

2.1. Area D

2.1.1. Stratigraphy and Architecture

WOLFGANG ZWICKEL

Area D¹, which is situated on the acropolis (in squares Q 17–21, R 16–21, S 16–21, T 19–21), was originally excavated during the excavations of VOLKMAR FRITZ in 1982–1985.² It is part of the Iron Age IIB (stratum II)³ settlement founded after 760 BCE and destroyed in 733/732 BCE by the Assyrians.⁴ FRITZ found a 5 m broad city wall (W607), one half of a city gate (W619/W623/W653 with the chamber L. 618 and the passageway L. 658 and L. 633), a platform adjoining the city gate on its inner side (L. 662), a chamber (L. 612) between the city gate and a tripartite building (W607/W697/W676/W664, L. 663, L. 683, L. 684) with an adjoining, but only partly excavated building of the same type (W686, L. 670, L. 680, L. 693). Several small areas within area D were re-excavated in 2004⁵ under the area supervision of WOLFGANG ZWICKEL. These new digs are comprised of three parts:

- a final excavation of an unexcavated area between W697, W682, and W607 in the tripartite building left unexcavated by VOLKMAR FRITZ in 1982–1985 (square R 17 [including parts of S 17])
- a probe through platform L. 662 in square R 20–21
- the cleaning of the entrance way of the gate area in square S 21 (L. 633/L. 658 of the old excavations).



Fig. 2.1.1.1. Tripartite building seen from east before the excavation in 2004. On the very left part of the picture is the Iron Age II city wall, then three aisles of the building are visible. In the front is the platform L. 663 and on the right side street L. 615, bordered on both sides by a wall. In the rear part of the left aisle are the unexcavated remains clearly visible.

The aim of the re-excavation in square R 17 was to remove the last part of the debris which was left by FRITZ. Due to the ongoing discussions about the function (stables?, warehouses? barracks? and other proposals) of these tripartite buildings, especially in *Tell el-Mutesellim/Megiddo*⁶, we decided to re-excavate these remains in order to take floral samples. We hoped to contribute to the still ongoing discussion on the function of the tripartite building in *Tell el-'Orēme*.

The aim of opening a small square within the platform L. 662 was to clarify the function of this installation and its possible history. This was done due to the ongoing discussions about the function of these platforms. In

¹ Since the excavation area is not oriented to the compass, the lost old benchmarks and in order to make the reading easier, the following note is necessary: the north-western wall is regarded as the northern wall, the south-western wall is regarded as the western wall, the south-eastern wall (= city-wall) is regarded as the southern wall, and the north-eastern wall is regarded as the eastern wall.

² FRITZ 1990, 43–58.

³ Cf. the drawing of the layout of this stratum in chapter 6 in this volume.

⁴ Cf. for the absolute chronology ZWICKEL 2015, 43–47.

⁵ There is a small methodological problem with re-excavations. Walls, installations etc., which were originally attributed to final stratum II, are meanwhile covered with a thin layer of new topsoil. In the locus list topsoil above already excavated loci was described as topsoil but attributed to local stratum D1 (= final stratum II).

⁶ After a long discussion about the function of these buildings, the excavations in *Tell el-Mutesellim/Megiddo* convincingly demonstrated that at least at this site the tripartite buildings were used as stables for horses; cf. CANTRELL 2006; CANTRELL/FINKELSTEIN 2006; BELKIN/WHEELER 2006. For a general discussion of our building cf. chapter 2.1.3. in this volume.

square S 21 we wanted to check the damage generated by erosion and animal activity in the unexcavated part of the second two-chamber-gate.

The following loci were found during the 2004 excavations:

Local stratum	Site stratum	Absolute chronology	Walls	Corresponding loci
D0	Topsoil			L. 3800 (general area), L. 3801 (R 17), L. 3802 (R. 17), L. 3804 (R 21), L. 3806 (R 18), L. 3808 (R 17)
D1: R-S 17	II	Iron Age IIB		L. 3809, L. 3812, L. 3814, L. 3815 (including L. 3820, L. 3821 and L. 3823), L. 3817, L. 3822
D1: R 20–21	II	Iron Age IIB		L. 3807, L. 3810, L. 3811, L. 3816, L. 3819, L. 3824, L. 3825

The Excavation in the Tripartite Building in Square R 17



Fig. 2.1.1.2. The unexcavated part of square R 17 seen from north. Some of the stones in front of the debris are part of the partition wall of the tripartite building. In the middle of the picture the dump hill thrown out by an animal is visible with some sherds on top of the earth.

An area of approximately 4.5 x 2.3 m was left unexcavated in the southern part of the tripartite building (cf. Figs. 2.1.1.1. and 2.1.1.2.). Since the original benchmarks have been lost, the square was outlined along the city wall W607, the western wall of the tripartite building W697, and the inner pillar wall W682. Before we started excavating, we saw the dump of an large hole at the foot of W682 which was recently dug by an animal digging into the soft soil at the bottom of the debris (cf. Fig. 2.1.1.2). The dump in front of the underground animal burrows (L. 3801 and L. 3802) revealed large fragments of Iron Age II vessels. It turned out during excavation that animal activity had badly disturbed the lower layers of the debris (cf. L. 3814 and L. 3817). These burrows finally hindered the progress of the excavation because of the danger of injury of the workers.

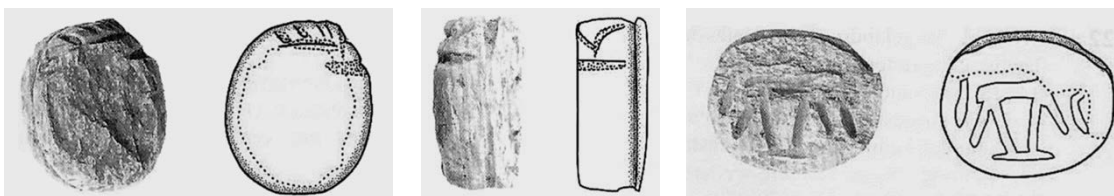


Fig. 2.1.1.3. Scarab L. 3800, basket 13132.

Independent of our excavation, ALESSANDRO BATTISTINI found a scarab on the surface of area D (L. 3800, basket 13132, Fig. 2.1.1.3.). The size of this pale brown, partly damaged scarab made of enstatite is 12.9 x 10.7 x 5.9 mm. The item, which has already been published,⁷ belongs to group B of the post-Ramesside mass ware, dated either to the early (KEEL) or late (MÜNGER) 21st dynasty (including the early 22nd dynasty).⁸ Therefore, this item is most likely connected with the Iron Age I settlement activities on the *tell* and is independent of the Iron Age IIB settlement to which area D belongs. The seal shows on the basis a walking lion (?), which is flanked by vertical

⁷ MÜNGER 2009, 120–121, Fig. 2; MÜNGER in KEEL 2017, 612–613 no. 18.

⁸ Cf. MÜNGER 2005, 394.

figures (branch? uraeus? panicle of a reed? zigzag motif?⁹). The upper part of the scarab is completely damaged. Additionally, a female figurine head (basket 13000/1) was found during restoration work (Fig. 2.1.1.4.).¹⁰

Before the excavations began, the area north and east of the excavation zone was cleaned (L. 3804, L. 3812) and a section across the remaining debris was cut and drawn (L. 3806). This preliminary section drawing served as an important guide for the ensuing layer-by-layer removal of the debris.

Top soil (L. 3808 starts at ca. -11.72) consisted of fairly compacted greyish-brown soil that contained some Hellenistic pottery, probably connected to the Hellenistic farmstead which was already excavated by VOLKMAR FRITZ next to the tripartite building.¹¹

Below topsoil at about -11.65 we encountered a layer of soft and very loose, reddish-brown mudbrick material mixed with fallen stones (L. 3809). At least in the western part, this is a layer of fallen building stones and is likely the remains of the neighbouring Hellenistic farmstead. They do not form a wall or any other man-made construction. More in the east the stones became thicker (up to 60 cm in size); this concentration of larger stones was originally called L. 3821 but later connected with L. 3815 because the stones do not form any architectural structure. The stones seemed to be sunken into the material of L. 3815 (see below). These huge stones are typical for the adjoining city wall W607. They were irregularly distributed over the dump – very untypically for stones of a fallen wall. They were probably thrown (probably by people conquering the city by climbing the city wall) into the fire which destroyed the tripartite building. City wall W607 has a dent of approximately 1 m height in the southwestern corner showing that stones of the city wall were taken out and thrown into the southern wing of the tripartite building (cf. Fig. 2.1.1.5.).

L. 3809 covered the thick (approximately 1.2 m high) layer L. 3815 of reddish-brown or greyish-brown debris, mixed with mudbrick and grey material of burnt wood, in the eastern upper part also with large stones (L. 3821, later attributed to L. 3815).¹² Due to the animal burrows (L. 3814 and L. 3817), the soil of L. 3815 had to be removed in the lower part unsystematically with shovels because there was a high danger of injury for the workers. The whole layer became very precarious. In order to find all the corresponding finds the soil was completely sifted.

This locus was rich in finds. As already mentioned, huge stones likely of the city wall W607, were thrown on the upper part of L. 3815. The deeper we excavated in L. 3815, the more frequently we found grey areas of burnt material (at least partly burned wood) and ash with burnt mudbricks. This high number of burnt material may partly originate from the wooden roof construction of this building (cf. Figs. 2.1.1.7.–2.1.1.11.) but also from beams stored in this building.¹³ Also, plenty of burnt mudbricks were found; they belonged likely to the upper mudbrick construction of the city wall. Several basalt utensils (working stones, basket 13053, 13091 and 13104; bowls basket 13082 and 13090; grinding stones baskets 13054, 13055, 13088 and 13091; ring [weight?] basket 13093) were found.¹⁴ They all seem to be connected with any kind of food production. The function of some other finds (slag: basket 13121; metal object: basket 13101;¹⁵ part of flint tool: basket 13106) is unclear.

The pottery is predominantly Iron Age II.¹⁶ Interestingly, none of the vessels found within some pottery concentrations was complete; every time substantial pieces were missing despite all efforts during excavation to save as many fragments as possible. No proper floor could be detected in conjunction with the pottery concentrations. These pottery items were probably lying on top of cloth sacks filled with grain (see below).

Plenty of floor samples were taken¹⁷ and analyzed by the archaeobotanists M. KLEE and M. KÜHN.¹⁸ Many of these samples (90%) contained a high amount of wheat, mostly emmer wheat. Some of the samples yielded no or very little results. It seems likely that the grain was stored in cloth bags.¹⁹ Between these bags there was always some empty space, because bags are nearly round (or oval) and not square. Several basalt stone items and some vessels

⁹ Cf. VAN DER VEEN 2020, 44 Fig. 19c (from Megiddo/*Tell el-Mutesellim*).

¹⁰ This figurine will be published in another volume of this excavation report.

¹¹ FRITZ 1990, 103–109.

¹² Also L. 3820 and L. 3823 were later joined with L. 3815. Originally, new loci were opened because the corresponding material seemed different to L. 3815, but during the course of excavation we understood that the texture is the same as L. 3815.

