

5. Architecture

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5.1. Introduction

Aside from pottery, architecture is the most ubiquitous form of EJZ material culture. As long as careful methodological principles of excavation have been applied, architecture can provide clear stratigraphic data. Thus, together with pottery, architecture forms the backbone of the EJZ relative chronology.

Due to the large number of architectural remains in the JZ dating to the 3rd millennium, not all such evidence can be presented here. Instead, this discussion will focus on instances where the complete plan of a construction is known, or where diagnostic architectural features of an extended building have been exposed. These are the necessary prerequisites for studying the typology and function of buildings. Thus, the selection of ARCANÉ architectural units is directed by the quality of exposed architectural remains with regard to their potential for typological and functional interpretation.

Based on the methodological principles of the ARCANÉ project, the chronological ordering of the architectural features and buildings depends exclusively on the nature of their stratigraphy rather than typological inferences. The stratigraphic attribution is principally based on the information given by the excavators in their publications, including both preliminary reports and final publications, as well as the stratigraphic descriptions provided in the ARCANÉ Database.¹ In addition, I refer in large parts of my chronological ordering to the article by Ph. Quenet (Chapter 2) on the stratigraphy and dating of sites. In cases where discrepancies arose between the excavators' information in the ARCANÉ database and the article by Ph. Quenet, the latter was followed in most cases since his chronological conclusions are based on a thorough and in depth comparison of pottery and other inventories from all relevant sites. Quenet's contribution on stratigraphy in this volume is an invaluable tool for understanding EJZ chronology.

My views on the dating of levels and on the typology of the architecture are also based on my own research in the JZ, primarily at the sites of Bderi, Khuera and Mozan. This naturally leads to a strong focus on the architectural features of these three sites in this article, based on my detailed understanding and own evaluation of their architectural contexts.² This also explains the strong emphasis on private houses and domestic installations – based on my book “Houses and Household”³ – as well as public spaces and streets in this contribution, especially as explored at Khuera and Mozan.

In this article, the architecture has been divided into five functional categories: 1. Fortifications; 2. Houses and domestic installations; 3. Palaces; 4. Temples and ceremonial buildings; 5. Storage buildings. The material is presented accordingly and within each category the buildings are discussed in chronological order, subdivided into the EJZ phases.

Despite the large amount of excavated architectural remains in the Syrian JZ, there are so far no complete plans or larger exposures of any buildings dating to Period EJZ 0. This period is (with the exception of the fortification category) not therefore treated as an independent period in each functional category. The chronological ordering in each functional category will thus be: EJZ 1 – EJZ 2 (EJZ 2 and final EJZ 2 will be handled together – EJZ 2) – EJZ 3 (subdivided into EJZ 3a and 3b only for houses) – EJZ 4 (sub-periods EJZ 4a, 4b, and 4c are treated together due to the scarcity of architectural data) – EJZ 5.

It has already been noted that the quantity of excavated architectural structures for the EJZ period is small so that only a selection of the material can be presented. On the other hand, as will be seen, there are also many insecurities and lacunae in the data for this period. For Periods EJZ 3a and 3b, a lot of material is available for all functional building categories, whereas evidence for various categories is more restricted in other periods. This prevents, at present, the reconstruction of a complete and contiguous picture of how EJZ architecture developed.

¹ I want to thank Laszlo Simon (student at the University of Tübingen) for his intensive search of the ARCANÉ database for architectural data.

² The chapter also includes data from the DOG excavations at Mozan, which has previously only been published in preliminary articles, but for which the final publication is currently in press: Volumes 2 and 3 are already appeared (Eckert et al. 2010, Deckers et al. 2010), whilst Volume 1 (architecture and stratigraphy) will be printed very soon.

³ Pfälzner 2001.

5.2. Fortifications

5.2.1 Period EJZ 1

The development of fortifications and fortified settlements in the JZ Region began during Period EJZ 1. Evidence recently retrieved at Khuera demonstrates that the inner city of the “Kranzhügel” was founded during Period EJZ 1 (Period Khuera IA). It has been assumed that this was already fortified.⁴ The exposed part of the inner city wall is built of mud-bricks and has a width of 4.2m. It is connected to a possible “tower” or “bastion”, but it is not yet clear from the stratigraphy whether the city wall already existed during this early period.⁵ Clearer archaeological evidence of early fortification walls is available from smaller sites in the Khabur region, especially in the Middle Khabur valley.

At Atij there is an oval perimeter wall on the summit of a very small tell⁶ (Fig. 1). This “mur d’enceinte” is attributed by the excavators to Period EJZ 2,⁷ but is dated by Quenet to Period EJZ 1.⁸ It is built on virgin soil,⁹ thus demonstrating that the settlement was fortified from the beginning of its existence. The 2.5m wide wall is entirely constructed of mud-brick up to a preserved height of 4-5m¹⁰. Although the wall was only excavated in three places – in the N, the middle and the S of the tell – it was possible to infer that it surrounded the whole of the former settlement. It once encompassed a very modest total settlement area of only 80m (N-S) by 50m (E-W), and was regularly curved to form an overall elongated oval shape.¹¹ It must have been primarily intended for the protection of stored goods rather than of the people living in this tiny settlement.

The contemporary fortification wall at Kashkashok III is similar in shape and was exposed in a wide stretch of Area A (Fig. 2). It is referred to as the “Rounded Building”. It was constructed in Level A IX (EJZ 1) and seems to have continued in use during Period EJZ 2¹². The 1.2m to 2m wide wall is built of mud-brick¹³. Like the fortification wall at Atij it is smoothly rounded in shape, but in contrast to the latter it is not purely a single-line wall. It consists of a single wall line in the E part, but spreads into two parallel walls in the N part of the site, which enclose seven small, casemate-like rooms. The wall is not excavated in the W and S part of the tell, but seems to have been combined – at least in later phases – with secondarily constructed, elongated room units in order to form a completely closed, fortified circle or oval. It must have protected open courtyards and houses located inside. The total extent of this fortification – with a reconstructed diameter of roughly 65m – is very similar to the one at Atij and seems to have surrounded the whole site.

Another EJZ 1 fortification wall was detected at Kneidij, in the oldest Level XVI at the site.¹⁴ This mud-brick wall (Wall 559) was only detected in a small sounding on the SE side of the settlement¹⁵. It was constructed on virgin soil, demonstrating that the settlement at Kneidij was also fortified from the beginning of its existence. In the later Period EJZ 2 the wall is attested to have surrounded the entire settlement (see below). It is not yet possible to demonstrate whether this was the case for Period EJZ 1 due to the limited exposure.

In summary, the evidence clearly proves that many EJZ settlements, from larger urban (e.g. Khuera) to small rural sites (e.g. Atij), were fortified from the very beginning of their existence in Period EJZ 1.

5.2.2 Period EJZ 2

At Khuera one can observe the successive development of the fortification system. Whilst the inner wall possibly had already been erected in Period EJZ 1 (see above), the outer city wall was added in Period EJZ 2 (locally labelled Khuera Phase? IB), as evidenced in Area Z.¹⁶ Through this additional construction, the typical two-crowned “Kranzügel” shape of the city was created; it thus appears to have been a two-stage process.¹⁷ The outer

⁴ Meyer, Chapter 4, this volume, and Meyer 2008c; 2010a:25.

⁵ Falb 2010:95-97, Fig. 8, 36.

⁶ Fortin 1994c:377; Fig. 15; 1995:37-41; Fig. 12-14.

⁷ See ARCANE database.

⁸ Quenet, Chapter 2, this volume, (based on his analysis of the Atij pottery; pers. comm.).

⁹ Fortin 1994c: 377; 1995: 40.

¹⁰ Fortin 1994c:377; 1995: 37, Fig. 12.

¹¹ Fortin 1995:Fig. 13.

¹² See ARCANE database; and Quenet, Chapter 2, this volume.

¹³ Suleiman & Taraqji 1995: 172-183; Fig. 32.

¹⁴ Dates according to Quenet, Chapter 2, this volume.

¹⁵ Klengel-Brandt, Kulemann-Ossen & Martin 2005: 14, Taf. 5 (section 12/2).

¹⁶ Meyer 2006b:182; 2010a:25.

¹⁷ Meyer, this volume, Chapter 4; Meyer 2010c: 24 f.; 2010c: 181.

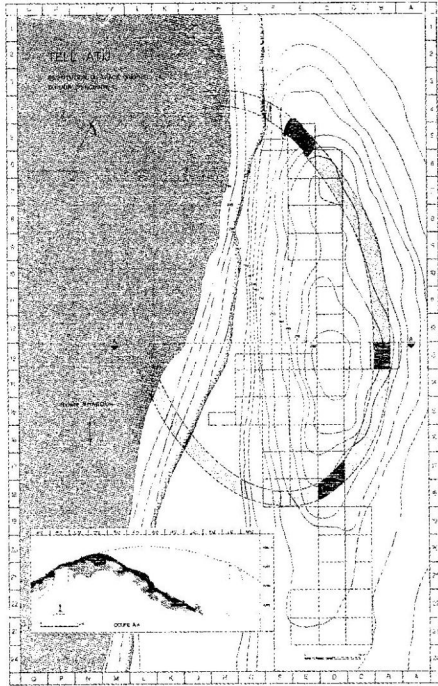


Fig. 1: Atij, fortification wall, EJZ 1 (Fortin 1995: Fig. 13).

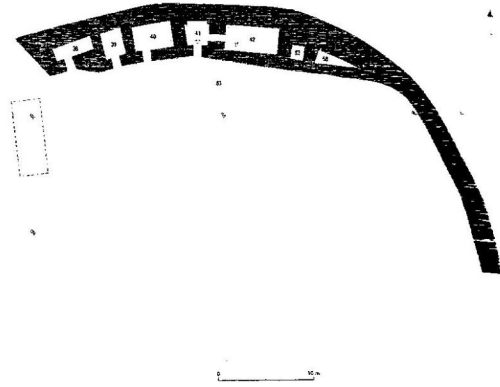


Fig. 2: Kashkashok III "Rounded Building", EJZ 1 (Inventory JZ012, Tb. 2).

city wall, the oldest phase of which, based on the stratigraphy, clearly dates to Period EJZ 2, is constructed of mud-bricks without a stone foundation. It is 5.5m wide and is preserved to a height of 3m. The fortification is protected on its outer side by constructed compartments filled with pebbles, probably to protect the mud-brick city wall from water damage¹⁸.

