THE 'HOUSE WITH THE LOOM' - AN IRON AGE II DOMESTIC COMPLEX ON TALL ZAR'Ā: PRELIMINARY REPORT ON THE 2018 AND 2019 SEASONS

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Introduction

In autumn 2018 and spring 2019, excavations on Tall Zar'ā were continued¹. The focus of these campaigns aimed at the detailed investigation of the Iron Age strata and its preceding periods, including a stratigraphic evaluation of the transition from the Iron Age to the Hellenistic period. Owing to its uninterrupted stratigraphy, Tall Zar'ā offers a rare opportunity to capture and study a complete sequence from the Hellenistic to the Iron Age.

This new excavation and research project is headed by Katharina Schmidt of the German Protestant Institute of Archaeology (GPIA) at Amman. The team consisted of students from various German and Jordanian universities, as well as a number of experts from different fields². The excavations were funded by the German Archaeological Institute (DAI).

The project forms part of the 'Gadara Region Project', an initiative of the Biblical Archaeological Institute (BAI) at Wuppertal under the direction of Dieter Vieweger and codirection of Jutta Häser. Since 2004 it has been a cooperative project between the GPIA and the BAI of the University of Wuppertal. The project incorporated excavations on Tall Zar'ā

and a landscape archaeological survey (2009-2011) in Wādī al-'Arab. Earlier excavations on Tall Zar'ā were carried out from 2003 to 2011. Since 2012, the results have been processed and prepared for a final publication series³.

Tall Zar'ā is located in Wādī al-'Arab, about 5km from the ancient Decapolis city of Gadara (modern Umm Qays). The deeply incised valley provided excellent living conditions with its numerous springs, fertile soil and a temperate climate. The *tall* measures about 240×240m at its base and about 160×160m on the plateau. Its significance results from the artesian spring at its centre, which created optimal settlement conditions over thousands of years; fresh water was available on the site until 2012 when it finally dried out [For an overview of Wādī al-'Arab and further literature see Vieweger and Häser 2017: 20-22].

2018 and 2019 campaigns

In the past excavation campaigns of 2001-2016, three different areas on the *tall* were investigated (**Fig. 1** [see Vieweger and Häser 2017: 27-57]). The new excavations of 2018 and 2019 focus on Area II, at the far north of the settlement hill. This position on the *tall* features

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- 2. Head of registration Benjamin Schröder; surveyor Juliane Goischke; ceramic specialists Samar Shammas (Iron Age period), Bettina Springer-Ferazin, Eva Strothenke (Hellenistic period); senior archaeologists Brita Jansen, Mohammad al-Najjar; specialists on stone objects and flint Benjamin Schröder, Hans-Martin Jakubik; archaeology students (alphabetical order) David Burkhardt, Amany al Dabouki, Karlotta Herbst, Philip
- Massar, Laith Melkawi, Yoshua Mende, Erdal Türker; volunteers Maria Bernatzki, Antje Cassel. Drawings were prepared by Sereen al Shoubaki. My sincere gratitude for the immediate conservation of the metal and pottery finds goes to Naif Zaban, ACOR Conservation Technician, and the ACOR Conservation Cooperative.
- 3. These will be published in nine volumes as freely available online versions. The first volume (Vieweger and Häser 2017) is available as free .pdf download at http://www.tallziraa.de/Final-publication/Volume-1/1_472.html. A list of all the monographs, preliminary reports and PhD theses can be furthermore be found at www.tallziraa.de, as well as in Vieweger and Häser 2017: 3 FN 6.

the highest elevation with the largest accumulation of building debris. Immediately to the north, the natural rock slopes steeply down to a maximum of 44m and thus the most prominent and protected place of the site is formed. In what follows, only one of the many contexts explored and excavated in the 2018 and 2019 campaigns will be discussed: the 'House with the Loom'.

