

D. Excavating Gird-i Bazar: the 2017 season

D1. The final campaign inside the chicken farm enclosure

F. Janoscha Kreppner & Andrea Squitieri

The 2017 excavations continued directly from the results of the 2015 and 2016 seasons. Overall, the aims of the 2017 campaign were, firstly, to continue the excavation of the area enclosed by the metal fence surrounding the chicken farm in order to better understand the layout of those buildings, rooms and outdoor areas which had been only partially traced during the previous two campaigns (**Fig. D1**); secondly, to complete the excavation of two pyrotechnical installations that had been partially uncovered in 2016, and thirdly, to continue excavation of the Sasanian cemetery. This was the final excavation season within the chicken farm enclosure.

In the eastern part of Gird-i Bazar, the excavation of Courtyard 2, Buildings B and C, and Outdoor Areas 7 and 24 (squares 270928-272928 and 271929) was completed under the supervision of Alessio Palmisano and Jens Rohde. In the western part of Gird-i Bazar, Peter Bartl, Francesca Chelazzi, Janoscha Kreppner and Andrea Squitieri continued the excavation of Buildings D, H, I, O, N, and Alleys 12 and 13 (squares 266930-269930 and 266931-268931).

In 2017, we were fortunate to have a pyrotechnology expert and a physical anthropologist on the team. In the central part of Gird-i Bazar, where the so-called “connecting trench” had been opened in 2015 and enlarged in 2016, lies Outdoor Area 8. Very close to the pottery kiln unearthed in 2015-6, another pyrotechnical installation had been partially uncovered in 2016. Pyrotechnology specialist Silvia Amicone continued its excavation (squares 269930-270930). She also supervised the excavation of



Fig. D1: Orthophoto of the areas excavated at Gird-i Bazar in 2015-2017 superimposed on a drone photo (courtesy of Jessica Giraud), showing the chicken farm and the surrounding metal fence. Prepared by Andrea Squitieri.

another pottery kiln in Room 31 (Building D), which had been found in 2016. The excavation of the previously discovered Sasanian cemetery was continued under the supervision of Kathleen Downey; she discusses this work and the graves in **Chapter H**.

D1.1 The digital documentation system

The digital documentation system used during the 2017 excavation campaign continued and expanded on the system implemented in the previous campaigns³⁹. This system entails:

- The use of a MySQL-based database created by Christoph Forster (www.datalino.de) and accessible via a local network both on the field and in the excavation house. The access to the database on the field allows the trench supervisors to enter as much data as possible in “real time” as the excavation proceeds.
- The creation of daily orthophotos, digital elevation models (DEMs) and 3D models of the excavated areas. This allows to produce day-by-day digital versions of the excavation and it lays the basis for a 3D stratigraphy.
- The use of a geo-database based on QGIS and connected to the database, in which daily geo-referenced drawings are made using both the daily orthophotos and the DGPS measurements taken on the field. These drawings are used as basis for the 2D plans.

D1.2 The excavation grid and the locus/collection system

The 2017 excavation grid is the same as that one used in 2015 and 2016: a 10×10 m grid system based on UTM coordinates, oriented towards the North, with the squares' vertexes placed on rounded coordinates (**Fig. D2**). Each square is identified by a number made of 6 digits, 3 for the East coordinates and 3 for the North coordinates of its SW vertex. So, for example, the square 272928 has a SW vertex with coordinates East 512720, North 3999280.

The square number constitutes the first part of the ID number identifying loci, collections, finds and samples. In our system, loci (pl. for locus) are discreet stratigraphic units that represent a single event or action leaving discernible traces in the archaeological record. A locus can be a soil deposit (e.g., topsoil, fills) or an installation (e.g., floor, wall). Each locus receives a number which is formed

by the square number in which the locus lies followed by a progressive number. So, for example, Locus:271928:001 is locus 001 in square 271928. Of course, no two loci can have the same number within the same square.

If a stratigraphic unit (for example a wall) extends across two contiguous squares, it receives two locus numbers, one in each square. These two locus numbers are then unified in the so-called Locus Group (abbreviated LGR). Each Locus Group is identified by a progressive number followed by “LGR”. So, for example, Locus Group 283, indicated as LGR:0283, represents a wall extending across squares 271928 and 272928, and it is composed by Locus:271928:188 and Locus:272928:058. A concordance list between loci and Locus Groups is given in **Table D3**.

Locus Groups are also used when, in post-excavation analysis, it is understood that two deposits or installations within the same square, formerly thought to be distinct loci, are in fact parts of the same stratigraphic unit; therefore, these loci are unified into the same Locus Group. The fragmentary material collected from each locus is registered as a collection, based on the type of material (e.g., pottery sherds, bone fragments, glass shards). Each collection is given a number, which is made of the locus number followed by a progressive number, with the label being preceded by PPP (“Peshdar Plain Project”). So, for example, the collection PPP 271928:171:001 is the pottery sherd collection number 001 from the locus 271928:171. Single finds and samples (the latter being in most cases charcoals, seeds, and soil samples for flotation) are labelled the same way as collections. Particular attention is paid to floors and the material lying directly on them. For this reason, floors are gridded (**Fig. D3**). Though belonging to the same locus, the material collected from each floor grid square receives a different collection, find or sample number, in order to have more precise spatial control of the zone within the floor area from which a particular material was collected.

Lastly, as in previous years, the Sasanian graves are labelled with a progressive number followed by “G” (e.g., G52). Graves are composed of at least four loci: the grave cut, the skeleton, the grave fill, and the grave architecture.

39 Kreppner/Squitieri 2017b, 57-60.

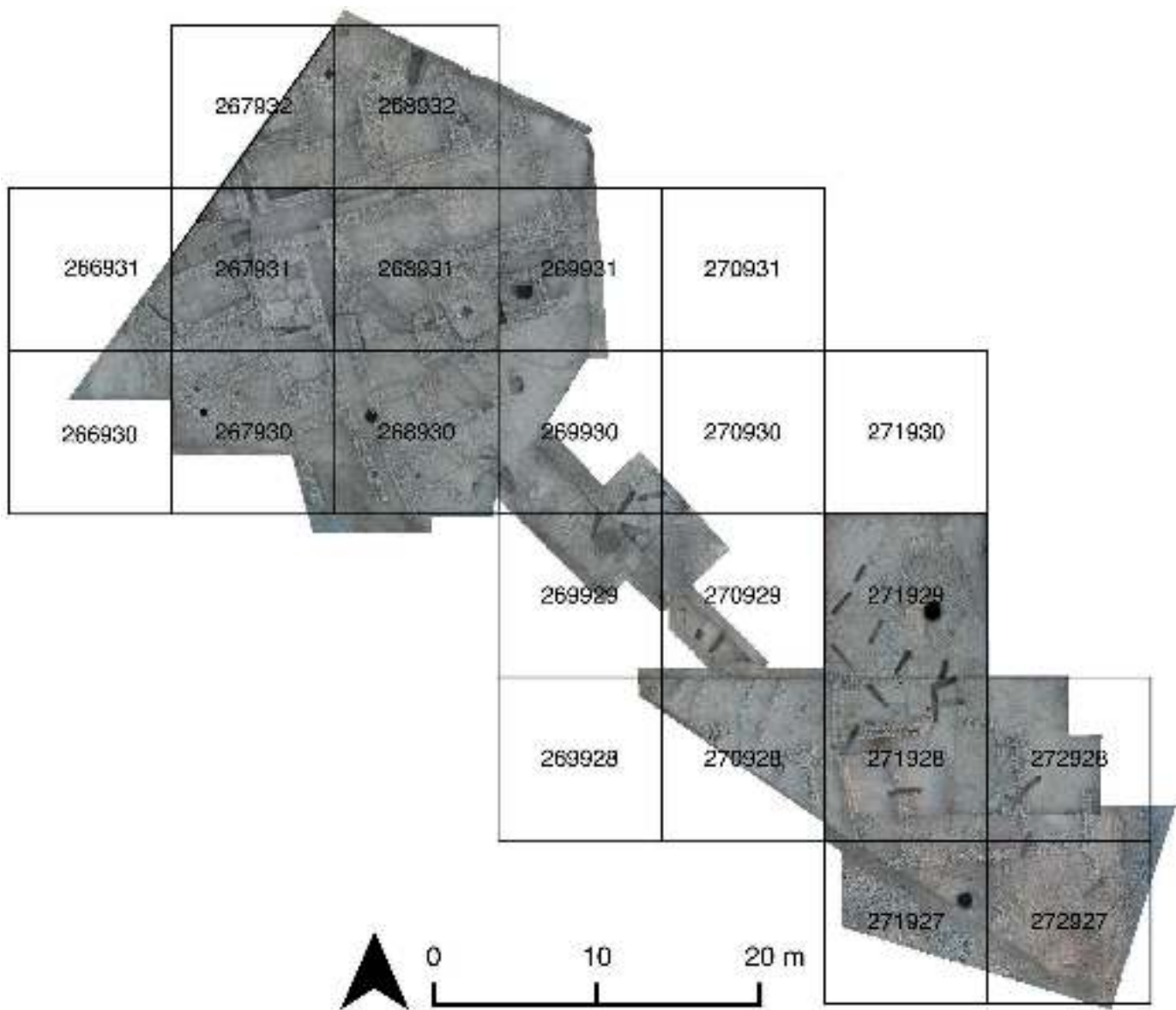


Fig. D2: The 10×10 m north oriented grid superimposed on the orthophoto of the areas excavated at Gird-i Bazar in 2015-2017. Prepared by Andrea Squitieri.



Fig. D3: Two workmen excavating a gridded floor. Photo by Zahra Hashemi.

D2. Gird-i Bazar's absolute chronology and relative stratigraphy

D2.1 The results of the ¹⁴C analyses and their discussion

F. Janoscha Kreppner and Karen Radner

A first step towards establishing the absolute chronology of the occupation at Gird-i Bazar was made in 2016 by means of the radiocarbon analysis of a charcoal sample (PPP 271927:014:008) from the floor of Building A, Room 3, collected during the 2015 campaign (**Table D1**, sample no. 5). This produced a *post quem* date of 937-829 calBC (92.21 % probability) and thus confirmed the attribution of Gird-i Bazar's main occupation phase to the Iron Age⁴⁰.

Since then, additional ¹⁴C analyses were undertaken on: five carbonised seeds and legume fragments found directly on floors (collected by flotation during the 2016 excavations and identified and selected for ¹⁴C analysis by Dr Melissa Rosenzweig); a femur from a human skeleton found in the well in Room 49 (§D19.5); and a tooth from a donkey's mandible found in the well in Outdoor Area 7 (§D7; Figs. D4-D5). The ¹⁴C results from Gird-i Bazar are summarised in **Table D1**, arranged from the oldest to the most recent; their spatial distribution is shown in **Fig. D6**.

As **Table D1** illustrates, all available dates fall well within the Iron Age horizon. Samples 1-3 have yielded dates that definitely predate the Assyrian conquest of the region at some point during the reign of Shalmaneser III (r. 858-824 BC). The date ranges of Samples 4-7, on the other hand, cover the period just before and soon after the Assyrian conquest.

Floor samples were always taken from the last floors attested at each location. Samples 4-7 come from inside covered rooms: from inside a bread oven in the courtyard of Building F (Sample 4; 937-834 BC), the floors of the reception rooms of Buildings A (Sample 5; 937-829 BC) and E (Sample 6; 936-831 BC) as well as from the floor next to the toilet in Building A (Sample 7; 906-816 BC).

However, the two samples with early dates were recovered from unroofed spaces, namely from Alley 13 (Sample 1; 1215-1055 BC) and Courtyard 11 (Sample 2; 1216-1053 BC), and may have to be interpreted as relocated seeds. Sample 3, the donkey tooth, produced a dating range of 1006-901 BC, referring to the animal's time of death. The isolated bone from which the tooth was taken may have been old when it was thrown into the well in Outdoor Area 7.

Based on this material, we therefore assume that the settlement of Gird-i Bazar flourished during the first part of the first millennium BC and was destroyed when the region was brought under Assyrian control during the reign of Shalmaneser III.

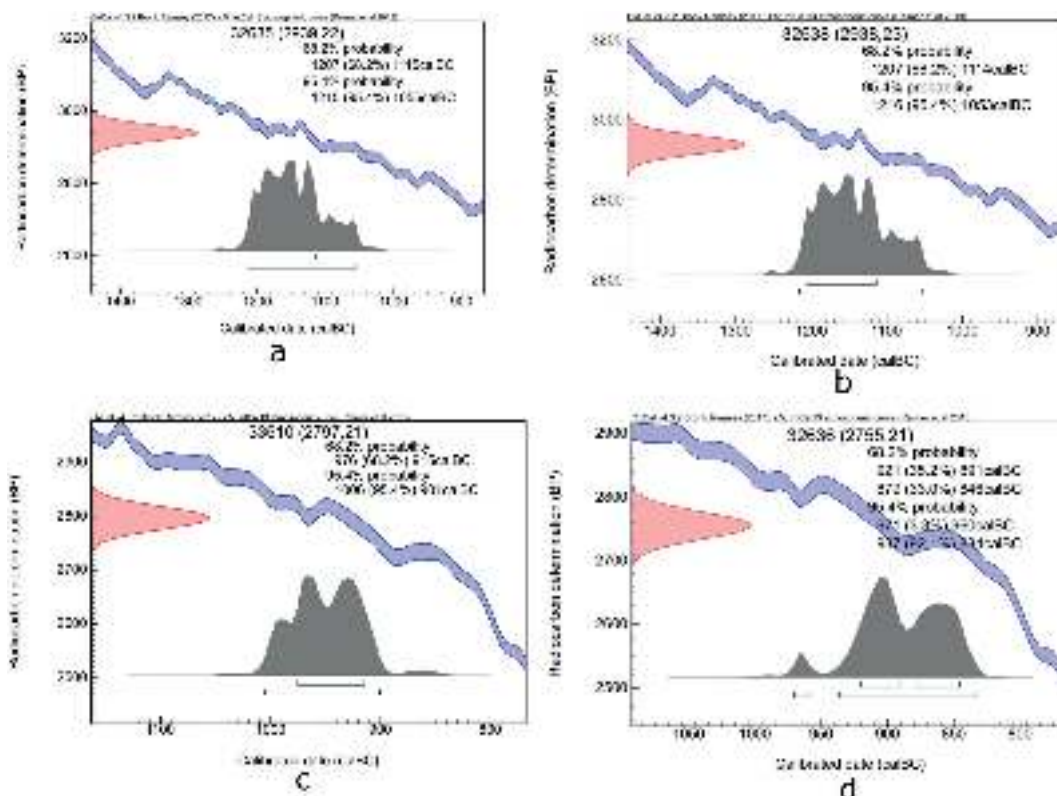
Finally, Sample 8 yielded a long range of possible dates from 748-409 BC. This is due to the notorious "Hallstatt Plateau", a flat area on the radiocarbon graph affecting the dating of samples from the period c. 800-400 BC⁴¹. While it cannot be said when precisely the dead body, from whose femur this date was derived, was put into the well, it is one of three individuals to have been deposited in its uppermost filling (§D19.5). This happened apparently some time after the well had been given up as its bottom had already been filled in. The depositing of these bodies, however, brought the use of this source of water decisively to an end and is clearly associated with the terminal abandonment of Building I. The dead can most likely be

Sample no.	Sample ID	Sample type	Calibrated date BC	Probability	Context
1	268932:042:001	Cereal grain	1215-1055	95.4 %	Alley 13, floor
2	268931:041:012	Cereal grain	1216-1053	95.4 %	Courtyard 11 (Building D), floor
3	271929:042:004	Donkey tooth	1006-901	95.4 %	Well in Outdoor Area 7
4	268932:052:002	Large legume	937-834	92.1 %	Bread oven in Courtyard 21 (Building D)
5	271927:014:008	Charcoal	937-829	92.21 %	Room 3 (Building A), floor
6	268931:032:017	Large legume	936-831	92.8 %	Room 19 (Building E), floor
7	272927:020:017	Large legume	906-816	95.4 %	Room 23 (Building A), floor
8	267930:037:004	Human bone	748-409	95.4 %	"Grave" 71 in the well of Room 49 (Building I)

