

THE 'GADARA REGION PROJECT' IN NORTHERN JORDAN

THE SPRING CAMPAIGN 2006 ON TALL ZAR'A

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Introduction

In 2001, an interdisciplinary project started in the Wādī al-ʿArab, i. e. the 'Gadara Region Project', conducted by the Biblical-Archaeological Institute Wuppertal and directed by Prof. Dr. Dieter Vieweger. The first two years were taken up by intensive surveys in the Wādī al-ʿArab and its tributary, Wādī az-Zaḥar. During these explorations, Tall Zar'a emerged as the most promising site for investigating the more than 5000 year old history of the region. The first excavation was carried out in 2003. Since then, each year two campaigns (in spring and summer) were carried out. In 2004, the co-operation with the German Protestant Institute of Archaeology was established. The project has since been directed by Prof. Dr. Dieter Vieweger and Dr. Jutta Häser. The authors have reported regularly on the progress of the work, especially on the results of the excavations on Tall Zar'a.

The fourth excavation campaign was conducted from 19 March to 22 April 2006. A team of 22 archaeologists, surveyors, architects and students from various disciplines worked on the excavation for five weeks, supported by 33 volunteers who participated for two weeks. Eight Jordanian workers from Umm Qays were also recruited for the excavation.

The work continued in Area I in the north-west of the tall. At the end of the excavation, 31 squares (5 x 5m) were opened, 775m² in total. In most of the area excavated, a depth of 4m of the proposed 12m of cultural layers have been reached. At that point, the archaeological investigation had arrived at the latest phase of the Late Bronze Age. The earlier strata can only be excavated after the whole area has been exposed at this level, for logistic but especially security reasons. However, the excavated area should

be extended to ca. 1000m² before continuing to deeper levels.

A second area (Area II) was opened on the north side of the tall's plateau, and five squares (5 x 5m) were excavated.

Results of the 2006 Excavation Campaign

Area I

In order to show the development of the architectural features from the Early Bronze Age to the Roman-Byzantine period, the excavation results will be explained below, beginning from the lowest layer reached to the surface of the tall.

The survey of the tall done in 2001 showed a high concentration of Early Bronze Age pottery in Area I. However, only the outer layer of a massive Early Bronze Age fortification could be excavated in square AN-AO 115, in the step trench beyond the Late Bronze Age city wall.

The remains of two Middle Bronze Age strata with residential buildings have so far been uncovered in the same part of Area I (AM-AO 116-117), at 2m below the Late Bronze Age casemate wall. In the older one of these two strata, the corner of a house could be unearthed, and a hearth and a *ṭābūn* were found. The western part of the room has eroded down the slope.

In the younger Middle Bronze Age stratum, two rooms of two different houses were uncovered. They were separated by two walls that had been built against each other. The western part of one of the walls has also eroded. Therefore, it remains unclear, whether a fortification of the settlement existed at this place in this period. Actually, it is not possible to say anything definite about the Middle Bronze Age culture before the still unexcavated Late Bronze Age level and further strata have been excavated. It is a unique

case in northern Jordan that there is a chance at all to recognise the transition from the Middle to the Late Bronze Age culture.

In the Middle Bronze Age strata, the bases of walls, built with undressed field stones in dry-stone masonry (without mortar), as was usual in prehistoric strata, were excavated. Mud-brick walls — usually built on top of the stone base — were not found in any of these buildings. Only in the Late Bronze Age stratum mud-brick walls could be proved in many places in Area I. Remains of daub were found in contexts of collapsed walls and roofs of the Iron Age period.

In the Late Bronze Age (14th-13th century BC), at least two settlements existed — one subsequent to the other — on the tall. For the time being, only the latest Late Bronze Age stratum (**Fig. 1**) could be exposed. The most remarkable building of this stratum is the massive casemate wall, which fortified the settlement at the north-west flank. A charcoal sample from the collapsed walls gave a radiocarbon date between 1450 and 1300BC with 95.4% probability.

Five rooms in the casemate wall could be excavated, extending from AL 116 to AO 117. A sixth room could be confirmed in AP 118. In peacetime, the casemates were used for storage. In war times they were filled with earth to strengthen the wall additionally. In one of the casemates a drainage canal meets with three more tributaries from the residential area — originally covered with flat stone slabs. At this point, the water flowed over a small barrier and then into a semicircular basin, built with undressed stones, from where it drained into a deep, almost circular shaft, also built with undressed stones. This has a diameter of ca. 45cm. The shaft was excavated down to a depth of 1.2m. However, the bottom could not be reached as yet.

South of the casemate wall a large tower was uncovered. This inward-built tower was divided in two rooms with pavements of small pebble stones. The northern room was connected with the southern part of the casemate wall. Maybe, it was the room for a guard. The southern room was later divided by a small wall with two column bases. They probably supported wooden columns originally to carry the roof. A large stone — worked on its base and tapered at the top — found in this room might be a *mazzebe* (cultic stone). This find and the special layout