Period EJZ 2, thus provides a date for the establishment of a "Kranzhügel" structure at this site.¹⁹ The wall, with a width of 4.5m, was made of *pisé* and might have been the foundation of a destroyed mud-brick superstructure.²⁰ The Beydar city wall originally had seven gates. These have not been excavated but have been identified from the topography of the site and through references in the Beydar administrative texts. There is some evidence that the NE inner city gate (see below, EJZ 3) was already in use during Period EJZ 2.²¹

At Kneidij, the fortification is not augmented as it is at Khuera, but continuity of the existing fortification system from EJZ 1 to EJZ 2 is observable. For building Level XIII (EJZ 2) the city wall has been exposed over a length of 14m N of Building Complex N²² (Fig. 3). It is built of mud-brick and had a width of 2.4m. On the northern side it is protected by a glacis of equal thickness as the wall and reinforced by obliquely laid mud-bricks. This wall clearly surrounded the whole 3ha settlement, which in this instance, was characterised by a densely populated area with multi-room houses and storage facilities (see below). In contrast to earlier fortifications at Atij or Kashkashok III and the round city wall of Khuera, the exposed part of the wall at Kneidij forms a straight line. This, in addition to the view of the general topographical layout of the settlement, suggests that the fortification system was roughly rectangular or at least polygonal in form.

Continuity of fortifications is also attested at Kashkashok III. The documented evidence so far indicates that the EJZ 1 "Rounded Building" was used continuously during Period EJZ 2, with buildings being added to the structure on in Levels A VIII to A VI (see above and Plan Fig. 2).²³

There is a marked increase in fortified settlements during Period EJZ 2. An example of a newly founded site is Bderi. Here, a city wall and a city-gate existed from the very beginning of the EJZ 2 sequence at the site.

¹⁸ Meyer 2010e: 173-176.

¹⁹ Bluard 1997: 179-192; Bretschneider 1997: 193-208.

²⁰ Bluard 1997: 181; Bretschneider 1997: 194, Fig. 3.

²¹ Milano & Roa 2008: 588, Fig. 2-3.

²² Klengel-Brandt, Kulemann-Ossen & Martin 2005: 33 f., Taf. 26, 40.

²³ See: ARCANE database; and Quenet, this volume, Chapter 2.

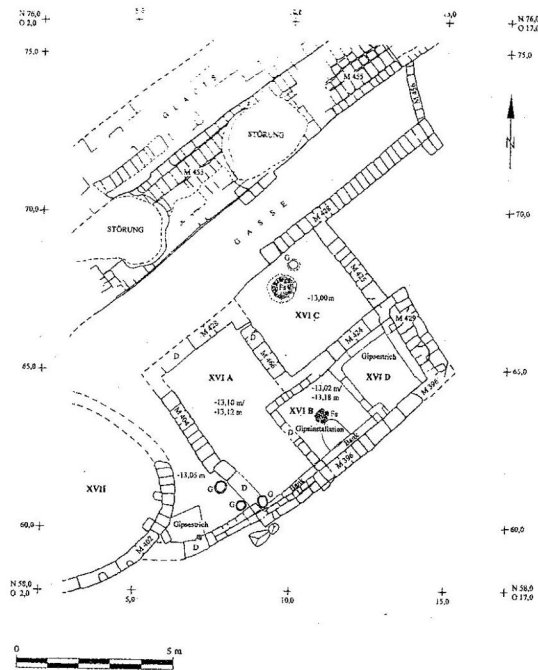


Fig. 3: Kneidij, fortification wall, Level XIII, EJZ 2 (Klengel-Brandt, Kulemann-Ossen & Martin 2005: Pl. 40).

in Level 27 (Fig. 4).²⁴ It directly overlies a ditch belonging to Level 28 (EJZ 1). This most likely served to drain off water from the regular inundations of the Khabur, rather than for fortification purposes. This new city wall existed throughout Period EJZ 2 (Levels 27-21) and continued to be used during the succeeding EJZ 3a period. The fortifications were therefore important in structuring the urban development of this small 6.8ha town. The wall, measuring 2m in width, is constructed of mud-bricks overlying a similarly built foundation of mud-bricks.²⁵ A glacis is attached to the outside, entirely built of rammed earth. It is also 2m wide at the base and served to protect the city wall from being undermined by water erosion, especially during Khabur inundations. Further, the glacis existed from the beginning of the city wall's construction (Level 27) and forms an integral part of the wall. On the interior the city wall is strengthened by mud-brick buttresses placed at regular 2m intervals. The voids between the buttresses came later on in Period EJZ 2, enclosed by an attached wall creating tiny casemate-like rooms between the buttresses.

The city-gate at Bderi, best attested during Phase 25, is the oldest Early JZ period example so far excavated. The gateway is 3m wide and both sides are coated by a large limestone orthostat. Although their surfaces have not been smoothed and they are not exactly rectangular, the use of the stone orthostats must be seen as a precursor of the later Syrian orthostat-gates of the second millennium BC. Thus, the Bderi EJZ 2 city gate is a typologically important piece of evidence for the early development of gates in Syria.

Special attention has been devoted to the circumvallation of Leilan, regarded by its excavator Harvey Weiss as important to the understanding of mid 3rd millennium state formation in the Syrian JZ.²⁶ On the acropolis of Leilan a city wall has been identified on the basis of two large mud-brick walls (Walls A and B, positioned perpendicular to each other), which were mainly recorded in the sections of Trench 44W12/ X12 and could be traced for a length of 10m.²⁷ Wall A was approximately 2.7m wide, but there is no clear indication about the extension and outline of this fortification system.²⁸ It was erected at a specific point in time between Levels 16 and 15, thus dating to the end of Leilan Period IIIId (= Levels 17-15), which corresponds

²⁴ The Bderi city wall was dated in preliminary reports to Level 25 (Pfälzner 1986-87a; 1986-87b; 1988), but study of documentation during preparation for the final publication revealed that the wall existed from Level 27 onwards.

²⁵ Pfälzner 1986-87a; 1989-90; 1990; 1992-93.

²⁶ Weiss 1990a; 1990b; 1990c.

²⁷ Calderone & Weiss 2003: Fig. 1, 2.

²⁸ Ibid. Fig. 4, 5.

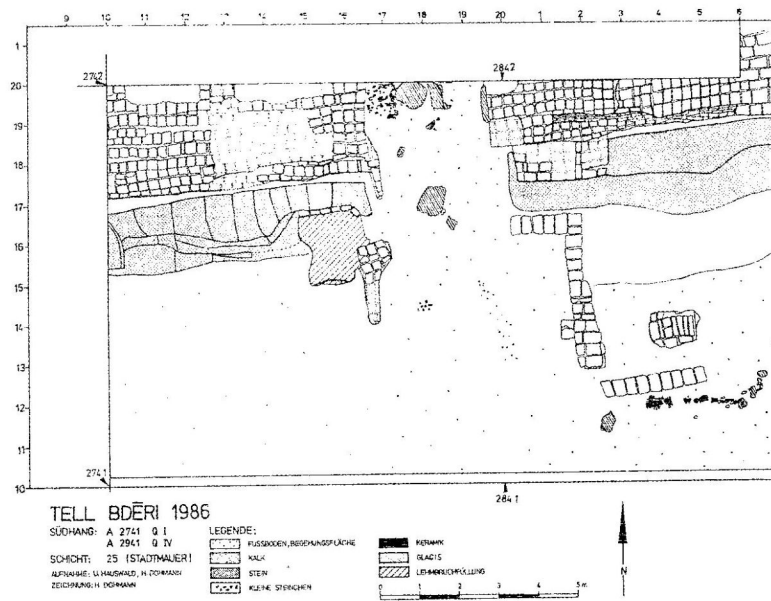


Fig. 4: Bderi, city-wall and city gate, Level 25, EJZ 2 (Pfälzner, 1989-1990: Fig. 19).

to the end of Period EJZ 2²⁹. The Leilan city wall remained in use during the subsequent Leilan IIa period (EJZ 3a and 3b).³⁰

Excavations in 2002 at the N city gate belonging to Leilan's lower town revealed that both the gate and Leilan's lower city wall were erected in Period Leilan IIIId (final EJZ 2).³¹ The mud brick city wall (Wall A) is 3m wide in this phase and is connected to an earthwork, which probably served as a kind of glacis³². This evidence demonstrates that the fortifications of Leilan's lower town also date to Period EJZ 2 and are thus contemporary to the acropolis (upper town) wall.

The defensive wall at Rad Shaqrah was – according to Quenet³³ – probably already built in EJZ 2, at least in its initial building stage. There were later extensions, probably during Period ED III/ EJZ 3.³⁴ The wall was 3.9m thick and built of mud-bricks on a high foundation of basalt boulders (Fig. 5a).³⁵ The exterior was protected by a glacis made of earth, broken mud-bricks and basalt boulders, with an outer face of tightly packed stones (Fig. 5b). This glacis was at least 5m high and 6m wide at the base³⁶. This is one of the most impressive EJZ defensive systems discovered so far. It enclosed the tiny settlement of Rad Shaqrah, a small town with densely packed housing.³⁷ It is roughly polygonal in shape, extending not more than 100m N-S and 50m E-W.³⁸

A discussion of EJZ 2 fortification systems requires a mention of the fortified storage building of Levels 3 and 4 at Raqa'i. The site's fortified "Round Building" is, however, situated within the settlement with houses and other domestic areas grouped around it. Thus, it was not intended for the overall defence of the settlement. This important structure will therefore be discussed in connection with EJZ storage buildings (see below).

²⁹ Ibid.: 198.

³⁰ Ibid.: 198-201.

³¹ Ristvet 2007: 185-192, Fig. 6.

³² Ibid.: 189 f. Fig. 4.

³³ Quenet, this volume, Chapter 2 (as opposed to a ED III/ EJZ 3 date given in the ARCANE database)

³⁴ Bielinski 1993: 127, 1996: 162.

³⁵ Bielinski 1992: 80, Fig. 1.

³⁶ Bielinski 1992: 80; 1993: 119, 123, 125 Fig. 1; 1994: 157-159, Fig. 2.

³⁷ Bielinski 1995: 117.

³⁸ Bielinski 1994: 155. Fig. 1.

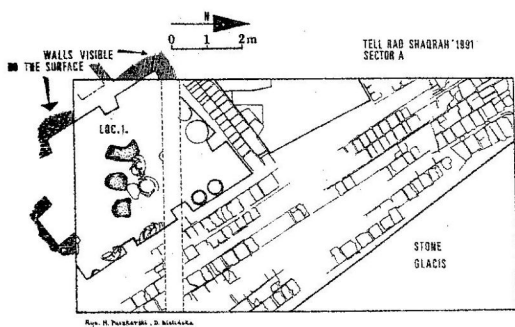


Fig. 5a: Rad Shaqra, defensive wall, EJZ 2 – EJZ 3, plan of Area A with wall and glacis (Bielinski 1992: Fig. 1).

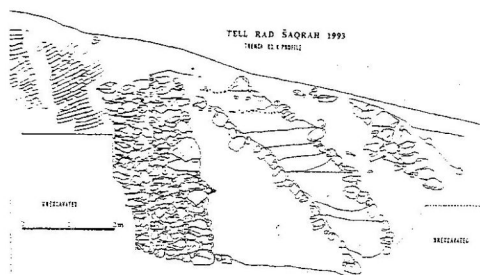


Fig. 5b: Rad Shaqra, defensive wall, EJZ 2 – EJZ 3, section of Area B3 with three layers of stone glacis (Bielinski 1994: Fig. 2).

