and stairs to an upper floor or the roof. The south rooms have a central *iwan* and two side rooms, one of which had fresco decoration on one wall. The fresco consisted of very fragmentary floral motifs and geometric designs in red and black paint. More interesting, however, were the numerous graffiti, scratched inscriptions in Kufic script (Pl. XLVII,1). Both the script and artifacts point to a late Abbasid period for the room.

The walls of this room and the exterior of the *iwan* show that an earlier arch, 3.5m wide, dominated this southwest wall. The southeast wall revealed a similar arch, a jamb of which was traced down over 3 m to a fine plaster floor. Materials below this floor were all Umayyad. These two arches suggest that the earliest form of this building must have been a sort of pavillion, almost a tetrapylon, in the center of the city. While there is too little evidence for a palace, some association with a governor's residence is not unlikely.

The trench excavated in 1986 touched only the east corner of this building and concentrated mainly on the exterior yard

to the southeast.<sup>5</sup> This trench, A1b, was intended as a horizontal exposure of structures visible on the edge of the drainage channel. The trench measured 5 x 5 m. with a northern extension of the same dimensions, A2d (Fig. 3). The constraints of time and labour meant that the depth of excavation did not exceed 2 m, less than half the expected, and now proven, depth of cultural deposits. No surface features appeared in the sandy soil other than traces of walls in the bank of the ditch. The sub-surface loci were divided on the basis of walls A, B, and C, made of granite cobbles, and consisted of a small room, locus [2], and open areas within the yard. These loci were composed of sandy brick detritus mixed with concentrations of artifacts. The excavated portion of the corner room of the Pavillion Building, bounded by walls C, R, and M, consisted of dark brown ashy deposits containing a number of Samarran artifacts (blue-green storage jar and lustre wares) under brick detritus.

The upper occupation levels of the yard formed by walls A, B, C, consisted of two areas separated by a crude low wall, F, made of a few granite cobbles. A concentration of ash, locus [13], proved to be spread from a *ṭabūn* or oven, built against wall A. This *ṭabūn* was made of a semi-circular retaining wall of mud bricks and a clay inner wall with its opening to the southwest. An intermediate phase, prior to the construction of the *ṭabūn*, included a well head, a circular scatter of stones around a square opening. In the earliest phase of the yard (as excavated), the well had a wider and more regular circular stone wall.

The earliest phase excavated in 1986 revealed a different arrangement of walls antecedent to the room formed by walls A, B, E. The northernmost room was defined by walls K, L (beneath wall B), and J. Wall K had a doorway next to wall C; this led into a passageway [34] bounded by wall H. A probe along wall H [38] showed that it

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5. The excavation was under the supervision of Dr. Joseph Greene and employed 6 workmen for a period of 15 days. The trench was 100% screened, giving a work rate of 0.4m<sup>3</sup>/man-day.

Descriptions of this and other 1986 trenches are not intended to be complete or final presentations.

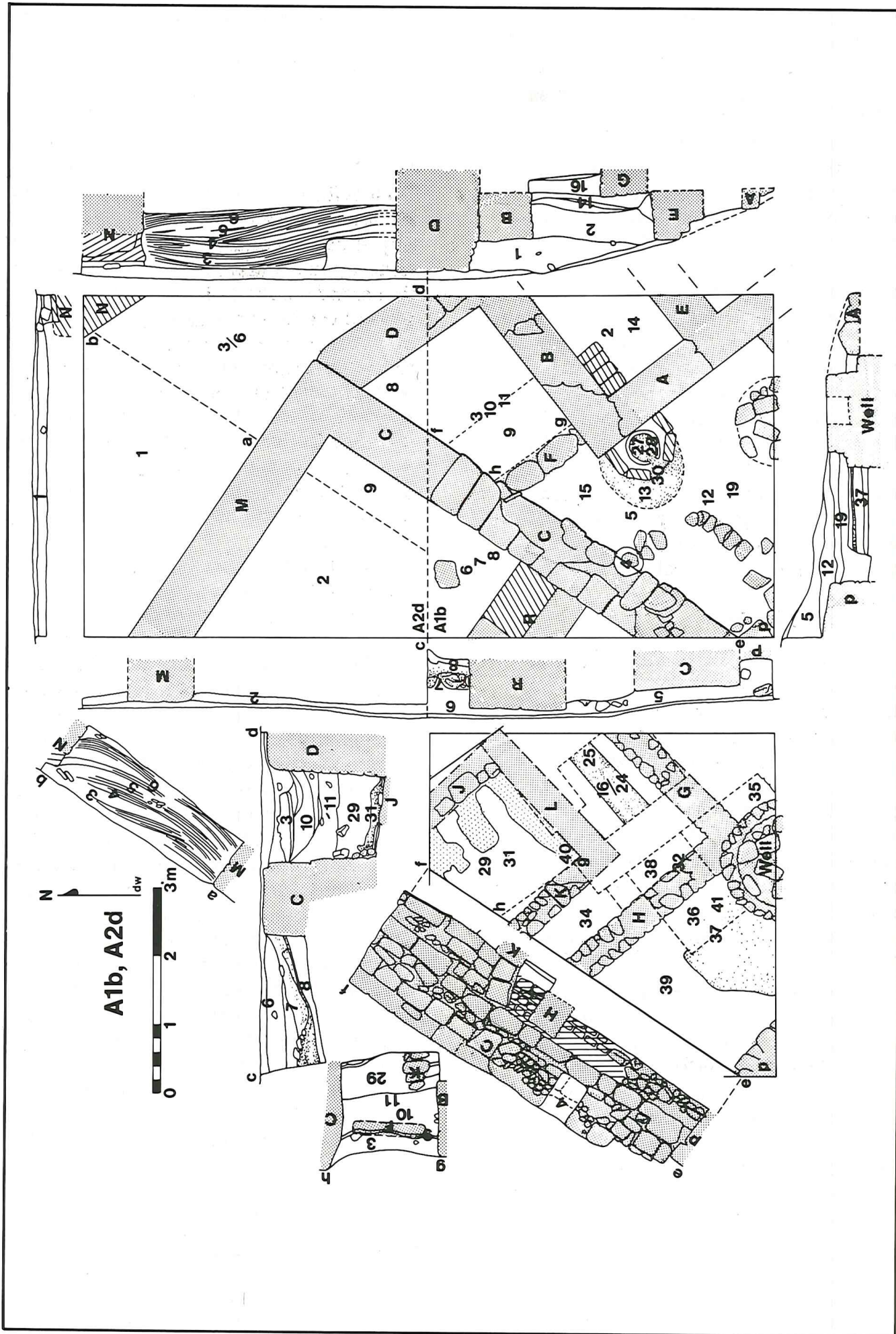


Fig. 3: Plan and sections of trench A1b and A2d.

Within the room defined by walls A, B, E, the lowest locus was ash deposit [25] filling a channel made of mud brick and running parallel to wall G. Examination of wall C revealed a complex history, including an area of brick infilling around wall H. The arches found in 1987 confirmed an almost unbelievable hypothesis in 1986; two voussoirs may be seen above wall K.