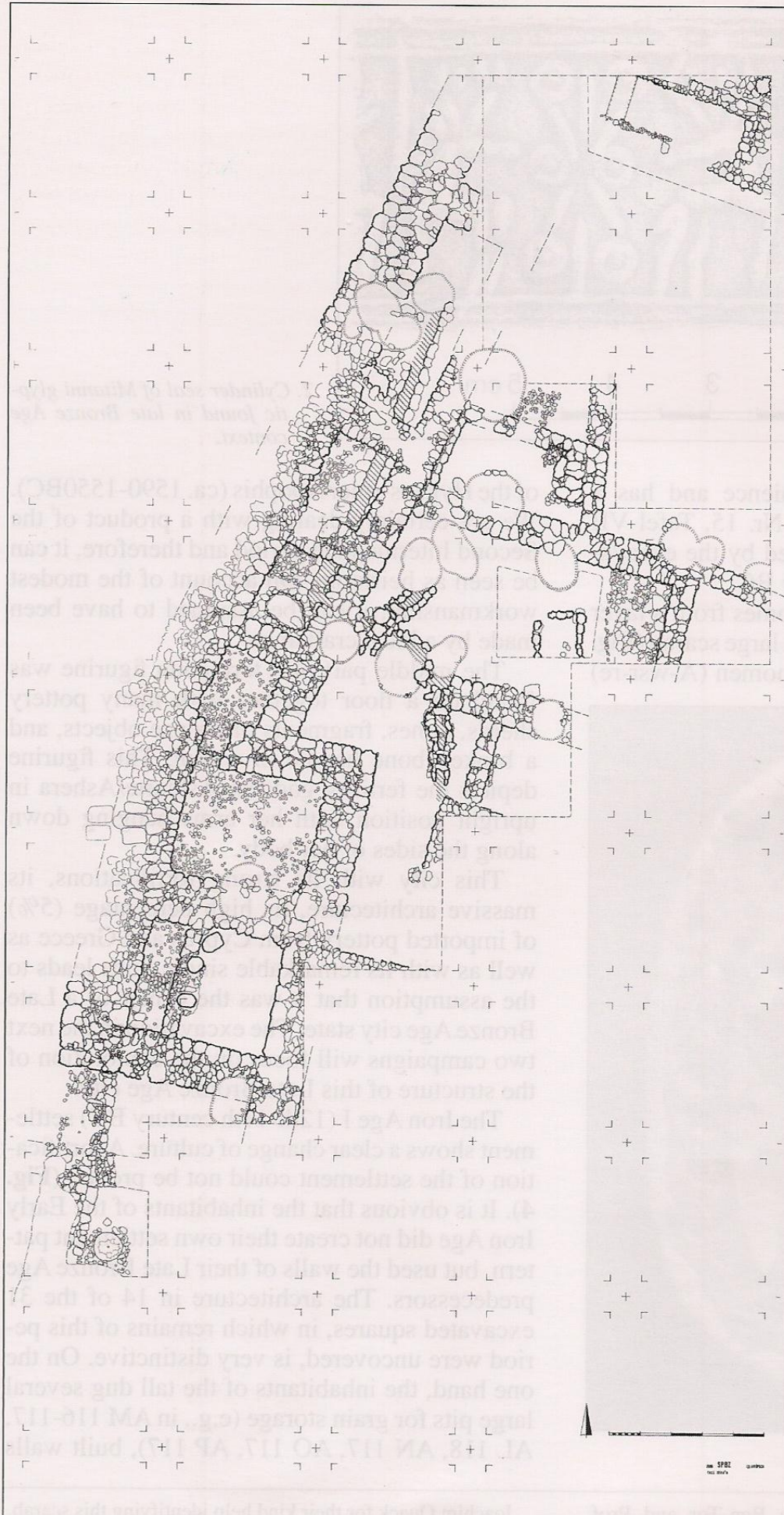
point to a small gate sanctuary.

South of the tower, four steps with a width of 2.75m have been discovered. They can be interpreted as a gateway to the two lower cities in the north and the west of the tall. To the south, the city gate was bordered by a room with a remarkable bell-shaped “pit”, surrounded by a paved floor. This is covered with a round carefully hewn stone, measuring 1m in diameter. The “pit” was excavated to a depth of 2.60m. However, the bottom has not been reached as yet. The layer around the pit can be dated between 1440 and 1300BC with 95.4 % probability.

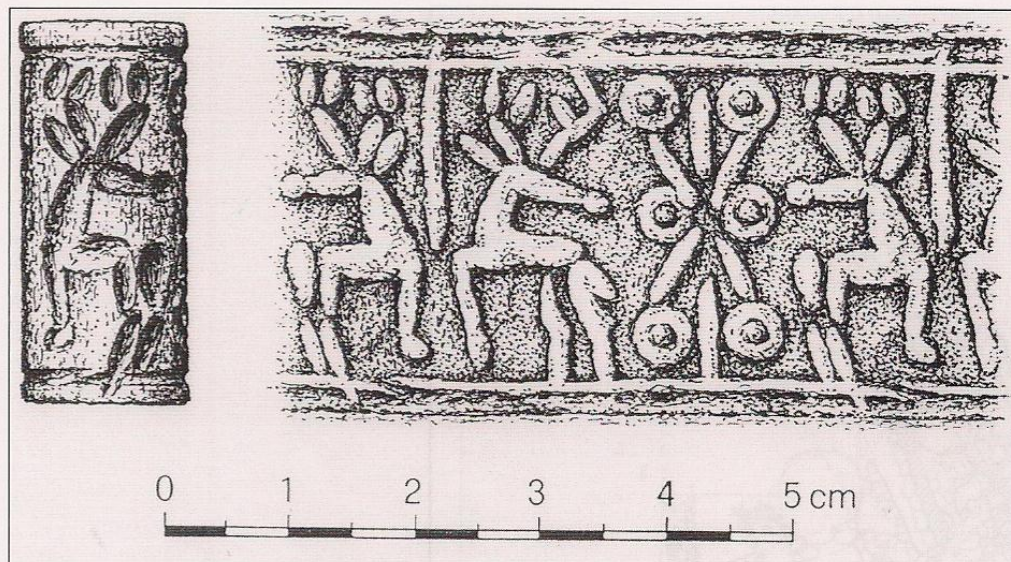
At the end of the spring campaign 2006, remains of residential buildings of the Late Bronze Age period were found on Tall Zar'a for the first time. Probably, a large courtyard existed in AL-AM 118-119, which was covered with a stamped mud floor paved with stones in some places. As mentioned earlier, three canals joined in this courtyard, draining the water into the casemate in AM 117. Several rooms were arranged around the courtyard, namely in AL 117, AL 118 and AN 118. However, it is still impossible to explain the whole structure and the function of this building.

In AP 118-119, another Late Bronze Age house was found. It was built with a stone base and mud-brick walls. Again, it is not yet clear how the rooms were arranged. It is expected that the residential buildings of the Late Bronze Age stratum can be better understood after the next excavation campaign. Already now, it is possible to say that the architecture, which is different from that of the following Iron Age period, is remarkable in size and quality. The thickness of the walls warrants the assumption that the houses originally had a second storey.

Some very interesting objects were found in this stratum. One of them is a cylinder seal (**Fig. 2**), which was discovered in a stone-lined pit. It measures 3cm in height and 1.3cm in diameter. It is made of faience and covered with a green glaze. It shows two stags, which are slightly reared up with their heads turned backwards. They are separated by a vertical line and turn their back on a plaited band. The seal belongs to the western group of the so-called ‘Common Style’ of the Mitanni glyptic and can be dated to the 14th-13th century BC (Salje 1990: 103). A very close parallel is a seal from Gezer, which



1. Plan of the Late Bronze Age stratum of Area I.



2. Cylinder seal of Mitanni glyptic found in late Bronze Age context.

was also manufactured in faience and has a green glaze (Salje 1990: 219 Nr. 15, Tafel VII 124). This piece has been dated by the excavators later than the 16th century BC.