The Iron Age II 'House with the Loom' (Fig. 2)

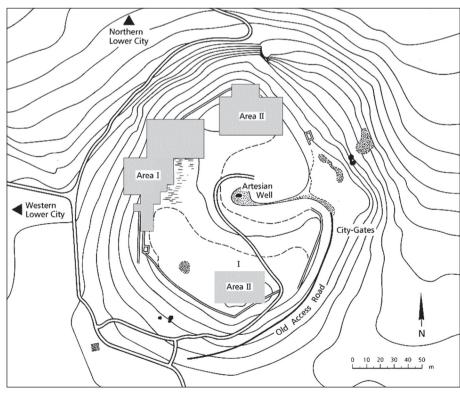
The building compound under consideration, called 'House with the Loom' because of its specific finds (see below), is located *ca* 4m south of the northern edge of the *tall*. Four phases of this building complex were excavated in the 2018 and 2019 seasons, all of which can be attributed to the Iron Age period. The major phase 2 is discussed here. It yielded a complete room inventory, shedding light on its chronology and use which in turn lead to further conclusions. The building complexes to the east and northeast of the 'House with the Loom' are not considered here.

Architectural Features (Fig. 2)

The compound is approximately 3.50×3.30m in size and consists of one major room that is

bordered in the west by wall W11690 (0.60m), in the north by W11842 and W11626 (0.55m), and in the east by W11732 (0.65m). The southern delineating wall was not completely preserved. It is likely that, after the collapse of the house (phase 2), later renovations (phase 1) almost completely demolished this wall [Only the wall of phase 1 (W11633) is preserved in the archaeological record. It was built on top of the demolition waste of phase 2. Publication of the full complex is in progress, Schmidt 2021a]. Also, a later pit disturbs this context, making reconstruction more difficult. The entrance to the building complex lies in the northern wall (W11626), evidenced by a threshold (Th11911); east of the threshold, an upright elongated stone represents the door frame.

It is likely that Inst11898 belonged to the southern boundary of the compound. It consists of a large standing stone, encircled by several large, rounded boulders situated on the floor level of the house. This installation was probably not only part of the southern wall, but also served as support for the roof [The assumption that Inst11898 is part of the south wall is based on the extent of the compound in later phase 1 and earlier phase 3. In both phases, the southern boundary wall is in the same location, suggesting that the house of phase 2 also extends



1. Plan of Tall Zar'ā showing the three excavation areas (GPIA/BAI).

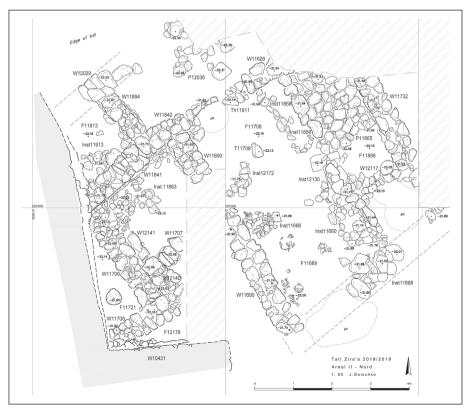
to this point]. A similar construction of roof-supporting stone slabs is preserved at Tall Abū al-Kharaz where, however, they are placed in the center of the room (phase XIV) (Fischer 2013: 42, fig. 26A). Around Inst11898, a large number of complete stone tools were found, among them a large grinding stone (TZ114171) (17.2×9.5cm), a quern (TZ114274), a hammer stone (TZ114158) and a pestle (TZ114395). When removing one of the stones in the direct vicinity of the large upright stone, an intact stone stamp seal came to light (TZ114329) (Fig. 4:1). All tools were most likely part of the ground-floor inventory, which was buried by the roof and walls when the house collapsed.

The compound is divided NW-SE into two parts, a larger in the west and a smaller in the east. A number of larger rocks and installations in front of them (Inst11868, Inst11856, Inst12130, Inst11660) serve as room partitions. The installations were accessible from the western room of the house. Inst11868 and Inst11660 have a rectangular structure, while Inst11856 and Inst12130 are rounded. The two northern installations, Inst11868 and Inst11856, belong to floor F11708 and can be considered hearths on account of the large accumulations of ash found inside. Inst11868 is rectangular in shape

and consists of quarry stones adjoining the large rocks to the east. The total length is 1.37×1m. In the south, a second hearth (Inst11856) is attached. It is round, significantly smaller and contained a number of cooking-pot body sherds. On the north-western side of the room, Inst11696 is built directly next to W11690 and is also surrounded by ash. The installation consists of a bed of flat stones (diam. 40cm) and a rising, rounded stone structure (diam. 50cm). Many vessel fragments, some of which were cooking pots, derive from this installation.