Trench A2d was an expansion to the north which confirmed the existence of a street. Most of the work here concentrated on the sequence of depositional layers within this street. A section was cut between walls L and N, across the street, revealing thin laminations of brown silt, darker organic debris and ash; in the midst of these layers of trash were the partially articulated bones of a camel (in loci [4] and [5]). The total depth of this probe was about 1 m, though the street layers were followed down an additional 2 m in 1987.

#### *Area B: The Sea Wall*

This area was excavated in 1986, providing crucial information on the city wall, architectural preservation, and the most complete stratigraphic sequence for the site. Two trenches were opened along the bank of the wādi near the beach: B1d (Fig. 4), which cut back about 1m along the highest and most vertical face of the wādi cut, and B2b (Fig. 5), which was a 2m wide step-trench in the same area. Both trenches revealed about 4 m of occupation material before sticky mud of the wādi bed made further work unproductive.<sup>6</sup>

The surface layers were contaminated with modern debris, resulting from the factory buildings which had recently been removed. This contamination meant that the slope of the cut had to be trimmed back, cavities cleaned of loose debris, and the wādi bed depositions removed. The sandy silt at the western edge of the trench ran onto a mass of stones and cobbles in apparently random and sloping orienta-

plastered eastern face showed this to be the slumped matrix of the city wall, wall A. Next to this debris, the soil was more bricky wash [5] and brick detritus [6] from wall B, composed of mud brick with traces of white plaster. The layers within the room defined by walls A and B were sand and ash [10] down to bricky floors [16] and [18]. A basalt mortar and part of a grinding stone lay on the upper floor. This stratification ended abruptly with an homogeneous mass of coarse pink beach sand [21]. Over one meter was excavated, with difficulty as the sand poured out of the baulk (which subsequently weakened and collapsed); probes indicated that the sand continues down for at least another meter. Wall B became wider at this point and its face, just above this shelf, showed signs of erosion as if from wave action. This sand was sterile of any artifacts.

East of wall B was a narrow wedge of the embankment (1.25 x 0.75 m) composed of layers of sandy brick detritus down to a compacted ash layer [14]. Below this was another sequence of ash and sand with large shell fragments on grey-brown burnt material [17], then a layer of both burnt and unburnt sandy soil. These layers rested on a reddish brown bricky silt with concentrations of shards [23] and [24]. At this point a shelf of brick again expanded the width of wall B. This wider basal wall may represent a foundation story or an earlier wall rebuilt narrower; the limited exposure cannot confirm either of these hypotheses. Bricky silt layers continued down [25]... [31], gradually becoming very moist and greyish brown. Directly next to the east face of wall B was a scree of stones, cobbles of sandstone, limestone, and granite, apparently piled in three courses.

At this point the bed of the ditch was reached and modern surface layers had to be removed. Further excavation was limited to a 2 x 2 m test trench because wall C was undermined as pink beach sand poured out from a large cavity. The cavity

6. The excavation of both of these trenches was conducted by Mr. John Meloy. B1d used 6 workmen over a period of 15 days with 100%

screened, giving a work rate of 0.4m<sup>3</sup>/man-day; and B2b used 3 workmen over a period of 7 days (0.5m<sup>3</sup>/man-day with 80% screened).



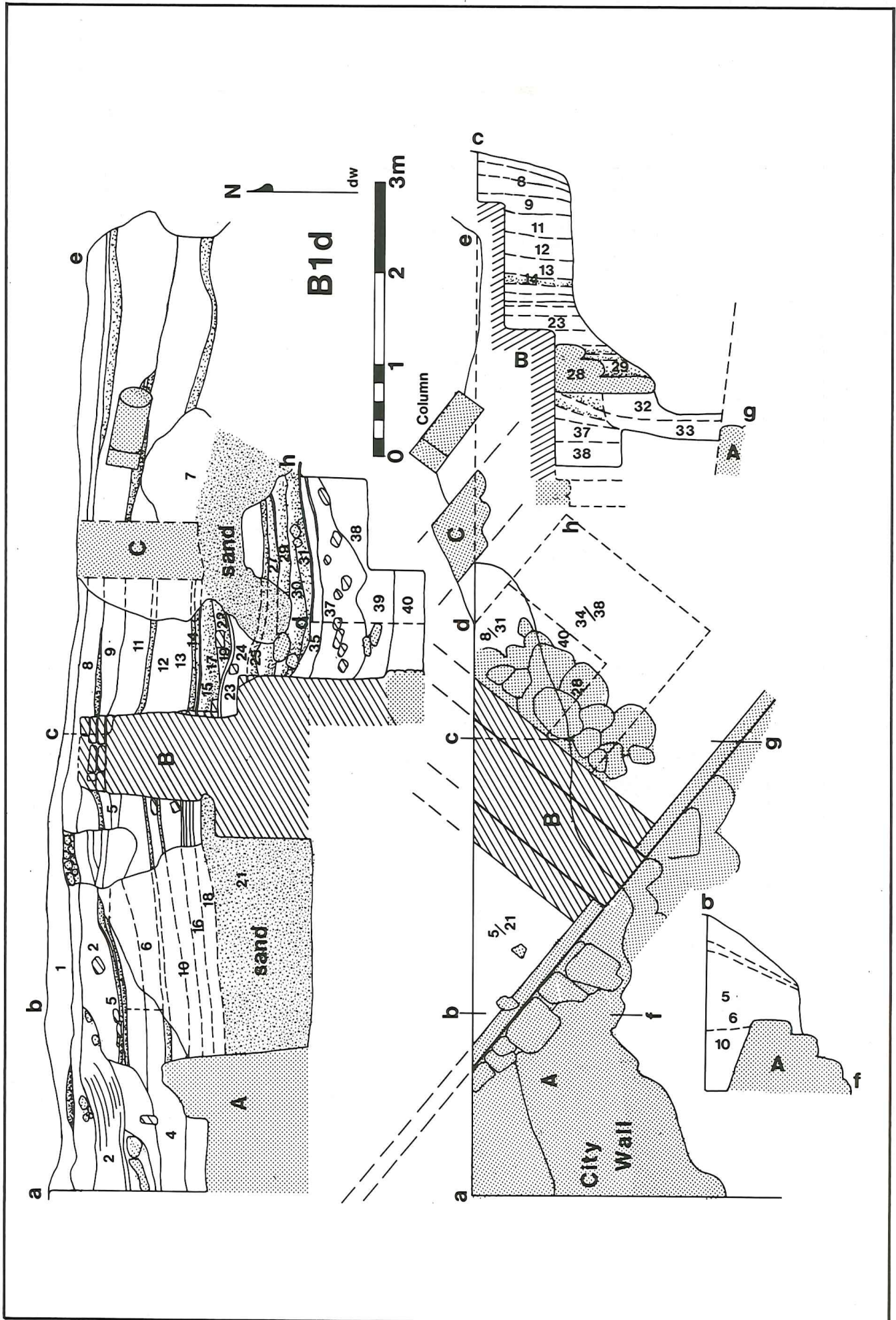


Fig. 4: Plan and section of trench B1d.