At Khazne a thick fortification wall was discovered surrounding a complex of buildings, which have tentatively been interpreted by the excavators as religious (due to the occurrence of niched facades) and administrative.³⁹ The 4.3m thick wall (Wall 17) is described as being built of rammed earth plaques and is circular in layout (Fig. 6a).⁴⁰ In the interior of this fortification, at a distance of 18m from the outer wall and not attached to it, an originally freestanding mud-brick tower (Room 37) was exposed, which was preserved to a height of 8m.⁴¹ The exact chronological relationship and developmental sequence of these multi-layered structures cannot be ascertained, because the buildings were not distinguished according to single level plans. Although the stratigraphy and chronology of the site is far from clear, the main Levels III-I have been attributed to the EJZ 2 by Quenet.⁴² Thus, Khazne can be regarded as a strongly fortified settlement of Period EJZ 2 with probably specialised functions that remain to be assessed.

5.2.3 Period EJZ 3

A precise insight into how EJZ 3 city-walls were constructed can be gained at Khuera. The outer city wall was exposed in Area P, indicating that it existed in building Phase 2 (TCH Period IC = EJZ 3a) and building Phase 1 (TCH Period ID = EJZ 3b). The defensive system consisted of the wall proper on the interior, a glacis, a forewall

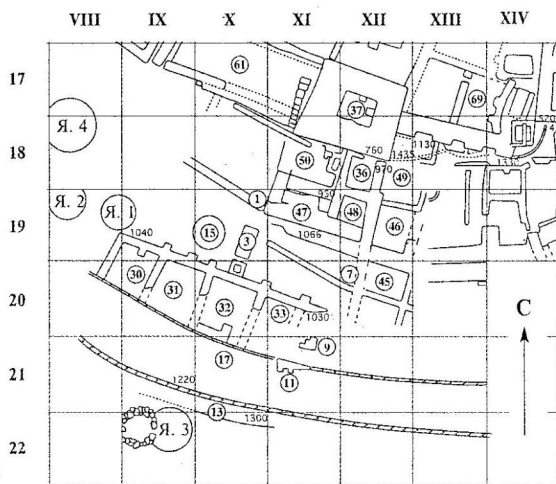


Fig. 6: Khazne I, fortification system around “monumental complex”, EJZ 2 (Munchaev, Merpert – Amirov 2004: Pl. 6).

³⁹ Merpert & Munchaev 1999b: 119 f., 123; Munchaev, Merpert & Amirov 2004.

⁴⁰ Munchaev, Merpert & Bader 1993: 163, Fig. 2.

⁴¹ Munchaev, Merpert & Bader 1993, 162 f., Fig. 2-5; Merpert & Munchaev 1999b: 120-122.

⁴² Quenet, this volume, Chapter 2

("Vormauer") and on the outer edge, a ditch (Fig. 7).⁴³ The massive city wall, preserved to a height of nearly 7m, measures 5.5m in width and was constructed of mud-brick⁴⁴. The only 1.5m thick pre-wall was erected at a distance of 6m to the N of it, and was constructed (during an earlier phase) of mud-bricks on top of a foundation of large limestone boulders. Directly in front of the pre-wall was a kind of deepened ditch. The glacis, on the other hand, was erected at a later phase using a line of mud-bricks. This complex fortification system is a continuation of the outer city wall erected during Period EJZ 2 (see above). It remained in use throughout Periods EJZ 3a and 3b and is an excellent example of a typical city wall during the main phase of 3rd millennium urban expansion.

At Mozan, Period EJZ 3 is characterised by an immense expansion of the city through the creation of a huge lower city⁴⁵. The whereabouts of part of the lower city wall and one of the city gates on its SE side was established using geo-magnetic prospection⁴⁶. The surface pottery collected dates the beginning of these structures to Period EJZ 3a⁴⁷. It is interesting to observe that, in contrast to the rounded city walls of Khuera's "Kranzhügel" type fortified settlement - Mozan's outer city was polygonal in layout (Fig. 8a). Outside the wall, a wide ditch could be observed both in the geo-magnetic image and in the actual topography, which must have supported the defensive structures⁴⁸. The SE gate, identified through geo-magnetic prospection, was situated at one of the estimated eight corners of the polygonal enclosure wall. It is characterised by two large elongated towers on either side of the gateway, protruding far into the area outside of the city (Fig. 8b). This interesting structure remains to be excavated in the future. The Mozan defensive system therefore provides an alternative model to the rounded Khuera-type with its double city wall in Period EJZ 3.

At Mozan there was also an upper city wall, identified on the E slope of the high tell. This was a massive mud-brick wall, 8m in width and preserved to a height of 5m with a smaller forewall added later in front of it.⁴⁹ Along the outer face of the wall was a considerable accumulation of ash and debris that had obviously been thrown over the city wall while it was still in use. These accumulations contained many ED III seal impressions dating these levels to somewhere within Period EJZ 3.⁵⁰ This indicates that the wall must be older, either dating to the early EJZ 3 or - more likely given the overall history of the site - EJZ 2. The upper city wall seems to have had an irregular polygonal layout (Fig. 8a).

Other city walls also remained in use from Period EJZ 2 to EJZ 3. The city wall on the acropolis of Leilan, for example, was erected at the end of Period Leilan IIIId (EJZ 2) (see above) and continued in use through Period Leilan IIa (EJZ 3a and 3b). The same holds true for Leilan's lower city wall and N city gate, which were both reused and altered during Period EJZ 3.⁵¹ A similar situation is recorded for the massive defensive wall of Rad Shaqrah, which was used continuously, with some alterations, during Period EJZ 3 (see above).

A reverse development, particularly compared to Khuera or Mozan, is visible at Beydar. Here, the outer wall of the former EJZ 2 "Kranzhügel" seems to have been abandoned by the beginning of Period EJZ 3a. During Periods EJZ 3a and 3b, the area of the former outer city wall was used for burial and craft production.⁵² In contrast to the lower city, fortifications in the upper city were maintained. The outline of the inner city wall can be clearly seen in Area G of the upper town at Beydar. It was constructed of mud-brick and furnished on its outer side with a glacis

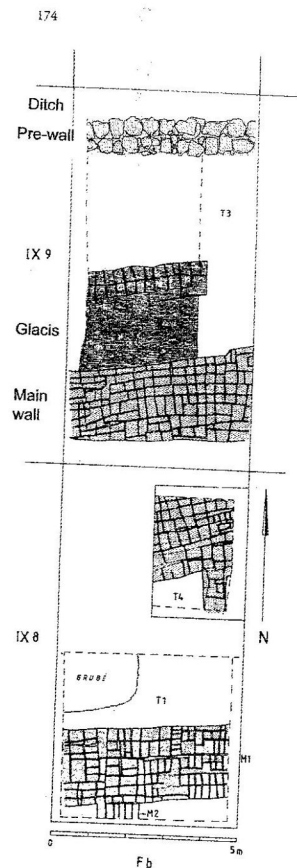


Fig. 7: Khuera, Area P, outer city wall, EJZ 3 (Novak 1995: Abb. 87).

⁴³ Novák 1995: 173-176., Fig. 87, Beilage 17.

⁴⁴ For other parts of the outer city wall a width of 8m (for Period TCH IC = EJZ 3a) and 11 or 12m (for Period TCH ID = EJZ 3b) has been reported on the basis of new excavations in 2002 (Meyer 2007b: 134; Meyer 2010e: 177).

⁴⁵ See. Pfälzner & Wissing 2004; Pfälzner, 2010: 4, Tab. 2; in press; Pfälzner & Dohmann-Pfälzner, in press.

⁴⁶ Pfälzner & Wissing 2004: 44-51, 76-84, Figs. 3-5, 22-25.

⁴⁷ Ibid.: 63-76, Fig. 7-9, 13-15.

⁴⁸ Ibid.: 48, Fig. 5.

⁴⁹ Buccellati & Kelly Buccellati 1988: 57-59, 61-64, Fig. 12.

⁵⁰ Buccellati & Kelly-Buccellati 1988: 67-81, Fig. 33-40.

⁵¹ Ristvet 2007: 193-195, Fig. 6.

⁵² Bluard 1997: 180-182; Bretschneider 1997, 194 f.

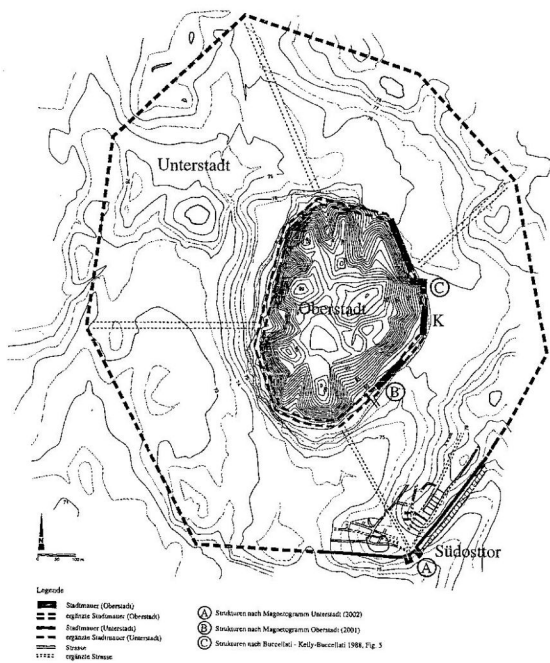


Fig. 8a: Mozan, polygonal outer city wall, EJZ 3a (Pfälzner & Wissing 2004; Abb. 22).

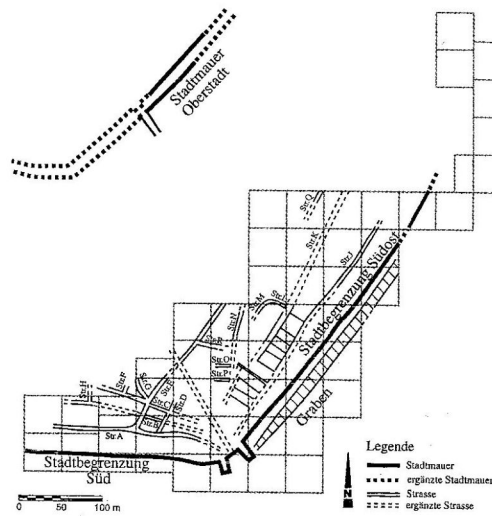


Fig. 8b: Mozan, SE part of the outer city with south-east city-gate, EJZ 3a (Pfälzner & Wissing 2004; Abb. 5).

during Period EJZ 3b.⁵³ The glacis was, in contrast to the one at Rad Shaqrah, coated with layers of hard clay.⁵⁴ Two older city walls uncovered below the upper one, and probably dating back to Period EJZ 2,⁵⁵ were equipped with a glacis. In these cases the glacis was constructed of mud-brick. This, again, demonstrates a clear continuity in the fortification system from EJZ 2 to EJZ 3, in this instance characterised by the construction of three successive city walls, one above the other.