In the middle of the northern part of the room, opposite the entrance, a *tabun* (T11708) was built on the same floor F11708; a large accumulation of ashes was also recorded here. The floor within the house (F11708) consists of beaten mud; a loom weight (TZ113713), drill socket (TZ113722) and rubbing/polishing stone of pumice (TZ114531) derive from here (**Fig. 5**:4).

The southern part of the room also has a beaten mud floor (F11689). A large number of finds were made from this area of the house. The room evidently contained a loom standing in the western area next to the wall (W11690), this being evidenced by 23 unfired clay loom weights that were recovered next to the wall



2. Plan of the 'House with the Loom' building compound, phase 2 (Iron Age II) (GPIA/BAI; plan: Juliane Goischke).

(**Figs. 2, 3**). Directly next to it, a complete tripod bowl made of basalt was found, lying upside down on top of a rounded boulder (TZ113522) (**Figs. 2, 3** and **4**:2). In the middle of the room, two complete ceramic decanters (TZ113492, TZ113372) were unearthed (**Figs. 3, 5**:1-2), in addition to two cooking pots which were, however, completely broken (**Fig. 2**). Further objects from this context include a fragment of a basalt tripod bowl (TZ113356) (see below), a spindle whorl made of stone (TZ112913) (see below), a bronze ring (TZ113341) and a quern fragment (TZ113463).

In the eastern partition of the room, there is a pavement (P11865) of large rounded boulders, which in the north adjoins W11626 and in the west adjoins the stone structures Inst11868 and Inst11856 [Stone pavements that are not necessarily part of a courtyard are preserved - for example - at Tall Abū al-Kharaz (Fischer 2013: 42, fig. 26A). The size of these boulders is similar, but the overall size of the compound is significantly larger]. No finds were recovered from here. In the southeast, a beaten mud floor (F11866) joins the pavement, which is in the southeast bordered by a narrow, two-row quarry-stone wall (W12117). The south-easternmost corner of the house is disturbed by a later pit.

To the north of the house, in front of the entrance, is a badly preserved pavement (P12036) made of large, rounded boulder stones. This pavement probably reached to the northern city wall. As yet the outer wall has not been



3. Selection of objects from the 'House with the Loom', phase 2: 'doughnut shaped' loom weights, two decanters (TZ113372, TZ11349), tripod mortar bowl (basalt) (TZ113522) (GPIA/BAI, photo: Mohammad Adi).

unearthed; it is however likely that W12029, which was built on top of an earlier wall, served as an outer wall also in this phase.

Above the floor, spread over the entire area of the 'House with the Loom', air-dried mud bricks were repeatedly found, especially in the eastern part of the compound above pavement P11865 and in the debris over the stone installations (11868, 11856, 11660). This suggests that the superstructure of the stone walls - or at least that of the internal partition wall - consisted of mud bricks. In some cases, lumps of clay were found with imprints of straw that might have come from a roof covering. The situation indicates that the building collapsed and covered the inventory of the 'House with the Loom'.

In the succeeding phase 1, another building was found on top of that of phase 2. This used the previous walls, apart from the southern one where a new wall was erected.