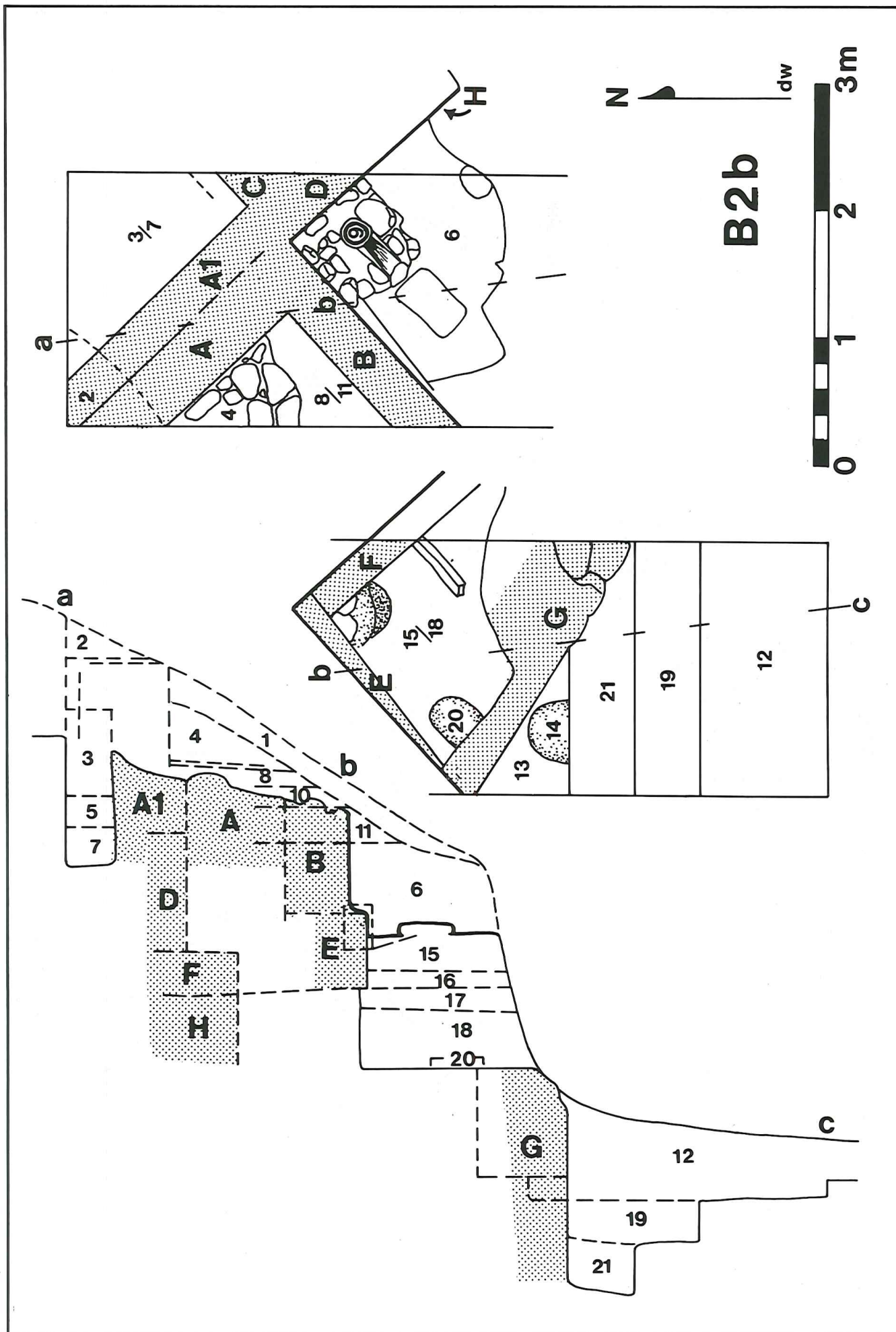


Fig. 5: Plan and hypothetical section of trench B2b.

was mired with stones but further excavation here became difficult and dangerous. The section of the test trench, points *d* to *h* on the plan, shows a thin layer of greenish brown soil [34] and [35], then very moist brown soil with brick detritus; the lowest layer was defined by thin lines of black ash and was water-logged and difficult to dig [40]; wall B was composed of stones at this level, possibly indicating the foundation of the wall. Finally, the embankment east of the excavation was straightened to vertical, so that the context of a limestone column base could be recorded. The column is rather crudely carved (if it was finished). It obviously came to rest on its side quite late in the stratigraphic sequence of this area.

If the substantial brick and stone of walls B and C suggest casemate rooms behind the city wall, the architecture of trench B2b indicates more modest structures behind the wall system. The drainage cut revealed fragments of stone walls appearing at all levels of the slope in this area; the trench was 5.15 m. in height over a total length of 5.90 m. The upper levels were divided by wall A and its earlier phase, wall A1. On one side were brown, sandy soils with a fired area, probably a hearth; on the other, locus [4] rested on a stone floor and contained plaster flakes. Beneath this floor was a grey brown silt down to a plastered floor [8], further silt deposition down to a layer of fallen stone cobbles [11]. The sandy soil south of walls B and D [6] was removed down to a partially plastered surface, where a vertical drain pipe was fixed near the corner of the room. A plastered stone channel sloped down to the base of the pipe, in front of which was a large stone block on the floor.

Walls E and F, in the lower portion of this trench, were in slightly differing orientation from the later walls B and D. The plaster and stone of the floor were removed revealing an earlier plastered surface applied directly in part to a large limestone block [15]. Below this locus was a light grey layer of packed earth [16] down to the base of both walls E and F. This

floor covered a layer of stone cobbles, plaster, and light brown sandy soil [18]. The limits of the room at this level were wall H, the predecessor of wall F, and a mass of beach sand from erosion beneath wall E. The surface of this floor had several features — a concentration of ash and stones beneath the corner of walls E and F, a vertical flagstone perpendicular to wall H (perhaps the edge of a small bin), and a fire pit filled with dark brown silt [20].

Removal of the sloping surface debris below these strata revealed wall G with a new orientation. Southwest of this wall a triangular area of soil [13] was excavated down to an ashy surface and the top of a *ṭabun*. Further to the south probes into the bottom of the drainage ditch found two layers of brown moist earth [19] and [21] and the granite foundation stones of wall G. This wall does not seem to continue across the ditch but may corner at the exposed limit of the excavations. The presence of several hearths and the pipe installation suggest that the buildings in this portion of the city were primarily domestic in character.

#### *Area C: The Street and Houses*

This area began in 1986 as a deep probe within a well-constructed building. This building continued to the north and may have been a second merchant's residence similar to the Pavilion Building. The building fronted on a street, which wall and street levels continued down 4.5 m. The wall on the north side of the street was later in date and shows encroachment onto the public space. The north buildings, constructed almost entirely of mud-brick, featured numerous *ṭabuns* in an irregular court suggesting a less well-ordered domestic character in the latest occupation.