¹³ For a tripartite building which was at least partly used as a storage facility for cedar beams cf. HERZOG 1973, 25.

¹⁴ For these stone utensils cf. chapters 4.3. and 4.4. in this volume.

¹⁵ Both items were neither drawn nor photographed.

¹⁶ For the relevant pottery cf. chapter 3.2. in this volume.

¹⁷ Basket 13059 at -13.53, basket 13060 at -13.52, basket 13061 at -13.50, basket 13069 at -13.26, basket 13070 at -13.28, basket 13071 at -13.28, basket 13073 at -13.23, basket 13074 at -13.47, basket 13076 at -13.39, basket 13079 at -13.60, basket 13080 at -13.60, basket 13082 at -13.40, basket 13085 at -13.60, basket 13086 at -13.52, basket 13089 at -13.54, basket 13092 at -13.73, basket 13097 at -13.80, basket 13098 at -13.86, basket 13099 at -13.74, basket 13105 at -13.95, basket 13107 at -13.97, basket 13108 at -13.70, basket 13109 at -13.91, basket 13310 at -13.93, basket 13112 at -13.87, basket 13113 at 13.83, basket 13114 at -13.83, basket 13115 at -13.63, basket 13118 at -13.85, basket 13119 at -13.89, basket 13122 at 13.74, basket 13123 at -13.73, basket 13124 at -13.71, basket 13126 at -13.92, basket 13129 at -13.87, basket 13130 at -13.87.

¹⁸ Cf. chapter 4.14. in this volume.

¹⁹ Likely these bags were made of goat hair, cf. Gen 42:25.27.35; Jos 9:4.

were evidently lying on top of the bags due to the fact that they were found much higher than the floor of the building.

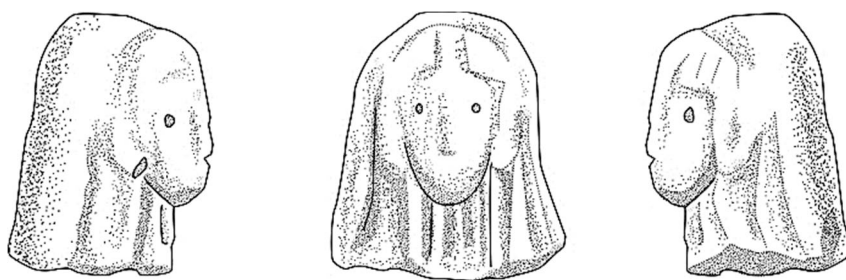


Fig. 2.1.1.4. Female terra-cotta head basket 13000/1.

1 cm

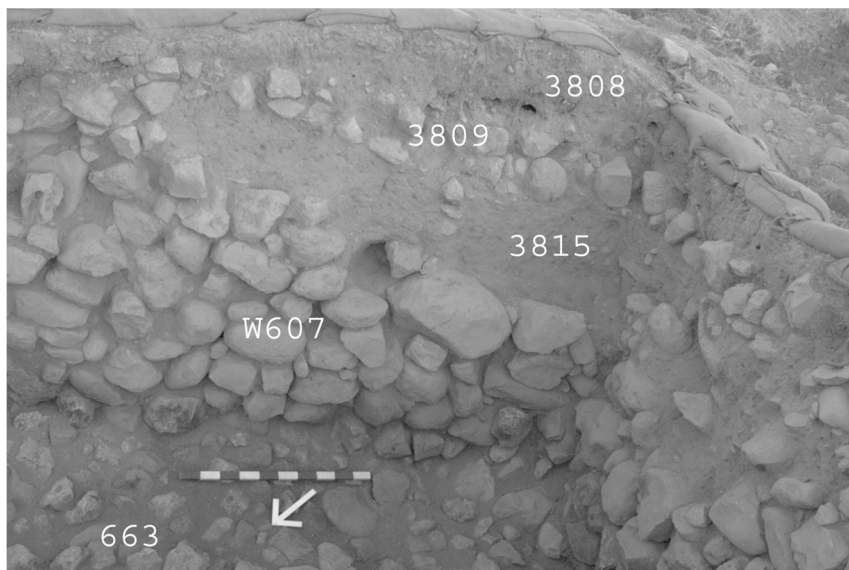


Fig. 2.1.1.5. Dent in the city wall W607 and W697 (on the right side).

From an elevation of ca. -13.55 down to the pavement L. 663²⁰ at -13.92, the amount of black, sometimes very sooty ash increased considerably and developed into an almost continuous layer of burnt material sitting on top of the floor.²¹ Accumulated grain does not burn completely because there is not enough oxygen in the bags. Many smaller stones (less than 1 cm diameter) were mixed with the soil and we thus assume that the bags were placed on top of some wooden beams or branches mixed with small stones. This would have prevented humidity from soaking into the bags. Additionally, some household objects (a fragmented basalt bowl [basket 13090] whose higher level was at -13.54, a nearly complete jug [basket 13094] with the upper part at -13.54 and the lower at -13.69 and the “sling stone” [basket 13125 at -13.62]) were found in this context, but also pottery concentrations (basket 13087).

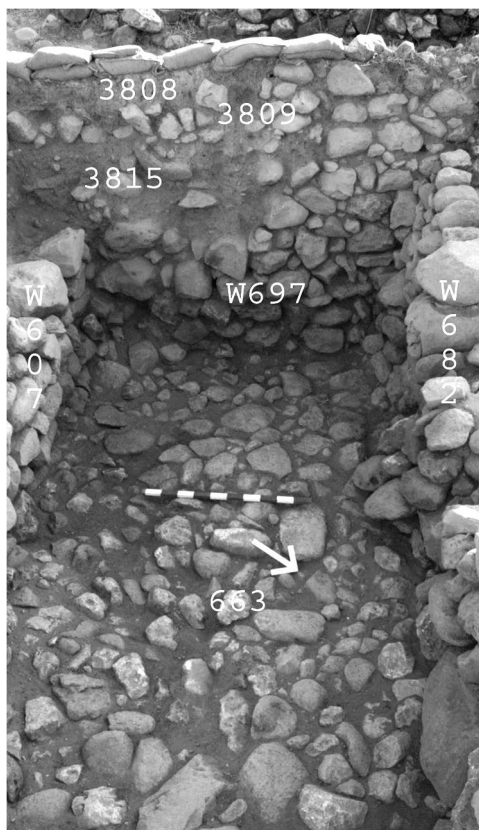


Fig. 2.1.1.6. Excavated area at the end of the dig. On the left side is the Iron Age II city wall W607, in the middle the western wall W697 of the tripartite building, on the right W682, the partition wall of this wing of the building.

Pavement L. 663, which was finally reached, has the same layout as in the rest of this wing of the tripartite building, built with large flat stones. We were able to check how the building was constructed when we cleaned the partition wall of the excavated area (L. 3822). Stone floor L. 663 joins the city wall W607 and wall W697. The stones of the city wall W607 and the walls of the tripartite building are founded deeper than the stone floor, which means that these walls were constructed first. The partition walls in the tripartite building were built on top of the stone floor. Between the partition wall W682 and the stone floor L. 663 a layer of hard greyish-brown earth mixed with small stones (less than 1 cm diameter) could be observed up to 5 cm thickness. This layer shows that the partition walls were built some time later than the outer walls of the building since sand was blown into the room and mixed with rain so that it produced this thin, hard layer on top of stone floor L. 663. Both the big stones of the pillars and the smaller stones between the pillars stand on the same earthen level above the floor; therefore, they were constructed in the same context. Our excavation allowed some results concerning the use of the tripartite building.²² At least in the back part of the southern wing, which was excavated by us, the space was used for storage of emmer in sacks and liquids in pottery vessels. Therefore, the room was used as a storage facility but the basalt vessels show that some kind of food production, such as grinding of emmer or other grain, may have taken place here as well.

²⁰ Pavement of the old excavation of VOLKMAR FRITZ from the 1980's, we used this locus number also for our excavation.

²¹ One very black spot got a special locus number (L. 3823), but was later abandoned and integrated into L. 3815. This spot was 40 cm away from W607 and 16 cm high.

²² See also chapter 2.1.3. in this volume for a more detailed analysis of the tripartite building in the context of the relevant buildings from the Near East.

Already during the excavations in the 1980's it was observed²³ that the tripartite building was destroyed together with the gate area. They also observed that only the side wings were roofed while the middle part was an open space. The roof was made by wood. This was confirmed by our excavation results. We assume that no second floor in the side wings existed, although this cannot be completely excluded. The side wings had a pavement in order to keep the grain dry. The middle part of the open space had a beaten floor which allowed water to be absorbed. Rainfall is only in the winter months when the amount of stored grain decreases. The surviving provisions could easily be stored during these months on stones. We reconstruct the tripartite building as follows:²⁴

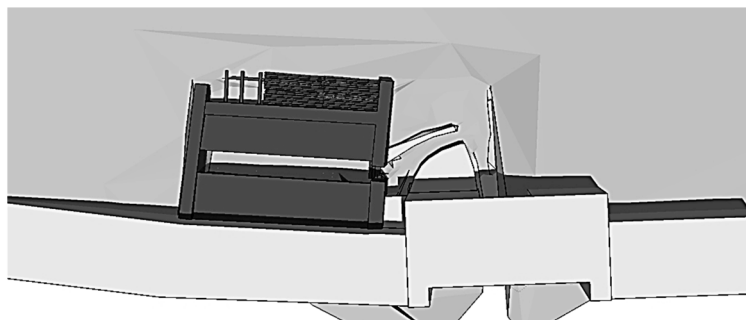


Fig. 2.1.1.7. Reconstruction from top.

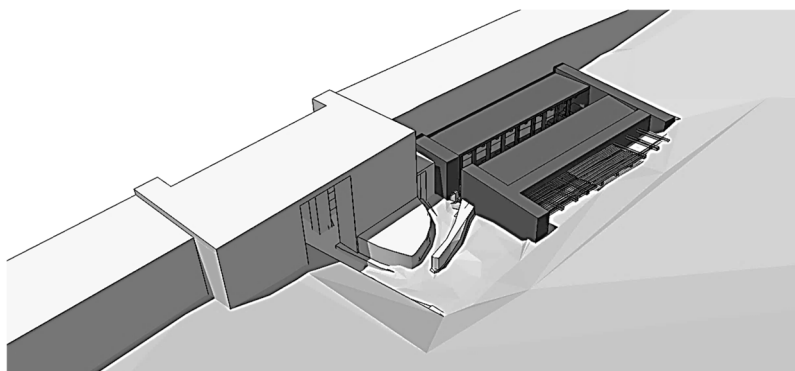


Fig. 2.1.1.8. Reconstruction in angle view.