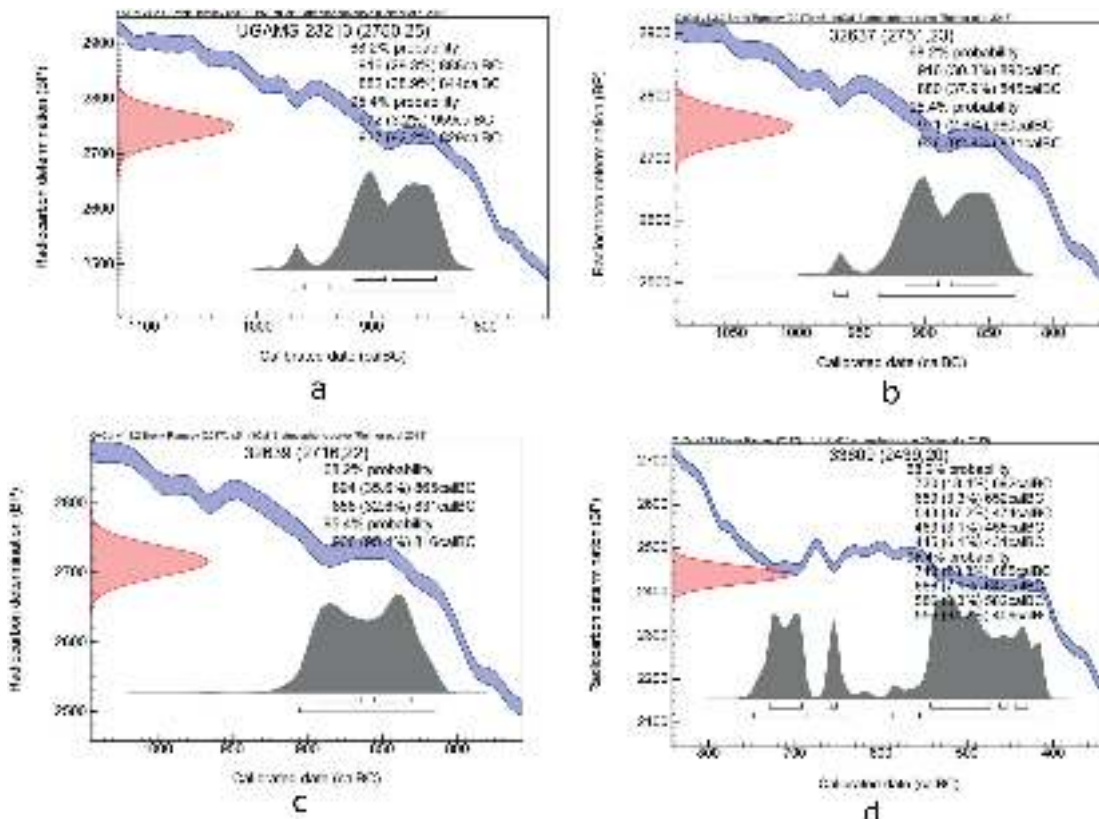
Table D1: Radiocarbon results from Gird-i Bazar (excluding data from Sasanian cemetery).

⁴⁰ Radner 2016b.

⁴¹ Plicht 2004.



Figs. D4: Calibrated radiocarbon dates for samples: (a) PPP 268932:042:001; (b) PPP 268931:041:01; (c) 271929:042:004; (d) 268932:052:002. Refer to sample list in Table D1. Calibration software OxCal 4.3.2. Prepared by Andrea Squitieri.



Figs. D5: Calibrated radiocarbon dates for samples: (a) 271927:014:008; (b) 268931:032:017; (c) 272927:020:017; (d) 267930:037:004. Refer to sample list in Table D1. Calibration software OxCal 4.3.2. Prepared by Andrea Squitieri.

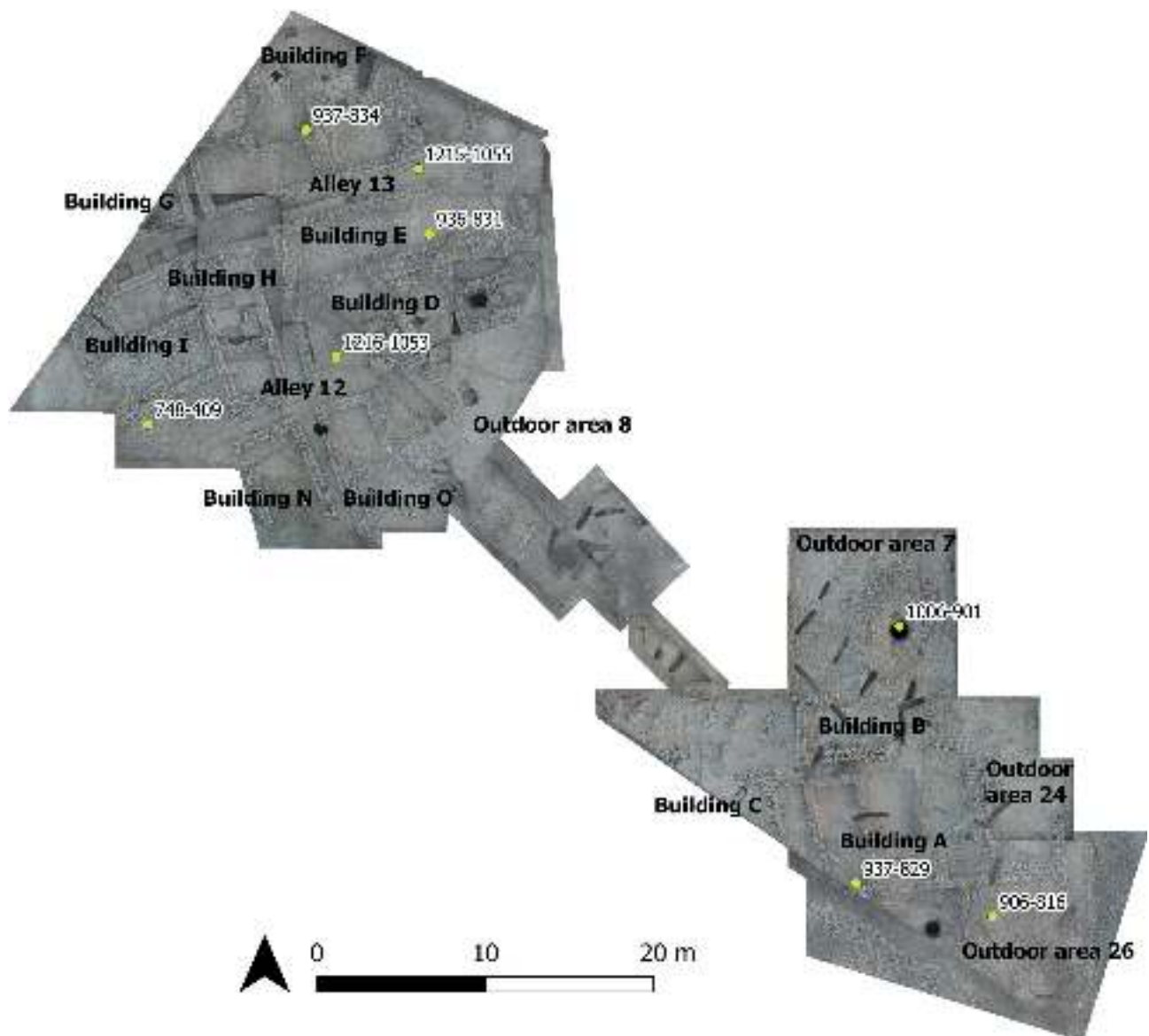


Fig. D6: Distribution of the radiocarbon dates (in CalBC years) at Gird-i Bazar. Prepared by Andrea Squitieri.

interpreted as victims of the destruction of the settlement of the Assyrian occupation, certain evidence for which is provided by the ^{14}C dating of a charcoal sample from the sounding GA 42⁴² as well as by the Neo-Assyrian slave sale document dated to 725 BC⁴³. It is presently unclear whether or how the buildings at Gird-i Bazar were still in use during the Assyrian occupation.

D2.2 The relative stratigraphy

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The relative stratigraphy of Gird-i Bazar is offered in **Table D2**. This table extends and updates the stratigraphic tables presented in the previous publications⁴⁴, following the same principles, with only few modifications. Below we list the information needed to read this table.

- The rows of the table follow the timeline spanning from the oldest (bottom) to the most recent (top) periods.

42 Altaweel/Marsh 2016.

43 Radner 2015; Radner 2016c, 17-18.

44 Kreppner/Squitieri 2017b, Table D2.

- The columns of the table reflect the spaces, such as rooms, courtyards and outdoor areas, arranged from east to west. Consequently, roughly contemporary depositional processes and occupation periods that span across various areas of the site can be read in the table horizontally.
- The cells of the table contain a locus number (e.g., Locus:271927:027), a Locus Group number (e.g., LGR:0283) followed by a brief description; or a grave number (e.g., G 6).
- The background colours of the cells indicate their interpretation and duration. Hence, different pink shades are used for topsoil, modern occupation, graves and virgin soil; brown indicates post-occupation periods, and yellow is used for occupation periods. The same colour coding is employed in the section drawings so that the stratigraphic table and the section drawings can be read in parallel.
- Each occupation period is defined by a floor. If a new floor is detected that overlies an earlier one, then a new occupation period is defined. It is noteworthy that the term “floor” refers to the purpose-built surface or the trodden surface created through use, which is assigned a specific locus number. On the other hand, deposits found directly on the floor are given their own locus numbers. This allows us to isolate material found on a floor and, at the same time, to gain a better understanding of the formation processes of the deposits associated with the use of the floor.

Reading the table from the bottom up, it is possible to identify the following phases:

- Virgin soil (cell colour: pink).
- The Construction Phase when the walls of the buildings were created (cell colour: yellow).
- The Main Occupation Period, indicating when the buildings were in use (cell colour: yellow). The Main Occupation Period 1 represents the period when the buildings were founded on the virgin soil and when the oldest floors were laid down. Over time, as the buildings of Gird-i Bazar were inhabited, new floors were constantly stacked in the alleys (e.g. Alley 13 or Alley 50), so that the floor level increased over time. This phenomenon is also found in buildings (e.g., Building I). In other buildings, structural changes have been made during the main use with new walls (e.g., Building D) or new floors (e.g., Building A). However, since in many outdoor areas and rooms only a single floor was used from the beginning till the end of the occupation, we deal with one Main Occupation Period, within which a Main Occupation Period 1 is differentiated from a Main Occupation Period 2 in those spaces featuring changes.

In terms of absolute chronology, we have seen above (§D2.1) that the Main Occupation Period at Gird-i Bazar belongs to the Iron Age chronological horizon. Deposits marking the end of use are found in the rooms with only one floor and on the youngest floors in the rooms where new floors were created. Since these deposits are interconnected by doors, it is possible to deduce a common end of the Main Occupation Period, which is entered in the table in the line End of Main Occupation 2. Each of these two phases is divided into three sub-phases, from the oldest to the youngest:

- Floor Construction, including the construction of the floor and any installations (e.g., door sockets) created shortly before the floor was used;
- Floor Occupation, including deposits and installations from the time when the floor was in use.
- End of Occupation, including deposits that indicate the destruction or abandonment of the floor, thus covering the finds collected directly on the floor.
- The Post-Occupation Period (cell colour: brown) follows each occupation period, representing a period of non-occupation during which erosion phenomena are the main causes for the formation of the archaeological deposits. These processes may be repeated cyclically, which is why yellow and brown rows alternate in the table.

Continuing to read **Table D2**, the Post-Main Occupation Period 2 is followed by a so-called “Re-Use Occupation Period”, a very ephemeral occupation identified only in Building A. As the use of these buildings drastically changed and could no longer be compared to their former use, we have defined this as a period of re-use. This Re-Use Period is then followed by the “Sporadic Occupation Period”, represented by a pebble floor identified above Buildings D and O. This sporadic occupation had already been dated to the Sasanian period in 2015, based on the pottery sherds found on the pebble floor; the 2016 and 2017 investigations confirmed this attribution, having found additional pottery and other finds datable to the Sasanian era on this floor. Because radiocarbon results date a tooth from Grave 47 to the late Sasanian period (ca- IAD 390-533, with 95.41 % probability)⁴⁵, we assume that the remains of the pebble floor and the graves also belong to the same occupation period.

Finally, in the upper part of the table, the Modern Occupation Period refers to the recent activities at Gird-i Bazar occurring during the 20th and 21st centuries AD, which include a stone surface, stone installations and pits dated

45 Greenfield 2017, fig. G5.

GIRD-I BAZAR STRATIGRAPHY	TRENCHES									
	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10
PREHISTORIC PERIOD	[Detailed stratigraphic data for Prehistoric Period across all areas]									
AREA 1	[Detailed stratigraphic data for Area 1]									
AREA 2	[Detailed stratigraphic data for Area 2]									
AREA 3	[Detailed stratigraphic data for Area 3]									
AREA 4	[Detailed stratigraphic data for Area 4]									
AREA 5	[Detailed stratigraphic data for Area 5]									
AREA 6	[Detailed stratigraphic data for Area 6]									
AREA 7	[Detailed stratigraphic data for Area 7]									
AREA 8	[Detailed stratigraphic data for Area 8]									
AREA 9	[Detailed stratigraphic data for Area 9]									
AREA 10	[Detailed stratigraphic data for Area 10]									

Table D2: Stratigraphic table of DLT2. Prepared by Janoscha Kreppner.

[Excavation Area]									
Excavation Unit	LEVEL	DESCRIPTION	ROOM A	ROOM B	ROOM C	ROOM D	ROOM E	ROOM F	ROOM G
[Detailed stratigraphic table content with multiple rows of excavation units, levels, and descriptions]									

Table D2 (continued): Stratigraphic table of DLT2. Prepared by Janoscha Kreppner.

by the presence of coins to the Saddam era, as well as some cuts and pits caused by the more recent construction of the chicken farm in 2014.

The following sections describe in detail the structures uncovered in 2017 from east to west, thus following the same order as in **Table D2**.

D3. Outdoor Area 24

Alessio Palmisano

Outdoor Area 24 is located in the easternmost part of the excavated area of Gird-i Bazar, between Building A on the west, and Alley 25 on the east (**Figs. D7-D8**). This area was partially excavated in 2016, when it was thought to be a room, hence the name “Room 24” used in the previous publication⁴⁶. This year the excavation continued north to complete Square 272928 and it was discovered that the northernmost wall of this space is missing, hence the new name “Outdoor Area 24”. This area is bounded to the south by wall Locus:272928:029, to the east by LGR:0186, and to the west by wall Locus:272928:004 (**Fig. D8**). As mentioned before, there is no wall enclosing Outdoor Area 24 to the north. Both walls Locus:272928:004 and LGR:0186 are ca. 62 cm wide and are preserved at the height of two courses of medium-sized stones, with an average diameter of 25 cm. Wall Locus:272928:004 is about 5 m long, while wall LGR:0186 is about 2 m long. Wall Locus:272928:004 is cut in the middle by the Grave 63 (**Fig. D8**), which has a NE-SW orientation. Another wall running in a N-S direction (Locus:272928:051), abuts wall Locus:272928:004 to the east, forming a sort of buttress. This wall is 1.55 m long, 48 cm wide and it is preserved to the height of only one course of medium-sized stones with an average diameter of 20-25 cm.

The floor of Outdoor Area 24 is labelled LGR:0205; it is an earthen surface with patches of charcoal and flecks of grayish clay. It covers the south-eastern quadrant of square 272928 from its southern edge to the north-eastern corner of wall Locus:272928:051. To the north, there is virgin soil (Locus:272928:046), which extends in an east-west direction over the northern half of the square. This virgin soil is a silty-clayey soil, rich in white particles and particularly hard, which constituted an outdoor walking surface in the open area during the main occupation period. The deposit LGR:0206, lying on both the earthen floor (LGR:0205) and the virgin soil (Locus:272928:046), was a

tough, light grey, clayey soil containing pieces of soft red burnt clay and many charcoals.