The small (2.5x2.5m) trench of 1986, called C1a (Fig. 6), reached a depth of 3m before it was necessary to abandon or widen the trench.<sup>7</sup> Beneath the surface of featureless sand was a soft dark brown detritus next to mud brick wall A and walls

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7. This trench, under the direction of the author, took 5 days with 5-6 workmen, with 100% screened (0.4m<sup>3</sup>/man-day).

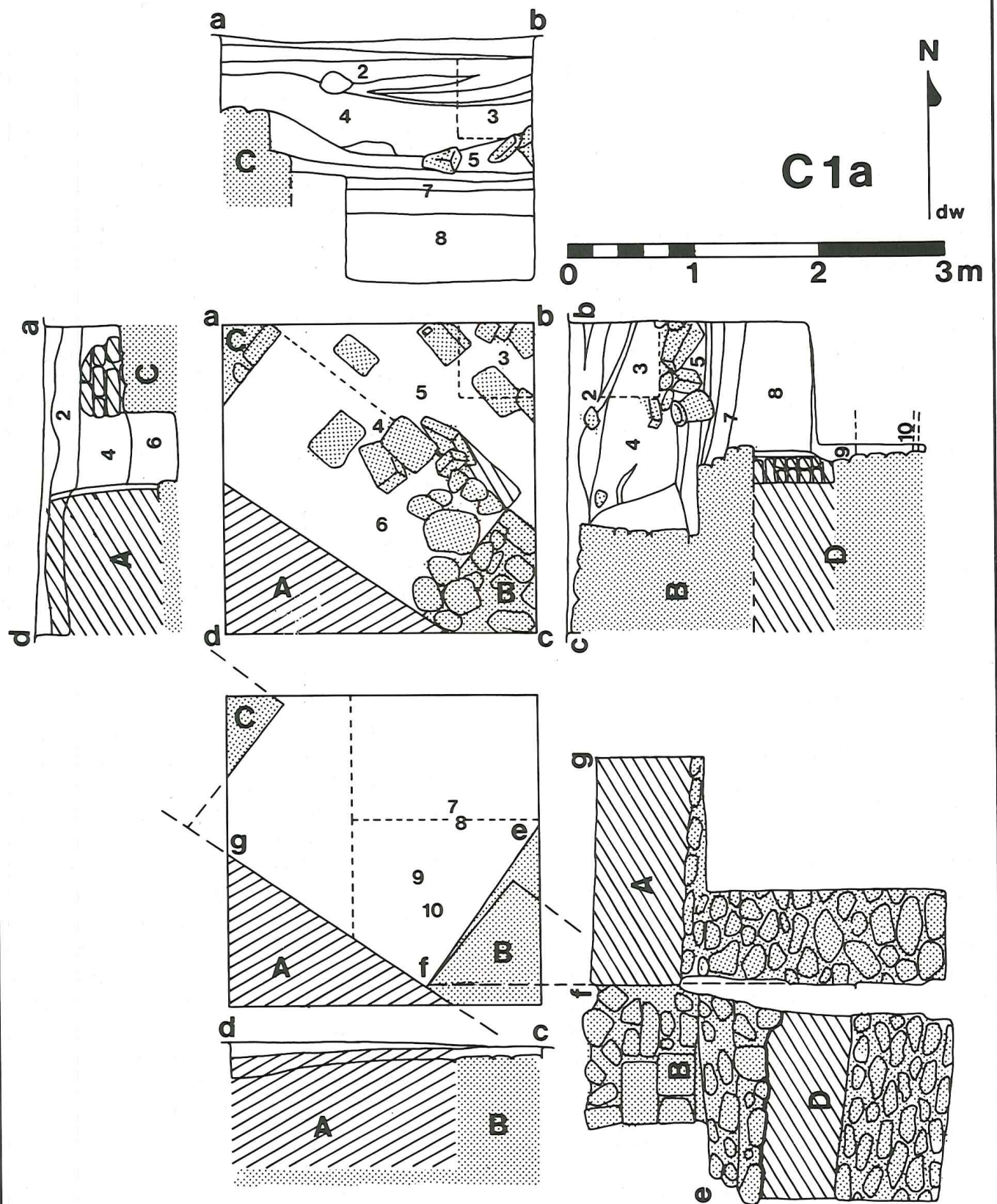


Fig. 6: Plan and sections of trench C1a.

B and C, composed of granite cobbles and faced with cut limestone. Beneath this dark brown soil was a compacted yellow-brown brick detritus, loci [5] and [6], mixed with fallen stones, the majority of which were cut limestone. A basalt mortar was also recovered from this debris, all of which lay on a packed dirt surface and layers of sandy clay [7].

Below this surface, wall A was made of stone cobbles and the soils changed to a dark brown midden deposit (including small stones, charcoal flecks and concentrations of artifacts) down to the bottom of wall B foundation and another packed earth surface. Wall B was preceded by an earlier wall, D, mud brick on stone, beside which the sequence of sand on dark midden repeated. These walls continued down but could not be pursued farther in this trench. The longevity and the slight batter of wall A suggests that this was an exterior wall. The midden deposits of the two phases contained an abundance of artifacts, both in quality and variety; e.g., there were inscribed sherds, worked bone and ivory, bronze objects, and ostrich eggshell as well as Far Eastern and Samaritan ceramics. These appear to represent two phases within the period of Abbasid prosperity at Ayla. The final phase beneath the surface may be taken as detritus from the Fatimid period (see below).

#### *Area D: The City Gate*

This gate revealed a complex history of rebuilding with a total preserved height of at least 4.5m. At this depth the water table prevented reaching the wall foundations and street pavement. The gate was 3m wide with a round arch in its earliest form; this was narrowed and, as the street levels rose, a secondary pointed arch was built into the filled in gateway (Pl. XLVII,2). Eventually only a basalt drain

pipe ran through the small doorway. Within the fill in front of the gate were blocks with a monumental Kufic inscription (Pl. XLVIII,1), parts of the *Ayat al-Kursi* for protection of the city.

Inside the gate was a wall parallel to the city wall with a similar large arch. The space between these arches was later narrowed and occupied by shops. The extent of this rebuilding makes the original formal plan of the gate difficult to determine. Tower 2, immediately north of the gate, was excavated revealing an internal arch and, below that, brick partition walls. The tower was entered through an arched doorway in the city wall.

The location of the city wall was determined through a very fortunate small test trench in the flat, featureless surface of the site (Fig. 7).<sup>8</sup> The inner face of the city wall was a line of sandstone blocks with, in certain portions, a good lime plaster. Piled against this wall were varves of sand and mud down to mud and bricky wash layers. The thin mud brick wall of a bin and wall C were found in this irregular surface. Wall B was a mud brick wall perpendicular to wall A. The lowest layer was dark brown midden debris with more concentrations of ash [10].

The matrix of the city wall, A, was mud mixed with quantities of small cobbles. Larger stone blocks, both granite and sandstone, defined the west face and slightly curving wall of the tower discovered on the final day of the 1986 season. The wall of Tower 3 was destroyed, just beyond this trench, by a large bulldozer pit excavated during construction of the Corniche road. The discovery of the city wall and tower in this trench allowed the formation of an hypothesis on the size and character of the town of Ayla; the 1987 excavation showed an error of only 10 m in the predicted location of the city gate.