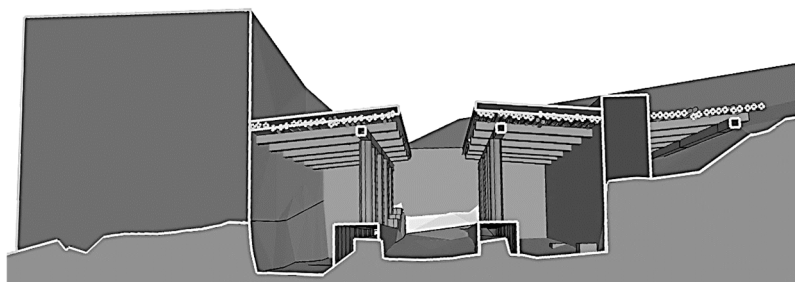


Fig. 2.1.1.9. Cross section of the tripartite building.

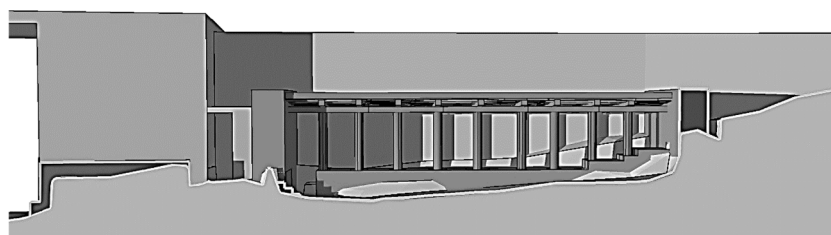


Fig. 2.1.1.10. Longitudinal section of the tripartite building.

²³ Cf. for the following remarks FRITZ 1990, 56–58.

²⁴ We thank our architect AXEL MAURER for these drawings.

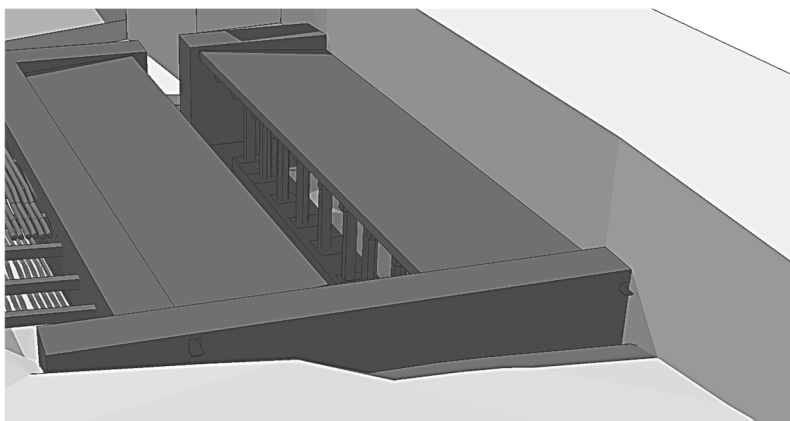


Fig. 2.1.1.11. Angle view of the tripartite building (all 3-D-reconstructions: AXEL MAURER).

The excavations also make it possible to reconstruct a likely scenario of the destruction of the building. V. FRITZ previously demonstrated that the destruction had to be attributed to the Assyrian campaign against Galilee in 733 or 732 BCE.²⁵ The Assyrian Chronicles mention for both 733 and 732 BCE an Assyrian campaign against Damascus.²⁶ During the campaign in 733 BCE Tiglat-Pileser not only besieged Damascus but also conquered nearby sites; *Karuṣṣā*, *Samāya*, and *Metūna* are explicitly mentioned,²⁷ but most likely were not the only sites conquered during this campaign. Unfortunately, none of these three sites is convincingly identified.²⁸ One possible identification for *Karuṣṣā* could be *Tell Qurs* (coord. 2309.2371) situated on the Yarmouk River. One of several uncertain proposals for the identification of *Metūna* is the nearby site of *el-Mēdān* (coord. 2304.2223). Finally, *Samāya* could be identified with *Kōm Samā* (coord. 2276.2276) or *Samā* (coord. 2274.2270). All these sites are clustered in the same region of the northern Transjordanian Hill Country, just some kilometers south of *Yarmūk* River, and follow a road from north to south. This may support the proposed identifications. If this is true, Tiglat-Pileser conquered in 733 the area east of the Sea of Galilee. It is unknown if the attacks of his troops also reached the Cisjordanian territory, including *Tell el-'Orēme*, in this year. In 732 BCE, he conquered sites in Galilee. Unfortunately, the corresponding textual source is in bad condition and only few town names can be convincingly read.²⁹ This text mentions ...*barā*, ...*a...*, *Ḥinatūna*, ...*k...*, *Iaṭbat*, *Arumā* and *Marūm*. No really convincing identification can be proposed for the three damaged place names.³⁰ *Ḥinatūna* has to be identified with the Biblical site of Hannaton (Josh 19:14), which is identical with modern *Tell el-Badawīye* (coord. 174.243) in Lower Galilee.³¹ *Iaṭbat* is phonetically connected with the Biblical site Jotba (1 Kings 21:19) and with the site of Iotapata, a fortress where Josephus was besieged by Vespasian. While the fortress of the Roman period can be identified with *Ḥirbet Šifāt/Ġifāt* (coord. 176.248), 5 km northeast of *Tell el-Badawīye*,³² this site yielded no Iron Age remains.³³ There exists no intensive survey of the area around *Ḥirbet Šifāt/Ġifāt* but *Iaṭbat* should be identified with a village within its surroundings. Likely the name wandered when the fortress was built on the hilltop.³⁴ *Arumā* can perhaps be identified with *Ḥirbet Rūma* (coord. 178.244), but unfortunately the settlement history of this site is unknown.³⁵ Finally, *Marūm* can perhaps be identified with *Rūmmana* (coord. 180.244), but the history of this site is not explored.³⁶ All these identifications are near each other. If this reconstruction is at least partly correct, all the sites are situated in Lower Galilee. *Tell el-'Orēme* was definitely destroyed during one of these two campaigns but it cannot be determined which one. In 733 BCE, Assyrian troops may have passed the Huleh valley and bypassed *Tell el-'Orēme* on their way to the *Yarmūk* River but the shortest way from Damascus to the *Yarmūk* River runs further to the east. More likely is that the Assyrian troops concentrated on the Transjordanian territory in 733 BCE and conquered the Cisjordanian area (including *Tell el-'Orēme*) only in 732 BCE.

²⁵ FRITZ 1990, 68.

²⁶ TADMOR/YAMADA 2011, 17.

²⁷ TADMOR/YAMADA 2011, 57–59; WEIPPERT 2010, 292–293.

²⁸ Cf. for possible candidates BAGG 2007, 149.175.206.

²⁹ TADMOR/YAMADA 2011, 61–63; WEIPPERT 2010, 293–294.

³⁰ Cf. BAGG 2007, 279–280.

³¹ Cf. BAGG 2007, 107–108.

³² Cf. BAGG 2007, 127.

³³ AVIAM 2008.

³⁴ Cf. also BAGG 2007, 127.

³⁵ Cf. also BAGG 2007, 27.

³⁶ Cf. BAGG 2007, 171–172, who considers sites more to the east or to the north more likely.



Fig. 2.1.1.12. Final architectural drawing of Area D including the excavations of 2004. Possible Scenario for the Assyrian Conquest of *Tell el-'Orēme*

Regarding the specific destruction of *Tell el-'Orēme*, the new excavations allow a possible reconstruction of the events. The gate area was – as usual in the Ancient Near East – the weakest part of the fortifications and therefore the Assyrians concentrated their attack in this area. Some Assyrian arrowheads were found there during the excavations in the 1980's³⁷. Additionally, the tripartite building was burned, maybe kindled by a fire arrow. A burning house adjoining the city wall made the defense of this area nearly impossible. However, the Assyrians were able to climb the city wall with ladders. The city wall was, as usual, built by a stone foundation and an upper part made by mudbricks. Conquering the city wall, at least partly, was only the first step of conquering a city. Now the Assyrians had the problem to quench the fire in order to enter the inner part of the city. Therefore, first mudbricks and later stones had to be thrown into the fire to damp it down. This may be the reason for the deep dent in the city wall W607 and the adjoining W697 and the heavy stones in L. 3815.

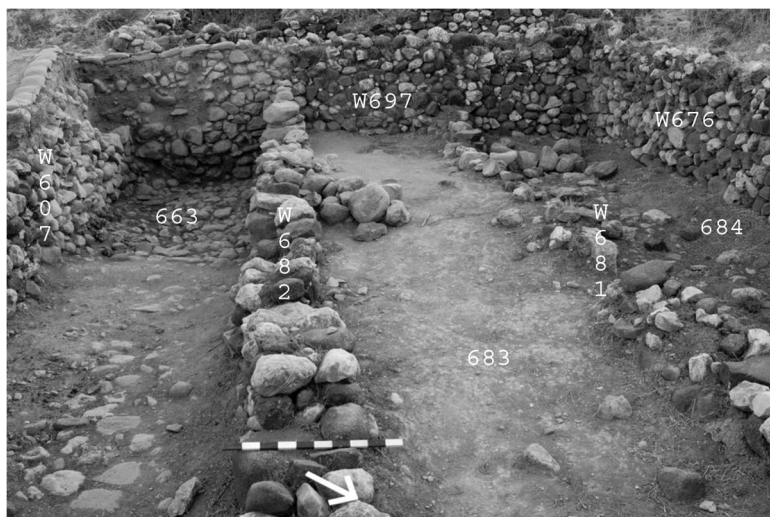


Fig. 2.1.1.13. View from the gate area complex to the tripartite building after the excavations in 2004. The newly excavated area is on the left side (L. 663).

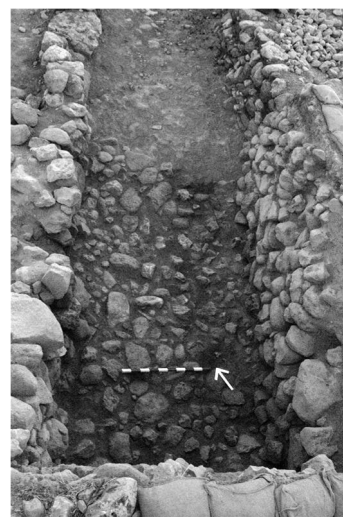


Fig. 2.1.1.14. The excavated area from west (the photographer is standing on top of W697).

Probe in Square R21 Through Platform L. 662

Restoration of the Iron Age II city gate in 2004 by the National Parks Authority provided the opportunity to investigate the relationship between platform L. 662³⁸ and the inner wall of the gate chamber W619 and to attempt to clarify the building history and function of L. 662. Architectural observations before starting the probe indicated that platform L. 662 sits on top of pavements L. 658 (street from the gate to “piazza” L. 654 on the inner side of the gate) and L. 615 (street connecting the gate area with the tripartite building). The probe also sought to re-evaluate the interpretation V. FRITZ, who assumed that the installation had a non-cultic function; he wrote:

“Die erhöhte Lage der Torkammer und des Eingangs über W 653 hatte auch die Funktion, das Eindringen von Regenwasser in diesen Raum zu verhindern. In dieses Konzept dürfte auch die Plattform 662 gehören. Da der innere Torplatz 654 und der dort beginnende Tordurchgang trichterförmig angelegt sind und beide mangels anderer Vorrichtungen die Entwässerung des gesamten Straßennetzes übernehmen müssen, soll die Konstruktion 662 wahrscheinlich die Toranlage vor Unterspülung schützen. Damit hat 662 die Aufgabe eines „Wellenbrecher“. ... Letzthin stellt 662 noch eine statische Verstärkung der hinteren Torzange dar.“³⁹

³⁷ FRITZ 1990, Pl. 113.