D4. Building A

Jens Rohde

Building A (**Fig. D7**) was known from the previous excavations to be composed of a central courtyard, Courtyard 2, surrounded by Rooms 1, 3, and 29⁴⁷. This year’s investigations targeted Room 29 and Courtyard 2 in order to delineate their northern boundaries, and to understand better the relationship between Building A and Building B located to the north.

D4.1 Room 29

This room is located southeast of Courtyard 2 (**Fig. D8**) and was partially uncovered in 2016. It is bounded by walls Locus:271927:009 in the west, Locus 272928:005 in the north, Locus:272928:004 in the east, and LGR:0138 in the south. Walls Locus:271927:009 and Locus:272928:005, in fact, only partially delineate the area of the room; it does not have a completely closed perimeter separating it from Courtyard 2. Rather, this room should be understood as an open space partially delimited from the courtyard.

The floor (LGR:0092) in Room 29, made of hard clay with whitish particles, corresponds to the floor of Courtyard 2 (LGR:0018). In the north, floor LGR:0092 abuts both the wall Locus:272928:005 and a rounded stone installation Locus:271928:119, uncovered in 2016⁴⁸. In Courtyard 2, the floor LGR:0018 also abuts this installation. Unfortunately, this rounded installation, which might be a well, Locus:271928:119, could not be examined further.

D4.2 Courtyard 2

Courtyard 2 (**Figs. D7-D8**) had already been partially uncovered in 2015 and 2016⁴⁹. The 2017 excavations clarified its boundaries as follows: to the west, the walls Locus:271928:008, Locus:271928:088 and Locus:271927:011, to the south, wall LGR:0138 and wall Locus:272928:005; to the east, walls Locus:272928:057, Locus:272928:004, and Locus:271927:009, and to the north walls LGR:0284 and

⁴⁶ Palmisano/Kreppner/Squitieri 2017, 71.

⁴⁷ Palmisano/Kreppner/Squitieri 2017.

⁴⁸ Palmisano/Kreppner/Squitieri 2017, 73.

⁴⁹ Squitieri/Kreppner 2017, 75-76.

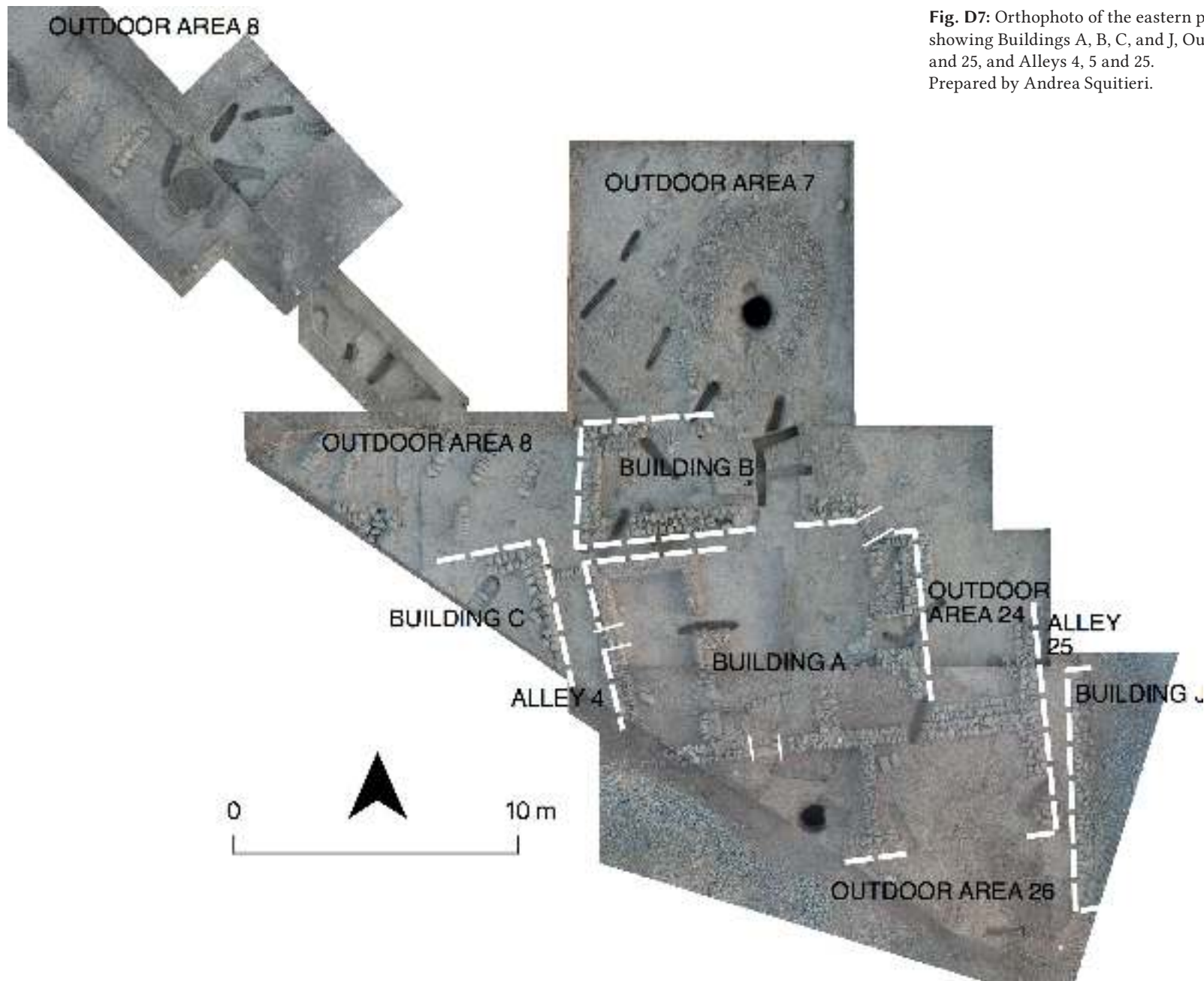


Fig. D7: Orthophoto of the eastern part of Gird-i Bazar, showing Buildings A, B, C, and J, Outdoor Areas 7, 8, 24 and 25, and Alleys 4, 5 and 25. Prepared by Andrea Squitieri.

LGR:0283. If one includes Room 29, Courtyard 2 shows a quite regular quadrangular layout. The two walls (LGR:0283-4) may have originally been parts of a single wall that constituted the northern boundary of the courtyard, which has not been preserved in its full length – most likely because of the damage caused in this area by the Sasanian graves.

Five entryways to the courtyard are known. The first is from Room 3, and it consists of a passageway, about 0.6 m wide, equipped with a mud threshold that has unfortunately been damaged by the cut of Grave 4. This entrance lies opposite the entrance connecting Room 3 to Alley 4 to the west; this second entrance is located more to the south and is 1 metre wide with a threshold (Locus:271928:109⁵⁰) equipped with a step for negotiating the change in floor level. To the south of the courtyard, another passage is known, about 1 m wide with a flat stone threshold (Locus:271927:029), connecting the courtyard to Room 1. The fourth entrance is located in the northeastern corner. It is a passageway of about 0.65 m wide with a flat stone threshold: Locus:272928:061. One more entrance might have been located in the SE corner, connecting the courtyard to Room 29. This would constitute the only way to enter Room 29 from the courtyard. Otherwise this room remains inaccessible. However, no threshold or door socket has been found to mark this passage.

The floor of Courtyard 2, LGR:0018, abuts the boundary walls as well as installations Locus:271928:109 and Locus:271928:119 in the south. The floor has a mud-beaten surface characterised by small, whitish particles and some red patches, with a few flat sherds lying on it. In the eastern part of the courtyard, the floor LGR:0018 abuts threshold Locus:272928:061 and stone installation Locus:272928:062. This is a trapezoidal installation, measuring 1.8×1.15 m, abutting wall Locus:272928:004 to the west. It is built with medium-sized stones with an average diameter of 20 cm. The function of this installation is not clear.

To the north, the floor of Courtyard 2 abuts wall LGR:0283. Directly south of this wall and the threshold (Locus:272928:061), there is a roughly rectangular platform (Locus:271928:197) that is bordered by a row of stones parallel to wall LGR:0283. This row of stones may have served as a step to negotiate different floor levels, similar to installation Locus:271928:109 mentioned above.

The deposit lying on the floor was a brown, dry, hard soil, called LGR:0273, which contained some small pebbles, and whitish and reddish pieces which are possibly the remains of a brick collapse that occurred at the end

of the main occupation period⁵¹. Above this, there was a dark brown, clayey soil, LGR:0019, with a moist, friable consistency. It contained pieces of soft, red, burnt clay and a lot of charcoals. Above the latter lies a soil material with pebbles and small sherds, called LGR:0038, which we have attributed to further decay processes, especially of the walls' superstructures during the post occupation phase.

During the excavation of Courtyard 2, eight Sasanian graves were uncovered, namely Graves 11, 66, 67, 68, 69, 80, 84 and 88. An installation (LGR:0197) was excavated above the graves. It belongs to the modern occupation phase and is connected to the modern structures found previously in 2016⁵². This installation consists of a set of stones that form a surface of pebbles, with greyish soil in between, and flanked by cobbles on each side. Along with three bullets, three coins found in this installation bear the date 1981 (PPP 272928:045:002-3, PPP 271928:135:001). Three more coins were found in the part of the installation uncovered in 2016 (PPP 271927:041:003-5), one of which one bears the date 1975. The coins constitute clear evidence for modern date of this installation. It is possible that the tannur (Locus:271928:055), discovered in 2015 and assigned to the "Re-use Period" (Table D2), is also chronologically related to this installation⁵³. Finally, the stratigraphic sequence of this area ends with the topsoil LGR:0011, a compact, brown, clayey-silty soil, rich in modern materials and with much bioturbation.

D5. Alley 5

Jens Rohde

Alley 5 is located between Building A and Building B (Figs. D7-D8), bordered by wall LGR:0284 to the north, and wall Locus:271928:031 to the south. In 2015, the floor of this alley, Locus:271928:064, was reached. This year, the connection between this alley and Outdoor Area 8 on the west was clarified. After the excavation of the Graves 14 and 15 (Fig. D8), 3 stones, Locus:271928:202, were found that did not belong to the architecture of the graves. These are located between the walls Locus:271928:017 to the north and LGR:0149 to the south, and are understood to be a threshold, whose presence makes Alley 5 a connecting passage between Outdoor Area 8 and Courtyard 2.

⁵¹ See also Squitieri/Kreppner 2017, 76.

⁵² Kreppner/Squitieri 2017c, 76-77.

⁵³ MacGinnis/Kreppner 2016, 58.

During the 2015 campaign, two main occupation phases were identified in Alley 5 based on modifications to the structure of wall LGR:0284 visible on its eastern edge. This year, the investigation of this alley, as well as of Courtyard 2 and Room 6 of Building B (see below), showed that this structural change in wall LGR:0284 (**Fig. D9**) had not in fact occurred. There was only one floor level abutting this wall, and therefore only one phase. It was discovered that this floor in Alley 5 (Locus:271928:064) gently slopes up eastwards, running along the lower edge of wall LGR:0284 up to wall LGR:0283 located in the northeastern corner of the Courtyard 2, and it is abutted from the south by the floor of Courtyard 2 which rises northwards. The irregular eastern edge of wall LGR:0284, which was interpreted as a second architectural phase in 2015, was probably due to damages that occurred after the end of the Main Occupation Period, perhaps during the modern era. To the east, wall LGR:0284 is not preserved anymore, likely because of the disturbances created by Grave 10 and the cut of two modern pits (LGR:250 and LGR:251). The possibility cannot be ruled out that a passage was located here, which would have connected Room 6 to Courtyard 2.



Fig. D9: Wall LGR:0284, separating Alley 5 on the left from Room 6 on the right. Photo by Jens Rohde.

D6. Building B = Room 6

Jens Rohde

Building B consists of one room, called Room 6, bordered by wall Locus:271928:017 in the east, wall LGR:0284 in the south, and wall LGR:0271 in the north. The unexcavated Grave 95 is located precisely in the corner between walls Locus:271928:017 and LGR:0271, interfering with any connection between them. The central section of Wall LGR:0271 has also been disturbed, showing a gap on the east through which another portion of wall is visible. The impressions preserved on the floor show that originally

there was no gap, and that LGR:0271 was at least 5.90 m long (**Fig. D10**). Room 6's eastern boundary wall could not be found. Most likely, it has been damaged by the graves installed here (Graves 20, 21, 65, 74). In the south, the room is closed by wall LGR:0284, which is about the same length as its northern counterpart. Access to the room has not been identified and was possibly located in the severely damaged eastern part.

The southern part of Room 6's floor was excavated in 2015 as LGR:0029⁵⁴. In the northern part of the room, the floor was uncovered this year, after Graves 16, 19 and 72 had been excavated. The floor is made of mud with charcoal and whitish remains pressed into it; these are especially concentrated in the northwestern part of the room. The floor abuts wall Locus:271928:017 in the west; in the north, it abuts a bench (Locus:271928:183) that is in the corner with wall LGR:0271. Unfortunately, this floor cannot be followed to the east any further, as it was disturbed by Grave 72. East of this grave, the floor continues. The floor also abuts some stones located east of Grave 72; these are understood to be a continuation of a bench (Locus:271928:183) in the northwest corner of room. Immediately south of wall LGR:0271, a small pit (pit fill: Locus:271928:198, pit cut: Locus:271928:199) cuts the floor. The purpose of this pit could not be determined, but it can be assumed that it is related to the floor. Above the floor, there was an accumulation of brown soil, called LGR:0182, with pebbles, some sherds, ashes and whitish remains. This deposit marks the end of the Main Occupation Period. Above this, there was a layer of brown moist muddy soil with pebbles and some sherds, called LGR:0016, belonging to the Post-Occupation Phase. An unexcavated grave (Grave 96) cuts the floor east of Grave 72.

D7. Outdoor Area 7

Jens Rohde

Outdoor Area 7 (**Figs. D7, D8, D11: section A**) extends north of Building B and Outdoor Area 24, and across the entire square 271929 and parts of 271928 and 272928. It is delimited towards the south by walls LGR:0283 and LGR:0271. Considerable damage from both the Sasanian graves and modern installations have made it difficult to reconstruct the layout of the Iron Age structures.

A small mud floor from the Main Occupation Period has been identified and called Locus:271929:052. It abuts wall LGR:0271 from the north and slopes to the west. In

⁵⁴ MacGinnis/Kreppner 2016, 61.



Fig. D10: Northern wall of Room 6 (LGR:0271) visible in the background, damaged by multiple cuts of Sasanian graves in the foreground. Photo by Jens Rohde.

the east, it has been disturbed by a modern pit (cut: Locus:271929:055, fill:Locus:271929:054). North of this pit, another mud floor (Locus:271929:051) has been detected, with stones sunk in it. This was probably originally connected to floor Locus:271929:052. Above both floors, there was a brown, dry, hard soil, with very few pebbles and sherds (Locus:271929:047), which accumulated during the Post-Occupation Period. The floor Locus:271929:051 (**Fig. D12**) abuts wall Locus:271929:050 and stone installation Locus:271929:053, which has been interpreted as a small storage facility. Only a small portion about 0.45 m wide and 1 m long of wall Locus:271929:050 has been preserved. This wall fragment approximately follows a north-south orientation, and could have been originally connected to wall LGR:0271; however, Grave 42 interrupts both walls exactly in the area where they might have met.

The wall is superimposed by the modern installation LGR:0269, a platform made of stones which may also have served as drainage or as a toilet, with an outlet connected to the large well to the north, Locus:271929:056. The lining of the outlet yielded remains of a plastic tarp, clearly proving the installation to be modern.