Objects from the 'House with the Loom' (selection)⁴

Stamp Seal, Greenish-Gray Stone (TZ114329) (Fig. 4:1)

Locus 11898

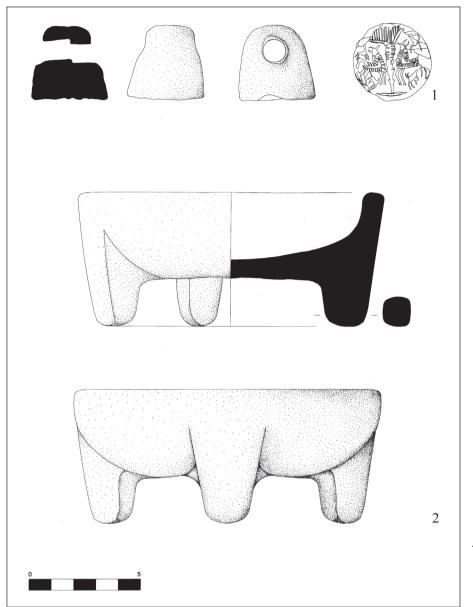
H: 4.4, Diam. Bottom: 3.4, Diam. Top: 2.1

Conoid, very regularly carved, surface smoothed; rim of the base is slightly damaged; the stone is damaged showing cracks on the base; the perforation has a diameter of 1.1cm on one side and 1.2cm on the other, round scratch marks around the perforation suggest the use of a drill coming diagonally from both sides; hollowed-out and linear engraving; the stone has a greenish-grey colour and is most likely not local.

Base: Two caprines stand on a baseline and flank a tree that is placed in the middle of the image. They each face the tree and suckle their young. The heads of the animals are slightly thrown back, with the muzzles directed upwards. The front and hind legs are strongly angled, with the hooves of the right animal being represented by two fine lines. The tail is Ushaped and pointing downwards. The muzzles of the animals, as well as their horns, are represented by simple lines; the fur of the animals is indicated by short scratch lines, which converge

complete corpus is in progress. All sizes in this article are indicated in cm.

^{4.} Only a small number of objects found in the 'House with the Loom' are discussed in detail here; the publication of the



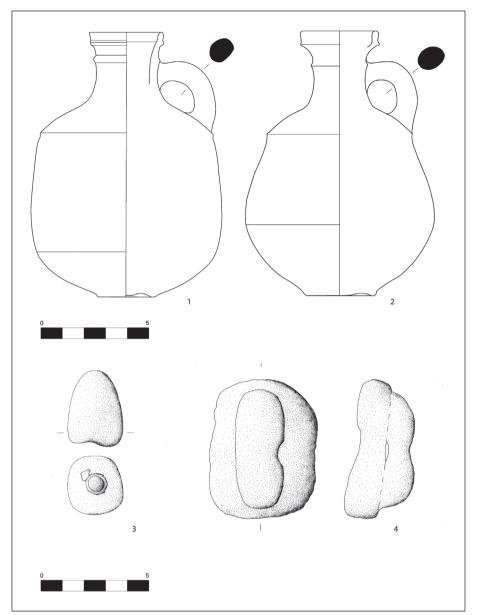
4. |1. Stamp Seal (TZ114329); (GPIA/BAI;, drawings: Sereen al-Shoubaki). |2. Tripod mortar bowl, basalt (TZ113522). (GPIA/BAI; drawings: Sereen al-Shoubaki).

centrically into a deep line. The young animals stretch their heads out to their mothers; their front and hind legs are also strongly angled. The tree stands on the base line, with the branches being indicated by horizontal (trunk) and vertical (top) fine, short incised lines. Above the backs of the two caprines are two striding caprines, one facing left, the other right.

The noteworthy characteristic of this image is its combination of two features: first, the antithetical arrangement of the caprines towards a central tree; second, the motif of herd animals and suckling young. The antithetical arrangement finds a comparable image on a stamp seal from Tall Abū al-Kharaz, dating to the Late Bronze Age (Fischer 1994: 137, fig.

6.2). However, in this seal image the caprines are climbing the tree and no young animals can be seen. Also, the style seems to vary from the one found at Tall Zar'ā.

A good parallel for the image from Tall Zar'ā with regard to style and the combination of motifs has been published by Keel (2017: 477, no. 442). This dates to the Iron Age IB through the beginning of Iron Age IIA (1,150-950BC). Here a caprine, suckling youngster, grazing animal and tree are all shown, but not in an antithetical group. The motif of the suckling mother can be found in numerous examples from Mesopotamia and northern Syria (Keel 1980: 89-140), as well as Egypt (Keel 1980: 54-89) and Palestine (Shuval 1990: 105-110).