³⁸ FRITZ 1990, 46. There does not exist an intensive description of L. 662 in this excavation report.

³⁹ FRITZ 1990, 47–49.

In the last decades several cultic installations at gates have been discovered. Such platforms or similar installations have been found, for example, at *Tell el-Fār'a*,⁴⁰ *Tell el-Qādī/Dan*,⁴¹ *Ḥirbet Ġazze/Ḥorvat 'Uza*,⁴² *et-Tell/Betsaida*,⁴³ *Ḥirbet el-Mudēyine*,⁴⁴ and their function has been intensively discussed in the last decades.⁴⁵ The three sites of *et-Tell/Betsaida*, *Tell el-Qādī/Dan* and *Tell el-'Orēme* demonstrate that any kind of installations at the gate area might be especially typical for the northern Jordan valley between the Sea of Galilee and the present border of Israel and Lebanon. However, all three installations are very different. In *et-Tell/Betsaida* and *Tell el-Qādī/Dan* standing stones are presented within the gate area or outside the gate, in *Tell el-'Orēme* the platform is inside the city within the city gates and no evidence for standing stones were found on top of the platform. Generally, the function as a wave-breaker in *Tell el-'Orēme* seems probable. During heavy rainfall freely flowing water inside the city endangered the foundations of houses and therefore the builders sought to divert the rain water outside the city. Urban planning on a hilly territory like *Tell el-'Orēme* always requires a solution for a fast and non-destructive drain of water. Although this architectural function of the platform seems probable, it cannot be the *only* function of the platform. Therefore, we decided to check if it also had a cultic function. We decided to open a small area on top of the platform in order to see if there are any remains of cultic activities.

Excavation started in a 2 x 1 m area at a level of -12.69 (L. 3807) nearly in the middle of platform L. 662. The soil was hard and compact at first but later became greyish-brown and rather loose. It contained little indicative pottery and the pottery was mixed from Early Bronze Age to the Hellenistic period. The deeper we excavated the more (starting at a level of ca. -12.81) we found modern metal objects (wire, key, fragment of tin can, bedspring of a field bed). A telephone call with DR. NORBERT RABE, the area supervisor of this area during the 1980's, revealed that the center of the platform was already checked in those years. They opened an area of 2 x 1 m which is exactly the same area we excavated. Since nothing of interest was found, the hole was refilled with dump from a nearby balk removed in 1982–1985.⁴⁶ A vertical line of four undressed cobbles sitting on top of each other visible in the southern section suggested, that some construction was touched and partly destroyed during the previous excavation. To identify the character of this installation, the probe was enlarged to 2 x 1.5 m (the topsoil of this enlargement of the locus was called L. 3810) towards the west to reach undisturbed evidence.



Fig. 2.1.1.15. The back part of the photo shows the 2 x 1 m trench, we originally opened. In the front part the remains of the stones surrounding the quarter-circular installation is visible. Under the meter stick is the small trench where we excavated further down.

Here, after excavating ca. 15 cm of topsoil a quarter-circular structure appeared in the south-western part of the extended planum at a level of -12.68. To clarify this structure, the southern front of the small excavated area was cleared (L. 3811). It became evident that the four vertical stones represent the continuation of the quarter-

⁴⁰ CHAMBON 1984, 25.

⁴¹ There are several such cultic installations (standing stones in the gate area) connected with the different gate areas in *Tell el-Qādī* (personal communication D. ILAN), which will be published in the excavation report about Iron Age II period at this site. The famous installation is in the lower city gate (BIRAN 1994, 238–241) and was likely used to present a stela (cf. ZWICKEL 1990, 226).

⁴² BEIT-ARIEH 2007, 31. Anyhow, this interpretation is very hypothetical.

⁴³ BERNETT/KEEL 1998. There exists another similar structure in a stratum below this city gate (pers. comm. R. ARAV). WEISSL 1998 discussed the holiness of the gate area in a much broader context, including the whole Mediterranean region during the 2nd and 1st millennium BCE.

⁴⁴ DAVIAU 2012, 437–439.

⁴⁵ Cf. e.g. ZWICKEL 1990, 225–226; BERNETT/KEEL 1998; HAETTNER BLOMQUIST 1999; JERICKE 2010; FRESE 2020, 160–168.

⁴⁶ The modern metal items can likely be connected with the presence of British soldiers on the *tell* in the early 20th century.

circular installation (bin?). Excavation was therefore restricted to the area inside the circular structure, whose other parts were destroyed during the digging activities in the 1980's. The upper part of the fill of this structure was called L. 3816. As soon as the surrounding stony structure disappeared at -13.22 we called the fill L. 3819 although no floor could be discovered. The greyish-brown soil of L. 3819 had the same texture as L. 3816. Medium-sized stones (up to 30 cm) existed only in the lower part L. 3819 and not in L. 3816. The soil in both L. 3816 and L. 3819 was notably different compared to the material backfilled in the 1980's. More than 2/3 of the soil of L. 3816 were taken for soil samples, differentiated into three different layers, in order to clarify the original function of the installation (basket 13042) but no plant remains were found in either of these. The pottery found within L. 3819 was mostly (85%) Iron Age I and II, within L. 3816 Late Bronze Age II to Iron Age II. This may indicate, that the bin was filled after it fell out of use and the site was destroyed.

Summarizing, the surviving and excavated part of the stone-walled structure, which was about 55 cm deep, belongs to a kind of bin with a diameter of approximately 1.5 m. There was evidently no floor when the stone walling came to an end at -13.22. No finds at this specific level were found which could demonstrate the use of the bin. Additionally, no plant remains were observed inside. Because of the proximity of the platform to the gate area and the tripartite building we have to assume that the platform was damaged by Assyrian activities during the siege. Therefore, it is unlikely that any valuable items which were deposited inside the installation were removed during the attack. A remaining possible function of it is its use as a libation basin. This would explain the missing floor; any kinds of liquids could be absorbed by the soil.

At a level of ca. -13.56 we found the remains of a carefully laid out pavement (L. 3824). This pavement was observed in the whole small excavated area, also below the destroyed part of the installation. It seems that this pavement belongs to the pavement L. 615 in front of the platform. The texture is the same. This implies that originally there was a "piazza" or free open gathering area inside the gate. Only in a second step the platform was installed to be used as a wave breaker to irrigate water out of the city. However, this structure seems to have had an additional function, perhaps as a cultic installation. It may have been used as a libation basin to pour water or other liquids in it.

We opened a small test trench L. 3825 below pavement L. 3824 (from -13.56 to -13.90) but no indicative pottery or any other installation was found. This trench was too small to go deeper.

The entire probe in L. 662 was backfilled for conservatory reasons.

Cleaning Work in Square S 21

In conjunction with consolidation work in the gate area the surface of road pavement L. 658 was cleaned. The eastern unexcavated part of the gate area has suffered considerably due to erosion and animal activities. No specific finds were found in square S 21; therefore, cleaning work was not given a separate locus number. Possible methods to conserve the debris from further erosion and destruction were discussed, but we decided to keep it in the present day condition. The other side of the gate area, which is unexcavated, should be excavated in the future, for its erosion continues and the gate itself will eventually be exposed. No finds of the cleaning were kept.

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2.1.2. Locus List

- Locus no.:* 3800 *Square:* 0
Local stratum: D0 *Site stratum:* 0
Short description/characterization: Cleaning
Description: During pre-excavation work in 2004 the area to be excavated was cleaned.
Baskets of locus: 13000, 13132
Upper level: *Lower level:*
Finds of the locus: A scarab found during a visit of *Pottery of the locus:*
ALESSANDRO BATTISTINI (basket 13132), and a torso of
a figurine were added to this locus.
Index to the text: p. 164. *Index to the plates:* Fig. 4.3.44.
- Locus no.:* 3801 *Square:* R17
Local stratum: D0 *Site stratum:* 0
Short description/characterization: Cleaning
Description: Sherds on top of a small dump hill (L. 3802) thrown out by an animal that dug a hole into the northwestern side of the debris to be excavated in 2004.
Baskets of locus: 13002
Upper level: *Lower level:*
Finds of the locus: *Pottery of the locus:* Iron Age I/II
Index to the text: p. 164. *Index to the plates:*
- Locus no.:* 3802 *Square:* R17
Local stratum: D0 *Site stratum:* 0
Short description/characterization: Dump
Description: Dump thrown out by an animal into the middle part of the tripartite house.
Baskets of locus: 13003, 13007, 13010, 13011, 13014
Upper level: -12,90 *Lower level:* -13,25
Finds of the locus: *Pottery of the locus:* Mainly Iron Age II, few Middle Bronze Age II, Late Bronze Age I/II
Index to the text: p. 164. *Index to the plates:*
- L. 3803 cancelled
- Locus no.:* 3804 *Square:* R21
Local stratum: D0 *Site stratum:* 0
Short description/characterization: Cleaning
Description: Cleaning debris in Locus 658 of the 1980's excavations.
Baskets of locus: 13004
Upper level: -14,19 *Lower level:* -14,19
Finds of the locus: *Pottery of the locus:*
Index to the text: p. 165. *Index to the plates:*
- L. 3805 cancelled
- Locus no.:* 3806 *Square:* R18
Local stratum: D0 *Site stratum:* 0
Short description/characterization: Section cleaning
Description: Dump and stones from the not excavated dump in L. 663 were removed to prepare a section in the north-eastern part of the remaining unexcavated debris of the tripartite house. Description of the section: There is 10–40 cm topsoil; the color is greyish-brown. After this layer comes a layer with a lot of fallen stones. The soil between the stones is very bright brown. This layer measures 0.8–1.0 m. Below this layer is a bright brown layer, which goes at the left side nearly down to the bottom, in the middle of this room is the layer only 30 cm thick. Very few stones are in this layer. At some places are dark grey or black parts of burnt material. Below this layer is a dark greyish and black burnt layer. At the bottom is on the left side a very black area which derives from a burnt beam.
Baskets of locus: 13005, 13006, 13008, 13012, 13015, 13018
Upper level: -11.70 *Lower level:* -13.25
Finds of the locus: *Pottery of the locus:* Few, mostly Iron Age II
Index to the text: p. 165, 607. *Index to the plates:* Fig. 3.2:1.