The large well Locus:271929:056 (**Figs. D8, D13, D14**) was excavated to a depth of 7.5 m, reaching an elevation of about 539.5 m above the sea level. The bottom of the well, however, was not yet been reached. The lowest deposit (Locus:271929:042) was very rich in pottery sherds, animal bones, and stones of various sizes. The pottery sherds were in a particularly good state of preservation. They represent an interesting assemblage comprising all the types

and fabrics attested in Gird-i Bazar so far. They are discussed in detail in **Chapter F1**. This deposit can be attributed to the end of the Main Occupation Period, or immediately afterwards, because no younger material was found within it. Interestingly, a large donkey mandible with teeth was retrieved from this layer. A tooth taken from this mandible was radiocarbon dated to 1006-901 BC (see **Table D1**: Sample 3 and discussion in **§D2.1**).

Locus:271929:039 lies above this layer. It contains less material, but is comparable to the lower deposit layer Locus:271929:042. Above Locus:271929:039, is a deposit called Locus:271929:020, characterised by the presence of large stones. It contains Gird-i Bazar type ceramics,

but also modern material that possibly dates back to the same period as the deposits in platform LGR:0269 (outside the well) and the modern floor LGR:0197 (excavated in the area of Courtyard 2). This layer indicates that modern disturbances affected the upper part of the well fill, but not the earlier layers below.

All around the well, there is a large accumulation of many pebbles and sherds, registered as Locus:271929:058 (**Fig. D14**). This extends for about 2 m east and west of the well, and about 3 m north, sloping down from the well entrance. Based on evidence from the upper layers of the well, which have yielded clearly modern material, it is possible that the well was recently reopened by people squatting on the site who, in the process of emptying the well, created the disturbed upper layer (Locus:271929:020) and the accumulation (Locus:271929:058) around it. Above Locus:271929:020, there was a brown deposit, Locus:271929:010, also yielding modern material. A further modern pit (cut: Locus:271929:008, fill: Locus:271929:009) containing beer cans which show the date 2010 (thus pre-dating the construction of the chicken farm in 2014) was cut into the well's opening.

In Outdoor Area 7, several Sasanian graves were identified. Of these, Graves 42, 43, 62, 73, 77 and 93 have been excavated. Graves 78, 94 and 95 have been identified but not excavated. All these graves were covered with topsoil LGR:0189. In the eastern part of Outdoor Area 7, the virgin Locus:271929:061 was reached immediately below the topsoil (**Fig. D11: section A**).

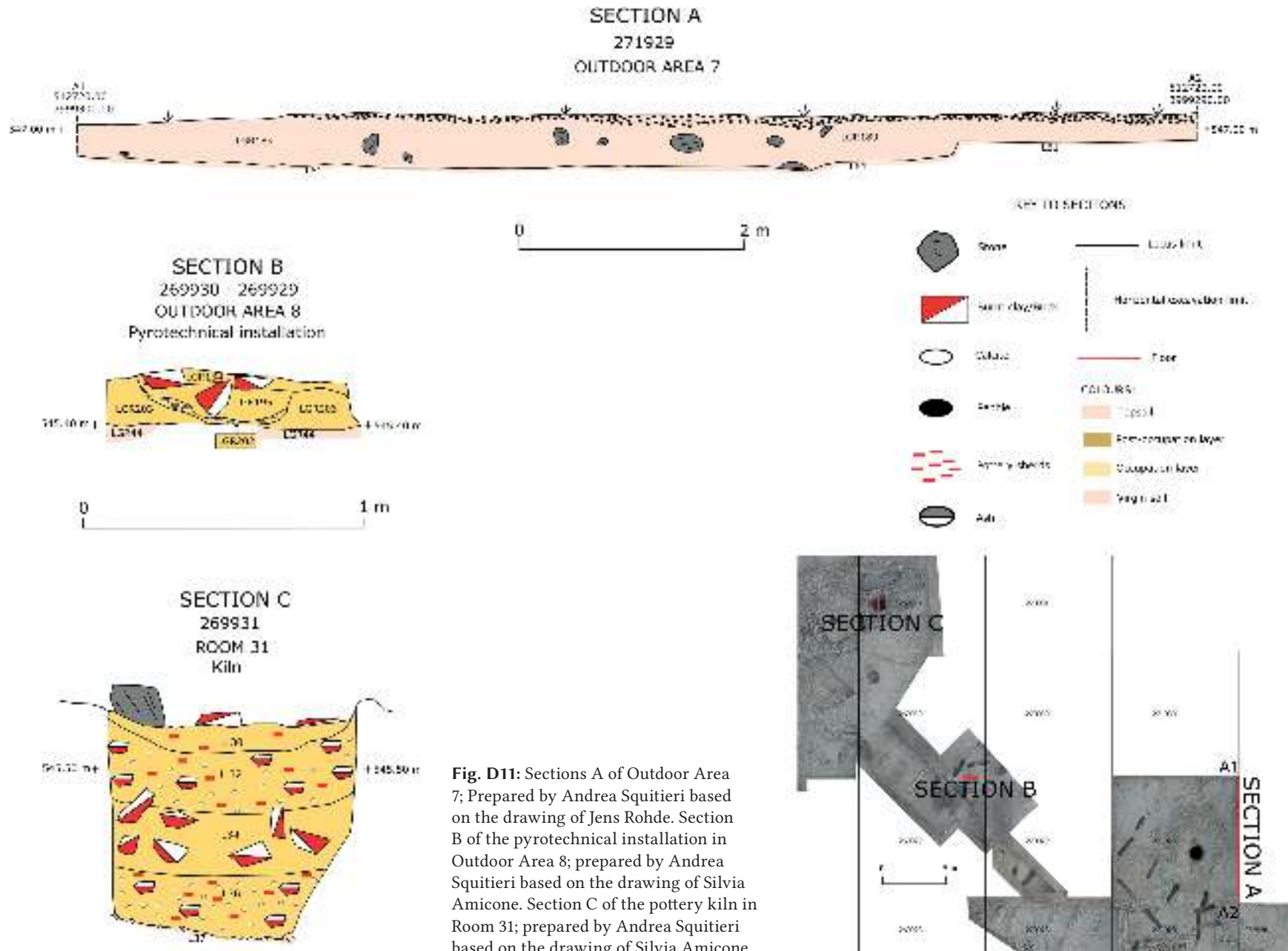


Fig. D11: Sections A of Outdoor Area 7; Prepared by Andrea Squitieri based on the drawing of Jens Rohde. Section B of the pyrotechnical installation in Outdoor Area 8; prepared by Andrea Squitieri based on the drawing of Silvia Amicone. Section C of the pottery kiln in Room 31; prepared by Andrea Squitieri based on the drawing of Silvia Amicone.



Fig. D12: The small floor Locus:271929:051 abutting the wall Locus:271929:050 on the left and the stone installation Locus:271929:053 in the foreground. On the left, the cut of the Grave 73 is visible. Photo by Jens Rohde.



Fig. D14: The entrance to the large well Locus:271929:056, surrounded by an accumulation of pottery and stones (Locus:271929:058). Photo by Jens Rohde.



Fig. D13: The entrance to the large well Locus:271929:056, excavated to a depth of about 7.5 m. Photo by Jens Rohde.

D8. Alley 4

Alessio Palmisano & Jens Rohde

Alley 4 is located between Building C and Building A (Figs. D7, D15), and it is delimited on the west by wall Locus:270928:028 and on the east by wall LGR:0149. Its floor (LGR:0234) is a compact, hard, grayish, clayey surface which contained a number of small pebbles (1-2 cm in diameter) and white particles, and had potsherds lying flat on its surface. On the floor lies a 40 cm deposit of a hard, grayish-brown, clayey soil LGR:0287, covered by a reddish, clayey material, LGR:0015, beneath the topsoil (LGR:0286). On the south, this alley was cut by the construction of the chicken farm, thus leaving its section exposed. Several soil samples were taken from this section, and analysed; their results are in shown in **Chapter E** (see Fig. E2: profile 5).

D9. Building C = Room 55

Alessio Palmisano

Building C is bounded by the walls Locus:270928:027 to the north, and Locus:270928:028 to the east, both built on virgin soil (Figs. D7, D15). It is composed of one preserved room, called Room 55. Both these walls are constructed from stones with a diameter of 30-35 cm, arranged in two rows, with a rubble fill of pebbles mixed with mud. In particular, the east-west wall Locus:270928:027 is 2.14 m long and 75 cm wide and connects to wall Locus:270928:028, which runs in a north-south direction and is 3.22 m long and 70 cm wide. The corner of these two walls was iden-

tified in 2015 and registered as Locus:270928:023⁵⁵. Access to Building C was to the north; this was indicated by threshold Locus:270928:059, 81 cm wide, composed of medium-sized stones (10–15 cm diameter), and perfectly aligned in an east-west direction with wall Locus:270928:027.

Unfortunately, most of the southern side of Building C was bulldozed away during the construction of the chicken farm. This is why it is now only comprised of Room 55. In the north-eastern corner of this room, the virgin soil (Locus:270928:038) was used as walking surface. It is interesting to note that this room has wider walls and is made of larger stones than the walls of the adjacent Room 3 of Building A (**Fig. D8**), which may indicate that Room 55 of Building C had a more representative function than Room 3 of Building A.

D10. The eastern part of Outdoor Area 8

Alessio Palmisano

To the west and north of Building C and Alley 4, Outdoor Area 8 extends as far as Building D in the west (**Fig. D15**). To the west of Building C, the remnants of an east-west oriented wall (Locus:270928:057) were found; this wall is 1.7 m long and about 58 cm wide, and it was built with stones with a diameter of 30–35 cm arranged in two rows. This wall was cut through by Grave 90, and is badly preserved due to severe bulldozing during the construction of the chicken farm. The walking surface of this open area is represented by the virgin soil, a silty-clayey soil, rich in white particles and particularly hard, which was labelled as Locus:270928:038 and Locus:270928:011. Locus:270928:011 had already been reached in 2015 within the so-called “connecting trench”⁵⁶, whereas Locus:270928:038 was only identified after continuing excavation this year. It is located to the south of the connecting trench. On Locus:270928:038 and to the north of Wall Locus:270928:027, we found the sherds of a large jar and a pot lying flat (PPP 270928:058:001; **Fig. D16**). This represents clear evidence that the virgin soil was used as a walking surface in this open area during the Main Occupation Period.

The excavations were also continued north of the 2015 connecting trench, and reached virgin soil, here called LGR:0285, extending towards north-west and abutting the eastern wall of Building B, Locus:271928:017. In the light of evidence yielded by the virgin soil Locus:270928:038, we

suggest that LGR:0285 was also originally used as a trodden surface. In the north, LGR:0285 is disturbed by Grave 95. In the south, it joins the floor of Alley 4, LGR:0234. Above LGR:0285, there was a pale brown, dry, hard soil, with pebbles and a few accumulated sherds (LGR:0057), which we interpreted as dating from the end of the Main Occupation Period. Above it, there lay a dark brown, clayey soil, LGR:0243, accumulated during the Post Occupation Period.

This area was re-used during the Sasanian period to install several graves. A total of 14 graves cutting the virgin soil were found this year. Nine graves are arranged in a north-south direction (Graves 83, 40, 82, 81, 79, 75, 90, 87, 86), while five graves show an east-west orientation (Graves 89, 39, 76, 85, 41) (**Figs. D15, D17, H1**). Only three graves have been excavated (Graves 75, 76, and 85). All the graves were covered by the topsoil, LGR:0286.

D11. The central part of Outdoor Area 8: the pyrotechnical installation

Silvia Amicone

In the area where a pottery kiln was excavated in 2015 and 2016⁵⁷ (Locus:269929:006), a fill containing a high concentration of red burnt clay was excavated this year, after its initial identification in 2016 (**Fig. D15**). This fill is located 1.5 m northwest of the pottery kiln, and its excavation revealed a pyrotechnical installation labelled LGR:0203. This installation was made of a poorly preserved burnt clay lining, roughly circular in plan, that was built on the virgin soil LGR:0044, with a diameter of about 1 m and 20–25 cm high (**Fig. D11: section B, Fig. D18**). At the bottom, the lining was filled with a soft layer rich in ash and charcoal (LGR:0202), out of which several samples were taken for analysis. This layer was covered by a dark brown and hard deposit, LGR:0195, marked by the presence of many burnt bricks and pieces of charcoal. Above LGR:0195, there was a softer, sandy-silty deposit, called LGR:0134, containing much burnt clay. This upper fill had already been exposed in 2016. This fill was covered by a sandy-silty brown deposit (LGR:0183), which extended into the rectangular 2×3 m trench that was opened during this campaign in order to investigate this installation.

Within this trench, four Sasanian graves were discovered, cutting the virgin soil. Graves 49 and 59 have been excavated, while Graves 60 and 61 have been left unexcavated. All the graves show the characteristic stone cap-

⁵⁵ Stone 2016, 62.

⁵⁶ Stone 2016, 65.

⁵⁷ Stone 2016, 66; Amicone 2017a, 77–82.

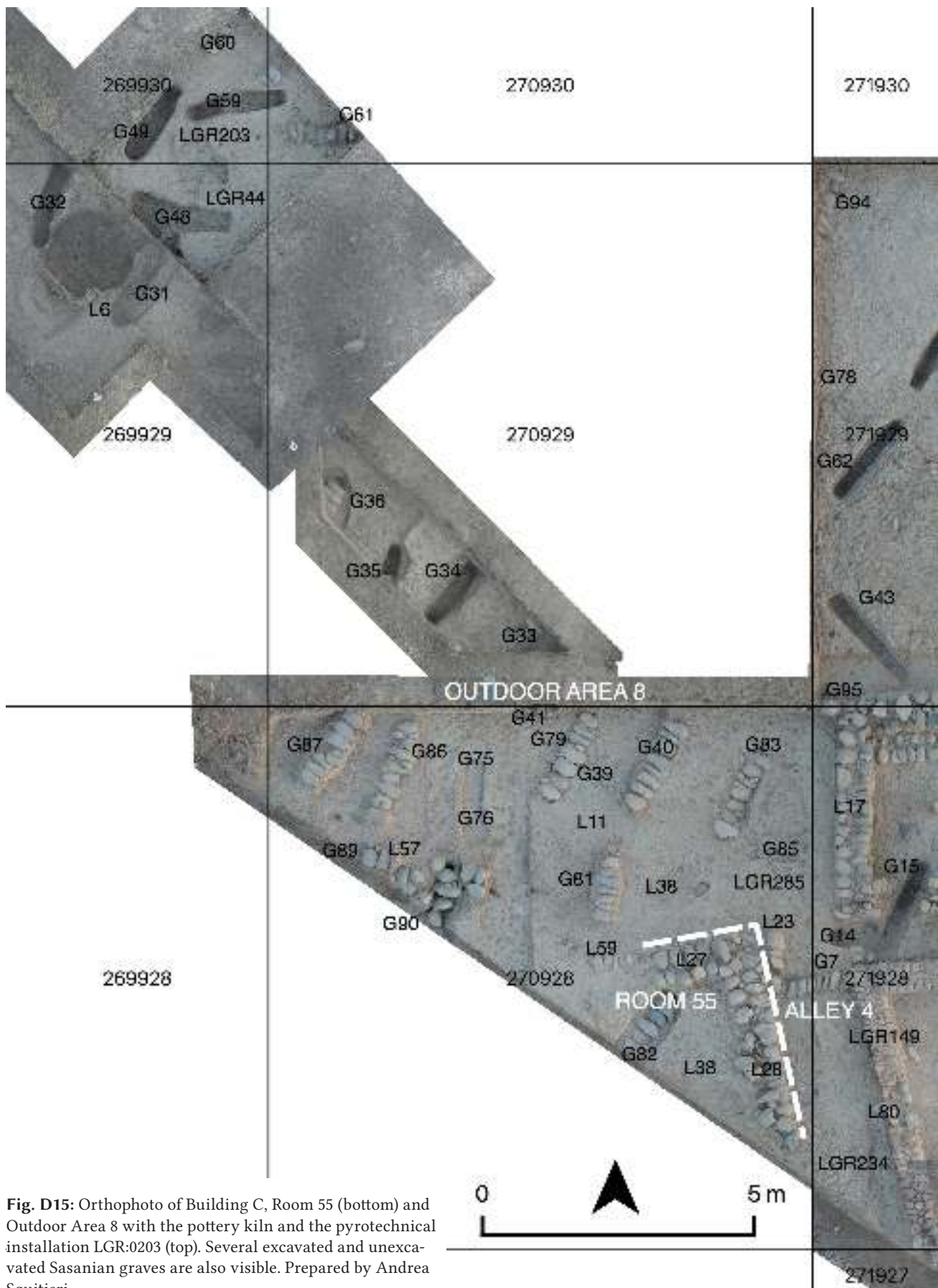


Fig. D15: Orthophoto of Building C, Room 55 (bottom) and Outdoor Area 8 with the pottery kiln and the pyrotechnical installation LGR:0203 (top). Several excavated and unexcavated Sasanian graves are also visible. Prepared by Andrea Squitieri.