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8. Trench D1a began as a 2.5 x 2.5 test, which was expanded an equal area to the west, and finally a third area, called D2b, making a total east-west length of 7.5 m. The deepest portion, against the east section, was 3 m. Supervision of the trench

was by the author, assisted by Mr. Suleiman Farajat of the Department of Antiquities, during a period of 6 days with 6 workmen (0.4m<sup>3</sup>/man-day, with 90% screened).

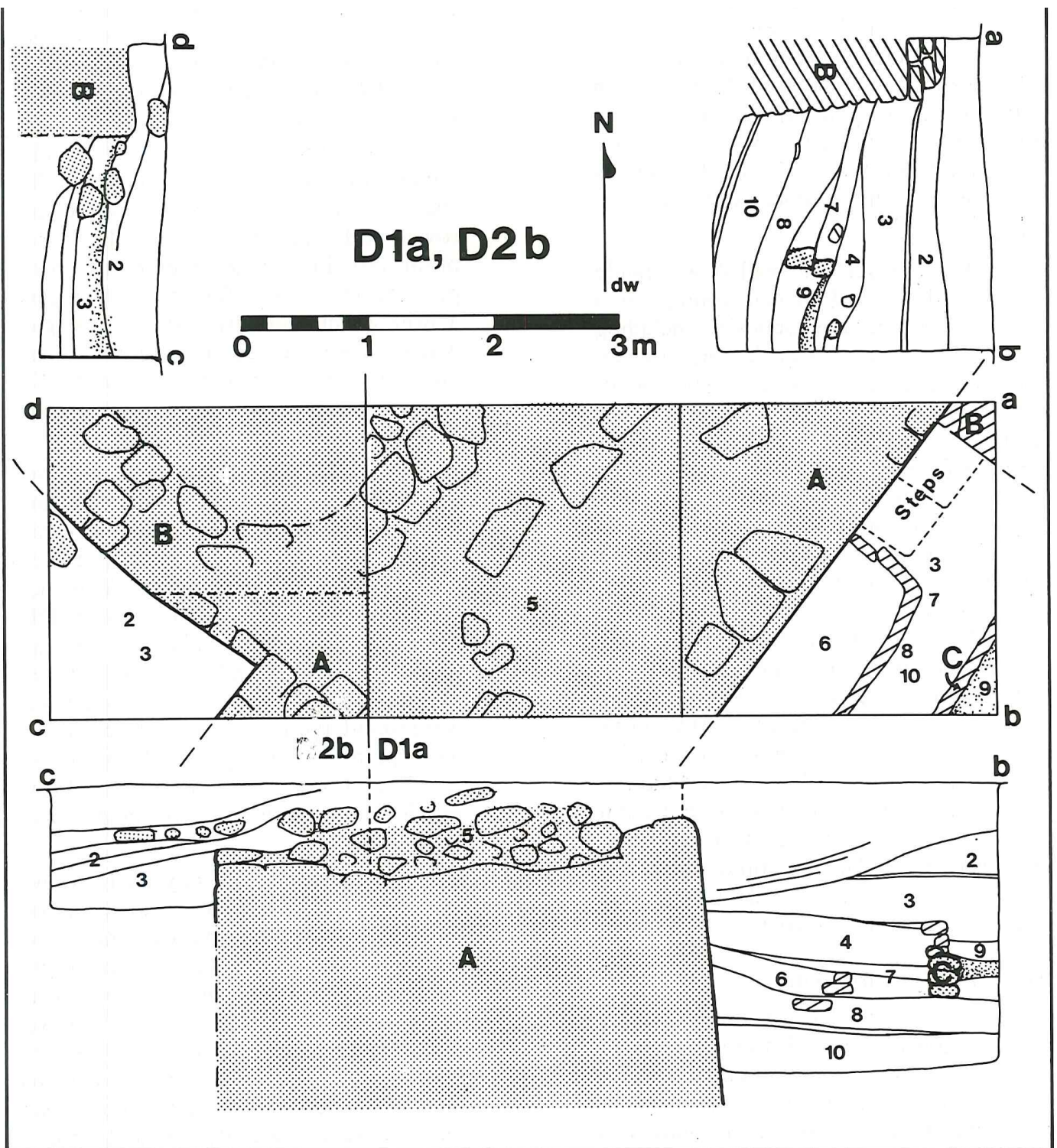


Fig. 7: Plan and sections of trench D1a and D2b.

### Area E: The City Wall

In the course of tracing the city wall north of the gate, two towers were found. The southern of these, tower 3, which had been severely damaged by a bulldozer pit (as noted above), was probably the same shape and size as tower 4. Between the towers, the city wall narrowed to a thinner curtain wall which accommodated build-

ings. An area between towers 3 and 4 was excavated to reveal the latest walls, a combination of stone and mud-brick structures. Most stones were reused from earlier, more carefully constructed buildings, including several column drums. One of these columns was set in the center of the *iwan* of a Samarra *bayt*, a popular form of domestic architecture during the Abbasid period.

## Area F: The Large Enclosure

The residential character of the architecture in area E apparently continued southeast to area F, where two houses were separated by a narrow alley. This alley was perpendicular to a main street, some 2.5m wide, which might have connected the building in area A with the northeast gate. East of the street were the long walls of the large enclosure, characterized by a substantial construction with grey mortar. Features along the northeast wall include a small corner room, a well-constructed platform and stairway associated with an elaborate drain, a poorly constructed perpendicular wall and 3 columns, secondary but apparently in place. The northwest wall had a second stairway, behind which was a plastered pilaster (Pl. XLVIII,2); at this point, a deep test showed gravel floors resting on 2.5m of fill. The walls continued down to a running foundation and plaster floor. All materials below the floors were Umayyad. Near the southwest corner were two well-constructed platforms, possibly associated with a corner entrance.

### Artifacts and Dating

The artifacts from each of these areas have revealed the remarkable character of this city (Fig. 8).<sup>9</sup> The earliest ceramics are sherds of fine Nabataean painted bowls (8e) found with Roman wares (see below). Late Roman types include red slipped wares (8f), including sherds with simple stamped and rouletted decoration. Associable with these fine wares are coarse dark red cooking pots and amphorae in a cream surfaced red ware, known from late Byzantine and Umayyad contexts. While these types are known from Palestine, stylistic characteristics point to a connection with Coptic Egypt.

From the 9th century on, ceramics

include glazed wares, most commonly bowls and jars with a glossy monochrome glaze, yellow, brown or green. Other glazed bowls have splashed glaze in yellow, green, and brown colors, often with sgraffiato designs (8h). This decoration, as well as the vessel forms, are distinctively Samarran, characteristic of the 9th century caliphal capital north of Baghdad. Numerous pieces of the finest Abbasid ceramic art, bowls with lustre colours, have been found (8i). While most of these come from Iraq, some may be the products of Tulunid Egypt. These fine wares are associated with fragments of blue-green glazed storage jars, probably produced in Baṣra. Unglazed Abbasid wares include cream ware juglets with fine incised decoration and long thin handles with turban or button tabs; some of these have painted inscriptions (8d).