- Locus no.:* 3807 *Square:* R20
Local stratum: D1 *Site stratum:* II
Short description/characterization: Probe in platform L. 662 (former excavation of V. FRITZ)
Description: An area of 2x1 m in the center of platform L. 662 was opened in order to investigate if there is any older installation below it. Starting level was -12.69. The very hard and compact soil was brown. It included small stones. In the course of excavation modern material turned up (wire, parts of a field bed, etc.), indicating that this part of the platform L. 662 was already dug during the 1982–1985 excavations. This was confirmed in a telephone call with N. RABE, former area-supervisor of area D. According to him a test trench was dug into installation L. 662. This probe was later back-filled with material from a nearby balk. In the southern section of our probe we saw 4 stones one above the other, maybe originating from a structure obviously cut and destroyed during the excavations in the 1980s. Therefore, we enlarged the probe area to the west (2 x 1,5 m) in order to clarify this suspected installation. For the enlarged area cf. L. 3810, L. 3811, L. 3816, L. 3819, L. 2824, L. 3825.
Baskets of locus: 13009, 13013, 13016, 13017, 13020, 13021, 13024, 13025, 13030, 13034
Upper level: -12.69 *Lower level:* -13.46
Finds of the locus: Wire, parts of modern field beds *Pottery of the locus:* Mixed from Early Bronze Age to Hellenistic, majority (35%) Iron Age II
Index to the text: p. 172. *Index to the plates:*
- Locus no.:* 3808 *Square:* R17
Local stratum: D0 (topsoil) *Site stratum:* 0
Short description/characterization: Topsoil
Description: Topsoil was removed until the first mudbricks and stones were reached.
Baskets of locus: 13019
Upper level: -11.60 *Lower level:* -11.72
Finds of the locus: *Pottery of the locus:* Mixed from Early Bronze Age to Hellenistic period, 30% Iron Age II
Index to the text: p. 165. *Index to the plates:*
- Locus no.:* 3809 *Square:* R17
Local stratum: D1 *Site stratum:* II
Short description/characterization: Stone tumble
Description: Layer below topsoil L. 3808 with soft and very loose reddish-brown soil, broken mudbricks, and fallen stones. Locus was changed when the layer of stones came to an end (L. 3815). L. 3815 starts much higher in the western than in the eastern part (difference 60 cm).
Baskets of locus: 13022, 13023, 13026, 13027, 13028, 13029
Upper level: -11.65 *Lower level:* -12.72
Finds of the locus: Bead (basket 13027) *Pottery of the locus:*
Index to the text: p. 165. *Index to the plates:*
- Locus no.:* 3810 *Square:* R20
Local stratum: D1 *Site stratum:* II
Short description/characterization: Topsoil of the enlargement of L. 3807
Description: When we realized that probe L. 3807 was a re-opening of an area already excavated in the 1980's, we enlarged the area (2 x 1.5 m). The topsoil, ca. 15 cm thick, of this enlargement was called L. 3810.
Baskets of locus: 13031
Upper level: -12.69 *Lower level:* -12.87
Finds of the locus: *Pottery of the locus:* 1 sherd Iron Age I
Index to the text: p. 172. *Index to the plates:*
- Locus no.:* 3811 *Square:* R20
Local stratum: D1 *Site stratum:* II
Short description/characterization: Cleaning of a section within a bin
Description: The southern balk of the small area of 2 x 1 m, excavated before the enlargement, was trimmed. Already in L. 3807 we observed at the edge a vertical line of four undressed stones sitting on top of each other. Now, after excavating ca. 15 cm of topsoil, a quarter-circular structure appeared in the south-western part of the extended planum. The enlargement demonstrated that a stone walled bin was destroyed by the former excavations. Only a quarter-circular structure survived. Its original diameter was approximately 1.5 m. Further excavation was restricted to the area inside the circular structure (upper part L. 3816 and lower part L. 3819).
Baskets of locus: 13035
Upper level: *Lower level:* -13.04
Finds of the locus: *Pottery of the locus:* 4 sherds Iron Age IIB
Index to the text: p. 172. *Index to the plates:*

Locus no.: 3812 *Square:* R17, S17
Local stratum: D0 *Site stratum:* 0
Short description/characterization: Section cleaning
Description: Trimming the northern balk down to a level below the stone fill, in order to get an idea of the destruction layer. The cleaning of the balk showed, that there are two different layers of stones. In the western part, where much more and heavier stones were found (60 cm layer), a heap of stones seems to have covered the whole side room. In the eastern part, no traces of these stones could be recovered in the balk. There is only a layer of one or two stones in the balk just above the layer of mudbrick, that may belong to a wall fallen down (western wall of the tripartite house?).
Baskets of locus: 13032, 13033
Upper level: -12.72 *Lower level:* -12.25
Finds of the locus: *Pottery of the locus:* Few, 50% Iron Age IIB
Index to the text: p. 165. *Index to the plates:*

L. 3813 cancelled

Locus no.: 3814 *Square:* R17
Local stratum: D1 *Site stratum:* II
Short description/characterization: Debris
Description: An underground hole was dug by an animal and broke down (cf. L. 3817). All the debris had to be removed fast and completely because of a risk of injury for the excavations team.
Baskets of locus: 13037
Upper level: -12.18 *Lower level:* -13.21
Finds of the locus: *Pottery of the locus:* 1 sherd Iron Age IIB
Index to the text: p. 164, 165. *Index to the plates:*

Locus no.: 3815 (including L. 3820, L. 3821, L. 3823) *Square:* R17
Local stratum: D1 *Site stratum:* II
Short description/characterization: Destruction fill above floor
 L. 3815, situated below the stony layer, consists of reddish-brown or greyish-brown mudbrick fill. The deeper we excavated in L. 3815, the more frequently we found grey areas of burnt material and ash with burnt mudbricks in the fill, probably pieces of wood that burnt and fell into the destruction layer of mudbrick. The general character of the loose, reddish to greyish fill remained the same down to stone pavement L. 663. Judging from their physical appearance and elevations it seems likely that L. 3820, L. 3821 and L. 3823 actually belong to L. 3815 and represent local stone or ash concentrations within the mudbrick fill at various levels. Therefore, they were integrated into this locus. Animal digging (L. 3814, L. 3817) has disturbed L. 3815 and some of the tumble above it (L. 3809) especially in the center of the excavated area.
Baskets of locus: 13038, 13041, 13049, 13050, 13051, 13052, 13053, 13054, 13055, 13056, 13059, 13060, 13061, 13064, 13068, 13069, 13070, 13071, 13073, 13074, 13076, 13077, 13078, 13079, 13080, 13081, 13082, 13083, 13084, 13085, 13086, 13087, 13088, 13089, 13090, 13091, 13092, 13093, 13094, 13095, 13096, 13097, 13098, 13099, 13100, 13101, 13103, 13104, 13105, 13106, 13107, 13108, 13109, 13110, 13111, 13112, 13113, 13114, 13115, 13117, 13118, 13119, 13120, 13121, 13122, 13123, 13124, 13125, 13126, 13127, 13128, 13129, 13130, 13057, 13062, 13072
Upper level: -12.67 *Lower level:* -13.90
Finds of the locus: *Pottery of the locus:* Many sherds from Early Bronze Age to Roman period, majority (70%) Iron Age I/II.
 - nearly complete mudbrick (basket 13052 at -13.04) Interestingly, despite of some pottery concentrations (baskets no. 13050, 13051, 13057, 13072), no vessel could be restored completely; always some substantial pieces were missing.
 - large basalt stone (basket 13053 at ca. -12.90) One nearly complete jug (basket 13094 at -13.62); with a layer of burnt material below it but not around the jug (the soil inside the jug was kept, basket 13095).
 - basalt bowl (basket 13082 at -13.40) The pottery concentration basket 13057 (at -13.32) belonged to two different vessels, a torpedo jar, and a jar with a round shape.
 - basalt grinding stone (basket 13054 at ca. -12.90)
 - upper part of a grinding stone (basket 13055 at -13.20)
 - sling stones (basket 13078 at -13.44, basket 13125 at -13.62)
 - two grinding stones, both not complete (basket 13088 at -13.56)
 - basalt bowl (basket 13090 at -13.54)
 - grinding stone and basalt stone (basket 13091 at -13.67)
 - basalt ring (weight?, basket 13093 at -13.61)
 - working stone (basket 13104 at -13.92)
 - worked bone object (basket 13117, found during sifting)
 - crystals (basket 13120 found during sifting)
 - slag (basket 13121 found during sifting)
 - piece of burnt glass (basket 13100, found during sifting)

- metal object (basket 13101 at -13.80)
- part of a worn flint tool (basket 13106 at -13.96)
- several floor samples (basket 13059 at -13.53, basket 13060 at -13.52, basket 13061 at -13.50, basket 13069 at -13.26, basket 13070 at -13.28, basket 13071 at -13.28, basket 13073 at -13.23, basket 13074 at -13.47, basket 13076 at -13.39, basket 13079 at -13.60, basket 13080 at -13.60, basket 13082 at -13.40, basket 13085 at -13.60, basket 13086 at -13.52, basket 13089 at -13.54, basket 13092 at -13.73, basket 13097 at -13.80, basket 13098 at -13.86, basket 13099 at -13.74, basket 13105 at -13.95, basket 13107 at -13.97, basket 13108 at -13.70, basket 13109 at -13.91, basket 13310 at -13.93, basket 13112 at -13.87, basket 13113 at -13.83, basket 13114 at -13.83, basket 13115 at -13.63, basket 13118 at -13.85, basket 13119 at -13.89, basket 13122 at -13.74, basket 13123 at -13.73, basket 13124 at -13.71, basket 13126 at -13.92, basket 13129 at -13.87, basket 13130 at -13.87)
- charcoal (basket 13084 at -13.50, basket 13103 at -13.92, basket 13111 at -13.87, basket 13128 at -13.92)

Index to the text: p. 165, 167 n. 21, 171, 607, 608, 699, 714, 718, 720, 735, 764, 803, 828, 839, 978.

Index to the plates: Figs. 3.2:2–5; 4.4.64:667.; Table 4.14.2.

Locus no.: 3816

Square: R20

Local stratum: D1

Site stratum: II

Short description/characterization: Fill inside installation

Description: Excavation of the fill inside the circular structure below L. 3811 (cf. also L. 3819). The soil was greyish, extremely hard, and mixed with some smaller stones. As the stone surrounding of the quarter-circular structure seemingly came to an end at -13.22 a new locus was opened, although the quality of the soil did not change and still remained very hard. No floor was discovered at -13.22.

Baskets of locus: 13039, 13040, 13042, 13047

Upper level: -12.87

Lower level: -13.22

Finds of the locus:

Pottery of the locus: Very few sherds (7 pieces) from Late Bronze Age II to Iron Age IIB

- charcoal (basket 13039 at -13.04)

- mollusks/snails (basket 13040 at -13.06)

- floor sample (basket 13042 at -13.22). The content of bin L. 3816 is well delimited. More than 2/3 of the soil from L. 3816 has been kept. Baskets a-c contained material from between -13.04 and -13.13, whereas basket d-g contained the material from -13.13 until -13.22.

Index to the text: p. 173.