Fig. D16: Several fragments of a pottery vessel (PPP 270928:058:001; on the right), found smashed on the virgin floor in the proximity of the corner of Building C. Photo by Alessio Palmisano.

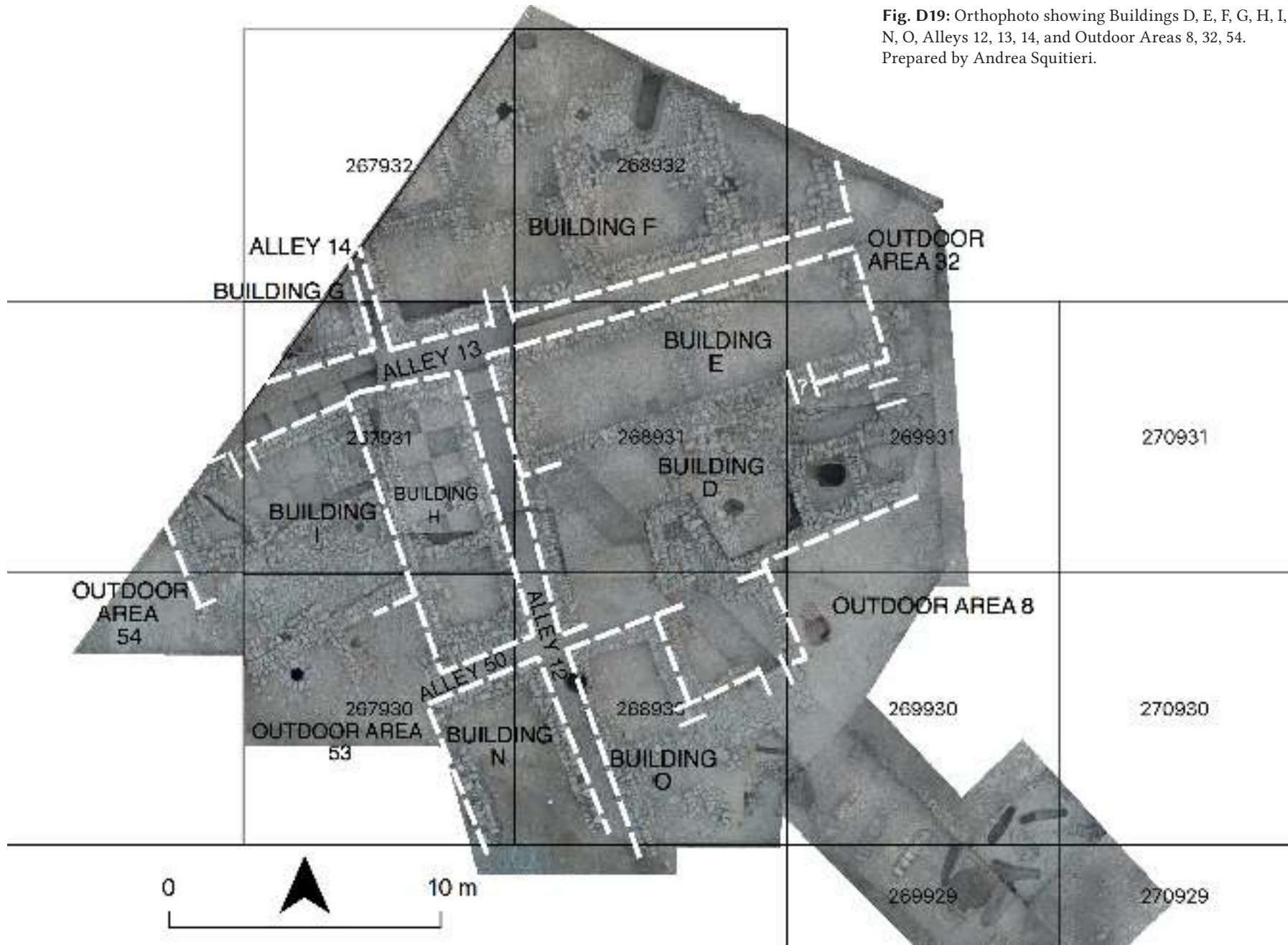


Fig. D17: Unexcavated Sasanian graves in Outdoor Area 8, north of Building C, showing the characteristic stone capping. Photo by Alessio Palmisano.



Fig. D18: The pyrotechnical installation in Outdoor Area 8 during its excavation, in between two excavated Sasanian graves (G49 and G59). Note the two remaining chunks of the burnt clay lining on the sides of the reddish fill. Photo by Silvia Amicone.

Fig. D19: Orthophoto showing Buildings D, E, F, G, H, I, N, O, Alleys 12, 13, 14, and Outdoor Areas 8, 32, 54. Prepared by Andrea Squitieri.



D10. The eastern part of Outdoor Area 8

ping made of a row of medium sized stones. The deposit LGR:0183 extended above the pyrotechnical installation, was cut by the graves, and was then covered with topsoil LGR:0126.

Concerning the use of this installation, apart from ash, charcoal, burnt clay, and burnt brick fragments, no other material has been recovered that could help to interpret its function. Surely it was used for some activity involving fire; however, it is not possible to be more precise based on current evidence. It is hoped that results from the analysis of the samples will clarify its function.

D12. The western part of Outdoor Area 8 and Building D

F. Janoscha Kreppner & Andrea Squitieri

The western part of Outdoor Area 8 borders Buildings D and O (Figs. D19, D20). This area was partially excavated in 2016. The aim of the 2017 campaign was to determine the edges of Buildings D and O, and clarify the layout of the outdoor area⁵⁸.

The virgin soil LGR:0044 was reached, and, as was also the case in the eastern part of Outdoor Area 8 (§D10), it was used as a floor. A built stone and paved floor was also excavated south of Room 9 and east of Rooms 34 and 56, which had previously been detected in 2015 and 2016⁵⁹. This paved floor, called LGR:0157 (Figs. D20, D21, D29), measures 6 m x 4 m and it is made of flat slabs alternating with rounded cobblestones. Towards north it is bordered by a stone structure named Locus:268930:008, which was installed between the floor and wall LGR:0153: the southern wall of Room 9. This room, belonging to Building D (§D12.5), was accessed from the paved floor through an entrance.

A characteristic feature of the western part of the Outdoor Area 8 is the presence of two pyro-technological installations, which join the pottery kiln and the pyrotechnical installation located in the central part of this outdoor area (§D11).

The first installation is located east of Room 57, immediately south of the paved floor LGR: 0157 described above. It is registered as Locus:268930:077 and it was found sunk into the virgin soil. It has a circular shape with a diameter of ca. 2.5 m, and about 40 cm deep, bounded

by a lining of cobblestones. On its eastern wall, an oval black spot measuring 60 x 40 cm was found. This could be what remains of an oven. North and south of it, the remains of at least three other oval black spots, roughly of the same size, could be detected (Fig. D22). Unfortunately, this installation was heavily damaged by a large modern pit LGR:0128; its precise original shape and function are therefore not clear.

Further north and east of Room 9, a second pyrotechnical installation was found (Fig. D23). It measures 1.7x1.0 m with a roughly oval shape in plan view, and it has been registered as LGR:0223. It consists of two parts. The southern part is sunk into the ground about 30 cm deep, with a lining wall covered with clay plaster. In the SE corner, placed vertically, a brick was still in situ. Measuring about 20x10 cm and 30 cm high, it thus covered the entire depth of the structure. Possibly it had been placed here to reinforce the clay lining, or to support a superstructure for which no other evidence has been found. The fills (Locus:269930:061 and Locus:269930:066) were dark red in colour, with lumps of burnt clay, and several crushed pottery sherds. These sherds were of fine ware. These finds indicate heat exposure, hence the interpretation of this installation as an oven, a fire pit, or a kiln for pottery. If we assume it was a pottery kiln, surely this installation looks very different from the other two pottery kilns known at Gird-i Bazar (§D12.2).

The northern part of this installation consists of an earthen platform about 30 cm high, on which several smashed fragments of a large ceramic vessel were found. It is clear that this large pot was originally installed immediately next to the installation; however, the functional connection between the installation and this pot is not clear.

Building D is accessed from the east into Room 30 and from the west from Alley 12 into Courtyard 11. From the south Room 9 had its own entrance from Outdoor Area 8 (Figs. D19, D20). Some architectural modifications identified in the 2016 campaign⁶⁰, gave this building its current layout. This consists of two courtyards, 11 and 27, surrounded by Rooms 9, 10, 30, 31 and 33. Before these modifications, the two courtyards constituted one single open space, and Building D formed a single architectural unit with the rectangular single-room Building E - Room 19 located to the north⁶¹. The 2017 campaign targeted Rooms 9, 10, 33 and Courtyard 11, which had been left partially unexcavated during the previous campaign, and also focused

58 The 2017 excavations in this area were started by Francesca Chelazzi and continued after her departure by Janoscha Kreppner, Hero Salih Ahmed and Andrea Squitieri.

59 Stone 2016, 68; Chelazzi 2017d, 82.

60 Chelazzi/Egbers 2017, 84.

61 Egbers 2017, 89.

on the excavation of the kiln in Room 31, whose upper fill had been only partially exposed in 2016.

D12.1 Room 33

F. Janoscha Kreppner & Andrea Squitieri

Room 33 (**Fig. D19**) is located in the easternmost part of Building D, and it was partially excavated in 2016 when a concentration of pebbles was found inside the entire room⁶². This room is bounded by the walls Locus: 269931:018 to the south, Locus: 269931:016 to the north, and Locus: 269931:017 to the west. No wall was found to the east where the room opened to Outdoor Area 8. The floor of this room was made of a beaten earth surface, Locus: 269931:041, extending into the northern half of the room, while a pebble floor extended into the southern half, Locus:269931:042 (**Fig. D24**).

A very badly preserved oven (Locus: 269931:040) was found in the southwestern corner of the room. Unfortunately, only few remnants of the clay lining were still in situ. At a certain point in time, the oven went out of use and Room 33 was filled with a thick fill of pebbles (Locus: 269931:031), which were found mixed with numerous loose fragments of the oven itself (fill: Locus: 269931:039). The reason for filling this room with pebbles, destroying the oven in the process, are not clear. Nor is it clear when this may have occurred. It is possible that this event took place when the entire layout of Building D was modified and perhaps it was decided that, due to a change of function, this room would no longer be used.

D12.2 The pottery kiln in Room 31

Silvia Amicone

Room 31 is located east of Room 33, but is not connected to it (**Fig. D20**). It is bordered by walls Locus:269931:016 to the north, Locus:269931:017 to the east, Locus:269931:018 to the south, and Locus:269931:019 to the west. The architecture of this room was investigated in 2016, when a rounded clay structure with a reddish fill became visible during the excavation of the deposit lying on the room's floor Locus:269931:022⁶³. In 2017, this structure, which was revealed to be a pottery kiln, was completely excavated (**Fig. D11: section C, Fig. D25**).

The kiln has a pear-shaped layout in plan view, with a narrowing part towards west. It was sunk into the bedrock (Locus:269931:037); the latter being made of conglomerate, a very coarse-grained sedimentary rock composed of pebbles held together with a cementing material. The kiln lining was made of burnt clay which appeared reddish-green in colour (Locus:269931:025). Within this lining, various fills were excavated. The lowest, Locus:299931:036, was a silty-clayey soil with patches of burnt red clay, characterised by the presence of burnt brick fragments, ash, charcoal, white carbonatic materials, and pottery sherds. This fill was covered by a harder deposit, Locus:269931:034, consisting of large fragments of burnt bricks embedded in a matrix of red, silty-clayey soil with very few pottery sherds and rich in white carbonatic particles. This fill most likely represents the collapse of the uppermost kiln's structure, as visible in **Fig. D26**. Locus: 269931:032 was excavated from above this fill; it was rich in lumps of burnt clay, charcoal, pottery, and brick fragments. This in turn was covered by the kiln's uppermost fill, Locus:269931:030, a soft, sandy-silty, dark brown deposit, characterised by fewer fragments of burnt bricks than the fills found below. In the narrowing part of the kiln, towards the west, a fill (Locus: 269931:033) rested directly on the bedrock. It was very similar to Locus:269931:030, but with almost no burnt brick fragments.

This pottery kiln was most likely a vertical kiln with an upper chamber covered by a structure (whose collapse may constitute Locus:269931:034) and a lower combustion chamber (whose fill may be Locus:299931:036). Room 31's kiln seems to be of the same type as the kiln excavated in 2015 and 2016 in the central part of Outdoor Area 8⁶⁴, although the two showed a very different state of preservation. Unlike the kiln in Outdoor Area 8, Room 31's kiln did not yield any fragments of the kiln floor with holes separating the lower from the upper chamber; moreover, it did not yield the last pottery load still in situ with almost entirely preserved vessels. Pottery sherds were indeed present in the Room 31's kiln fills but they were in a fragmentary state. Some morphological samples, whose analysis is ongoing, were taken in order to cast light on the formation processes of these fills.

62 Egbers 2017, 89.

63 Egbers 2017, 89.

64 Amicone 2017a, 77-82.

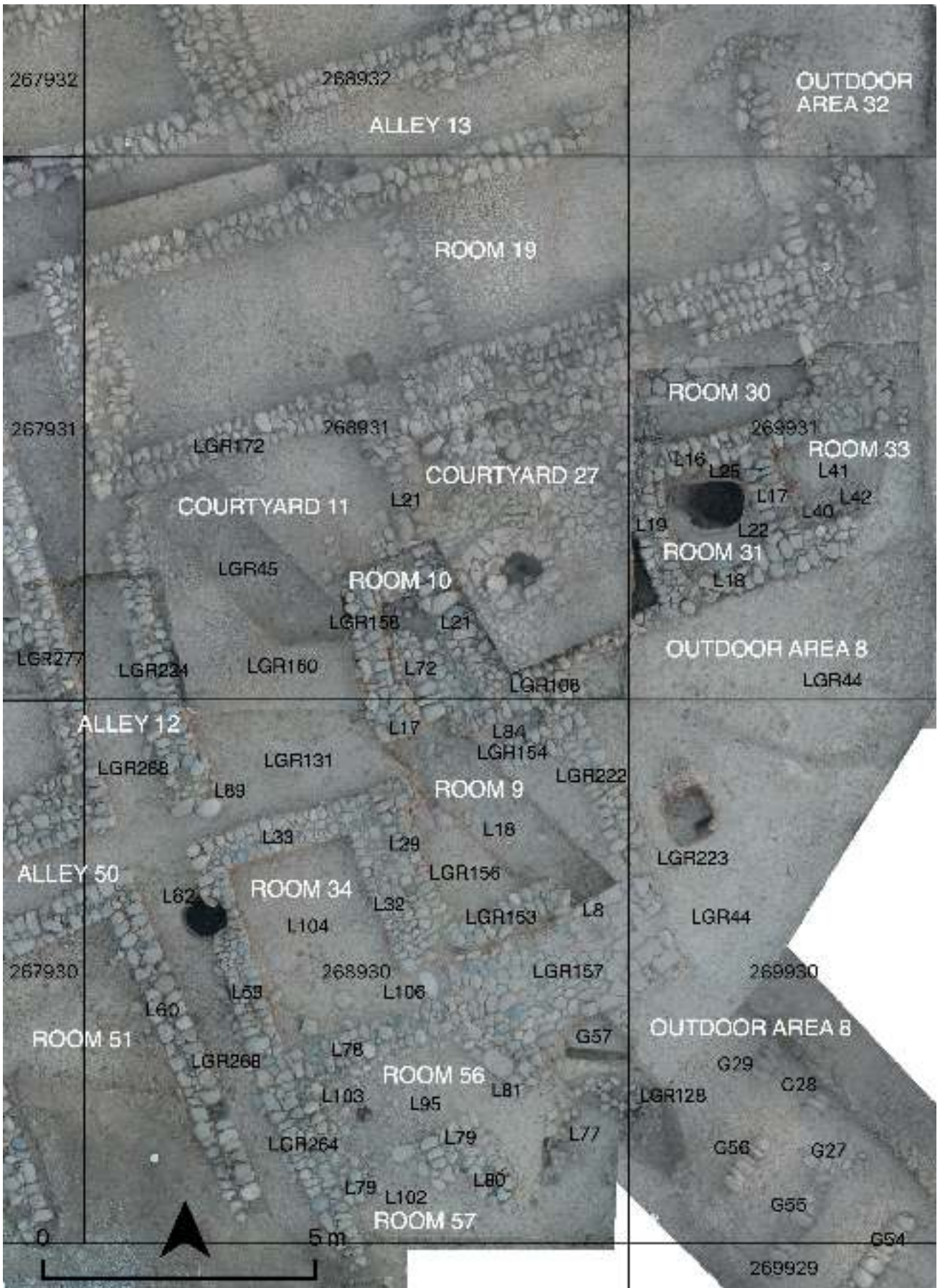


Fig. D20: Orthophoto of Buildings D and O and Outdoor Area 8. Prepared by Andrea Squitieri.