More of the upper town's defensive system of Beydar was exposed in Area I to the E of Area G. Here, the upper city wall and the NE inner gate of the upper town were investigated (Fig. 9). As demonstrated through excavation, this monumental NE gate was used throughout several phases of Period EJZ 3a,⁵⁶ and probably dates back to Period EJZ 2, as indicated by a stone ramp.⁵⁷ The gateway, flanked by two wide, tower-like constructions, was around 4m wide and extended over 20m. It was subdivided by several buttresses, which framed small chambers within the passage of the gate creating a succession of inner doors.⁵⁸ This arrangement is similar to the later multiple-chamber gates of the 2nd millennium and is probably a precursor.

5.2.4 Period EJZ 4

There is presently little evidence of fortifications attributable to Period EJZ 4. This may be due to a lack of preservation, with these stratigraphically higher remains perhaps being reused in later phases, or alternatively, may be the consequence of decreasing urban size during this period. The latter reason may apply at Khuera and Beydar. At Mozan, it has been argued that the lower city wall, established in the previous EJZ 3 period, continued in use during Period EJZ 4, because the lower city was still populated and the EJZ 4 sherds scatter was more or less limited to the outline of the city wall.⁵⁹

Clear evidence for continuity of the existing urban fortification system from EJZ 3 to EJZ 4 was retrieved at Leilan. The N outer city gate, erected during Leilan Period IIIId (see above) was reused and modified during Leilan

⁵³ Suleiman 2003a: 302; Quenet 1997: 169-171.

⁵⁴ Suleiman 2003a: 303.

⁵⁵ There is excised Ninivite V ceramic associated with the second city wall, and pottery with affinities to Karababa-Ware associated with the third, earliest city wall (Suleiman 2003a: 305 f.).

⁵⁶ Milano & Rova 2003b: 376 f.

⁵⁷ Milano & Rova 2008: 588, Fig. 2-3.

⁵⁸ Milano & Rova 2003b: 375 f., Fig. 2: 8; 2008: Fig. 2

⁵⁹ Pfälzner & Wissing 2004: 67 f., 81 f., Fig. 15-16; Pfälzner, in press; Pfälzner & Dohmann-Pfälzner, in press.

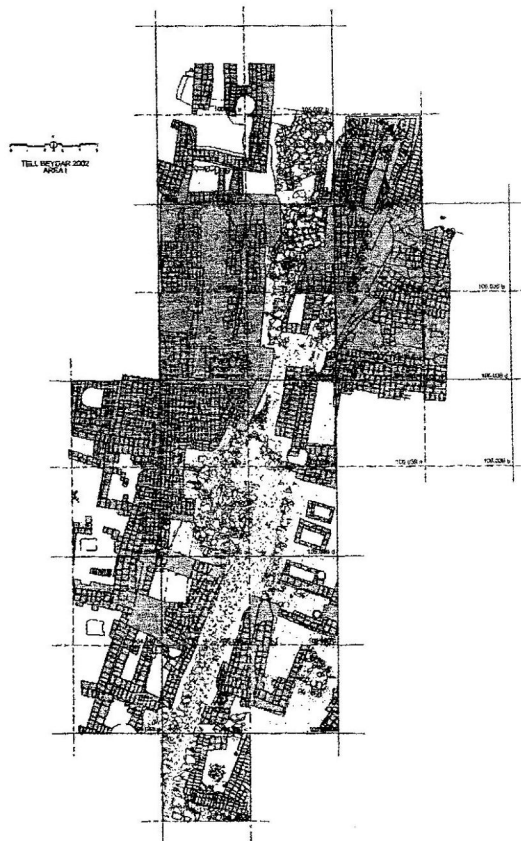


Fig. 9: Beydar, NE city gate, EJZ 3 (Milano & Rova 2008: Fig. 2).

Period IIb (=EJZ 4)⁶⁰. A new wall (Wall B) was attached to Wall A in order to increase its width to 4m. Thus, Period EJZ 4 at Leilan was characterised by a strengthening of the fortification system.⁶¹ This has been interpreted as being part of an “Akkadian rebuilding project” active at Leilan/ Shekhna.⁶²

5.2.5 Period EJZ 5

Hardly any evidence for fortification architecture has so far been recorded for Period EJZ 5. The reasons may be similar to those proposed for the scarcity of evidence during Period EJZ 4 (see above). It has been argued that the fortification of the lower city at Mozan might still have existed in Period EJZ 5, because the lower city was still settled during this period (albeit at a lower intensity than in previous periods).⁶³ This might theoretically imply that the fortifications were still maintained. However, this suggestion is yet to be verified by archaeological excavation.

5.3. Houses and domestic installations

5.3.1 Period EJZ 0

Due to the general scarcity of excavated contexts datable to Period EJZ 0, there are hardly any domestic installations attributable to this phase. Domestic architecture and installations datable to EJZ 0 levels have only been uncovered at Brak. These were found in Area TW, Levels 1-6, described by Oates as “below

⁶⁰ Ristvet 2007: 190 f., 197, Fig. 4 and 6.

⁶¹ It must be added that the present author is convinced that period Leilan IIb, associated with the so-called “Sila-bowls” that are already present in EJZ 3b, starts still within the EJZ 3b-phase. Thus, the alteration and strengthening of the Leilan fortification system could already have taken place during the final part of Period EJZ 3b and, therefore, need not necessarily to be related with Akkadian imperialism (as opposed to the following footnote).

⁶² Ristvet 2007: 190.

⁶³ Pfälzner & Dohmann-Pfälzner in press; Pfälzner 2010: 6-10, Tab. 2: in press.

Ninivite V and above genuine Uruk⁶⁴ and recently attributed to Period EJZ 0.⁶⁵ In these layers the use of *Riemchen*-type mud-bricks is attested (as known from Southern Mesopotamia). In Level 6 a circular building was excavated. It has been suggested that this functioned as a kitchen or maybe had an industrial purpose.⁶⁶ In addition, there are rectangular domestic structures, and, in the earliest Level 8, a grill-pattern building.⁶⁷ In summary, a variety of different domestic building types seem to have existed contemporaneously at the beginning of the EJZ sequence.

5.3.2 Period EJZ 1

The remains of domestic structures dating to Period EJZ 1 have been detected at the two small, neighbouring sites of Raqa'i and Atij in the Middle Khabur valley. At Raqa'i the architecture of Levels 5-7 (EJZ 1)⁶⁸ is characterised by grill plans (Fig. 10).⁶⁹ Since the walls run parallel to one another at distances of approx. 30cm, the spaces between the walls could not have been used as rooms. They were most likely substructures to elevate floors above the ground in order to prevent soil humidity entering from below. As this is a measure particularly suited to ensuring dry storage conditions, this type of architecture is often related to storage activities. Whether the rooms above these substructures were used solely for storage purposes or also served for living and other domestic activities is difficult to say due to the poor preservation of the original floors and structures on top of the grill substructures. There was, however, also a lime plastered room with a lime-plastered bench adjoining the grill structures, which is typical for ordinary domestic rooms. Attached to grill Building 4 (Levels 5-7) were several large circular ovens with a diameter of 120-160cm, which resemble the *tannur*-installations and might have been used for food preparation (bread baking). Thus, they hint at domestic activities connected to the grill building.⁷⁰ A combined function of storage and living is therefore proposed for the EJZ 1 grill buildings. The layout and size of the rooms on top of the grill-substructures cannot be reconstructed. Thus, the spatial organisation and the functional division of these domestic structures cannot at present be understood.

Grill-plan structures are a typical feature of EJZ 1 architecture, also attested in the Iraqi Jezireh, e.g. Karrana 3.⁷¹

At Atij, Levels XIII-IX (EJZ 1),⁷² there are grill-plan buildings as well. A well-preserved example derives from Level XII, showing two rooms with a grill plan attached to each other and surrounded by a courtyard

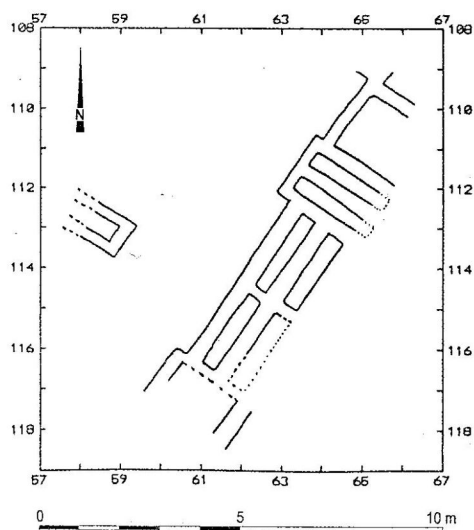


Fig. 10: Raqa'i, Level 5-7, grill-plan architecture. Grill buildings 2 and 3, EJZ 1 (Schwartz & Curvers 1993-94: Fig. 66).

⁶⁴ Oates & Oates 1991: 138-140.

⁶⁵ Quenet, this volume.

⁶⁶ Oates & Oates 1991, 138 f., Pl. XXXIb.

⁶⁷ Ibid.: 138, Pl. XXXIa.

⁶⁸ Levels 5-7 have in the meantime been united to form one Level 5 (Quenet, this volume.)

⁶⁹ Curvers & Schwartz 1990; Schwartz & Curvers 1992; 1993-94:247-249; Fig. 66-69.

⁷⁰ Schwartz & Curvers 1993-94: 248, Fig. 68.

⁷¹ Pfälzner 1997: 242-244, Fig. 2.

⁷² Levels XIII-IX have been correctly ascribed by Quenet, this volume, to Period EJZ 1, whilst in the ARCANÉ database they are still subsumed under EJZ 2.

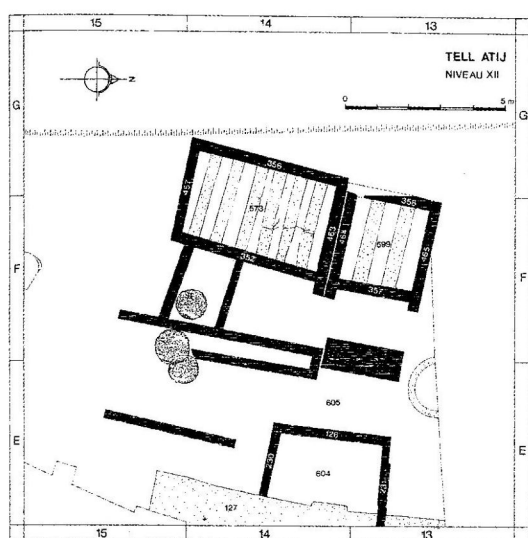


Fig. 11: Atij, Level XII, grill-plan structures, EJZ 1 (Fortin 1995: Fig. 6).