A second interesting find comes from a layer of collapsed walls. It is a 1.3cm large scarab (Fig. 3). It is inscribed with the prenomen (A-wsr-re)



3. Inscribed scarab.

of the Hyksos-ruler Apophis (ca. 1590-1550BC). We are certainly dealing with a product of the Second Intermediate period and therefore, it can be seen as heirloom. On account of the modest workmanship, it can be assumed to have been made by a local craftsman¹.

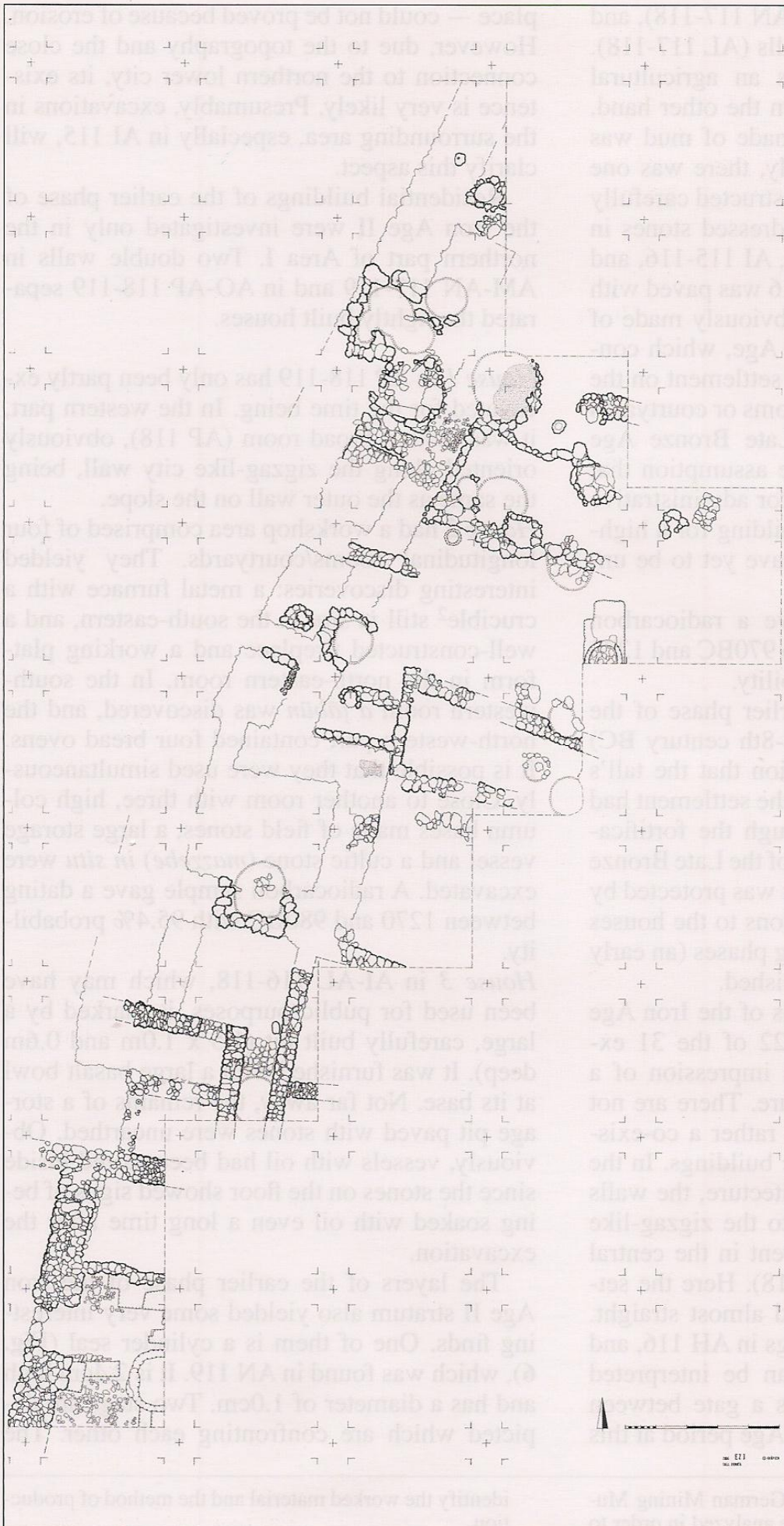
The middle part of a terracotta figurine was found on a floor together with many pottery sherds, bones, fragments of bronze objects, and a broken bone handle of a tool. This figurine depicts the fertility goddess Ashtarte/Ashera in upright position with her arms hanging down along the sides of her body.

This city with its strong fortifications, its massive architecture, its high percentage (5%) of imported pottery from Cyprus and Greece as well as with its remarkable single finds leads to the assumption that it was the center of a Late Bronze Age city state. The excavation in the next two campaigns will focus on the exploration of the structure of this Late Bronze Age city.

The Iron Age I (12th-11th century BC) settlement shows a clear change of culture. A fortification of the settlement could not be proved (Fig. 4). It is obvious that the inhabitants of the Early Iron Age did not create their own settlement pattern, but used the walls of their Late Bronze Age predecessors. The architecture in 14 of the 31 excavated squares, in which remains of this period were uncovered, is very distinctive. On the one hand, the inhabitants of the tall dug several large pits for grain storage (e.g., in AM 116-117, AL 118, AN 117, AO 117, AP 117), built walls

1. The authors thank Dr. Daphna Ben-Tor and Prof.

Joachim Quack for their kind help identifying this scarab.



4. Plan of the Iron Age I stratum of Area I.

for stables with installations (AN 117-118), and joined simple huts to older walls (AL 117-118). This could be interpreted as an agricultural working and storage space. On the other hand, an exceptionally large oven made of mud was found in AM 118. Additionally, there was one larger building with walls, constructed carefully with two or more rows of undressed stones in the south of Area I in AH 115, AI 115-116, and AK 117. The entrance in AI 116 was paved with stones. For access, use was obviously made of the ascent of the Late Bronze Age, which connected the lower city with the settlement on the tall. Two already excavated rooms or courtyards were built directly on the Late Bronze Age casemate wall. To confirm the assumption that this building was either used for administrative purposes or as a residential building for a high-ranking person, larger areas have yet to be uncovered.