Fig. D21: The paved floor LGR:0157, viewed from northeast. Photo by F. Janoscha Kreppner.



Fig. D22: Pyrotechnical installation in Outdoor Area 8 (Locus:268930:077), heavily damaged by a modern pit (LGR:0128). Note the black spots and reddish lenses indicating activities involving fire took place here. Photo by F. Janoscha Kreppner.



Fig. D23: Pyrotechnical installation in Outdoor Area 8 (LGR:0223). Note the southern part cut into the virgin soil, lined with clay and a brick placed vertically; and the northern part with a clay platform on which a smashed vessel was found. Photo by Andrea Squitieri.



Fig. D24: Room 33 of Building D with a beaten earth floor in the north, and a pebble floor in the south. Note the oven placed in the southwestern corner, destroyed by the later fill of the room made of stones, created when the room went out of use. Photo by Andrea Squitieri.



Fig. D25: The pottery kiln in Room 33, Building D, half excavated. Note the oval shaped lining with an entrance towards northwest and the collapse of bricks visible in the eastern portion of the kiln fill. To the west of the kiln fill, the bedrock made of conglomerate is visible. Photo by Peter Bartl.



Fig. D26: The pottery kiln in Room 33: detail of Locus: 269931:034, showing the brick collapse. Photo by Peter Bartl.

D12.3 Room 10

F. Janoscha Kreppner & Andrea Squitieri

Room 10 (**Figs. D20, D27, D29**) is a small trapezoidal architectural unit. It is 2.3 m long and 0.8 m wide in the north, and 1.3 m wide in the south, covering an area of 2.5 m². The walls LGR:0158, Locus:268931:021, Locus:268930:017 bound Room 10, leaving the access from the south. The floor is paved with large cobblestones (Locus:268931:072), which may indicate that some activities in which water was involved took place in this small room. Apart from pottery sherds, no other finds were discovered on the floor.

On the floor, a dry, hard, brown, silty soil, Locus:268931:071, accumulated at the end of the floor's use. This deposit was overlaid by a hard, yellowish-brown, silty soil (LGR:0242 and Locus:268930:084), a result of erosion processes during the Post Occupation Period.

D12.4 Courtyard 11

Janoscha Kreppner & Andrea Squitieri

Courtyard 11 (**Fig. D20**) is located in the western portion of Building D. Its northern section had been partially excavated in 2016, and a mud floor and a pebble floor were found⁶⁵. This year we located the access to Courtyard 11 from the southwest, through a passageway about 0.8 m wide, located where Alley 12 and Alley 50 meet (**Fig. D19**). Here, a door socket (Locus:268930:089) was found indicating that this passage was closed with a door (**Fig. D28**). Another passage leads to Rooms 9 and 10 to the east, although no door socket was found here. The remaining southern area of the courtyard was excavated down to the beaten mud floor LGR:0131. Overlaying this floor was a hard, compact, silty soil, light brown in colour, with few white particles (LGR:0130) marking the endpoint of the floor's use. This locus was in turn covered by LGR:0080, a hard, yellowish-brown, silty soil, and then by Locus: 268930:084, a dry, hard, brown, silty soil, which originated from erosion processes.

D12.5 Room 9

F. Janoscha Kreppner & Andrea Squitieri

Room 9 (**Fig. D20**), measuring 3.3 x 2 m (ca. 7 m²), is located in the southern part of Building D, and is accessed through the paved floor LGR:0157 dividing Building D from Outdoor Area 8. It is bounded by walls LGR: 0153 in the southeast, LGR:0154 in the northwest, Locus: 268930:029 in the southwest and LGR:0222 in the northeast (**Fig. D29**). This space had been partially uncovered (down to the bedrock made of conglomerate, Locus: 268930:018⁶⁶) during the 2015 excavations of the connecting trench. In 2016, the upper layers of the western part of the room were investigated⁶⁷, whereas in 2017 the excavations targeted the northern and southern parts of the room down to the floor.

To the south, the wall LGR:0153 is oriented NE-SW, separating Room 9 from Outdoor Area 8. It is approximately 4 m long and 50 cm wide. It consists of one preserved course of cobblestones set on the virgin soil, and two rows of cobbles; in between there is a fill formed from smaller stones.

⁶⁵ Chelazzi 2017b, 85-86.

⁶⁶ Stone 2016, 68.

⁶⁷ Chelazzi 2017a, 84.



Fig. D27: Building D, Room 10. Photo by F. Janoscha Kreppner.



Fig. D28: Building D, Courtyard 11: passage connecting Alley 50 to Courtyard 11. Photo by Andrea Squitieri.

To the west, it connects to wall Locus:268930:029. To the east, no proper corner existed because an entrance, ca. 70 cm wide, gave access from Outdoor Area 8 to Room 9.

To the north, the wall LGR:0154 is oriented NE–SW and has two rows of cobblestones (in total c. 55 cm wide). The stones measure ca. 28 x 19 cm with a rubble fill in between. It is preserved to a height of two courses of cobbles at the eastern corner, and three courses (38 cm high) at the western corner. In the west and the east, the wall binds to the western wall of Room 9 (Locus:268930:029) and to the eastern wall (Locus:268930:056). During the 2015 excavation of the connecting trench, the central part of this wall had been removed (Locus:268930:007). The sections of the connecting trench indicate that the wall was built on the virgin soil⁶⁸.

To the east, wall LGR:0222 divides Room 9 from Outdoor Area 8. The wall is 2.6 m long and 56 cm wide and consists of two rows of stones with small pebbles in be-

tween. The size of the stones is, on average, about 34 x 23 cm. One to two courses of stones with a maximum height of 22 cm are preserved. The lowest row was established on virgin soil.

To the east, wall Locus:26930:029 has a NW–SO direction. It is approximately 3.40 m long and is about 50 cm wide. It is formed from three courses of stones, and two rows of large cobblestones with a rubble fill in between. This wall connects to walls LGR:0153 and LGR:0154.

Room 9 has a beaten mud floor LGR:0156 abutting the four boundary walls. This floor was covered by a dry, hard, brown, silty soil with some sherds lying flat (Locus:268930:076 and Locus:268930:088), overlaid by yellow, brown, silty soil (LGR:0288). These remains were sealed by the Sasanian floor LGR:0155, which is discussed below in greater detail (§D15).

D13. Building O

F. Janoscha Kreppner & Andrea Squitieri

Building O (**Fig. D19**) is located west of Outdoor Area 8 and can be accessed from it via the paved floor LGR:0157. It is composed of three rooms, 34, 56 and 57, and it is bordered on the east by Alley 12. A corner of Room 34 had been exposed in 2016⁶⁹; in 2017, the excavation of this and the other rooms was completed. To the south, Building O has not been preserved due to bulldozing activities that occurred during the construction of the chicken farm.

D13.1 Room 34

Room 34 (**Figs. D20, D33**) is located west of Room 9 and it is separated from the latter by a double wall. The room is 3.5 m x 2.5 m (8.75 m²) and was accessed from Outdoor Area 8 through an entrance with a threshold marked by a flat slab, Locus:268930:106. It is delimited by four walls: Locus: 268930:032 in the northeast, Locus: 268930:033 in the northeast, Locus: 268930:059 in the southwest, and Locus: 268930:078 in the southeast.

The walls consist of two rows, 0.6 m wide, with smaller stones in between. A disturbance can be seen in the middle of the western wall Locus:268930:059, where a modern pit (Locus:268930:082) damaged the wall.

Room 34 has a beaten mud floor, Locus:268930:104, abutting the walls (**Fig. D30**). Apart from pottery sherds, no other items were found on the floor of this room; how-

68 Stone 2016, fig. C4.1: section J.

69 Chelazzi 2017c, 85.

ever, an iron slag PPP 268930:070:004 was found just outside the room, in the passage leading to Outdoor Area 8 (see **Chapter G, no. 34**).

Above the floor, a dry, light brown, clayey-silty soil (Locus:268930:092) was present, marking the end point for use of this floor. This deposit was covered by a dry, hard, dark brown, silty soil (Locus:268930:063) which was the result of erosion processes after the end of the Main Occupation Period.

D13.2 Room 56

Room 56 is located south of Room 34. It measures 3.3×1.7 m (= 5.6 m²) (**Figs. D20, D31, D33**). Wall Locus:268930:078 represents the northern boundary, abutting the corner of the western wall LGR:0264 and wall Locus:268930:059. These walls were founded on virgin soil; they are made of two rows of cobbles (60 cm wide) and are preserved to a height of two courses. Wall Locus:268930:079, representing the southern boundary of Room 56, is divided into two, possibly 3 segments. The first segment begins in the west, abutting wall LGR:0264, towards the east it is interrupted by an entrance equipped with a stone threshold. This entrance connects Room 56 with Room 57 to the south. After the entrance, a second segment of the wall is visible forming a corner with wall Locus:268930:080, limiting the more southerly Room 57 in the northeast. Room 56 does not have an eastern wall. Therefore it is open to Outdoor Area 8. The passage between the room and paved floor LGR:0157 of Outdoor Area 8 was marked by two flat stone slabs forming a step (Locus:268930:081; **Fig. D32**), perhaps arranged in this manner to manage the different floor levels. Slightly to the south, the passage from Room 56 to the beaten earth floor of Outdoor Area 8 was not marked by any threshold and led directly to the pyrotechnical installations (perhaps ovens) labelled as Locus:268930:077 (heavily disturbed by a modern pit, see **§D12**). Because of the presence of these



Fig. D29: Building D, Room 9, shown in the middle of the photo, with the 2015 connecting trench still visible in its centre; in the background: Room 10; and in the foreground: the paved floor LGR:0157 giving access to Room 9 from the Outdoor Area 8. Photo by Andrea Squitieri.



Fig. D30: Building O, Room 34, with some pottery sherds lying on the beaten earth floor. Photo by Andrea Squitieri.

three entrances, two leading to Outdoor Area 8 and one to Room 57, Room 56 appears to have functioned as a distribution room.

Room 56's floor (Locus:268930:095) consists of beaten earth with a concentration of many small stones on the western side (Locus:268930:095). A rounded stone installation of unknown function, Locus:268930:103, is located in the eastern corner of the room. A dry, hard, greyish-brownish, silty soil with small granules, Locus:268930:094, accumulated above the floor marking the end point for use of this room. This soil was then covered by hard, greyish, silty soil (Locus:268930:093). Above this, the Sasanian pebble floor (LGR:0155) was found, which is discussed below in greater detail (§D15).

D13.3 Room 57

Room 57 (Fig. D20) lies south of Room 56 and was accessible from there through an entrance (Fig. D33). The walls Locus:268930:080 and LGR:0264 limit this room to the east and the west respectively. To the south, the preserved room width is 2.3 m, however, to the south the room was destroyed by the construction of the chicken farm. The floor is made of beaten earth, Locus:268930:102, and it abuts the boundary walls. A dry, hard, brown, clayey soil containing much pottery (Locus:268930:101) accumulated above the floor, marking the end of the room's use.

D14. Alley 12

F. Janoscha Kreppner & Andrea Squitieri

Alley 12 runs in a SE–NW direction, west of Buildings D, E and O, and separates the latter from Buildings N and H to the east (Figs. D19, D20). The bordering walls are LGR:0264, Locus:268930:059 and LGR:0224 to the east, and LGR:0277 and Locus:268930:060 to the west. Thirteen metres of the alley (down to the youngest floor) were uncovered during the 2017 campaign (Fig. D34). We know, thanks to the 2015 and 2016 campaigns, that Alley 12 continues further to the north for another 4.5 m, where it was excavated down to its oldest floor, LGR:0032. In total, this alley extends for about 17.5 m and meets Alley 13, which runs almost perpendicular to it in an east-west direction. Alleys 12 and 13 represent the main architectural units allowing circulation between buildings in the western area of Gird-i Bazar.

The youngest floor excavated in 2017 consists of beaten earth with some stones and pottery sherds pressed into it (LGR:0268). A dry, hard, brown, silty soil containing pot-



Fig. D31: Building O, Room 56: detail of the floor. Photo by F. Janoscha Kreppner.



Fig. D32: The stone step (in the foreground) connecting the paved floor (LGR:0153) of Outdoor Area 8 to Room 56. Photo by F. Janoscha Kreppner.

tery and some small stones (LGR:0028) accumulated on the floor when Alley 12 ceased to be used. This layer is superimposed by a hard, greyish, silty soil, LGR:0161, which formed as a result of post-occupational erosion.

D15. The Sasanian and the modern occupation periods

F. Janoscha Kreppner & Andrea Squitieri

Above the southern structures of Building D and Building O, after a phase of non-use and decay, an open area equipped with a pebble floor, LGR:0155, was found (Fig. D35). This floor was associated with a semicircular stone installation, Locus:268930:044. Pottery fragments found on this floor featured a decorative motif of wavy lines that indicated a Sasanian date. A small decorated glass shard from this floor, PPP 268930:053:006 (§G2.6, no. 64), can also be connected to the Sasanian period. Interestingly, this surface lies east of the cemetery, also



Fig. D33: Room 57 in the bottom, cut by the modern building activities; Room 56 in the middle; and Room 34 in the top. On the left, part of Alley 12 is visible. Photo by Andrea Squitieri.

dated to the late Sasanian period thanks to ^{14}C analysis (**§H**). This surface ends roughly where the westernmost grave was found, Grave 57 near the paved floor LGR:0157. Possibly, the LGR:0155 surface served as a floor for ceremonies held during the burial rituals.

Two circular pits represent evidence for the modern occupation in this area. The first measures about 0.8 m in diameter (Locus:268930:082), and has been cut down to the bedrock damaging the western wall of Room 34, Locus:268930:059, already mentioned above (**§D13.1**, **Figs. D34, D36**). The fill in this pit (Locus:268930:083) contained plastic objects and biscuit packages from Saddam Hussein's era. The second pit (LGR:0128) cuts into the

pyrotechnical installation east of Room 57 (**§D12**).

D16. The western part of Gird-i Bazar and its modern occupation

Peter Bartl

The aim of the 2017 excavation in the western part of Gird-i Bazar was to expand the excavation to the south and west up to the metal fence surrounding the chicken farm (**Figs. D1, D19**), so as to gather more information about Buildings I and H, already partially excavated in 2015⁷⁰, and find out whether they were related to further architectural units. Details of this work can be found below (**§D17-23**).