Ceramics of the Fatimid period illustrate a strong dichotomy on this site. On the one hand there are fine glazes, including lustre depictions. There are also increasing amounts of hand-made, very crude cups, bowls and basins (the nesting range of sizes and common characteristics led to these being called "Tupperware" during the excavation). Many of these have painted decorations (8j); some of the painted styles clearly anticipate the geometric painted wares which predominate during the Ayyubid and Mamluk periods.

Within each of the excavated loci complete sherd counts were made which will allow statistical analysis of ceramic change. As a preliminary exercise in ceramic trends over the history of the site, the relative popularity of five categories has been calculated for the six 1986 trenches (Fig. 9). The six trenches showed remarkable uniformity as portions of the curves, with B1d and B2b having the longest pattern, followed by C1a and A1b, and finally A2d and D1a,2b. Most of the wares

9. Space does not allow a full presentation of the artifactual corpora, especially the ceramics. A preliminary typology of 24 plates, with the complete 1986 excavation report, has been prepared. Copies of this manuscript are avail-

able in the Registration Center, Department of Antiquities, and in the library of ACOR. The artifacts on figure 8 are taken from this 1986 typology.

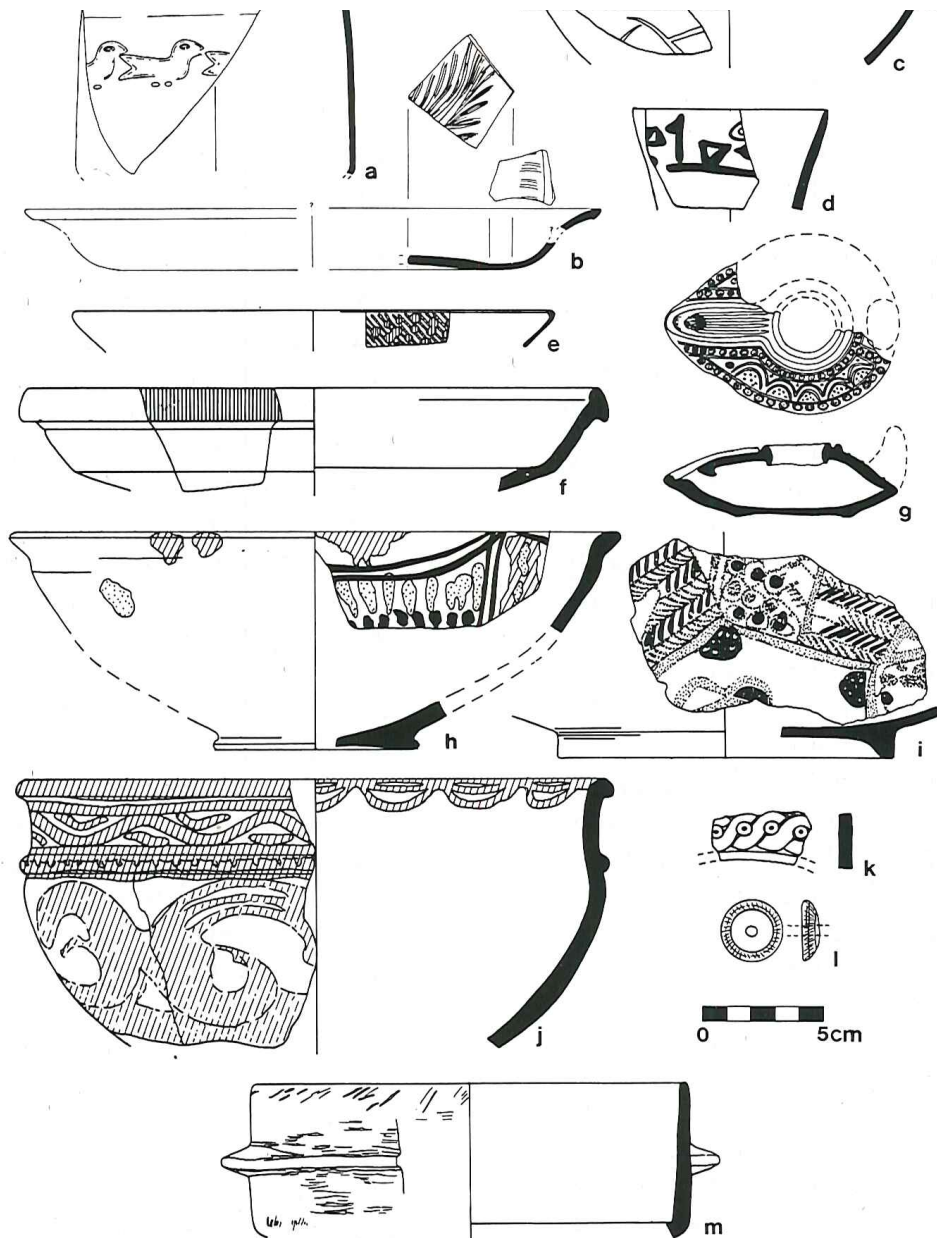


Fig. 8: Selected artifacts from Medieval 'Aqaba (from the 1986 excavations).

<i>Locus</i>	<i>Figure</i>	<i>Description</i>
a	C1a-7,8	26b clear glass, moulded and blackened.
b	A1b-2	29w dark blue glass, incised.
c	A2d-3	31o grey, dark olive green celadon, incised, stoneware.
d	C1a-8	16g light orange, cream slip, black paint, moderate medium sand.
e	surface	11b orange-red, dark red-brown paint, fine.
f	surface	13v buff, orange surfaces, burnished, orange-brown paint on rim, moderate medium sand.
g	A1b-19	30s light orange-cream, green glaze on exterior, moderate medium sand.
h	C1a-8	21z cream, black, green, yellow, clear glaze on interior, moderate medium sand.
i	C1a-8	23t cream, white and gold lustre on interior, grey and red lustre on exterior, moderate medium sand.
j	B1d-30	15a dark brown, red-pink surfaces, cream slip, red paint, abundant very coarse grit.
k	C1a-8	31a bone, carved.
l	C1a-5	31g bone, incised button.
m	B1d-19	34a steatite, scratched surface.