Two charcoal samples give a radiocarbon dating for this stratum: 1220 to 970BC and 1270 to 1040BC with 95.4% probability.

The architecture of the earlier phase of the Iron Age IIA/B stratum (10th-8th century BC) (Fig. 5) leads to the assumption that the tall's population increased and that the settlement had an urban character. Even though the fortifications are not as strong as those of the Late Bronze Age, the Iron Age II settlement was protected by a city wall. Various modifications to the houses were made so that two building phases (an early and a late one) can be distinguished.

Until now, building remains of the Iron Age II settlement were found in 22 of the 31 excavated squares and give the impression of a dense agglomerated architecture. There are not only residential buildings but rather a co-existence of residential and public buildings. In the areas with agglomerated architecture, the walls of the houses are connected to the zigzag-like settlement wall. This is different in the central part of Area I (AH-AL 116-118). Here the settlement wall was stronger and almost straight. The two quadrangular buildings in AH 116, and especially in AK-AL 117, can be interpreted as towers. Whether there was a gate between them — as in the Late Bronze Age period at this

place — could not be proved because of erosion. However, due to the topography and the close connection to the northern lower city, its existence is very likely. Presumably, excavations in the surrounding area, especially in AI 115, will clarify this aspect.

Residential buildings of the earlier phase of the Iron Age II were investigated only in the northern part of Area I. Two double walls in AM-AN 117-119 and in AO-AP 118-119 separated the tightly built houses.

House 1 in AP 118-119 has only been partly excavated for the time being. In the western part, it was, with a broad room (AP 118), obviously oriented along the zigzag-like city wall, being the same as the outer wall on the slope.

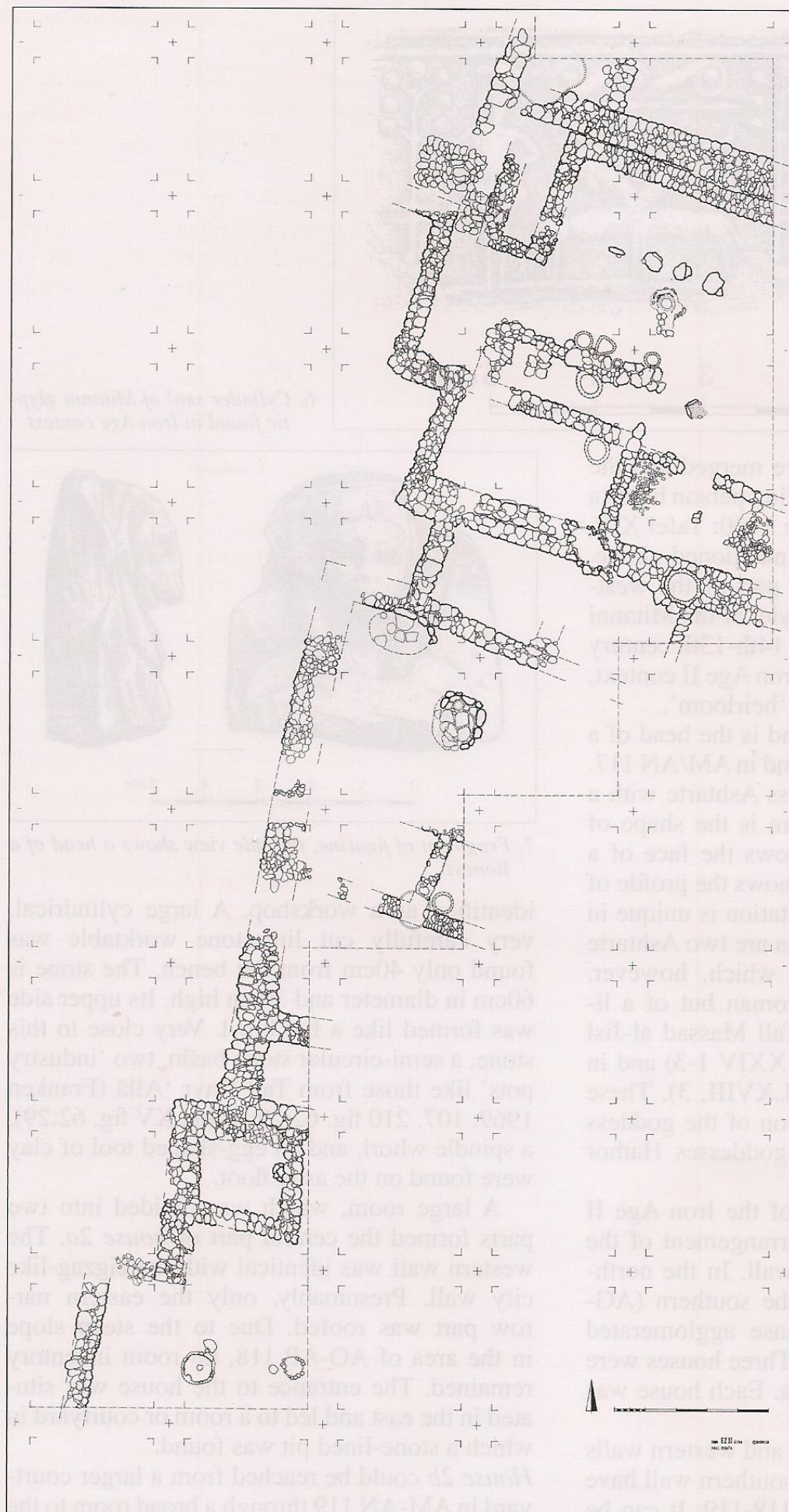
House 2 had a workshop area comprised of four longitudinal rooms/courtyards. They yielded interesting discoveries: a metal furnace with a crucible² still *in situ* in the south-eastern, and a well-constructed fireplace and a working platform in the north-eastern room. In the south-western room a *ṭābūn* was discovered, and the north-western part contained four bread ovens. It is possible that they were used simultaneously. Close to another room with three, high column bases made of field stones, a large storage vessel and a cultic stone (*mazzebe*) *in situ* were excavated. A radiocarbon sample gave a dating between 1270 and 980BC with 95.4% probability.