5. | 1. Decanter TZ113372; | 2: Decanter TZ11349; | 3: Rubbing/polishing stone (TZ114531); | 4: Drill socket, silica or soapstone (TZ113722) (GPIA/BAI, drawings: Sereen al-Shoubaki; Bettina Springer-Ferzin).

The motifitself has been comprehensively dealt with by Keel (1980) and is related to different manifestations of religious ideas in the various regions of the Near East (Keel 1980; Meyer 2008: 281-284). According to Keel (2017: 476), the combination of suckling young, herd animals and trees is unusual, as is the position of the granzing caprines since this is usually occupied by a scorpion.

The stamp seal from Tall Zar'ā can be placed into the period from Iron Age (IA) I to IA II, and might therefore be slightly earlier than the rest of the inventory from the 'House with the Loom'. The question of whether it might be an heirloom has yet to be discussed in future studies.

Tripod Mortar Bowl, Basalt (TZ113522) (**Figs. 3, 4.2**) Locus: 11691

H: 12.5, Diam. Max: 27.2, Th: 2

Free-standing tripod bowl made of dense basalt, regularly worked, smooth surface; only at the edge is a small piece broken off. The three legs start right under the rim and taper slightly inwards. They become much narrower from the base (6.5) to the foot (3.9) and are slightly rounded towards the foot (th. 4.9). The inside of the bowl is rounded, slightly sloping towards the centre from edge to bottom; its maximum depth is 6cm. The inside surface is heavily abraded, indicating use as a grinding bowl. Use-wear analyses are pending for the pieces from Tall Zar'ā.

Tripod bowls are common in Iron Age corpora and were used for food preparation. Two good comparanda come from Tall ar-Rumayth (Lapp 2015: 296, fig. 10.2 no 1, 2) (phase VI and IVb?, 730-790BC).

Fragment of a Tripod Mortar Bowl, Basalt (TZ113356)

Locus 11585

L: 18.8, Wth: 14.3, H: 9.5, Diam. Max. 22, Th: 2.5

Fragment of a free-standing tripod bowl, made of basalt. One leg and quarter of the bowl including the rim are preserved. The bowl is very regularly worked and the surface is smooth. The three legs start right under the rim; they are short (2.0) and straight; the feet have quite a regular quadrangular base (5.2×5.8). The wall thickness of the bowl decreases from the rim (2.8) to the bottom (1.8). The inside of the bowl is smooth and shows signs of use in the form of small, regular pitting and shine; use-wear analysis of the bowl is still pending.

A comparable piece comes from Tall Abū al-Kharaz, phase XIII (800-770BC) (Fischer 2017: figs. 160: 3, 161, 485: 9).

'Doughnut-Shaped' Loom Weights, Unfired Clay (Fig. 3) Locus 11687

Locus	TZ-number	weight (gr.)	diam.	h
11687	113578	116	6.3	4.6
11671	113713	128	6.4	
11687	113546	191	6.7	4.6
11687	113570	210	7.3	5.4
11687	113575	235	7.3	6.2
11687	113566	266	7.4	5.4
11687	113567	181	7.4	5.0
11687	113569	163	7.4	6.4
11687	113577	167	7.4	5.5
11687	113544	228	7.5	6.0
11687	113547	233	7.5	6.5
11687	113542	209	7.7	6.4
11687	113576	163	7.8	4.6
11687	113545	253	8.0	6.5
11687	113548	293	8.0	6.0
11687	113550	228	8.1	4.8
11687	113572	291	8.1	6.2
11687	113543	273	8.3	5.9

11687	113551	225	8.3	5.8
11687	113571	247	8.3	5.8
11687	113574	258	8.4	6.8
11687	113565	366	8.6	6.2
11687	113541	621	9.8	8.4
11687	113549	343	9.9	6.1

All of the loom weights are 'doughnut-shaped', which is characteristic for the Iron Age in the Levant [Boertien 2015: 264 with further references and examples. For an explanation of looms and wefts in general see Boertien 2015: 262-269]. The average weight of the 23 loom weights that were found in this same place is 250gr.