Index to the plates:

Locus no.: 3817

Square: R17

Local stratum: (D1)

Site stratum: (II)

Short description/characterization: Material found within a hole

Description: This locus contains the run of a hole dug by an animal.

Baskets of locus: 13044

Upper level: -12.85

Lower level: -13.33

Finds of the locus:

Pottery of the locus: Only 5 sherds: 1 from Early Bronze Age II-III, 1 from Iron Age I-II, 2 from Iron Age IIB, one undetermined

Index to the text: p. 164, 165.

Index to the plates:

L. 3818 cancelled

Locus no.: 3819

Square: R20

Local stratum: D1

Site stratum: II

Short description/characterization: Destruction material

Description: At a level of -13.22 there were no stones anymore surrounding the quarter-circular bin. Therefore, we started a new locus. The greyish-brown soil has the same texture as L. 3816 but bigger stones up to 30 cm diameter appeared now. A stone paved bottom of the bin was reached at -13.53 (L. 3824).

Baskets of locus: 13045, 13046, 13048, 13058, 13063, 13065, 13066, 13067, 13102

Upper level: -13.22

Lower level: -13.53

Finds of the locus:

Pottery of the locus: Mostly (85%) Iron Age I–IIB

- floor samples (basket 13045 at -13.28, basket 13067 at -13.73)

- charcoal (basket 13063 at -13.54)

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Locus no.: 3820 s. L. 3815

Square: R17

Locus no.: 3821 s. L. 3815

Square: R17

Locus no.: 3822

Square: R17

Local stratum: D1

Site stratum: II

Short description/characterization: Cleaning

Description: The partition wall in the tripartite building was cleaned. Between stone floor L. 663 and the pillars and the connecting stones between the pillars there was a thin layer of greyish-brown earth mixed with small stones.

Baskets of locus: 13075

Upper level:

Lower level:

Finds of the locus:

Pottery of the locus:

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Locus no.: 3823 s. L. 3815

Square:

Locus no.: 3824

Square: R20

Local stratum: D1

Site stratum: II

Short description/characterization: Pavement

Description: Pavement within the bin. This pavement is the same as the pavement outside the platform.

Baskets of locus:

Upper level: -13.56

Lower level:

Finds of the locus:

Pottery of the locus:

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Locus no.: 3825

Square: R21

Local stratum: D1

Site stratum: II

Short description/characterization: Debris below L. 3824

Description: In a small test trench the soil below the pavement L. 3824 was excavated. It revealed a soft fill with few rocks below the level of -13.56 (pavement L. 3824), no indicative pottery was found.

Baskets of locus: 13131

Upper level: -13.56

Lower level: -13.90

Finds of the locus:

Pottery of the locus:

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2.1.3. Central Storage Facilities for Grain – the Function of the Tripartite Buildings¹

WOLFGANG ZWICKEL

The Archaeological Situation in *Tell el-'Orēme*

During the excavations in *Tell el-'Orēme*, V. FRITZ had excavated a tripartite building in the 1980s.² Remains of a wall indicate that a second building existed next to this one. The entire complex dates back to the 8th century BCE and was destroyed by the Assyrians in 733/732 BCE. The settlement of that time had a size of 0.75 ha. The tripartite building is approximately 15 m long and 9 m wide. The building is divided into three parts by two rows of pillars with partly bricked up interspaces, of which the two outer ones were paved with stones while the inner one had an earthen floor. The width of the two paved side rooms varies between 1.85 and 2.2 m. The excavation revealed that the two paved rooms were roofed while the middle part was probably without a roof. This allowed rainwater to flow into the middle courtyard in winter.

Our excavations in the year 2004 have been carried out on a still unexcavated southeastern corner of the building and they comprised approximately 6 m². The excavation showed that emmer as well as containers for wine or other liquids were stored in both side rooms.³ During the excavations of the 1980s, the following pottery finds were made in this building (including new finds from the 2004 excavations):

	L. 684 North wing	L. 683 Central room/courtyard	L. 663 South wing	L. 663 Excavations 2004	Total L. 663	Total
Bowl	1	1	18		18	20
Krater		2	1		1	3
Cooking pot	3	2	5	1	6	11
Storage vessel	1	1	3	3	6	8
Flagon/tankard/bottle/flask/jug	6	1	4	1	5	12
Lamp			1		1	1

Table 2.1.3.1. Pottery distribution according to loci.

The distribution of finds is quite clear. In the northern room L. 684 smaller vessels for liquids were mainly found, as well as a few pieces of other categories. The central room/courtyard L. 683 is relatively poor in finds. This is not surprising due to the fact that this room/courtyard was not primarily used for storage facilities. In the southern room L. 663, the finds are numerous and include mainly bowls, but also more than 50% of the cooking pots, and the only lamp from this building complex. All together five storage vessels show that liquids were stored here. Their diameter of approximately 20 cm and a height of 25–30 cm. Therefore, they held about eight liters. The content of the amphorae found during the renewed excavations should be slightly more.

Archaeobotanical investigations of the renewed excavations showed that emmer to about knee-high quantities was stored in the southern room, obviously in bags, because there were places next to each other with enormously high amounts of emmer and such without emmer.⁴ This can be explained by the fact that the grain was stored in bags with gaps between the bags.

From the archaeological data it can be concluded that at least the southern paved side room was a storage room⁵ in which liquids – probably wine or oil – and grain was stored. There are no archaeobotanical investigations available for the northern side room, however, it can be assumed that it was also a storage room for grain.

¹ This is an updated version of a paper published some years ago (ZWICKEL 2016).

² FRITZ 1990, 43–58.

³ Cf. chapters 2.1.1. and 4.14. in this volume.

⁴ Cf. chapter 4.14. in this volume.

⁵ There has been a long discussion about the function of these tripartite buildings, which will not be reproduced in extenso at this point; for this cf. WEIPPERT/WEIPPERT 2014, 1–9. One has thought of horse stables, storage rooms, barracks, accommodations for soldiers, shopping markets etc. Recently, however, two solutions have become apparent:

- At least in *Tell el-Mutesellim/Megiddo* the tripartite buildings have been proven to be used as horse stables (CANTRELL 2006; CANTRELL/FINKELSTEIN 2006; BELKIN/WHEELER 2006). In *Tell ed-Duwēr/Lachish* (cf. USSISHKIN 2014, 205) a certain analogy is likely, because the tripartite houses are next to the palace area and were connected with a large courtyard surrounded by walls, which could be used as training areas for horses.
- Most other tripartite buildings seem to have been used as storage rooms (cf. HERZOG 2016, 201–205).

On the basis of the archaeological findings in *Tell el-'Orēme* it can therefore be said that in the excavated building the two side wings probably served as storage rooms. The storage space per side was about 15 x 2 m, i.e. a total of about 30 m². Liquids seem to only have been stored very little because only a relatively small number of storage jars were found. It is more likely that predominately grain was stored here. At locations where we could prove this archaeobotanically, the grain stocks were approximately 50 cm high. This results in a minimum storage space of about 15 m³ or less than 15 tons.⁶ The actual storage height, however, was probably higher immediately after the harvest, since at the time when this storage building was destroyed by the Assyrians, some supplies had probably already been removed. Then again, there were free areas between the bags, but also areas where the few storage vessels were placed. Therefore, approximately 15 tons of maximum storage capacity in the building should be quite realistic. As already mentioned, there was at least one other tripartite building next to this one. This would increase the storage capacity to 30 tons. Whether also a third building existed here cannot be determined so far.

A second consideration must also be taken into account at this point. In the 8th century BCE *Tell el-'Orēme* covered an area of about 0.75 ha. An average population density in a village of 250 inhabitants per hectare has turned out to be a realistic size in the past. Thus, there were probably 190 inhabitants in this village, which, with an average family strength of 4–5 persons, corresponds with approximately 45 families and thus, 45 residential houses.⁷ The average consumption of grain in Palestine is about 500 grams per day⁸, thus, per year about 180 kg. Therefore, 190 inhabitants need approximately 34 tons of grain for their self-sufficiency. Of course, this estimate is very inaccurate. For one thing, an insignificantly smaller or higher number of inhabitants, but also a smaller or higher consumption, already leads to slightly different values. Nevertheless, the correlation with the equally inaccurate estimate for the storage capacity of 30 tons is astonishing. This leads to the working hypothesis that the necessary food for the supply of the population was stored in the pillar rooms.

The Function of the Cooking Pots

Despite the high number of cooking pots no fireplace was found in the tripartite building.⁹ Therefore, the cooking pots were likely not used for cooking but as a unit of measurement for grain. The cooking pots have fairly similar shapes. The content of a completely filled cooking pot corresponds to a *se'ā*, a Hebrew unit of about seven liters. The measurement units of antiquity were by far not as accurate as our current official measurements but at least for hollow dimensions quite vague. Since so far no Iron Age vessels clearly identifiable as measures of capacity have been found among the ceramic vessels, it is quite likely that the cooking pots common in households were also used as simple measuring instruments. The cooking pots are all about the same size and thus ideal as simple measuring devices of capacity. The variations that occurred in the size of cooking pots are around ± 10% and therefore correspond to the inaccuracies that have to be assumed in antiquity for measurements and in particular for weights.¹⁰ In contrast to weight stones, cooking pots as a measure are not a precisely determinable unit for trading activities since cooking pots as a measure of capacity were normally used in a family context.

Verification of the Thesis on the Basis of Other Sites

The thesis that stocks, for the purpose of consumption of all inhabitants of a village, in those buildings were stored needs to be reviewed in two respects. On the one hand, it has to be questioned whether the stocks could not be stored in private households. At a per capita consumption of 180 kg per year, that would be around 800 kg for a family of four to five members. In addition, there is the needed share for replanting, which is about 1/5 – 1/7 of the yield, thus another 150 kg. This results in a storage requirement of just under 1000 kg per family. With a specific weight of 700 kg per cubic meter, the average storage requirement per family is 1.5 cubic meters. Since there were no silos¹¹ etc. in the typical residential houses, the grain had to be stored in sacks that did not archaeo-

Generally, this type of building a house could be multipurpose. The specific use of a site in the context of administration, economy and trade connections as well the urban planning and the placement of tripartite houses within a town area must be observed much more than usual in the previous scientific research.

⁶ The bulk density of wheat is about 720 kg/cubic meter. Since our calculation is very insecure and based only on approximate data, we calculate with 1000 kg/cubic meter.

⁷ A simple calculation shows the approximate accuracy of this estimate. Normal houses of the Iron Age are between 70 and 110 m² in size. Assuming an average area of 100 m² per house, the total area for residential buildings is 0.45 ha. The size of the Iron Age II city of *Tell el-'Orēme* is approximately 0.75 ha. The remaining 0.3 ha of the total area was occupied by streets, the city wall with its towers, the gate installations and the tripartite buildings.

⁸ This was based on an average estimate which also takes into account the lower food requirements of children.

⁹ This is a typical fact for all tripartite buildings, cf. FRITZ 1977, 42.

¹⁰ Cf. KLETTER 1998 (especially the table on p. 80), who drew attention to the wide variance of weight stones of about ± 5%.