House 3 in AI-AL 116-118, which may have been used for public purposes, is marked by a large, carefully built pit (1.5 x 1.0m and 0.6m deep). It was furnished with a large basalt bowl at its base. Not far away, the remains of a storage pit paved with stones were unearthed. Obviously, vessels with oil had been stored inside since the stones on the floor showed signs of being soaked with oil even a long time after the excavation.

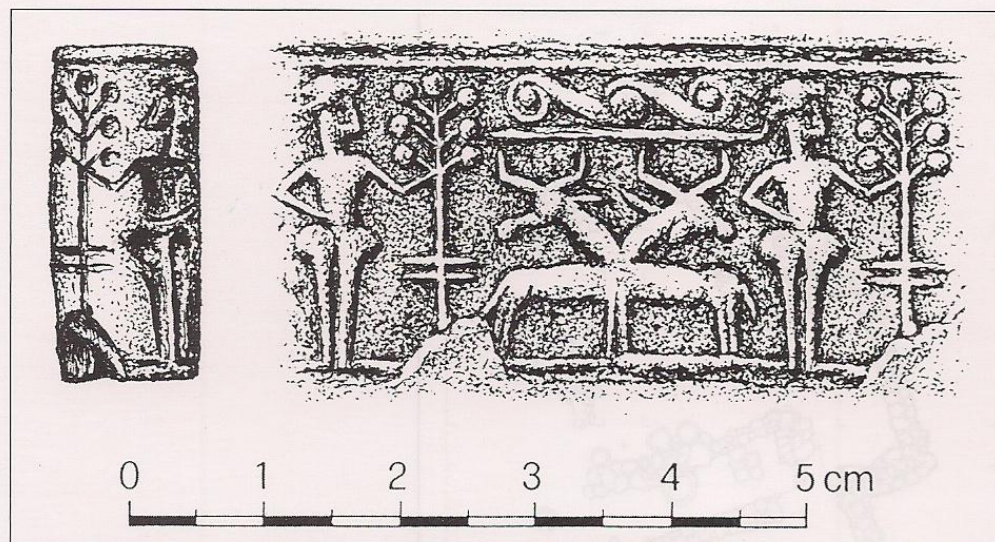
The layers of the earlier phase of the Iron Age II stratum also yielded some very interesting finds. One of them is a cylinder seal (Fig. 6), which was found in AN 119. It is 2.4cm high and has a diameter of 1.0cm. Two stags are depicted which are confronting each other. The

2. It was recovered and sent to the German Mining Museum in Bochum, where it will be analyzed in order to

identify the worked material and the method of production.



5. Plan of the Iron Age IIA/B stratum of Area I.



6. Cylinder seal of Mitanni glyptic found in Iron Age context.

upper parts of their bodies are merged and the heads are turned back. A standing person holds a so-called 'bouquet tree' (Salje 1990: Tafel XIV, 271). Like the cylinder seal mentioned above, this seal can be classified as part of the western group of the 'Common Style' of the Mitanni glyptic. It can be dated to the 14th-13th century BC. Since it was found in an Iron Age II context, we are probably dealing with 'heirloom'.

Another very intriguing find is the head of a terracotta figurine (**Fig. 7**) found in AM/AN 117. It is a depiction of the goddess Ashtarte with a Hathor wig. A specific feature is the shape of its face. The frontal view shows the face of a woman, while the side view shows the profile of a lioness. This kind of presentation is unique in Palestine. The closest parallels are two Ashtarte figurines with Hathor wigs, which, however, do not have the face of a woman but of a lioness. They were found in Tall Massad al-Jisl (Rahmani 1959: 184-185 Pl. XXIV 1-3) and in Bayt Shan (Rowe 1940: Pl. LXVIII, 3). These figurines present a combination of the goddess Ashtarte with the Egyptian goddesses Hathor and Sekhmet.

The later building phase of the Iron Age II is marked by an obvious rearrangement of the houses, though not the city wall. In the northern (AM-AP 117-119) and the southern (AG-AH 115-116) squares, a dense agglomerated architecture could be traced. Three houses were identified in the northern area. Each house was a separate unit.

Only parts of the southern and western walls as well as a bench along the southern wall have remained of *house 1* in AP 118-119. It can be



7. Fragment of figurine, the side view shows a head of a lioness.

identified as a workshop. A large cylindrical, very carefully cut limestone worktable was found only 40cm from the bench. The stone is 60cm in diameter and 30cm high. Its upper side was formed like a flat bowl. Very close to this stone, a semi-circular stone basin, two 'industry pots' like those from Tall Dayr 'Allā (Franken 1969: 107. 210 fig. 62:29; Table XV fig. 62:29), a spindle whorl, and an egg-shaped tool of clay were found on the ashy floor.

A large room, which was divided into two parts formed the central part of *house 2a*. The western wall was identical with the zigzag-like city wall. Presumably, only the eastern narrow part was roofed. Due to the steep slope in the area of AO-AP 118, no room inventory remained. The entrance to the house was situated in the east and led to a room or courtyard in which a stone-lined pit was found.

House 2b could be reached from a larger courtyard in AM-AN 119 through a broad room to the

north. Three more rooms were lying at the rear of it. Two of them were arranged longitudinally, whereas the southern one was divided in two by a thin wall. The room at the rear was large and connected to the city wall.

There are several cases in Area I showing that the Iron Age houses are separated from one another by a double wall so that the boundaries of buildings and property are clearly visible. Due to various arrangements of rooms and the different use of space, it is questionable in case of house 2a-b whether the rooms belong to one functional unit, or whether we are dealing with two separate houses, although they are not divided by a double-wall.