Spindle Whorl, Reddish Stone (TZ112913) Locus 11585

Diam: 4.1, Wth: 1.4, Weight: 25 Gr

Flat, uniform, 'doughnut-shaped', centrally pierced (0.8). The stone is well smoothed; traces of use are present: on the upper side there is shine and on the bottom there are circular incisions around the perforation. It is credible to identify TZ112913 as a spindle whorl rather than a loom weight because of its low weight, even though its shape rather resembles a loom weight [For an explanation of spindle whorls in general see Boertien 2015: 159-262. Similar spindle whorls to those found at Tall ar-Rumayth (reworked sherds; conical stone whorls) have also been uncovered at Tall Zar'ā (Schmidt 2021b)].

Rubbing/Polishing Stone, Pumice (?) (TZ114531) (**Fig. 5**:4)

Locus: 12133

L:10, Wth: 7.6, H: 5

Rectangular pumice stone (?) with a carved, elongated handle.

Very similar examples of rectangular rubbing/polishing stones with handles were identified at Tall ar-Rumayth (stratum VI-VIIb, 830-750BC), there made of scoria (Lapp 2015: 307, fig. 10.9), Ḥisbān, made of pumice but much younger in date (Kotter and Ray 2009: 120, 9.8 no. 3), and Hazor (Yadin *et al.* 1961: pls 173:4, 176:18, 188:8-9). Lapp (2015: 305-307) suggests that this type of object was used together with grindstones and mortars of vesicular basalt [For a summary of these objects and a bibliography see Lapp 2015: 305-307].

Drill Socket, Silica or Soapstone (?) (TZ113722)⁵ (**Fig. 5**:3) Locus: 11671

L: 5.5, Wth: 4.3, Diam: 1.4

Truncated cone to pyramidal shape, similar to the shape of a pestle; lower side carefully straightened with a central hole that is not entirely pierced through the object (*ca* 0.7), polished.

Comparable pestle-shaped bow-drill sockets come from Tall Jawa (Daviau 2002: 93, 225 fig. 2.50 nos 1-2) and were used to perforate stone, ceramic and other hard materials [For parallels from other sites with bibliography see Daviau 2002: 94].

Potterv⁶

Jugs and Decanters (Figs. 3, 5:1-2)

Amongst the most significant finds of the 2018 campaign are two almost complete decanters, TZ113372 and TZ11349. Both vessels have a layer of red slip on the outer surface, and belong to the same ware group (no 30). The first decanter (Locus11585/TZ113372) is similar to one from Tall Abū al-Kharaz, phase XIV (770-732BC) (Fischer 2013: 219, fig. 198: 8-9), whilst the other piece (Locus11585/TZ113492) parallels a decanter from Beer-Sheba V (Gitin 2015: 233, pl. 2.4.7:7). These two decanters therefore fit well into the Iron Age IIB period.

A part of flaring rim was either part of a jug/decanter or the spout of a krater (Locus11585/TZ101866-2). It compares well with an IA IIB jug from Tall Abū al-Kharaz phase XIV (Fischer 2013, fig. 419:9).

Cooking Pots

Several medium- and large-sized cooking pots were discovered in the 'House with the Loom'. One of these pots (Locus11585/TZ101866) has an applied pot mark on its handle, which is a simple circular imprint; the rim of this pot is straight and has a rounded section. Parallels come from Tall Abū al-Kharaz level XIV, which dates to the IA IIB (Fischer 2013: fig. 38:2-3). Another cooking pot (11691/TZ101924-2) also has a rim of rounded section, similar to an example found at Tall

as-Sa'īdiyyah V, which also dates to the IA IIB (Gitin 2015: 293, pl. 2.6.7:5). Another rim of a pot is slightly inverted with an edge under the rim (Locus11585/TZ101866-4); it finds close parallels at Beth-Shemesh IIa and dates to the IA IIB (Amiran 1969: 231, pl. 76:7).