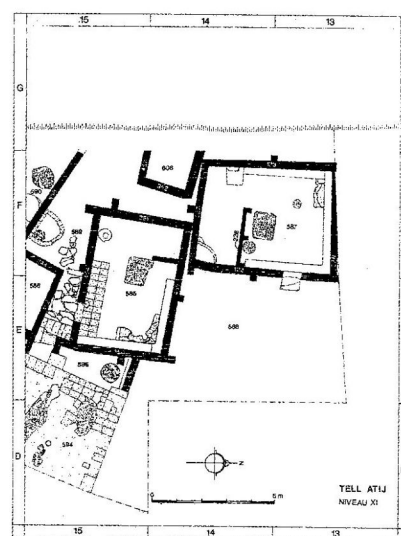


Fig. 12: Atij, Level XI, single-room houses, EJZ 1 (Fortin 1995: Fig. 4).

with ovens⁷³ (Fig. 11). This demonstrates that the grill-plans were part of domestic compounds. However, the grill-plan structures at this site are only a minor architectural feature in Period EJZ 1. Dominant in these levels are single-room houses. Even in Level XII, in close proximity to the aforementioned grill-plan compound, and probably even belonging to it, is a single-room house. This type of house is, for Period EJZ 1 at Atij, best exemplified in Level XI, where two such single-room houses were built in close proximity to one another⁷⁴ (Fig. 12). They have small, irregularly placed buttresses on the exterior to ensure the stability of the outer walls. The interior is equipped with a large rectangular hearth in the middle of the room. It is surrounded on three sides by mud benches along the outer walls of the room. This arrangement is typical of a living room ("nuclear room"; *Kernraum*), as it is known from later periods, especially EJZ 3a and 3b. A characteristic feature of the Atij single-room houses is the construction of a division wall within the nuclear room, which ends near the central hearth and separates the latter from the rest of the room. This was probably intended to partition off and protect the hearth area. Single-room houses without this internal hearth protection, but also equipped with outer buttresses for stabilisation, have been excavated in Level X.⁷⁵ In summary, Period EJZ 1 architecture is characterised by the contemporary existence of grill-plan structures and single-room houses.

5.3.3 Period EJZ 2

Atij provides an ideal case study for examining the development of domestic structures from Period EJZ 1 to EJZ 2, due to the good preservation and continuous stratigraphy of the central area at the site. Particularly well-preserved structures were found in Level VI⁷⁶ (EJZ 2) (Fig. 13). Three houses exhibiting differing internal layouts were located in close proximity to one another. Of these, Houses I (Room 559 and 561) and II (Room 558) have been previously discussed.⁷⁷ House II is a large single-roomed structure, the floor and walls of which were carefully white-plastered. It has benches along two walls, probably used for storage or sitting. Fortin interprets this room as a non-domestic granary of official function.⁷⁸ The present author however interprets it as a multi-functional living ("nuclear room") room of a house.⁷⁹ In the later Level IV, this large room was subdivided into two smaller rooms⁸⁰ (final EJZ 2). House I in Level VI has two rooms; the larger S one with a lime-plastered floor and a round

⁷³ Fortin 1995: 32-34, Fig. 6-7; 1998a.

⁷⁴ Fortin 1995: 28-30, Fig. 4-5.

⁷⁵ Fortin 1995: 24-28, Fig. 2.

⁷⁶ Fortin 1990 b: 538-540, Fig. 3-4; 1994: 364-368, Fig. 3-4.

⁷⁷ Pfälzner 2001: 310-312, Taf. 32-33.

⁷⁸ Fortin 1990 b: 543 f.; 1994: 365 f.

⁷⁹ Pfälzner 2001: 311.

⁸⁰ Fortin 1990 b: Fig. 9.

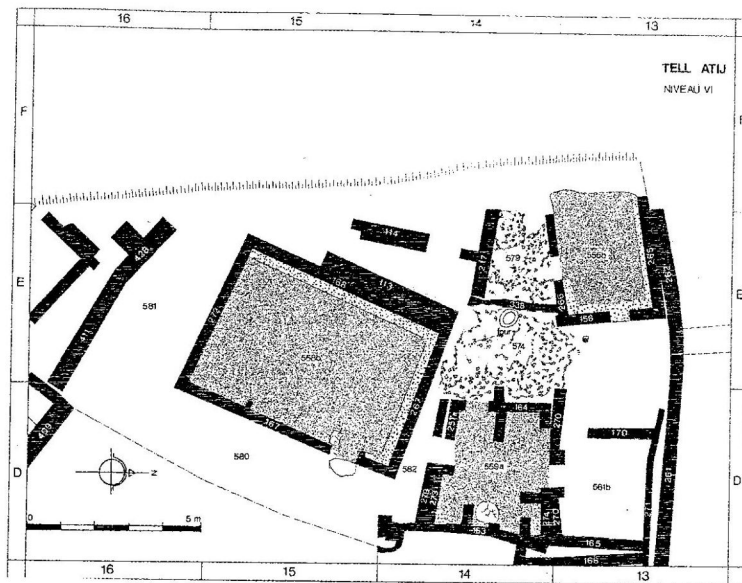


Fig. 13: Atij, Level VI, single-room and two room houses, EJZ 2 (Fortin 1994c: Fig. 3).

hearth was the main (“nuclear”) room. The northern one (Room 561) served as a storage room, as indicated by the presence of storage vessels and a vessel lid. The construction technique of Room 559 is remarkable; there are several buttresses on the interior of the walls, which show clear signs of corbelling.⁸¹ This does not mean that the room was vaulted, as argued by Fortin,⁸² but rather that the lengths of the beams of the flat roof needed to be much shorter when they were resting on protruding internal arches and quarter-arches.⁸³

The two rooms were constructed independently as is indicated by the separate outer walls attached to each other. House I might originally have been a single-room house, and was probably extended later into a two-room house. Thus, single-room houses seem to have been the principal house type in Period EJZ 2 at Atij. Although Fortin argued that all of these structures, including House I, were exclusively non-domestic in nature and fulfilled a specialised storage function⁸⁴, the domestic character of the buildings cannot be denied.

Similar observations can be made regarding Raqa’i, Levels 4 and 3 (EJZ 2 and final EJZ 2).⁸⁵ In the Level 3 settlement densely packed architecture surrounds a central Rounded Building (Fig. 14a).⁸⁶ These structures can be identified as houses and subdivided in 15 domestic units (Fig. 14b).⁸⁷ They consist exclusively of single-room and two room-houses.⁸⁸ It has been argued that whilst some of the units were originally constructed as two room houses other two room houses might have initially been built as single-room houses and later on expanded into two-room houses as the household grew.⁸⁹ Many of the rooms possess internal buttresses, which can be interpreted – as at Atij (see above) – as arches or quarter-arches for the installation of short roof beams.⁹⁰

The single-room houses (Houses 7, 8B, 8A) and the two-room houses (Houses 1, 2, 3, 5, 13) of Raqa’i possess one multi-functional living room (“nuclear room”), often equipped with a hearth (here labelled “*werkplateau*”⁹¹) (Fig. 15). These houses can be interpreted as the homes of rather small nuclear families with short family cycles.

⁸¹ Fortin 1990 b: 538 f., Fig. 4; 1994: 365, Fig. 4.

⁸² Fortin 1990 b: 538; 1994: 365.

⁸³ Pfälzner 2001: 310. Since the buttresses on facing walls of the room are not positioned directly opposite one another, the structures seem to have been quarter-arches rather than complete half-arches.

⁸⁴ Fortin 1990 b: 538 f., 563; 1994: 365 f.; 2000: 113, 117, Fig. 8.

⁸⁵ According to the revised dating of Quenet, this volume.

⁸⁶ Curvers & Schwartz 1990; Schwartz & Curvers 1993-1994: 251 f., Fig. 75.

⁸⁷ Pfälzner 2001: Taf. 29.

⁸⁸ Ibid.: 305-309, Taf. 30-31; Pfälzner 2002a.

⁸⁹ Pfälzner 2001: 309, 377 f.

⁹⁰ Ibid.: 305.

⁹¹ Nieuwenhuyse 1992: 80.

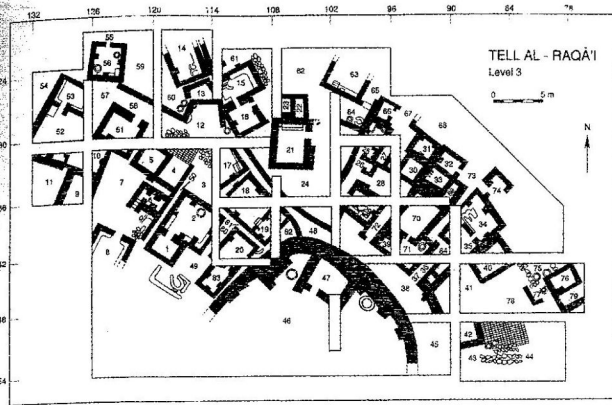


Fig. 14a: Raqa'i, Level 3, general plan of the "Round Building" and surrounding houses, EJZ 2 (Schwartz & Curvers 1992; Fig. 8).

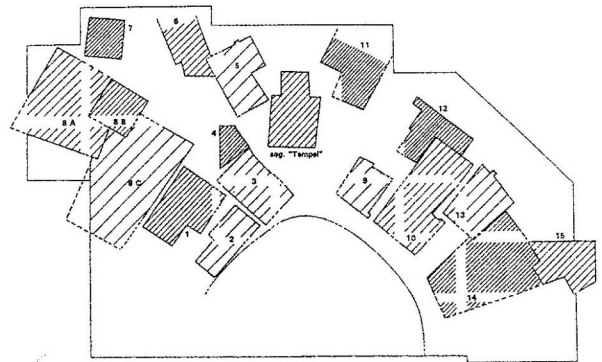


Fig. 14b: Raqa'i, Level 3, reconstruction of house plots around the "Round Building", EJZ 2 (Pfälzner 2001: Pl. 29).

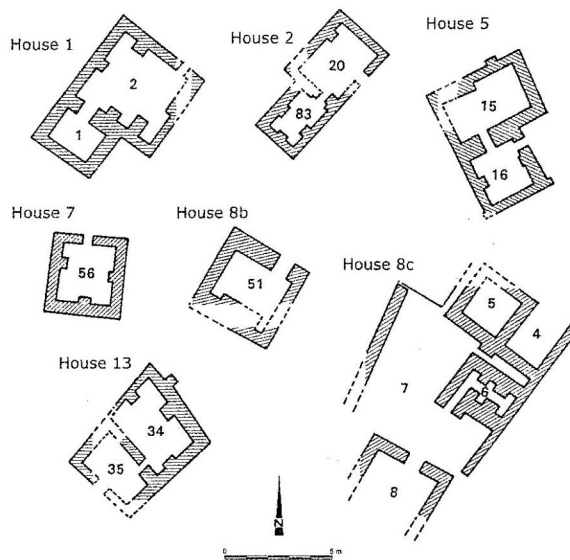


Fig. 15: Raqa'i, Level 3, selection of two room and single-room house plans (Houses 1, 2, 5, 7, 8B, 8C, 13), EJZ 2 (Pfälzner 2001: Pl. 30 and 31).