¹¹ Silos or grain pits dug into the earth and covered with a layer of earth after being filled with grain existed mainly during no-

logically survive. The space in the approximately 70–110 square meter houses is relatively small, especially since it had to be shared with the domestic animals (small livestock, donkeys, possibly cattle). In addition, there was the constant danger that the own sheep and goats in an unobserved moment would get to the grain supplies and eat them all. Furthermore, attempts had to be made to keep away mice that would eat up the supplies. This was easier accomplished with a central storage facility than with a decentralized one. Thus, central storage would have at least made sense.

Site	Dating	Size	Estimated inhabitants	Required grain	Buildings	Size of storage capacity ¹²
<i>Tell el-Qedah/Hazor</i> ¹³	Stratum VIII = 9 th century BCE	3 ha	750	250 m ³	1	1 x 2 x 18 m x 2.7 m x 0.5 m = 48.6 m ³
<i>Šēh Hīdr/Tel Hadar</i> ¹⁴	Stratum IV = 11 th century BCE	0.75 ha	190	60 m ³	1	1 x 2 x 11 m x 3 m x 0.5 m = 33 m ³
<i>Hīrbet el- Ašiq</i> ¹⁵	Stratum V = 9 th century BCE	1.2 ha + x ¹⁶	300 + x	100 m ³ + x	3	3 x 2 x 19 m x 3 m x 0.5 m = 171 m ³
<i>Tell Abu Hawām/Gat Karmel</i>	Stratum IV = Iron Age IB/IIA	ca. 1.5 ha ¹⁷	375	125 m ³	1	1 x 2 x 11 m x 1.5–2 m x 0.5 m = 19.25 m ³
<i>Tell Qasīle</i>	Stratum X = late 11 th /early 10 th century BCE	Max. 1.7 ha	Max. 350	115 m ³	1	1 x 2 x 13 m x 2.5 m x 0.5 m = 32.5 m ³
<i>Hīrbet er-Rumele</i> ¹⁸ / Bet Shemesh	Stratum II = Iron Age II	4 ha	1000	330 m ³	1	1 x 2 x 15 m x 5 m x 0.5 m = 75 m ³
<i>Tell el- Hesi</i> ¹⁹	Iron Age II	1.6 ha	400	130 m ³	3	3 x 2 x 11.1 m x 2.4 m x 0.5 m = 80 m ³
<i>Tell es- Seba</i> ²⁰	8 th century BCE	1 ha	250	80 m ³	3	3 x 2 x 10 m x 2.5 m x 0.5 m = 75 m ³
<i>Hīrbet el-Mšaš</i> ²¹	House 350, Area H, Stratum II = 11 th century BCE		250 ²²	80 m ³	1	1 x 2 x 7.5 m x 2.3 m x 0.5 m = 17 m ³
<i>Tell el-Milh</i> ²³	9 th –6 th century BCE		Maximum 100 ²⁴	30 m ³	1	1 x 2 x 14 m x 2 m x 0.5 m = 28 m ³

Table 2.1.3.2. Size of tripartite building houses.

urban periods. The great advantage of grain pits is that the outer layers of the stored grain begins to rot, but this process is stopped. This means that voles etc. do not penetrate into the inner area of the silo but turn away at the rotted edge area. Many such pits have been found especially in the Iron Age I period and in the Persian period, when less settlements existed, but (semi-)nomads yielded grain and stored it in these pits. A survey of the silos and their distribution in different times constitutes still a research gap. For general information on Iron Age grain pits, silos and storage rooms see WEIPPERT²1977; BOROWSKI 1987, 71–83 and BOROWSKI 1997.

¹² The first number in this calculation is the number of tripartite buildings, the second one are the side aisles of each building, followed by the length and the width of the side aisles and the height of storage quantity. For the calculation, the area of each side wing was calculated with a storage height of 50 cm.

¹³ YADIN 1958, 11–14.

¹⁴ KOCHAVI 1998.

¹⁵ KOCHAVI/TSUKIMOTO 2008.

¹⁶ The southern boundaries of the settlement have not been recorded yet, making it difficult to determine the exact size of the settlement.

¹⁷ The size is difficult to indicate. The calculation is based on the populated area of the *tell*, but does not take into account the eastern, gradually flattening slopes.

¹⁸ GRANT/WRIGHT 1939, 19.

¹⁹ BLISS 1894, 90–91.

²⁰ AHARONI 1973, 23–30.

²¹ FRITZ/KEMPINSKI 1983, 43.

²² It is difficult to estimate the number of inhabitants at this location. HERZOG 1997, 205–208 suggested that there were three separate ring settlements here, to which about 60 houses might have belonged. The tripartite building, however, was located at only one of the ring settlements, outside and separately built. It is not clear whether each of these ring settlements was self-sufficient and perhaps had its own warehouse. If one assumes only 20 houses as an associated ring settlement, the demand would only be 22 m³.

²³ KOCHAVI 1993a, 935.

²⁴ Cf. HÖHN 2016, 82.

The second review includes the comparison of the size of other villages where tripartite buildings were found with the size of the tripartite buildings and the storage capacities there. *Tell el-Mutesellim*/Meggido and *Tell ed-Duwēr*/Lachisch shall not be considered here, because in both sites the tripartite buildings were likely used as stables.²⁵ In addition, Table 2.1.3.2. presents tripartite buildings, each with an indication of the size of the village in the corresponding stratum, the estimated number of inhabitants and the size of the storage capacity.

However, some of the information requires a relativization of the date. In *Tell el-Qedah*/Hazor there was a palace of the regional governor whose basement was doubtlessly also used for storage purposes. Therefore, only a part of the required grain supplies was stored in the public storage room, while other parts were stored in the palace under royal administration. How large this amount was is, however, difficult to say.

The situation in *Šēḥ Hīḏr*/Tel Hadar is a little unusual. About 120 complete ceramic vessels have been found in the building, mainly large storage jars. The ceramic vessels with an estimated diameter of 40 cm²⁶ each require a storage space of almost 20 m². This leaves only 46 m² (respectively 23 m³) of the 66 m² for grain storage. However, directly next to the tripartite building there was a granary with six chambers, each with a ground area of about 3 x 3 m, i.e. a total area of about 54 m².²⁷ In such a granary it was possible to store higher than in a normal tripartite building because the access was obviously from above – due to the lack of connecting doors. The height is difficult to estimate but will certainly be more than one meter. The excavator – probably rightly – assumed that this was a central granary which contained contents that could be sold. The southern Golan area has wonderful farmland, the yields of which far exceeded the demand due to the sparse population²⁸ and were therefore possibly collected in the *Šēḥ Hīḏr*/Tel Hadar storage facilities in order to be exported. Overall, therefore, the findings of this location are not meaningful. However, the architectural division of the complex – here a tripartite building, there a six-part storage facility – must be taken into consideration. If the building was only used by the local population, the supplies stored there would have been sufficient for the population, especially if one considers that this place might be divided into a small acropolis with few inhabitants and a surrounding settlement.

In *Tell es-Seba'*, 36 storage jars (holemouth-jars) were found in the tripartite buildings. With a diameter of 40 cm, the area usable for grain storage is reduced by about 6 m² or 3 m³. In addition, large quantities of different tree species were found here: *Acacia raddiana* (Acacia), *pistacia palaestina* (terebinth), *pistacia atlantica* (Mount Atlas mastic tree), *cedrus libani* (cedar of Lebanon), and *tamarix aphylla* (tamarisk).²⁹ These are woods imported into the Negev which were needed for buildings, some even for magnificent buildings (cedar of Lebanon!). The storage rooms therefore seem to have been used not only for storing grain and wine or oil but also and to a large extent for storing timber. As the concrete space required for the storage quantities cannot be determined, the storage area for grain must be reduced considerably.

At least in those places where there is no justified exception, the estimated needs for self-sufficiency of a settlement are very similar to those which could be stored in the storage facilities. As a working hypothesis it should be noted that the population is centrally self-sufficient and that not every single family has stored its grain separately. However, one has to keep in mind that in most places only a fraction of the inhabited area has been excavated so far.

In some places there are also special storage facilities for grain with a larger storage capacity. The oldest Iron Age site is probably building 5900 in *Tell Balāṭa*/Shechem which the excavators identified as a grain storage room.³⁰ It is assigned to stratum IX and thus, to the 10th/9th century BCE. Each of the three parallel rooms measured 4.5 m x 9 m. This would result in a storage capacity of 3 x 4.5 m x 9 m x 0.5 m, i.e., a total of about 60 m³. Iron Age *Tell Balāṭa*/Shechem had an area of about 3.5 ha if the whole *tell* was inhabited. This would mean that almost 900 people lived here who had an annual requirement for grain of 300 m³. Hence, the capacity of this storage building was not sufficient to supply the entire population. Therefore, there must have been other buildings like this. However, it must also be taken into account that there was a settlement gap in *Tell Balāṭa*/Shechem in the 11th and early 10th century BCE and thus the population may have been much smaller in the decades following the refoundation. The fact that the oldest building of this kind from Israel/Judah was built in Shechem may not be entirely coincidental since in the late 10th century BCE after the settlement gap, this site was the capital of the northern kingdom for a short time. Therefore, it would have been built in the context of royal building policy.

²⁵ Cf. note 6.

²⁶ They are unpublished and can only be seen on a photo in KOCHAVI 1998, 471.

²⁷ KOCHAVI 1993, 551 (there this stratum was called according to the original numbering Stratum II).

²⁸ Cf. ZWICKEL 2017a, 266–269; ZWICKEL 2017b.

²⁹ AHARONI 1973, 25.

³⁰ CAMPBELL 2002, 250–251.

In *Tell el-Qedah*/Hazor Area G, Stratum VI (8th century BCE), there was a large granary in the upper city which unfortunately was not completely excavated but which was probably about 12 x 12 m large and 3 m deep.³¹ This results in a storage capacity of up to 400 m³. The reservoir was sunk into the ground. Next door were two elongated storage rooms (10030 C and 10064 C) with a length of 12 m and a width of 1.6–1.8 m. Here, almost no vessels were found which at least suggests that nearly exclusively vegetable goods (wheat, barley, emmer) were stored here. At that time, *Tell el-Qedah*/Hazor had an area of almost 5 ha and the number of inhabitants must have been 1250 at most. Thus, the required amount of grain was 400 m³. The granary was therefore sufficient to supply the population. Additionally, merchants and soldiers could have been supplied as well. Especially with the location of *Tell el-Qedah*/Hazor, additional capacities for the supply of merchants and soldiers are quite reasonable. *Tell el-Qedah*/Hazor was situated along the main trade route *via maris*. Additionally, the Huleh Valley was fiercely fought over between Arameans and Israelites during the entire Iron Age II.³² Therefore, soldiers were likely settled in *Tell el-Qedah*/Hazor, who had to be supported, but who did not contribute to the agricultural income of the city.