Jars

Parts of a (probably) cylindrical jar show close similarity to examples found at Hazor level VIII and Megiddo V (Amiran 1969: 239, pl. 79:1-2).

Another part of a jar has a pointed base (Locus11964/TZ101931-3) and probably dates to the IA IIC (*cf.* Gitin 2015: 378, pl. 3.4.6:7).

The pieces that compare best with the ceramic assemblage of Tall Zar'ā are those from Tall Abū al-Kharaz phase XIV, with a date in the Iron Age IIB.

Interpretation and Future Work

The 'House with the Loom' represents a rich source of knowledge for the everyday life of the IA IIB period since it collapsed completely, burying a large quantity of objects. What might have caused the roof to collapse remains uncertain at this point. Traces of fire can only be found to a limited extent in the north-eastern part of the compound; traces of a possible earthquake might be present on wall W11842, which has shifted markedly to the north in the western area. The question of whether this displacement was the result of heavy rainfall that led to the destabilisation of the wall cannot be decided.

The 'House with the Loom' is clearly of domestic character. All fire-related installations are found in the northern area of the compound, close to the doorway. They include a *tabun*, which indicates that bread was baked and food was cooked in this area.

The southern part of the compound shows evidence of food preparation (cooking pots, tripod bowl, quern), but here no fire was used. The basalt tripod mortar bowls were used to crush, grind and pound solid substances (Squitieri 2016: 73; Lapp 2015: 295). The quern was also used for this activity. Craft activities were

^{5.} I thank Hans-Martin Jakubik for this identification and reference.

^{6.} I would like to thank Samar Shammas for her preliminary identification and dating of the pottery assemblage discussed here, for the final report see Shammas 2021.

also carried out here, as the presence of a bow-drill socket witnesses.

As the loom weights and spindle whorl indicate, textile production took place as well. Since the loom weights were found lying in a row next to the western wall W11690, it can be assumed that the loom stood in situ, representing a functioning loom which had evidently not fallen from the roof when the house collapsed. According to Boertien (2015: 263), weaving could be performed outdoors as well as indoors if sufficient light was present, e.g. by means of windows or door openings. This might imply that the southern part of the compound was unroofed, or that there was another - larger - door opening in the southern wall. With regard to the textiles produced here, we note again that the average weight for the 23 loom weights found together here is 250gr. This is comparable with the data from Tall ar-Rumayth and also Khirbat al-Mudaynah, which fall at approx. 248gr (Boertien 2015: 267). Considering the average weights from these two sites (Rumayth; Mudaynah), Boertien (2015: 267) concluded that woollen textiles were produced - because wool needed lighter weaving weights. It is probable therefore that textiles of wool were also produced in the 'House with the Loom'. Further studies of loom weights in the future will shed more light on textile production at Tall Zar'ā.

In the stone-paved area at the east of the compound, no traces of working tools of any kind were found. It seems probable that items which did not survive were stored here, probably in baskets, leather or other organic materials. Analysis of extant soil samples will provide more precise information on the function of the paved compound.

Aside from analysis of soil samples, complete study of the pottery corpus within this complex will give a more precise idea of the function of the various building elements, and should facilitate the identification of storage locations associated with the sherds of large- and medium-sized storage vessels that have so far been identified. This same is true of the metal finds, which are currently undergoing conservation.

On basis of the small finds, as well as the pottery assemblage and its comparanda, phase 2 of the 'House with the Loom' can be attributed

to the Iron Age IIB period. Very close comparisons can be made with the corpus from Tall Abū al-Kharaz phase XIV (770-732BC), especially with regard to the pottery.

The complete inventory of the 'House with the Loom' shows in an exemplary manner daily - and especially female - household activities, including weaving, food preparation, cooking and baking. Stamp seals were personal objects and therefore the property of the seal owner. The stamp seal found in the 'House with the Loom' was thus not only part of the inventory of this building, but belonged to one of its inhabitants, if not the owner.

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