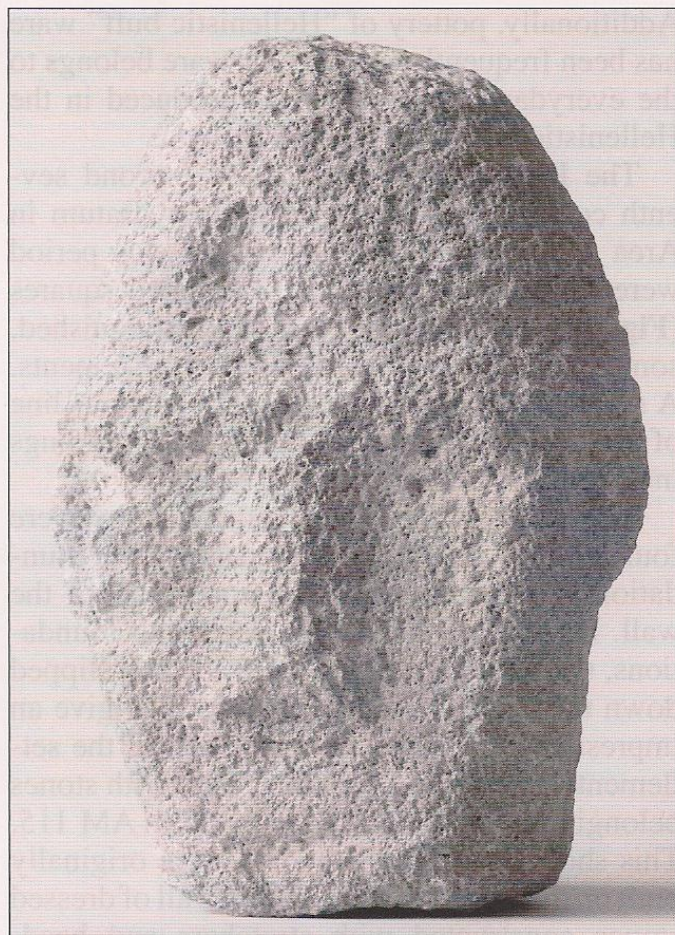
In the public area (house 3), the depot for oil *pithoi* of the older phase has apparently been closed and the large storage pit was changed into a paved courtyard with a massive working stone. A radiocarbon sample from this layer gave a dating between 1120 and 900BC with 95.4 % probability.

In the southern part of Area I in AG 115 and AG-AH 116, two rooms of this period were excavated. Even these few architectural remains show that we are dealing with agglomerated architecture again. This house/these houses were connected to the zigzag-like city wall like the houses in the northern part of that area.

Some small finds from this stratum are quite remarkable. A small, seated bronze figurine with gold application (7.5cm high), depicting the god El in blessing position, was found beneath an Iron Age wall in square AO 118 above a burnt layer. This find was already discovered in 2005. Now, the burnt layer could be dated by radiocarbon to between 1270 and 980BC with 95.4% probability. This is a *terminus ante quem* for the deposition of the El figurine.

A basalt head of a man (19 x 12.5 x 8.5cm) (Fig. 8) was found — used as building material — in a wall of house 2a in AO 119 with its face upside down. The execution of the face is not very accentuated, but mouth, nose, eyes and ears are clearly recognisable. There is a small edge along the forehead, so it may be assumed that the head once wore a cap or something similar.

Archaeological remains of the Hellenistic-Early Roman period (fourth century BC-first century AD) were found in 10 of the 31 excavated squares. The excavations brought to light



8. Basalt head of a man.

that Area I was used but not inhabited in this period. This result is not surprising because the survey carried out in 2001 already showed that 13% of all pottery sherds could be assigned to the Hellenistic or Early Roman period, but only 1.98% of them were found in the squares of Area I. Therefore, residential buildings were not expected there. The place was predominantly used for waste disposal and storage facilities. At least two large pits in AM-AN 119 had been dug for disposal purposes. Three more, carefully stone-lined pits were probably used for the storage of grain. In two cases, the bases of the pits were dug into the double wall (in AO 119 and AP 118) dated to Iron Age. The Hellenistic-Early Roman inhabitants thus had a well-made base to protect their grain against rodents. Remains of walls are recognisable especially in AM 119, without showing an architectural design, which can be explained. In addition, the remains of a small canal were found in AO 119.

The chronological classification is based on the fact that the Roman-Byzantine houses as well as a small street in AN-AO 119 covered the Hellenistic-Early Roman installations completely.

Additionally, pottery of “Hellenistic buff” ware has been frequently found. This ware belongs to the everyday pottery and was produced in the Hellenistic and Early Roman periods.

The Roman-Byzantine period (second seventh century AD) is the uppermost stratum in Area I. Archaeological remains of this period were found in 18 of the 31 excavated squares (Fig. 9). Five houses can be distinguished, sometimes with elaborated room arrangements. A stone-paved street following the contour line of the slope (AM-AO 119) divided the buildings into a western and an eastern section.

The walls of the houses on the slope were founded very deeply. In many cases, these foundations were wider than the upper part of the wall. Despite the fact of the deep wall foundations, the western parts of the walls had slipped down the slope. Two observations may give an impression of the original extension of the settlement. First, a 3m deep shaft, built with stones belonging to this period, was found in AM 115. This shows how far the houses were originally built on the slope. Second, a thick wall of dressed stones constructed with stretchers and headers, which is visible halfway down the slope to the east of the tall, leads to the assumption that the settlement was fortified during this period. However, it has still to be proved that this wall surrounded the tall completely. In fact, it can be assumed that the fortification of such a densely inhabited settlement was only necessary in the third/fourth century when the political situation in Palestine became more complex. One of the main research focuses in the coming years will be this: Which kind of relation existed between the ancient Decapolis city of Gadara and the settlement on Tall Zar’a?

The architectural structure of the houses can be best explained using *house 1* in AM-AN 117 and AK-AN 118 as an example. House 1 could be entered from a courtyard with different installations in AK-AL 118. The entrance of the roofed room (a column base was found almost in the middle of the room) in AL-AM 118 was situated in the south where a threshold was found. At least three more rooms in AM-AN 117 and AN 118 belonged to the house, whereas the room in AN 118 could also have been a courtyard due to its pavement.