A great facility was built in *Tell el-Mutesellim*/Megiddo.³³ The round silo, lined with stones and accessible via stairs, was 7 m deep and had a storage capacity of 450 m³. *Tell el-Mutesellim*/Megiddo has a total area of about 6 ha. Accordingly, up to 1500 people could live there, who had an annual demand for grain of about 500 m³, which is roughly equivalent to the storage capacity in the silo. Stratum III is to be assigned to the Assyrian rule in Israel and thus to the 7th century BCE. The surprisingly large silo could be explained by the fact that the Jezreel Valley is the granary of the country with the highest yields.

This overview is based on the current state of research. There will have been further facilities and certainly not all locations would have had tripartite buildings or silos for storage purposes. A thorough investigation of the purpose of the buildings found in the Palestinian sites is still pending and archaeobotanical investigations are unfortunately still very rare. Therefore, it is to be expected that in other places it will be possible to identify further storage facilities as such.³⁴ In addition, nearly all sites have been only partially excavated so that more such buildings for storage facilities will probably be found in the course of further excavations.

The shared usage of such a local supply may seem strange in today's capitalist society. In ancient Israel and Judah, however, with the exception of the capital cities of Samaria and Jerusalem, only in very few cases the settlements were larger than 2 ha, in each case justified by their function. In the small villages with 250 or maximum 500 inhabitants lived a few large families who were related to each other and helped and supported each other. The society was strongly egalitarian and community oriented. Therefore, it is not surprising that a common granary existed for one village especially since the collection could be controlled by a supervisor.

However, it is likely that the grain for reseeded was stored separately. This grain should not be touched and secured the future of a family. The 200 kg could easily be stored in closed sacks (to prevent eating by sheep and goats) in the residential houses.

The Biblical Findings on Storage Facilities

Are there any biblical findings for this archaeologically developed thesis? The overwhelming majority of biblical terms that are translated as storeroom, storage room, storage facility, or similar are found in post-exilic texts (on *misk^enōt* and *ōzār* see below).³⁵ In addition, numerous terms refer to the storage rooms within the temple³⁶ and palace area.³⁷ This focus on Jerusalem shows that, on the one hand, the biblical texts of the post-exile period often have a Jerusalem-centered view, and that, on the other hand, the writers of those texts were located in the surroundings of the court and its institutions. In the post-exilic period, it seems that from a purely literary point of view, much more importance was given to granaries that were connected to private houses.

If one looks at the texts that with some certainties are regarded as pre-exilic texts, Deuteronomy 28:8 is without further meaning. Interesting is the term *misk^enōt* which is only used in its plural form and on the one hand refers to the storage cities in Egypt (Exodus 1:11) but on the other hand also to those in Palestine. The evidence in the books of Chronicle (2 Chronicles 8:4.6; 16:4; 17:12; 32:28) is predominant but there is also a single evidence in

³¹ YADIN 1989, 187–188.

³² ZWICKEL 2019.

³³ KEMPINSKI 1989, 133–134.

³⁴ In *et-Tell*/Betsaida on the Sea of Galilee, a gate chamber was apparently used as a storage facility for grain; cf. ARAV 2009, 35.

³⁵ *Mamm^egūrā*: Joel 1:17; *m^egūrā*: Haggai 2:19; *'asām*: Deuteronomy 28:4; Proverbia 3:10; *māzū*: Psalm 144:13; *ma'abūs*: Jeremiah 50:26.

³⁶ *Bēt hā^asuppīm*: 1 Chronicles 26:15.17; Nehemiah 12:25.

³⁷ *Ganšak*: 1 Chronicles 28:11.

1 Kings (1 Kings 9:19). The context begins in V. 15. V. 16–17a are inserted³⁸ and remain untranslated in the following translation:

15 And this is the record of the forced labour which king Solomon conscripted to build the house of the Lord, his own palace, the Millo, the wall of Jerusalem, and Hazor, Megiddo, and Gezer,
17b and Lower Beth-Horon,
18 Baalath, and Tamar in the wilderness,
19 as well as all the cities of store that Solomon had, and cities for his chariots and horses, that which he desired to build, in Jerusalem, [and in Lebanon,]³⁹ and in all the land of his dominion.

V. 15.17b and 18 are quite specific, while v. 19 is very general and summarizing. Nevertheless, the verses must have been written in a complete outline. The last line again mentions Jerusalem which is mentioned in detail in V. 15a, while “all the land of his dominion” includes all other activities mentioned in V. 15b.17b.18.19. The chariot and horse cities may have been a special feature of the army of chariots, which was still quite rudimentary under Solomon, but gradually flourished. After all, it can be proved that there was already a commander in charge of the chariots in the 9th century BCE (2 Kings 8:21), so that the statement that Solomon had already started with a (modest) army of chariots can be regarded as reliable.

Regarding the storage cities, one must be aware that the Hebrew term *ʿir* can be very ambiguous. Even a simple walled complex can be called a city. This is particularly clear in 2 Kings 17:9 where the term *ʿir* is described in more detail: “from the tower of the watchmen to the fenced city”. It is quite plausible that a royal edict ordered the construction of such buildings in all larger settlements.

As such central storage facilities already existed in the Iron Age I, as the archaeological overview has demonstrated, it was possible to fall back on a pre-royal tradition. However, it is noteworthy that the Iron Age I storage facilities were not located in Judean or Israelite cities: *Šēh Hidr/Tell Hadar* probably belonged to the Kingdom of Geshur, *Tell Abu Hawām* was probably under Phoenician control in this period, *Tell Qasile* belonged to the Philistine area. The ethnic affiliation of *Hirbet el-Mšaš* is mostly unclear, at least it did not belong to the Jewish heartland. One could possibly think of a simplified copy of the storage rooms of the Minoan palaces. This type of building would have been brought into the country by the seamen. Judah and Israel have thus taken over a building element of the environment and integrated it into their urban structures.

Storage rooms (*ōzār*)⁴⁰ of a city are also mentioned in Jeremiah 20:5; 49:4 in reference to Rabbat-Bene-Ammon, the capital of the Ammonites, in Jeremiah 48:7 in reference to Moab, and in Ezekiel 28:4 for Tyre. In addition, the Temple in Jerusalem⁴¹ and the palace⁴² had corresponding storage chambers; but these are not chambers for the storage of ordinary food, but treasure and clothing chambers and various food for the sacrificial service; here also the treasure of the temple and the palace was stored.

However, another highly controversial biblical text must also be mentioned in this context. In 2 Chronicles 11:11, it is mentioned that Rehoboam built up stocks (*ozʾrōt*) of food, oil, and wine in some cities which he turned into fortresses. Some of these fortresses mentioned in v. 6–10 have been excavated. Based on the results of the excavations it can be assumed that this list does not date back to the time of Rehoboam but rather to the time of Josiah.⁴³ Moreover, these settlements are not actual fortresses but rather villages with a wall that were able to resist a siege for a while, thanks also to their supplies. This shows that the construction of such storage houses was also a measure to provide food in times of war. The food was intended to be able to supply the soldiers stationed here at short notice in the event of war, if necessary; in peacetime, however, passing traders received sufficient food in

³⁸ Cf. NOTH 1968, 215.

³⁹ Lebanon is likely to be a later addition, which is missing in some editions of LXX.

⁴⁰ Cf. also the post-exilic evidence for this word and its meaning “storehouse”: Joel 1:17; Proverbs 8:21 as well as for the post-exilic Jerusalem Temple Esra 2:69; Nehemiah 7:69–70; 10:39; 12:44; 13:12–13; Malachi 3:10 and for a storehouse in Babylon Jeremiah 50:37; Daniel 1:2. There are also several typical references in the book of Chronicles, which allegedly describe the pre-exilic time, but are clearly post-exilic and refer to the storage rooms of the Temple in Jerusalem: 1 Chronicles 9:26; 26:20.22.24.26; 28:12; 29:8; 2 Chronicles 5:1; 8:15; see also 2 Chronicles 25:24.

Of particular interest for the post-exilic period and its economic structure is 1 Chronicles 27:25–31 (cf. also 2 Chronicles 32:27–29). This text clearly reflects post-exilic circumstances and not – as claimed in V. 31 – those of David’s time. According to this, the king now had control over numerous agricultural estates and had the products made, managed by employees. If this text reflects real conditions and is not fictitious, it is likely to be dated to the Hasmonean period due to the landscape details, because only then a Judean king controlled the indicated areas.

⁴¹ 1 Kings 7:51; 14:26; 15:18; 2 Kings 12:19; 14:14; 16:8; 18:15; 24:13; 2 Chronicles 12:9; 16:2.

⁴² 1 Kings 14:26; 15:18; 2 Kings 12:19; 14:14; 18:15; 20:13.15; 24:13; 2 Chronicles 12:9; 16:2; 25:24; 32:27–28; Isaiah 39:2.4; Jeremiah 38:11.

⁴³ In my opinion, still fundamental because created on the basis of archaeological research: FRITZ 1981.

the villages against payment. Therefore, the storage buildings did not only ensure the self-sufficiency of the population but also the supply of all those who stayed here professionally. A corresponding organization of the local storage facilities promoted the development of trade and the internal military structure and was therefore in the interest of the royalty.

This in turn supports the thesis that Solomon as king already began with the establishment of such storage houses and thus 1 Kings 9:15–19* can be quite credible. According to all we know, David does not seem to have undertaken any large-scale building programs. Before David, there may not have been any public building policy in Judah and Israel except for city walls. David's primary goal was to unify and stabilize the empire. Only Solomon would have started with a very modest building policy to create an infrastructure for international trade. In the 9th century, under the Omrides, about 50 years after the death of Solomon, there seems to have already been a flourishing international trade. After its complete collapse at the end of the Late Bronze Age it was only reactivated in the 10th/9th century BCE. Such an infrastructure could not be built in a short time but required a considerable lead time and extensive construction measures over a medium-term period. The beginnings must therefore be sought in the time of Solomon.

Summary

The archaeological findings show that central buildings (so-called tripartite buildings) have been erected in the southern Levant since the Iron Age I which can be interpreted with a certain probability as communally used storage facilities for grain. The oldest evidence is not to be found in the territory of Judah or Israel but is possibly influenced by a Cretan tradition and was brought by the seamen. This type of construction spread throughout the country from Iron Age II onwards, especially in places that had a central military or trade function. Besides, or instead of this, large central storage rooms were also built in individual places. In addition, there were private silos deep in the ground which served for the storage of private grain. The central storage of the grain had the advantage that the grain was better protected from animals that could have eaten it. Moreover, the distribution could be regulated centrally.

The archaeological findings possibly correspond to the literary traditions, which, however, are not easy to interpret. The few pre-exile texts make it probably that these central storage facilities were created on a royal commission. They were probably part of the drudgery that every Judean and Israelite had to do. The supplies were not only used to supply the local families but also to supply merchants and, in case of war, to feed soldiers. The infrastructure for cases of war, but also for trade was the task of the royal family. The construction of these buildings and thus the joint storage of grain supplies by the local community was probably only possible because there was a largely egalitarian society in Israel and because only a few large families lived in the individual villages.

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