The eventual addition of a second room was reserved for household activities such as grinding (e.g. Houses 4, 5, 6 and 7). Storage rooms are rare, explicable through the existence of a large communal storage building in the centre of the settlement (the "Rounded Building", see below in the section on storage buildings). An exception was the probable larger household of House 8C, which had its own storage installations.⁹²

It should be mentioned that there are remains of a grill plan building (Grill Building 6) in Level 4 at EJZ 2 Raqa'i connected to several single-room houses.⁹³ This is a building type more characteristic of Period EJZ 1. However, Level 4 dates rather early within Period EJZ 2 so this evidence suggests that the grill plan-type survived, at least briefly, into the beginning of Period EJZ 2.

Essentially similar houses as those excavated at Atij and Raqa'i were recorded at Rad Shaqrah on the Middle Khabur. They are single-room and two room houses, which possess the characteristic corbelled buttresses on the interior of the walls.⁹⁴ This is best exemplified by a House (Locus) A/1 in Area A, attached to the inside of the fortification wall⁹⁵ (Fig. 16a and 5a). As at Atij, the interior buttresses should be interpreted as remains of arches and quarter-arches, protruding into the room to support the roof beams. The houses should therefore

⁹² Pfälzner 2001: 307, Taf. 31.

⁹³ Schwartz & Curvers 1992: Fig. 8; 1993-94: 250 f., Fig. 74.

⁹⁴ Bielinski 1992: 81; 1993: 121; 1995: 111 f.

⁹⁵ Bielinski 1992: 81 f., Fig. 1; Pfälzner 2001: 313, Taf. 35

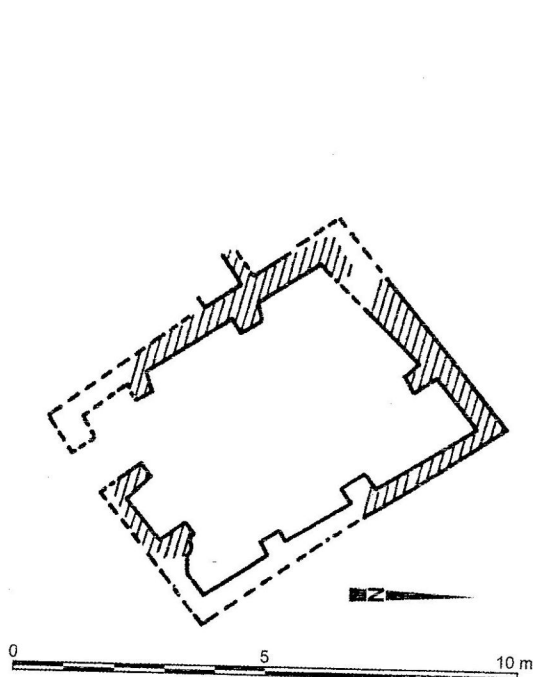


Fig. 16a: Rad Shaqra, Area A, house with interior buttresses, EJZ 2 (Pfälzner 2001: Pl. 35).

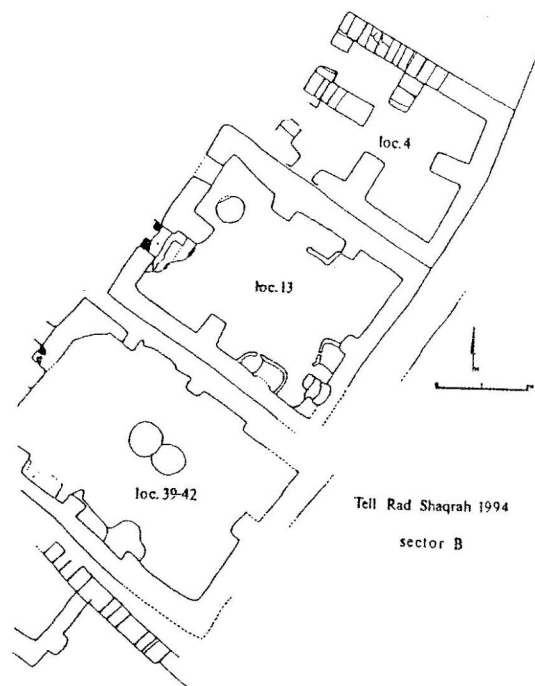


Fig. 16b: Rad Shaqra, Area B, single-room houses with interior buttresses, EJZ 2 (Bielinski 1995: Fig. 1).

be reconstructed with flat roofs. Bielinski designated these types of houses "arcaded houses".⁹⁶ These house-building techniques are characteristic of Period EJZ 2.⁹⁷ The installations and finds in Locus A/1; a central hearth, a gypsum-plastered basin, and storage vessels between the buttresses,⁹⁸ clearly hint that this room was a multi-functional living area ("nuclear room").⁹⁹ A second smaller room was added, so that this house formed a two-room house.¹⁰⁰ Other examples of such houses with buttresses, excavated in Area B,¹⁰¹ were definitely single-room houses (Fig. 16b).

Ample evidence of EJZ 2 houses was brought to light at Kneidij. The best examples pertain to Level XIII (EJZ 2).¹⁰² In contrast to the single and two room houses at Atij and Raqa'i, those at Kneidij are much larger multi-roomed complexes. Eleven house complexes could be distinguished (Complex D, E, F, G, H, J, K, L, M, N, O) in the middle and W part of the excavated settlement area. They are arranged in blocks either side of a straight street and beside an open area to the E (Fig. 17) whereas the houses at contemporary Raqa'i are much more randomly scattered (Fig. 14a and 14b). Thus, both the house plans and the overall arrangement of the domestic areas at Kneidij differ considerably from the contemporary (and nearby) settlements of Atij and Raqa'i. This might be due to a fundamental difference in the socio-economic status of the settlements, the latter being tiny villages with communal storage,¹⁰³ while Kneidij can be described as a small walled town. These two types of socio-economic settlement organisation, each with their distinctive concepts of house design, coexisted in Period EJZ 2.

The houses of Kneidij are built in a very irregular layout without any generalised plan. Complex E, consisting of eight rooms, is a characteristic example and has been completely excavated¹⁰⁴ (Fig. 18). The house has three inter-connecting, irregular courtyards (VII L, O, G) in the centre of the complex, containing a large bread oven.

⁹⁶ Bielinski 2005a.

⁹⁷ Quenet, this volume, argues that the Rad Shaqrah fortification wall and attached structures date to the EJZ 2, rather than the ED II as originally assumed by the excavators.

⁹⁸ Bielinski 1993: 121.

⁹⁹ Pfälzner 2001: 314.

¹⁰⁰ Bielinski 1993: 23.

¹⁰¹ Bielinski 1995: 111, Fig. 1.

¹⁰² Klengel-Brandt & Kulemann-Ossen & Martin 2005: 18-34, Taf. 26-41.

¹⁰³ Pfälzner 2002b; 2008a: 168-169.

¹⁰⁴ Ibid. 24-26, Taf. 34.

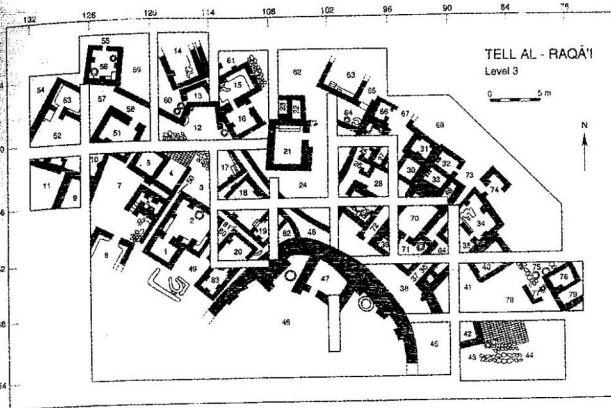


Fig. 14a: Raqa'i, Level 3, general plan of the "Round Building" and surrounding houses, EJZ 2 (Schwartz & Curvers 1992; Fig. 8).

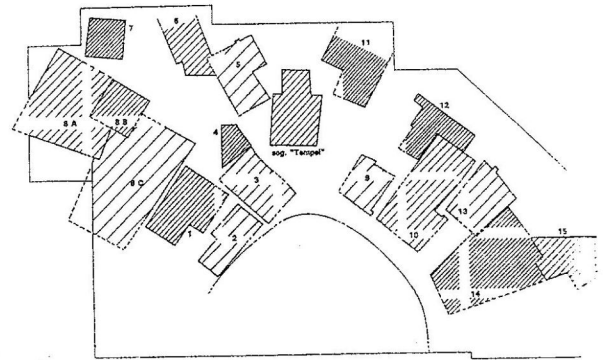


Fig. 14b: Raqa'i, Level 3, reconstruction of house plots around the "Round Building", EJZ 2 (Pfälzner 2001: Pl. 29).

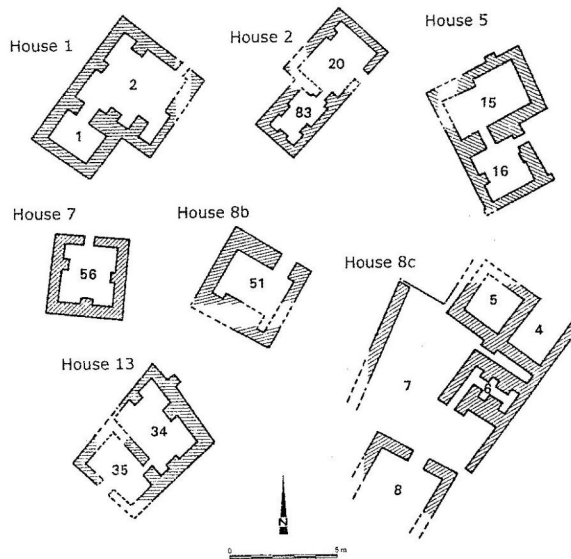


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⁹⁵ Bielinski 1992: 81 f., Fig. 1; Pfälzner 2001: 313, Taf. 35

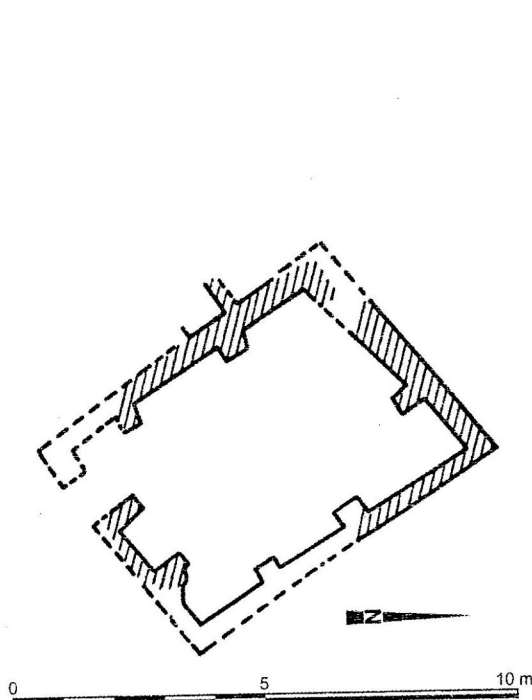


Fig. 16a: Rad Shaqra, Area A, house with interior buttresses, EJZ 2 (Pfälzner 2001: Pl. 35).