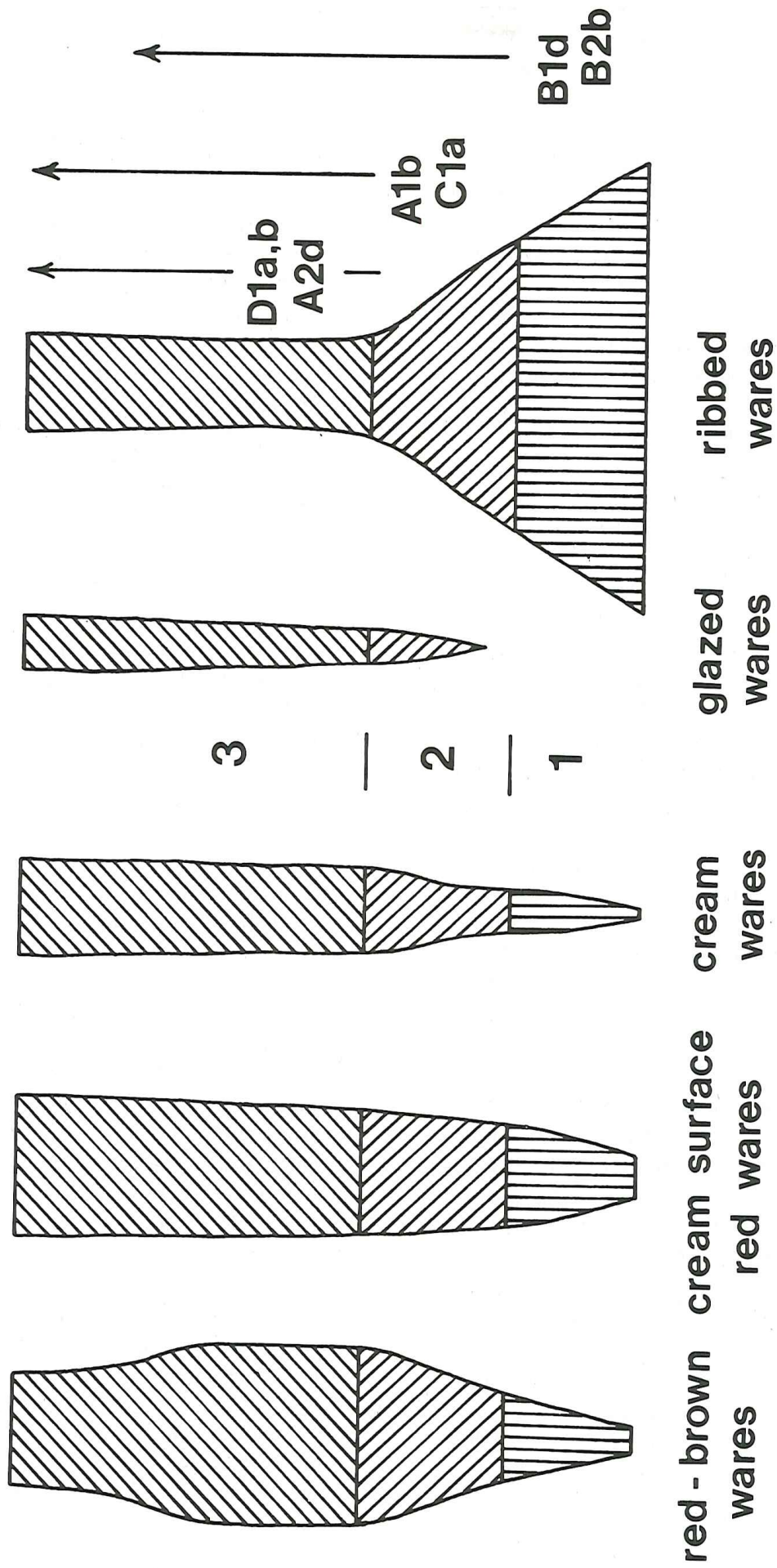


Fig. 9: Trends in certain ceramic categories.

exception of the ribbed wares. Such storage vessels found in lowest levels of B1d and B2b near the sea wall may show, in part, a functional distinction. Perhaps most informative for Islamic archaeology is the minor proportion of glazed wares, which sherds were not only fewer but usually smaller. Progress in the understanding of Islamic archaeology is obviously dependent on greater understanding of non-glazed ceramics.

Three ceramic periods may be suggested on the basis of the ceramic wares in this chart:

- |   |                  |  |
|---|------------------|--|
| 1 | Early Islamic I  | (Pre-Umayyad and Umayyad)<br>650-800   |
| 2 | Early Islamic II | (Early Abbasid)<br>800-950             |
| 3 | Middle Islamic I | (Late Abbasid and Fatimid)<br>950-1100 |

This periodization may be applied provisionally to the matrix diagram of loci within all four trenches (Fig. 10). It should be understood that such periodization is limited by the relatively small samples and that the inclusion of the 1987 results, with a detailed ceramic typology, will greatly refine this preliminary study.

Chronological and inter-regional implications are confirmed by other artifactual categories. For instance, glass sherds representing each of the periods are present, though the majority are glass bowls and cups of the Abbasid period. Similar vessels are known from Abbasid levels at Susa (Kervran 1984, though colors are different).<sup>10</sup> Beakers with a row of birds are known from Egypt (8a; Clairmont 1977: 73, Pl. 15). The incised bowl (8b) is likewise probably an Egyptian manufacture. Some tesserae suggest mosaics will be found on the site. Far Eastern ceramics are found in association with Abbasid wares, such as the large celadon jar with the

a lid. Dating of these celadons and porcelain precisely matches that of the Islamic ceramics.<sup>11</sup>

Other artifacts illustrate the same potential either as independent categories or in context with ceramics, etc. Numerous fragments of steatite vessels show, through stratigraphic indications, a stylistic progression — a scratched type (8m) precedes plain and then vertical tool marked types, all within an Abbasid date. A more commonly studied category, the unglazed and glazed lamps, ranges from saucer to moulded types (8g). The rare bone artifacts show an elaborate guilloche pattern, possibly an inlay piece (8k), and a simple button (8l). These smallest objects have the same importance as the largest, or at least heaviest. Numerous pieces of carved stone, usually limestone, architectural elements were found. Other pieces were of marble, parts of a chancel screen and a capital, typical of late Byzantine church elements, e.g. at Mt. Nebo. Basalt was also present in the form of pipes, mentioned above, and mortars and grinders in a wide range of sizes.

## Conclusions

The four trenches excavated in 1986, presented with limited details in this paper, show the general stratigraphic and architectural characteristics of this site. The context of each of these areas has been more fully explored in 1987, the general outlines of which have been indicated here. Some inferences from this mass of data may now be advanced.

The issue of the pre-Islamic town, called Ailana for the sake of clarity, remains problematic. Whatever the nature of the Nabataean and earlier settlements, there must have existed a large Roman camp, which accommodated the Xth legion Fretensis in the 4th century. One may

10. This summary is based on a report on the 1986 glass prepared by Carol Meyer and included in the 1986 report (above, n. 9). References are to M. Kervran, 'Les niveaux islamiques du secteur oriental du Tepe de l'Apadana', *Cahiers de la D.A.F.I.* 14 (1984), p. 211-35; Clairmont, *Cata-*

*logue of Ancient and Islamic Glass*, Athens, Benaki Museum, 1977.