In this section, we will discuss the modern occupation of this area of the excavations. The topsoil LGR:0126, covering the western part of Gird-i Bazar, preserved the top of the ancient walls and had an average thickness of 20 cm. It contained a large amount of modern material. In several areas the archaeological features are directly beneath the modern surface resulting in a certain degree of distortion from ploughing or bulldozing. This is particularly the case in the southwestern part of the excavation area that is closest to the chicken farm. A few archaeological features could be identified that can be clearly be linked to modern activities in this part of the site. In particular, two post holes (cut: Locus:267930:039 / fill: Locus:267930:040 and cut: Locus:267930:041 / fill: Locus:267930:042) were excavated that cut into the Iron Age levels but could have been used for modern (possibly nomadic) tents. Their construction technique implied the use

of plastic wrapped around the base of the wooden poles, to prevent them from rotting. This evidence for a modern occupation at Gird-i Bazar may be related to that found in the eastern part of the site, in particular in Outdoor Area 7 and Courtyard 2, where evidence for a modern occupation predating the construction of the chicken farm was found and clearly dated thanks to evidence provided by coins (**§D4.2**).

⁷⁰ Bartl 2016, 74-75.



Fig. D34: View from south of the portion of Alley 12 excavated in 2017, with the modern rounded pit (Locus:268930:082) cutting its floor (in the middle). The alley divides Buildings D and O to the right from Buildings N and H to the left. Photo by Andrea Squitieri.

D17. Building H

Peter Bartl

Building H extends west of Alley 12 and south of Alley 13 (Figs. D19, D37). After the results of the 2015 excavations, Building H was considered to be composed of a single room (called Room 17⁷¹) separated by a double wall from Building I, neighbouring it to the west, and connected to Alley 12 to the east by means of a passage located in the room's NE corner. This year's investigations have revealed another room south of Room 17: Room 47. These two rooms, however, do not seem to be connected by a passage.

D17.1 Room 47

Room 47 (Figs. D37, D38) is bounded by wall LGR:0276 to the north, LGR:0277 to the east, Locus:267930:005 to

the south, and Locus:267930:004 to the west. The walls are made of two rows of rounded cobbles and are preserved to a height of three courses in the east and one course in the west. The walls are resting on a construction fill rich in pebbles (LGR:0260) resting on the virgin soil (LGR:0261).

The floor of the room is made of beaten earth (LGR:0259) and it abuts a stone installation (possibly a bench), Locus:267930:007, running along the southern wall, as well as another small stone installation, Locus:267930:008, located in the NW corner of the room. No item, apart from pottery, was found on the floor. Above the floor, the fill (LGR:0258), a hard compacted, light-brownish, and extremely homogeneous silty soil, accumulated during the Post-Occupation Period. Room 47 is separated from Room 17 to the north by wall LGR:0276; no entrance has been found that would connect these two rooms, nor has an entrance to Room 47 been found at all. Room 47's function is, therefore, not clear.

⁷¹ Bartl 2016, 74.



D18. Alley 13

Peter Bartl

Alley 13 runs roughly in an E-W direction, separating Buildings E, H, and I from Buildings F and G to the north (Figs. D19, D37, D54: section F). It is about 26 m long and was partially excavated in 2015 and 2016⁷². During the 2017 field season, the excavation of the alley was continued west by about 6.7 m, where it was noted that the alley slightly bends southward after the NW corner of Building I. The width of the alley also increases at this point, going from 1.5 m to 1.85 m.

The alley slopes slightly down towards the west, with the bottom elevation of the lowest floor (LGR:0100) of 545.02 m a. s. l. at the western edge and about 545.35 m a. s. l. in the central-east part of the alley. This slope of about 35 cm is enough to drain off water that was funnelled into the alley from the surrounding buildings, and in particular from the two drains, one coming from the north and from the south, found in 2016⁷³.

⁷² Bartl 2016, 73-74; Hashemi/Egbers 2017, 95-96.

⁷³ Hashemi/Egbers 2017, 95-96.

Fig. D35: Orthophoto showing the Sasanian pebble floor (LGR:0155). Prepared by Andrea Squitieri.



Fig. D36: The modern pit (Locus:268930:082), cutting through the floor of Alley 12 and damaging part of the western wall of Room 34. Note the bedrock made of conglomerate at the bottom of the pit. Photo by F. Janoscha Kreppner.

As in previous campaigns, an accumulation of walking surfaces was found during the excavation of the alley, between the younger and the older floors. In order to reach virgin ground more quickly, the alley was divided into a northern and southern half, the latter of which was exca-



Fig. D37: Orthophoto of Buildings H and I. Prepared by Andrea Squitieri.



Fig. D38: Building H, Room 47. Note the beaten earth floor (LGR:0259) in the southern part of the room, and the construction fill in the northern part (LGR:0260). Photo by Peter Bartl.

Fig. D39: Alley 13 in the foreground, with its northern half not excavated and the southern half excavated by 1×1 m squares. South of the alley, Room 46. Photo by Peter Bartl.



vated in 1 x 1 m squares, three of which extended down to the virgin soil LGR:0209 (**Fig. D39**). The virgin soil is the same whitish soil with very small pebbles that has been encountered underneath the architecture in almost all areas of the site.

The oldest walking surface, LGR:0100, is made of beaten earth containing small pebbles, a few abraded sherds, and animal bones that have been trodden into the surface; it represents the first phase of occupation. This surface is followed by accumulations of walking horizons that are barely distinguishable from each other, labelled LGR:0098. The succession of deposits and walking horizons that have accumulated in the alley above the virgin soil display a U-shaped section, meaning that they slope upwards laterally, towards the bordering walls. This is a characteristic that has already been observed in previous campaigns elsewhere in this alley. The youngest walking surface LGR:0088 can be identified right on top of this accumulation and is marked by a few sherds lying flat

upon it, with pebbles trodden into it. Above LGR:0088, a layer of debris was found (LGR:0119), a result of decaying processes from the buildings bordering the alley; this layer includes evenly scattered pieces of burnt mud and plaster.

D19. Building I

Peter Bartl

Building I extends west of Building H (**Figs. D19, D37**). A small portion of the southeastern corner of this building had already been excavated in 2015⁷⁴. This year the excavation exposed Room 46, Courtyard 18⁷⁵, and Rooms 48 and 49 as far as Alley 50 which connects to this build-

⁷⁴ Bartl 2016, 75.

⁷⁵ In 2015 labelled "Room 18".

ing. Building I is bounded by Alley 13 in the north, Alley 12 in the east, Alley 50 and Outdoor Area 53 in the south. The question arises whether Building I constituted a single unit with Building H. No connection between the two structures could be observed; and a distinct change in orientation along the southern face of Alley 13, that is between Buildings I and H, suggests that the two should be considered to be separate units.

D19.1 Room 46

Room 46 (**Fig. D37, D40, D54: sections E, F**) is located in the northern part of Building I, and it is 6.6 m long and 2.65 m wide. It is surrounded by walls built with tightly-aligned, rounded cobblestones (average size of 15-25 cm), bonded with a dark brown soil matrix that can barely be distinguished from the surrounding soil. The walls are composed of two rows of stones that are placed with their short sides on the exterior; larger stones are placed on the edges, with occasional small stones filling any gaps in the middle, resulting in a total wall width of about 60 cm. The southern wall of the room, Locus:267931:053, binds to the wall to the east, Locus:267931:054, and forms an L shape. The same seems to apply to the southwestern and western walls Locus:266931:028 and Locus:266931:003, both in binding together and forming L-shapes; the implementation of this kind of construction technique has been observed in other buildings at the site as well. The northern wall of the room (LGR:0220), is divided by a doorway with a threshold (LGR:0215). Only the northeastern corner of this wall has been excavated, where it abuts eastern wall Locus:267931:054, therefore it cannot be ascertained whether this wall also employs the particular L-shape construction technique mentioned above. The northwestern corner of this wall has not been exposed because it lies beyond the metal fence surrounding the chicken farm. All the walls rest upon a construction layer (LGR:0248) that lies on the virgin soil (LGR:0249).

Room 46 can be accessed from the northern Alley 13 by the aforementioned doorway (LGR:0215), which gives access to the western half of the room. This entrance has a well-preserved, stepped threshold formed from two large rounded boulders, flanked by smaller stones, protecting the door frame sides (**Fig. D40**). On the inside of the doorway, on the west, a small projection (Locus:266931:026) extending out of the wall can also be associated with the door.

A second doorway can be located in the southern wall of the room, east of the point where the drain (see below) goes under the wall. This area is quite disturbed, but the presence of a door-socket and some large stone slabs suggests the existence of some sort of passageway.



Fig. D40: Building I, Room 46, with the younger of the two floors exposed in every second square (higher) and the virgin soil in every other (lower). In the foreground, the installation Locus:267931:074; in the background, the younger of two drains (LGR:0246) is visible; in the top right, the entrance (LGR:0215) is also visible. Photo by Peter Bartl.

Another interesting feature of Room 46, often observed elsewhere in Gird-i Bazar, is the presence of a corner reinforcement. In the southwestern corner of Room 46, the southern wall Locus:266931:028 had been reinforced on the interior by the addition of two rows of stones. All four rows were interconnected by the transversal placement of particularly long stones. This indicates that this reinforcement was not added later, but was part of the original plan. This structural feature may have been connected to the presence of a staircase or a bench.

Room 46's older floor (LGR:0247) is made of beaten earth and it abuts a drain which (Locus:266931:025) crossed the room on the western side (**Fig. D41**). This drain starts at an inlet located in the western half of the southern room's wall, reaching Alley 13 on the opposite side of the room, through its northwestern corner. This drain was partly dug into the virgin soil underneath. It is



Fig. D41: Western part of Room 46 where the two drains are visible. The excavated drain to the right is the older one (Locus:266931:025). To its left, the younger drain (LGR:0246) is visible with its capstones. Photo by Peter Bartl.

lined with two courses of rounded river cobbles on either side. The capping stones for the drain were not preserved as they had been reused at a later date for a new drain (see below).

During the initial phase of room-use, several rows of stones were laid out in the eastern part of the room along the wall, thus forming an installation (Locus:267931:074, **Fig. D40**) enclosing two compartments: a central one filled with light grey-brown soil (Locus:267931:083), and a smaller one to the north-east filled with light grey-brown soil (Locus:267931:084). The function of this installation is still unclear and the excavation of both compartments has yielded no clues to its original purpose. A hint may possibly be found on one of the stones used to build the installation, which has been smoothed and shows a large number of pick-marks on its surface, indicating that it might have been part of a work-bench of some sort. Moreover, an upside-down, pivoted stone belonging to a potter's wheel was found right next to this installation (§G2.4,

no. 53; Fig. G28). This may suggest that this room was the location of the pottery workshop (or at least one of them) in this area. That this installation remained in use throughout the duration of the room's use can be deduced from the fact that the stones of the installation abutted against the walking surfaces that accumulated above the older floor for about 10-15 cm; this accumulation is called LGR:0245.

The highest level of these walking accumulations represents the youngest beaten earth floor of the room, LGR:0244. This floor abuts the younger phase of the drain in the western part of the room. The most recent drain, LGR:0246, re-used some of the stone-lining from the original drain. This new drain extended towards the east, in a new orientation that is slightly more curved than the older drain. It remains unclear why the old drain was abandoned and a new one was built. It can be proposed, however, that the rising accumulation of surfaces in Alley 13, into which the drain empties out, necessitated this renovation, and the adaptation of the new drain outlet to Alley 13's rising walking level.

The latest phase of use of Room 46 before abandonment is represented by a thin deposit (LGR:0238), containing charcoal pieces and traces of burnt and fragmented pottery that had been trodden into the underlying floor. This thin deposit is superimposed by another layer of debris (LGR:0211) that contained the largest pottery inventory discovered in this room, including several fragmented vessels and one stone bowl rim (§G2.4, **no. 52**). It should be noted that Room 46 has yielded, together with the adjacent Courtyard 18, a high number of pottery sherds and objects, especially stone tools (§G2.4).

During the non-use phase for this room, a whitish, silty soil, Locus:267931:073, accumulated around the installation (Locus:267931:074) and a greyish, hard compacted soil (LGR:0210), accumulated in the rest of the room. Both of these were covered by topsoil (LGR:0126).

D19.2 Courtyard 18

A space of roughly equal size (6.8×3.15 m), equipped with an elaborate stone and baked brick pavement, was excavated to the south of Room 46 (**Figs. D37, D54: sections E, F**). This type of pavement suggests that this was an open space because the other courtyards in Gird-i Bazar (i.e., Courtyards 11, 21 and 27) also show a similar arrangement in that they are completely or at least partially equipped with a stone floor. Hence, this space was named Courtyard 18. Courtyard 18's pavement more closely resembles those of Courtyards 27 and 21 (made with medium size cobbles), although, unlike in the other

two courtyards, Courtyard 18 is also partially paved with baked bricks (**Fig. D42**).

The stone walls bounding this courtyard are preserved to a height of one or two courses and feature the usual construction technique. The eastern wall (LGR:0275) is built against the corner of Room 46 to the north and abuts another L-shaped wall junction (consisting of wall Locus:267930:006 and wall Locus:267930:004) to the south. The former runs for 6.9 m from the eastern end of the courtyard to the edge of the excavation area on the west, thus separating Courtyard 18 from the open spaces to the south. Along this wall, in the western half of the courtyard, a stone bench with a height of ca. 70 cm was excavated (Locus:267930:020). Its upper surface is not preserved, with the exception of two large stones that seem to have been part of the original upper surface. Right next to this bench, to the east, the shoulder and rim of a large closed shape storage vessel was found resting upon a small hole that was filled with tiny river pebbles of less than 1 cm in diameter. The original purpose of this

installation with its associated vessel is not clear; it can be speculated that it might have been used for storage.

The western part of the courtyard has been heavily disturbed by modern building activities, clouding our picture of the layout of the structural elements. Additionally, the western wall has mostly been destroyed. It can be said with some certainty that the wall coming from the north LGR:0279 (and built against the western wall of Room 46 on the outside, thus forming a double wall) would be a good candidate for the western boundary of Courtyard 18, if it did not end abruptly after about 4 m from north, where a door-socket was found still in place (Locus:266930:004).

As mentioned above, the interior of the courtyard is paved (LGR:0219). It consists of rounded river cobbles of different shapes and sizes. The cobbles have an average diameter of 20-30 cm, with a few larger exceptions that reach a length of up to 40 cm. Small pebbles were also found filling the gaps between the larger stones. The stones do not have a particularly flat surface but are



Fig. D42: Courtyard 18 with its stone pavement and brick pavement visible in the foreground. The semicircular installation Locus:267931:095 is also visible to the right. Photo by Peter Bartl.



Fig. D43: Detail of the brick pavement of Courtyard 18 (LGR:0219). Photo by Peter Bartl.

often rounded or uneven, forming a quite bumpy surface. In the northwestern corner of the pavement, the floor has been paved with eleven baked bricks. These bricks oscillate between 38 cm and 48 cm, with an average length of 43 cm. The average width is 25 cm with some variability between 18 cm and 30 cm. It is interesting to note that the bricks seem to have been made without a mould as each brick has its own proportions. The sides are often slightly convex. Along their edges, the upper surface forms a slight protruding ridge a few millimetres height. This feature derives from the method of producing the bricks, that is, by compressing the edges for smoothing. Between the bricks, the narrow gaps were carefully filled with small flat stones (**Fig. D43**). The brick pavement slopes down towards a point in the western half of the northern wall (between Locus:267931:053 and Locus:266931:028), where the inlet of the drain (LGR:0246) that crosses Room 46 (see above) is found. This inlet is bounded by two stones that have been covered with a capstone. The fill, Locus:267931:100, was excavated from under the capstone. The area of the inlet inside the wall was covered by particularly thick stones that support the weight of the wall superstructure (**Fig. D44**). Just as the brick pavement was probably installed to improve its impermeability, attention was also given to the protection of the wall surrounding the inlet. Here, the brick pavement was slightly raised in order to prevent the water from causing damage to the base of the walls.

Finally, in the southwest portion of the courtyard, a small pebble floor is visible abutting wall Locus:267930:006.