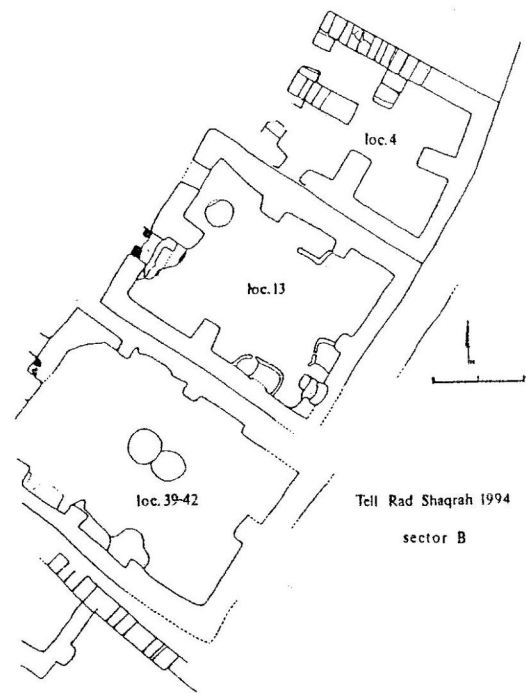


Fig. 16b: Rad Shaqra, Area B, single-room houses with interior buttresses, EJZ 2 (Bielinski 1995: Fig. 1).

be reconstructed with flat roofs. Bielinski designated these types of houses “arcaded houses”.⁹⁶ These house-building techniques are characteristic of Period EJZ 2.⁹⁷ The installations and finds in Locus A/1; a central hearth, a gypsum-plastered basin, and storage vessels between the buttresses,⁹⁸ clearly hint that this room was a multi-functional living area (“nuclear room”).⁹⁹ A second smaller room was added, so that this house formed a two-room house.¹⁰⁰ Other examples of such houses with buttresses, excavated in Area B,¹⁰¹ were definitely single-room houses (Fig. 16b).

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⁹⁶ Bielinski 2005a.

⁹⁷ Quenet, this volume, argues that the Rad Shaqrah fortification wall and attached structures date to the EJZ 2, rather than the ED II as originally assumed by the excavators.

⁹⁸ Bielinski 1993: 121.

⁹⁹ Pfälzner 2001: 314.

¹⁰⁰ Bielinski 1993: 23.

¹⁰¹ Bielinski 1995: 111, Fig. 1.

¹⁰² Klengel-Brandt & Kulemann-Ossen & Martin 2005: 18-34, Taf. 26-41.

¹⁰³ Pfälzner 2002b; 2008a: 168-169.

¹⁰⁴ Ibid. 24-26, Taf. 34.

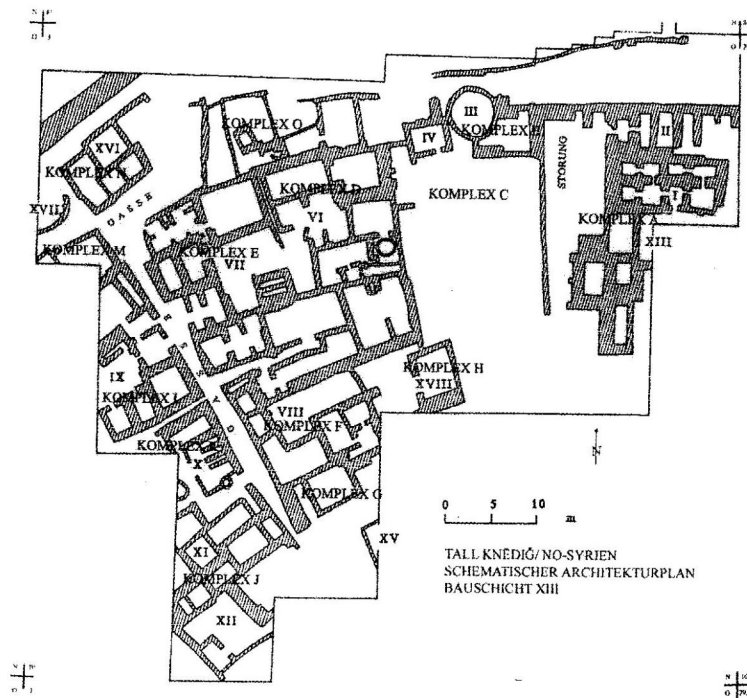


Fig. 17: Kneidij, Level XIII, house complexes (in the middle and W part of the settlement), EJZ 2 (Klengel-Brandt, Kulemann-Ossen & Martin 2005: Pl. 26).

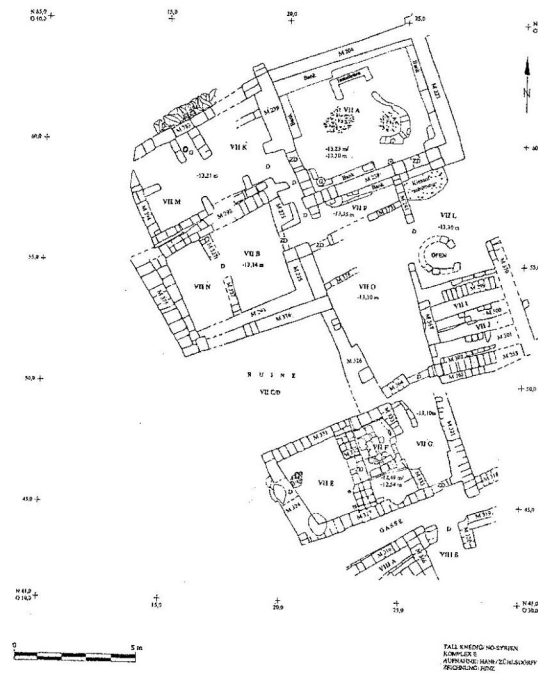


Fig. 18: Kneidij, Level XIII, house of Komplexe E, EJZ 2 (Klengel-Brandt, Kulemann-Ossen & Martin 2005: Pl. 34).

Room VII, containing the typical installations of a central hearth and wall benches, can be identified as the main living room ("nuclear room") of the house. It is directly accessible from Courtyard VII L. Adjoining the nuclear room is Room VII M/K, with inner buttresses, possibly for arches or quarter-arches. This arrangement is strongly reminiscent of the EJZ 2 architecture at Atij (see above). Attached to the courtyards is a semi-subterranean room with grill-plan structure (Room VIII J), making it suitable for storage. This is a clear continuation of the typical grill-plan architecture of the earlier Period EJZ 1, which confirms that its use persisted into Period EJZ 2 as already seen at Raqa'i. In conclusion, we can note a combination of different architectural traditions

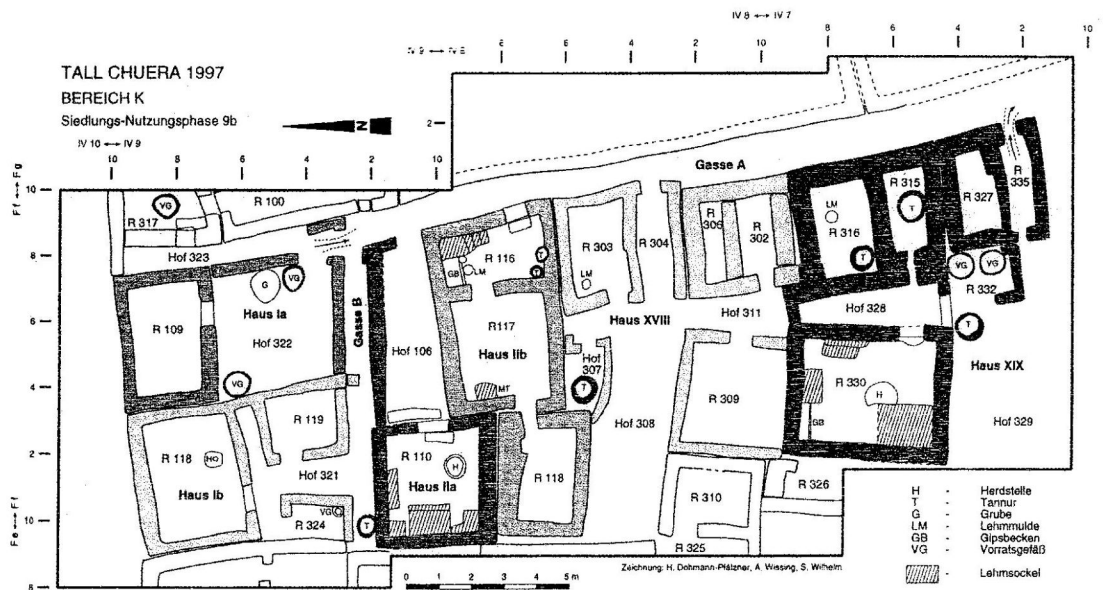


Fig. 19: Khuera, Area K, Level 9b (period TCH IB), Houses, EJZ 2 (Pfälzner & Dohmann-Pfälzner 2002: Fig. 3).

in the houses of Kneidij, their integration into larger units reflecting complex domestic activities and household structures.

The houses in a large urban centre such as Khuera represent yet another type of socio-economic arrangement. The earliest completely excavated houses at Khuera are attested in Period TCH IB, which corresponds to EJZ 2. In Area K of the upper city, close to the central plaza these EJZ 2 houses have been exposed in Levels 11 to 9¹⁰⁵ (Fig. 19). The houses are aligned, as at Kneidij, along a straight, narrow alley (Gasse A). From here, the houses are accessible either directly (Houses Ia, IIa, IIb) or through a vestibule (Houses Ib, XVIII, XIX) leading into an elongated or square courtyard. The bread ovens (*tananiṛ*) are located in small shelters attached to the courtyard. The main room of the houses is located in the rear part of the house complex, directly accessible from the courtyard. It is usually equipped with a rounded central hearth, a mud-brick podium (to be used as a house altar¹⁰⁶), and benches along the walls, thus forming a typical "nuclear room". One to three smaller, additional rooms, mostly located along the alley in the front part of the house, function as areas for storage or food processing. In summary, the EJZ 2 houses of Khuera are essentially similar to those at Kneidij, although tend to be smaller in terms of the number of rooms. This can probably be understood as a consequence of the dense urban living conditions at Khuera.

5.3.4 Period EJZ 3a

In Period EJZ 3a a completely new concept of house design appears. This type has been designated "allotment houses" (*"Parzellenhäuser"*)¹⁰⁷, defined as houses built on a regular, rectangular plot of land with fixed dimensions. Plots are usually 6m, 7.5m, 9m, 12 m, or 15m in width. The smaller dimensions of 6m and 7.5m are the most frequent. This standardisation of house plots is explained by a process of planned urbanisation carried out under the supervision of central institutions. These institutions must have carried out the measurement, division and allocation of house plots. This strategy was intended to ensure a planned expansion of domestic living quarters as well as attract people to urban centres.¹⁰⁸ Thus, "allotment houses" are characteristic of this period, when a policy of urban expansion was at its climax in the Syrian JZ, i.e. in Period EJZ 3a¹⁰⁹.