11. The Far Eastern ceramics are the subject of special studies by John Carswell and Dr. Ho Chui-mei.

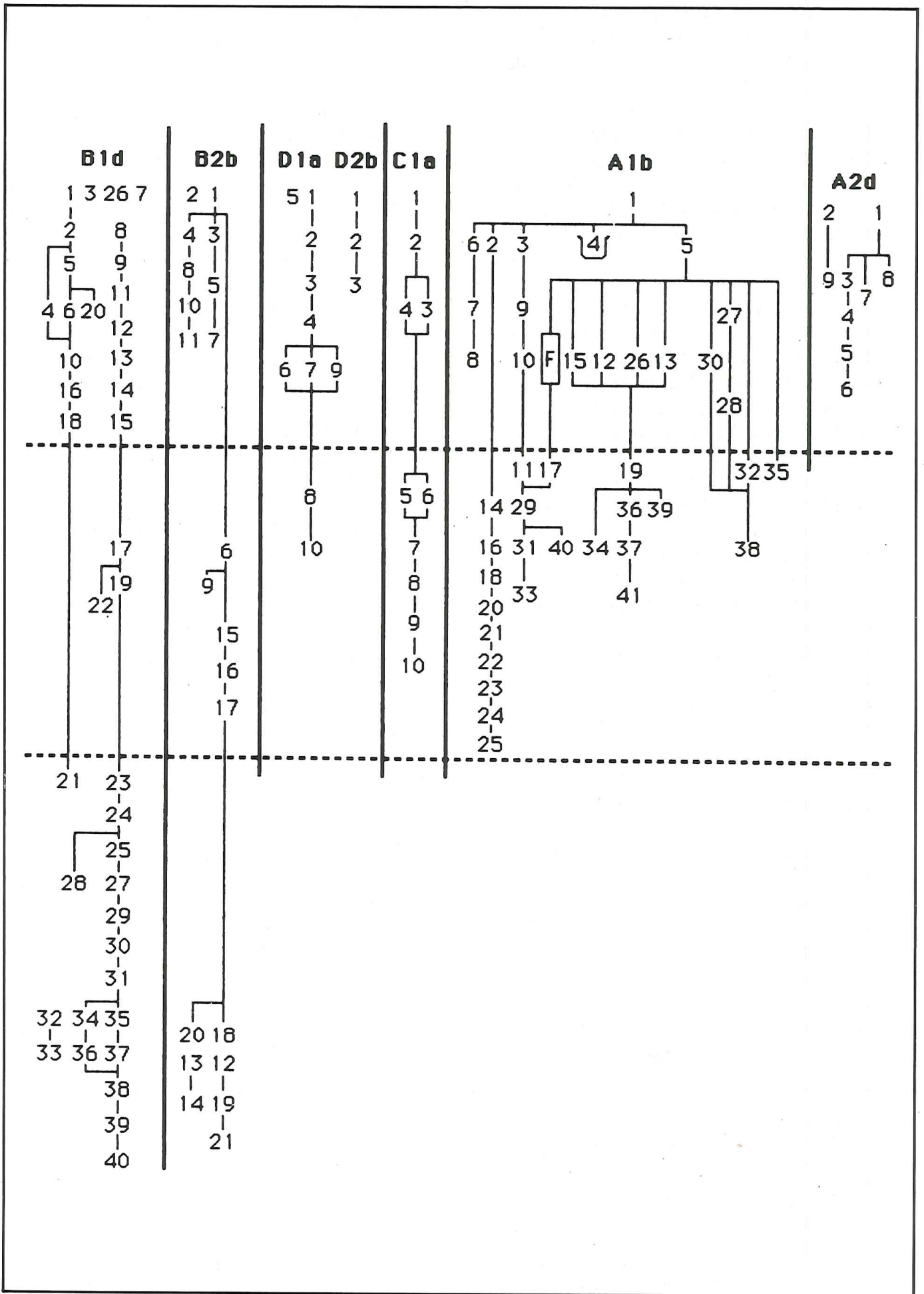


Fig. 10: Matrix diagram of loci from the 1986 excavations.

recall al-Muqadasī's description: "Wayla.. is usually called Ayla, but [the true] Ayla is in ruins nearby." The name Wayla, which no other geographer uses, may be a diminutive, as Musil suggests, and reflect al-Muqaddasī's observation of the ruins of the large Roman camp beside the smaller Islamic town. While Nabataean, Roman and early Byzantine sherds have been found on the site, mainly in the matrix of the walls, no distinctive levels or concentrations have been found. On the other hand, surface sharding to the northwest of the site, for a distance of about 500m, has produced just such ceramic material. Though no walls of a legionary camp are visible yet, one may suggest that ruins of the earlier town lie next to the Islamic town.

This has important implications for the foundation of the Islamic town. One of the characteristics of the *'amṣār*, the camp towns founded during the Muslim conquest, is that they tended to be situated next to older towns. Further, research into the history of 'Aqaba, combined with study of the earliest ceramics in deep stratigraphic probes, suggests that the foundation of this site probably occurred during the caliphate of 'Uthmān, about 650 A.D.<sup>12</sup> The archaeological implications of this hypothesis are that in 'Aqaba one has pre-Umayyad (and early Umayyad) ceramics, architecture, and urban planning. This is one of the first, clear archaeological examples of this transition,<sup>13</sup> of the earliest stages in the development of Muslim civilization.

The Abbasid and Fatimid periods at 'Aqaba represent important additions to the history of Jordan, deriving from a unique opportunity to clarify the archaeology of these two, neglected periods.

'Aqaba was an active participant in the prosperity of Abbasid times, with connections to Egypt, Iraq and the Far East. Parallels with Egypt are mainly with Fustaṭ; more dramatic are the connections with the Abbasid corpus from Samarra. Thus, from the fine lustre wares, the blue-green storage jars, and the celadon bowls found at 'Aqaba comes the first irrefutable proof of the participation of the "port of Palestine" in the extensive international commerce of the eastern Caliphate. As a port the history of the site is remarkably similar to that of Siraf on the Iranian coast. Towards the end of occupation at this site, the architecture and ceramics signal the growing turbulence of the 11th century and anticipate aspects of the archaeologically better known Ayyubid and Mamluk periods in Jordan.

The site of medieval 'Aqaba is unique in Jordan and, although half of the city has been destroyed, it is almost miraculous that so much of it remains to be studied. The preserved height of its towered city walls, its streets and houses, means that complete excavation will reveal an Islamic city comparable to Jarash. In some ways, medieval 'Aqaba is even more important than Jarash, since it provides two opportunities: first, as a clear contribution to understanding the development of Islamic cultural history, and second, as a focus for regional interaction and inter-regional commerce in medieval times. In these and other areas of interest, the site of 'Aqaba may hopefully enhance historical understanding and provide models for the archaeology of the more remote past.

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12. A full explication of this argument may be found in "Evidence of the Umayyad period from the 'Aqaba excavations," prepared by the author for the 4th History of Bilād al-Shām conference, held at the University of Jordan in Amman, October, 1987.

13. Archaeological criteria for the late Byzantine and early Islamic periods are only recently becoming a focus for archaeological research (Walmsley 1982). This is partly due to the

publication of large, well-stratified corpora of Umayyad ceramics. The principal sites for this data are Pella (A.G. Walmsley, 'The Umayyad pottery and its Antecedents', in *Pella in Jordan 1*, A. McNicoll et al., eds, Canberra, 1982, p. 143-57), Jerash (F. Zayadine, ed., *Jerash Archaeological Project 1, 1981-1983*, Amman, 1986), and Amman (A. Northedge, *Qal'at 'Amman in the Early Islamic Period*, London, 1984).