The second of the excavated houses, *house 2*,

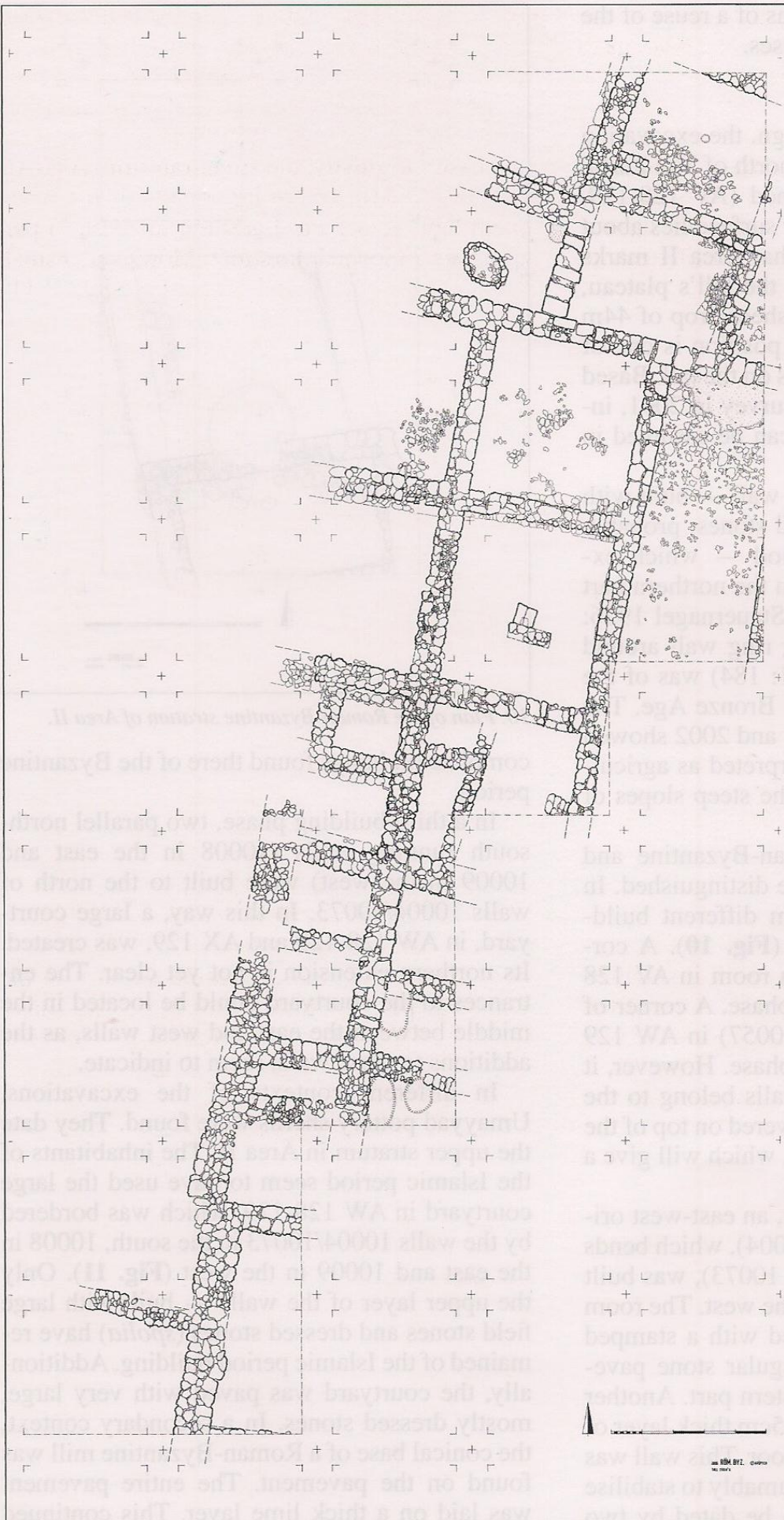
of the Roman-Byzantine period was discovered north of the former. It was erected later. None of the walls, which are butted against house 1 were integrated into the walls. In addition, *house 2* (AO-AP 118-119) was later extended to the east. Originally, the street ran from AM-AN 119 to AO 119, where large parts of the pavement have remained. Later on, the eastern part of *house 2* blocked the street. Moreover, a small wall in AP 118-119 and a post-hole in AP 119 give an indication of the original structure of the eastern part of *house 2*. A stone-lined storage pit was found in AO 118 and a pavement in AP 119, which leads to an interpretation of a courtyard.

House 3 is documented only by one wall in AM 119 east of the paved street. Its extension and structure are still unclear. However, its existence shows the building density in the settlement in the Roman-Byzantine period. Therefore, we have to anticipate a remarkable village.

Due to the missing east-west extension of the Roman-Byzantine buildings in the southern squares, more houses can only be surmised. Neither the separation of the fourth house in AH-AL 116-117 from house 1, nor its architectural plan can be traced.

The two coins, which have already been cleaned and classified can be dated to the Era of Hadrian (117-138AD) and to a time between 400 and 450AD, respectively; 13 more coins are being studied. 438 pottery finds could be classified as “Red Black Slip White Painted”, which was not only produced in the Byzantine but also in the Umayyad period. This may mean that the transition of the settlement of the Roman-Byzantine to the Umayyad period happened without a break — as in many places in Palestine.

The 2001 survey of the tall showed there was no overall settlement of the tall plateau during the Islamic period, but that it concentrated in special places. These will be explored in future years, i.e., the area around the well (late Islamic) and another area on the south-eastern plateau (middle Islamic). Some modest Islamic activities are also visible in Area I, especially in AG-AH 116. 145 of the 439 Islamic pottery sherds from Area I (94,554 pottery finds in total in Area I) came from this particular place. Especially the north-south oriented wall of Roman dressed stones in AG 116, the installation of a Roman spolia in AH 116, and a small east-west oriented



9. Plan of the Roman-Byzantine stratum of Area I.

wall in AH 116 are the remains of a reuse of the earlier Roman-Byzantine houses.