The standardisation of house plots was linked to standardisation in house plans. The exact reasons for this are difficult to determine: either the standard house plans resulted quasi automatically from the allotment of regular house plots, especially where common building traditions existed, or this indicates that at least some of the houses were erected by the central urban planning institutions themselves.

¹⁰⁵ Dohmann-Pfälzner & Pfälzner 1996; Dohmann-Pfälzner & Pfälzner 2002b: 6-8, Fig. 3.

¹⁰⁶ Pfälzner 2001: 169-176.

¹⁰⁷ Pfälzner 2001: 378 f.

¹⁰⁸ Pfälzner 2001: 378 f., 395-401; 2002a; Dohmann-Pfälzner & Pfälzner 1996: 10-12; 2002b, 13 f.

¹⁰⁹ Pfälzner 1997: 249-254; Pfälzner 2010, 4-6, Tab. 2; in press; Pfälzner & Dohmann-Pfälzner, in press.

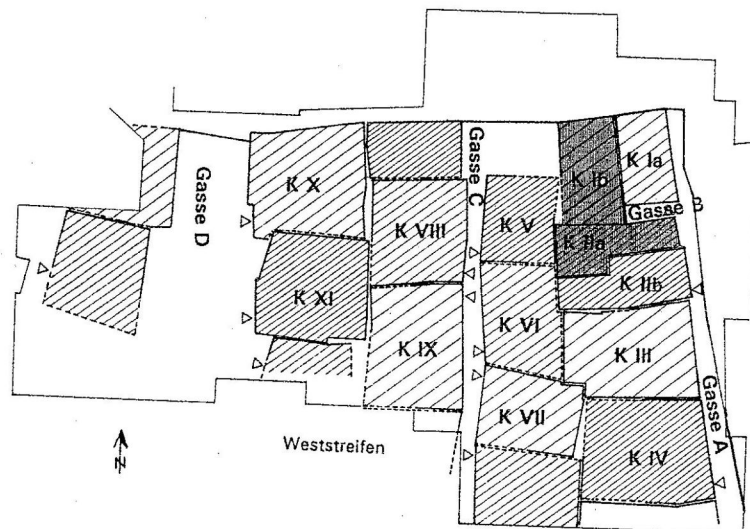


Fig. 20: Khuera, Area K, Levels 4-5, organisation of plots for "allotment houses", EJZ 3a (Pfälzner 2001, Pl. 60).

Khuera is one of the most prominent sites, where urban expansion based on the construction of "allotment houses" has been found. House remains of Period EJZ 3a have so far only been excavated on a broad scale in Area K ("Kleiner Antentempel"). Period EJZ 3a levels (Levels 7-9) have also been reached in Area H ("Häuserviertel") but no complete house plans have been revealed due to the limited size of the trench on the slope.¹¹⁰ Area K is therefore the main reference for EJZ 3a houses at Khuera. Levels 8 to 4, datable to Period TCH IC (= EJZ 3a) provide a continuous developmental sequence of "allotment houses". The oldest examples of "allotment houses" (Houses III and IV of Area K) were recorded in Level 7, which belongs to an early phase of EJZ 3a¹¹¹. The extended domestic quarter, separated from the city centre by a terraced wall, is accessible through two straight parallel alleys.¹¹² Overall, 13 (completely excavated) house plots can be distinguished within the residential quarter¹¹³ (Fig. 20). This includes the so-called "Kleiner Antentempel", which has been re-interpreted as a domestic structure (House IIa) during Period EJZ 3a (Levels 5 and 4).¹¹⁴ Most of the house plots in the E strip along Alley A have a standardised width of 6m (Houses K Ia, IIa+b, V, VII). The larger dimension of 7.5m is mainly attested in the W strip along Alley B (Houses K III, IV, VI, VIII, X, XI), where one house with a probable width of 9m is also found (House IX).

In Area K at Khuera, the "allotment houses" differ in plan and internal layout. Typical plans characterise Houses K III and K IV (Fig. 21).¹¹⁵ In Level 5c these two houses are accessible from Alley A through an entrance corridor, equipped with a drain to evacuate water from the inside. A large courtyard beyond the corridor gives access to all rooms. The main room (Room 41, Room 126/127), which in these two cases is subdivided by internal walls, is situated immediately to the side of the entrance corridor, along the front side of the house and parallel to the alley. This is a very characteristic feature of EJZ 3a (and 3b) "allotment houses", observable in most houses of Areas K and H at Khuera and at other sites. This architectural principle did not exist in the previous EJZ 2 period, when the main rooms of the houses in Khuera (Area K) were situated at the rear of the house, far away from the alley (see above and Fig. 19).

The installations within the houses are related to domestic activities and are thus usually found within these types of houses. There is nearly always a hearth in the centre of the main room, and often benches, gypsum basins or other installations, thus defining the room as a multifunctional core-room of the household, a "nuclear room".¹¹⁶ Grinding tables are located in separate small rooms, which are used as "grinding rooms".¹¹⁷ Bread ovens

¹¹⁰ Klein 1995: 106-108, Fig. 58-61.

¹¹¹ Dohmann-Pfälzner & Pfälzner 1996: 8-11.

¹¹² Dohmann-Pfälzner & Pfälzner 1996: 11 f.

¹¹³ Pfälzner 2001: 334-345, Taf. 60.

¹¹⁴ Pfälzner 2001: 337 f., Taf. 61 bottom.

¹¹⁵ Pfälzner 2001: 339 f., Taf. 62; Dohmann-Pfälzner & Pfälzner 1996: 8-9, Fig. 4.

¹¹⁶ Dohmann-Pfälzner & Pfälzner 1996: 10; Pfälzner 2001: 149-153.

¹¹⁷ Pfälzner 2001: 139-146.

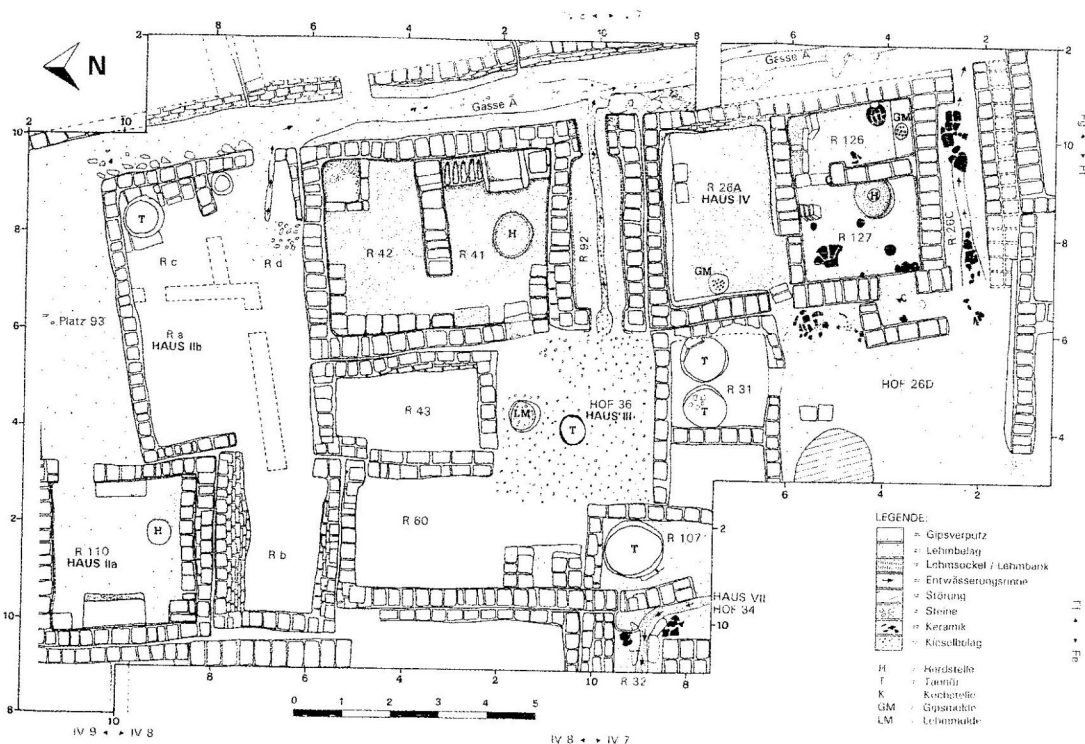


Fig. 21: Khuera, Area K, Level 5c, "allotment houses", Houses K III and IV, EJZ 3a (Dohmann-Pfälzner & Pfälzner 1996: Fig. 4).

(*tananiir*) are primarily located in or close to the courtyard and often within tiny separated chambers.¹¹⁸ These sets of installations are characteristic for most of the "allotment houses" at Khuera, Bderi, Melebiya and other sites, both in Periods EJZ 3a and EJZ 3b.

At Bderi, "allotment houses" are attested in Levels 17 to 14, i.e. during Period EJZ 3a. They have a surprisingly similar layout to those at Khuera. The best example is a small house measuring 42m² House XVII, which was found in Level 17 (Fig. 22).¹¹⁹ It is a 6m wide "allotment house", accessible from the alley through an entrance corridor with a water-drain. The "nuclear room" (Room FL) is located in the front of the house, beside the entrance corridor and parallel to the alley. It is equipped with a round central hearth. Its inventory hints at multiple domestic activities, such as food preparation, cooking, bread baking (during bad weather), storage of food and tools, heating, family gatherings, and also textile production. There are only two further rooms; these are small and were used for storage. Access from the courtyard to the "nuclear room" was only possible via these tiny rooms.

The other fully excavated EJZ 3a "allotment houses" at Bderi, Houses XIV and XXI (both Level 14) have a different layout (Fig. 23). By contrast, the main room is not at the front of the house, however they do exhibit similar structural and functional characteristics.¹²⁰ It is particularly interesting to note that House XIV had already been constructed during Level 20, which dates to the previous EJZ 2 period, and remained in use, with several internal modifications, until Level 14. Thus, it is the oldest known "allotment house". This means that the principle of "allotment houses" must have been created during Period EJZ 2, but its wider application throughout the Syrian JZ was not achieved until Period EJZ 3a.

At Melebiya, Period EJZ 3a houses were only exposed in Area C, in the N part of the settlement. They date to Melebiya Phase 3, which corresponds to EJZ 3a.¹²¹ Only House C2 was completely excavated¹²². It was a very small house with only two (or probably three) rooms. It is 6 x 6m in size and, thus corresponds to the smallest

¹¹⁸ Pfälzner 2001: 146-149.

¹¹⁹ Pfälzner 2001: 294 f., Taf. 21, Tab. 66-67.

¹²⁰ Pfälzner 2001: 293-295, Taf. 19, 20, 22; Tab. 64, 65, 68, 69.

¹²¹ See ARCANÉ database, and Quenet, this volume, In Lebeau 1993 this level was dated to the Early Dynastic II period; this was later corrected.

¹²² Lebeau 1993: 101, Pl. 98-102; 1996a.