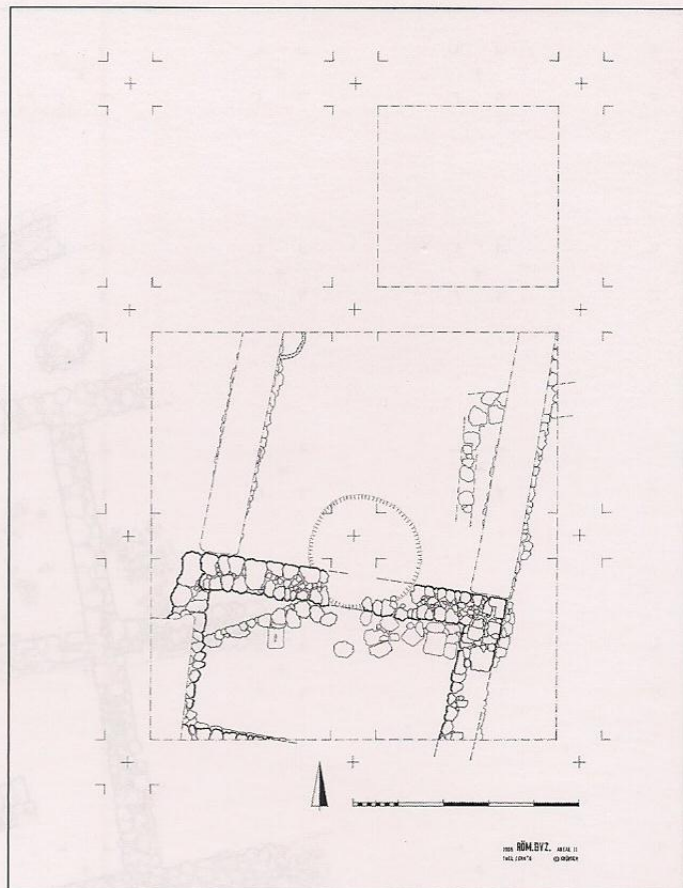
Area II

In the 2006 spring campaign, the excavation continued in a new area, the north of Tall Zar'a. Five new squares were opened (AV 128-129, AW 128-129, AX 129). Their surface lies about -19.5m below sea level so that Area II marks one of the highest points on the tall's plateau, which is also protected by a sheer drop of 44m to the north. This prominent position is one of the most outstanding locations on the tall. Based on the results of the pottery survey in 2001, intensive settlement activities can be assumed in this area in the Bronze Age.

Square AX 129 abuts on a wall — built with field stones and some dressed stones, probably spolia from the Roman period — which extends along the contour line in the northern part of the hill. Schumacher (see Steuernagel 1926: 464-465) mentioned a strong ring wall around the hilltop, and Glueck (1951: 184) was of the opinion that this dated to the Bronze Age. The trial trench excavated in 2001 and 2002 showed that similar walls can be interpreted as agricultural protection walls along the steep slopes of the tall.

In this campaign a Roman-Byzantine and an Umayyad stratum could be distinguished. In the Roman-Byzantine stratum different building phases are recognisable (**Fig. 10**). A corner (walls 10055/10080) of a room in AV 128 belongs to the first building phase. A corner of another room (walls 10038/10057) in AW 129 can be assigned to the same phase. However, it is not clear, whether these walls belong to the same house. A coin was discovered on top of the last-mentioned walls (10038), which will give a dating for this building phase.

In a second building phase, an east-west oriented wall in AV 128 (wall 10004), which bends to the south in AW 128 (wall 10073), was built on the walls 10055/10080 to the west. The room created in this way was paved with a stamped mud floor into which an irregular stone pavement was integrated in its eastern part. Another wall (10050) was built on a 3-5cm thick layer of sandy soil covering the mud floor. This wall was built against wall 10004, presumably to stabilise it. This restoration phase can be dated by two

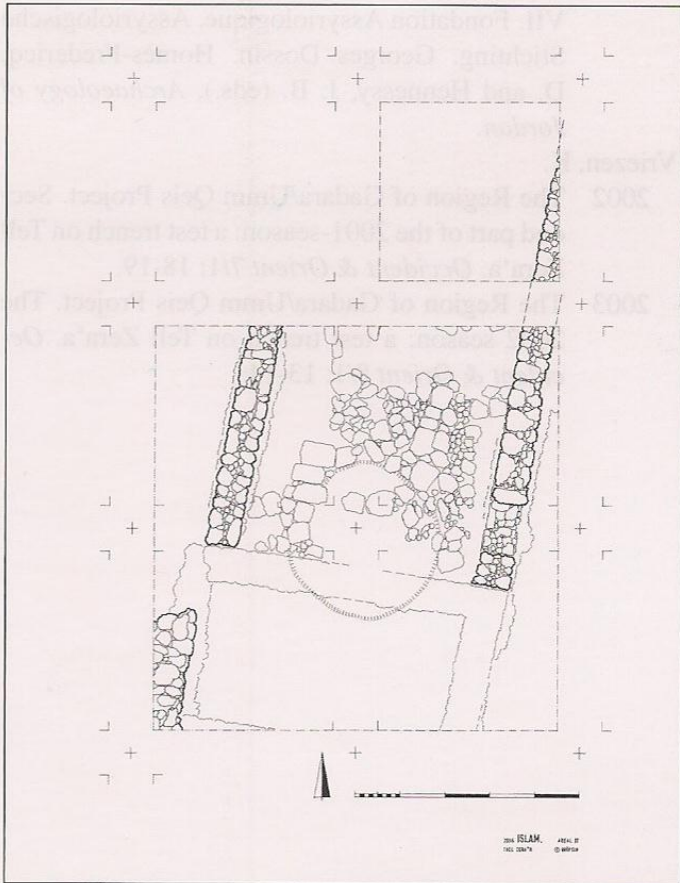


10. Plan of the Roman-Byzantine stratum of Area II.

complete oil lamps found there of the Byzantine period.

In a third building phase, two parallel north-south running walls (10008 in the east and 10009 in the west) were built to the north of walls 10004/10073. In this way, a large courtyard, in AW 128-129 and AX 129, was created. Its northern extension is not yet clear. The entrances to the courtyard could be located in the middle between the east and west walls, as the additions to these walls seem to indicate.

In different contexts of the excavations, Umayyad pottery sherds were found. They date the upper stratum in Area II. The inhabitants of the Islamic period seem to have used the large courtyard in AW 128-129, which was bordered by the walls 10004/10073 in the south, 10008 in the east and 10009 in the west (**Fig. 11**). Only the upper layer of the walls — built with large field stones and dressed stones (*spolia*) have remained of the Islamic period building. Additionally, the courtyard was paved with very large, mostly dressed stones. In a secondary context, the conical base of a Roman-Byzantine mill was found on the pavement. The entire pavement was laid on a thick lime layer. This continued



11. Plan of the Umayyad stratum of Area II.

through the entrance in the eastern wall 10008, which was marked by a dressed stone standing in an upright position. Thus, this entrance can safely be attributed to the Islamic period.

Acknowledgements

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