Another feature exposed in Courtyard 18 is a circular pit located in the north-eastern corner (**Fig. D45**). It consists of a stone-lined pit about 60 cm in diameter and 35 cm deep, on the bottom of which a squared stone was found with a wide central cavity, 20 cm in diameter (Locus:267931:096) showing a very smooth surface (**Fig. D46**). The fill of this pit was a friable, dry, dark and brown soil



Fig. D44: Detail of the inlet of drain LGR:0246, with Room 46 in the background. Photo by Peter Bartl.



Fig. D45: The stone lined pit (Locus:267931:096) with a worked stone set in the bottom, enclosed by the semicircular installation (Locus:267931:095) in the northeastern corner of Courtyard 18. Photo by Peter Bartl.

containing charcoal (Locus:267931:098). Interestingly, this small pit is placed inside a semi-circular area delimited by large elongated stones placed on the pavement (Locus:267931:095) (**Figs. D42, D45**). This semicircular installation has a length of 2.3 m and extends from the northern wall of the courtyard by 1.5 m. Close to the wall the stones are larger. The floor inside this semicircular installation is Locus:267931:099. On its edge it is made of rounded, as well as flat, stones. Towards the walls and around the circular, stone-lined pit it is made of small pebbles alternated with beaten earth. On the western end of the semicircular installation, a stone projection (Locus:267931:061) was found, which was clearly part of the installation.

The initial interpretation of the stone lined pit Locus:267931:096 considered it part of a water pulling device, composed by a vertical beam placed inside the pit attached to a weighted horizontal beam pulling the water bucket from a well; a device very similar to a *shaduf*, the typical water pulling mechanism of the Middle East. This



Fig. D46: Detail of the worked stone inside the pit (Locus: 267931:096), lined with stones. The worked stone is set in the bottom of the pit and show a wide smooth cavity. Photo by Peter Bartl.

interpretation was based on the discovery in 2016 of a very similar pit with a squared stone placed in the bottom of it in Courtyard 21 of Building F, in very close proximity to the well of this courtyard⁷⁶. However, in the case of Locus:267931:096, no well was found in its vicinity to support such an interpretation. It is important to notice that both the 2016 and 2017 stone lined pits yielded fragments a closed shape vessel with handle (PPP 268932:012:006 and PPP 267931:098:002) sitting upside down in the depression of the squared stone placed in the bottom of the pits. Further analysis continues, in an effort to clarify the function of these two installations.

In the western end of the room the pavement changes to incorporate baked bricks and it slopes upwards towards a concentration of several stones protruding from the surface. This may indicate that another installation was situated here, which could be associated with a badly preserved pebble floor extending west of the stones (LGR:0218). The room layout, however, is not entirely clear here, as modern bulldozing mostly destroyed this area.

The deposit LGR:0233 that accumulated directly on the pavement of this room during the Abandonment Phase includes sherds from a large storage jar that must have been resting on or near the stone installation (Locus:267931:061) located in the middle of the room's northern wall. Also, several other fragmentary vessels and small fragmentary bowls were found clustered in the southwestern corner. A large flat bowl was found in the middle of the room. Above the baked bricks, the number of charcoal pieces and animal bones suggests the presence of food processing activities here. Thus, the general function of the room possibly

combined different activities, including food processing, possibly storage, and the use of liquids. This interpretation is supported by the inventory of objects from within the room, the elaborate pavement, and the numerous installations. Above LGR:0233, during the period of post-occupation, a hard compacted light brown silty soil LGR:0266 accumulated, which was covered by the topsoil LGR:0126.

D19.3 Room 48

Room 48 is situated southeast of Courtyard 18. It is bounded by walls Locus:267930:004, Locus:267930:006, and Locus:267930:015. It opens towards Outdoor Area 53 in the south (Fig. D37). This room features a pebble floor (Locus:267930:050) and two ovens (Locus:267930:034 and Locus:267930:035) set against its western wall Locus:267930:015 (Figs. D47, D48). The oven to the north has a diameter of about 55-60 cm. It has been preserved to a height of about 5-10 cm and must have been left unused for a long period, as no remains of ashes or charcoals have been found inside or around it. Attached to it, the southern oven has only been partly preserved. About three quarters of it were destroyed and several fragments from the wall of the dome-shaped structure were lying on the pebble floor. Originally, it must have been at least 75 cm in diameter.

Numerous baked clay objects lying on the pebbles were found in ovens' proximity. These may have been lids that covered the ovens' openings. Interestingly, the southern, larger oven was placed directly upon the pebble pavement, as can be deduced from the fact that the pebbles could be found underneath the whole structure. Under the northern, smaller oven, however, the pebble surface does not continue, suggesting that this was the original oven, to which the second was added later.



Fig D47: The two ovens (Locus:267930:034 and Locus:267930:035) set against the western wall of Room 48. Photo by Peter Bartl.



Fig. D48: Detail photo of the two ovens (Locus:267930:034 and Locus:267930:035) in Room 48. Photo by Peter Bartl.

On the floor, a compact fill Locus:267930:036 accumulated which included many structural fragments from the ovens, as well as large lumps of burnt clay. Above this, the fill Locus:267930:010 was excavated, very close to the modern surface, which resulted in the presence of modern intrusive material.

D19.4 Room 49

To the west of Room 48, and separated from it by a small stone wall (Locus:267930:015), stands Room 49 (**Figs. D37, D54: section F**). Room 49 is another open room bounded on the north by wall Locus:267930:006, and possibly by another wall to the west which (due to modern bulldozing) was not preserved. To the south, however, the room seems to be open to Outdoor Area 53, as was Room 48.

It is important to notice that wall Locus:267930:015 separating Rooms 48 and 49 rests upon the pebble floor which extends across both rooms (the aforementioned Locus:267930:050 in Room 48 and Locus:267930:027 in Room 49). This means that Rooms 48 and 49 were originally intended as a part of Outdoor Area 53, and at some point during the Main Occupation Period, the separating wall Locus:267930:015 was added, perhaps to support the two ovens described above.

Room 49 features a well (Locus:267930:021), located about 50 cm from the northern wall, lined by a stone structure that protects the well's opening and the upper part of its shaft (**Fig. D49**). The structural elements of the well comprised a cut (Locus:267930:045) with a diameter of about 0.9-1.0 m, dug directly in the virgin soil, and the aforementioned stone lining that covers the top 50-60 cm of the well shaft (Locus:267930:021). The construction technique used several courses of stones slightly narrowing down so that the shaft diameter at about 40 cm of



Fig. D49: The well of Room 49. Photo by Peter Bartl.

depth is about 0.5 m. The lining stones are of different sizes, between 15 cm and 35 cm wide, and they have been carefully laid out.

The excavation of the fill of the well led to some exciting discoveries. During the excavation of the first 40 cm of the fill, two layers of large stones with an average size of 20-25 cm were encountered (Locus:267930:044), covering and surrounding human remains (**Figs. D50, D51**). A minimum of three individuals could be distinguished, including a female adult aged 40-55 (Locus:267930:037), a still-born child (Locus:267930:043), and a female adult aged 24-35 (Locus:267930:051). The bones were not articulated, and many of them seem to have moved during the process of decomposition. A detailed description of the human remains is offered below (**§D19.5**). The bones were embedded in a fill still containing numerous large stones (Locus:267930:046), covered by dark brown, moist, firm soil (Locus:267930:022). Excavation of the well fill had to be stopped at a depth of 1.1 m, as it became impossible to excavate further down from the top of the well.

The hard layer deposited on the floor of Room 49, Locus:267930:026, was overlaid by a hard, dry, silty soil, Locus:267930:019, containing some modern objects coming from the recent activities. Above this, there is topsoil LGR:0126.

D19.5 Humans remains in the well of Room 49

Kathleen Downey

During the excavation of Room 49's well, skeletal elements belonging to three separate individuals were identified in the fill of the well. At first, the workmen noticed small fragments of bone appearing under a layer of stones that they were removing. After a short time cleaning it

became clear that the acetabulum of a right os coxa was in the northwestern section of the well. More stones were carefully removed, and at the northwestern edge of the well a left adult femur was uncovered with its distal end sticking up out of the ground.

To the north, what can only be called shadows of ribs were found. The soil matrix here was hard and had deteriorated the strength of the cortical bone, especially in the thin parts of the skeleton. The majority of the bones were quite fragile. It became obvious that the bones would not be completely articulated and so the decision was made to excavate slowly, in layers of only a few centimetres at a time. All finds were documented with descriptions, pictures, and orthophotos whenever possible. The right os coxa was further investigated, revealing the right side of the pelvic inlet. The morphology was open, possibly indicating a female. Unfortunately, only a few small portions of the iliac blade survived excavation. The cranium was found to the southeast. It was partially fractured on the left parietal and temporal lobe while removing the stones that lay almost directly on top of it (**Fig. D51**). Further excavation revealed a more vertical forehead and a smaller mastoid process, supporting the observational assessment of the right os coxa. Some small ribs also became visible in the north. Originally these were assumed to have belonged to animals, but as more was uncovered their shape and size led to their identification as juvenile human. Lastly, for this layer, a long bone was found running north to south, slightly east of the centre of the well. This bone was heavily fractured and distorted, but was later identified as a right tibia. It is possible that some peri-mortem trauma occurred, which caused this deformation.

In the next layer, the shadow of vertebrae were found running in the southern section from east to west. The shadow of a left os coxa was also uncovered, too poorly preserved to remove from the soil. It is possible that this individual was laid in the well with the head in the east, facing north, and with legs flexed to the front (N) of the thorax. Some significant movement of certain elements must have occurred, possibly the result of stones being dropped on top of the body, or the movement of elements in watery soil after the onset of decay. In the next layer, more of the juvenile individual was uncovered, showing



Fig. D50: Humans remains in the well of Room 49. Photo by Peter Bartl.



Fig. D51: Cranium of Individual 3 (female aged 24-35) from the well in Room 49. Photo by Peter Bartl.

the right ilia to the west of the ribs and fragments of the cranium to the east to southeast. The juvenile individual appears to have been mostly articulated, laying on its left side oriented east to west. The head was in the east and was most likely facing south. A few small hand bones were found anterior (S) to the pelvis. The juvenile's two femora were stretched south and southwest at almost 90° from the axial skeleton, and a portion of the distal radius extended towards the distal portion of one of the femora. One juvenile lower leg was found beneath the westernmost juvenile femur. All of this was located north of the fractured adult tibia.

Those bones were removed and a new layer started. An adult left ulna was found running E-W when the juvenile tibia and fibula were removed. The other set of juvenile lower leg bones was found at the western end of the ulna. More vertebrae were found in the central area. One grouping appeared to have four lower thoracic vertebrae articulated together with their respective ribs. To the east of the femur were the remains of the left scapula and a few fragmented carpals, metacarpals, and finger phalanges. The juvenile's feet were found in the area north of its body, which is not near where the legs were found. It is possible that the juvenile was placed in the well with its feet tucked underneath its bottom. The legs may also have moved later, after deposition. After that layer was removed, fragments of the juvenile's arm bones were found just north of the ribs. The left arm was probably lying below the body. A left adult radius ran from the centre near the proximal ulna to the north, and an adult humerus was found just north of the head running southwest to northeast with the proximal end near where the chin would have been. The mandible was upside down, just in front of the face.

All skeletal elements were cleared away, and another layer of stones was found. Later, when workmen removed the next layer of stone another distal femur, scapula, and mandible were uncovered. The femur disappeared almost straight down into the well, angling slightly to the east. Because it was a right femur, it is possible that it actually belonged to the first individual. The scapula poses the same question as it is also from the right side of the body. However, the mandible indicates that the well contains a third individual and a second adult individual. In the attempt to excavate the right femur, more bones were found. Another articulated left humerus was found with the left radius and ulna slightly to the west and below the cranium belonging to Individual 1. It was decided that there was insufficient time to continue excavating properly through the layers, and, once the second femur was removed for sampling, the well was refilled.

Summing up, the minimum number of individuals (MNI) is three. Individual 1 is a female, aged 40-55+ years

of age. Individual 2 is a 36-38 week-old fetus. Individual 3 is a female, aged 24-35. Excavation of the burials in the well was not completed due to the physical constraints on our ability to excavate as well as time constraints. This internment of multiple of individuals represents many possibilities, but needs to be completely excavated to reconstruct the event or events that led to the deposition of these people. It is important to determine if this was intended as a traditional grave that utilised a convenient feature, or if some type of ritual behaviour is present.

The ¹⁴C analysis conducted on one bone (see **Table D1** and discussion in §**D2.1**) has yielded the calibrated date 748-409 BC, which indicates that these could be the first Neo-Assyrian period bodies found at this site. These individuals could give direct insight into the health, life, and mobility of the people from the Neo-Assyrian time period for this area.

D20. Outdoor Area 54

Peter Bartl

Outdoor Area 54 (**Figs. D34, D54: section E**) is located in the very west of the excavation area. Most likely it is another open space, which has been badly preserved due to the modern agricultural activities that have almost destroyed or disturbed all subjacent archaeological evidence. This area was probably an outdoor area because no traces of walls have been found. To the east, a door socket was found in situ (Locus:266930:004) indicating a door connecting this area to Courtyard 18. The virgin soil LGR:0289 was used as floor. This was covered by light greyish-brown, clayey soil, LGR:0280, below the dry, hard, grey-brown soil called LGR:0281.

D21. Outdoor Area 53

Peter Bartl

Outdoor Area 53 (**Fig. D37**) is located south of Rooms 48 and 49, and it is bordered to the south by the excavation limit, therefore it was not possible to investigate the full area. This outdoor area is covered with a pebble floor (Locus:267930:029) which continues north into the Rooms 48 and 49. Unfortunately, the layer right on the floor (Locus:267930:028) as well as the fill above it (Locus:267930:024) were both partly contaminated by intrusive modern material due to bulldozing which cut into this part of the site during the construction of the chicken farm.

D22. Alley 50

Peter Bartl

West of Outdoor Area 54 lies Alley 50 (**Figs. D37, D54: section D**), which is bounded by the walls Locus:267930:005 to the north and LGR:0225 to the south. This alley runs roughly east-west, parallel to the northern Alley 13, and meets perpendicularly with Alley 12 to the west (**Fig. D19**). The oldest of a series of walking surfaces (Locus:267930:033) was identified on the virgin soil. This was superimposed by an accumulation of surfaces (Locus:267930:032) in which a row of stones (Locus:267930:030), that might have had a water management function, was found (**Fig. D52**). The youngest floor, a beaten earth surface, was labelled LGR:0267, and it is superimposed by a dark brown, dry-hard silty soil (LGR:0229) that contained numerous sherds. Above this, a grey-brown, hard, silty, clayey soil (LGR:0217) covers the lowest two courses of stones preserved of the walls on either side of the alley.



Fig. D52: Alley 50 with the row of stones (Locus:267930:030) visible on the right. Photo by Peter Bartl.

D23. Building N

Peter Bartl, Janoscha Kreppner & Andrea Squitieri

Building N is separated from Buildings H and I by Alley 50 (**Figs. D19, D37**). It is located in the southernmost part of the excavated area, where the bulldozing activities for the construction of the chicken farm destroyed and damaged most of the archaeological features. Only Room 51 has been identified as belonging to this building.

D23.1 Room 51

Room 51 (**Figs. D37, D54: section D**) is 3 m wide, its southern part is not preserved beyond a length of 6 m from the northern wall of the room. The boundary walls are LGR:0225 to the north, Locus:267930:025 to the west and Locus:268930:060 to the east. They all connect to each other, indicating they were built at the same time. No access to the room has been identified so far. An entrance was likely located to the south, in the unpreserved area.

Room 51 has a beaten earth floor, LGR:0282, containing some scattered pebbles. This floor butts against the boundary walls. A dark brown, compact, clayey soil, LGR:0216, with smashed pottery and stones accumulated on the floor marks the end of the use of the room (**Fig. D53**). This deposit was then overlaid with topsoil LGR:0126.



Fig. D53: Pottery and stones lying on the floor of Room 51. Photo by Andrea Squitieri.

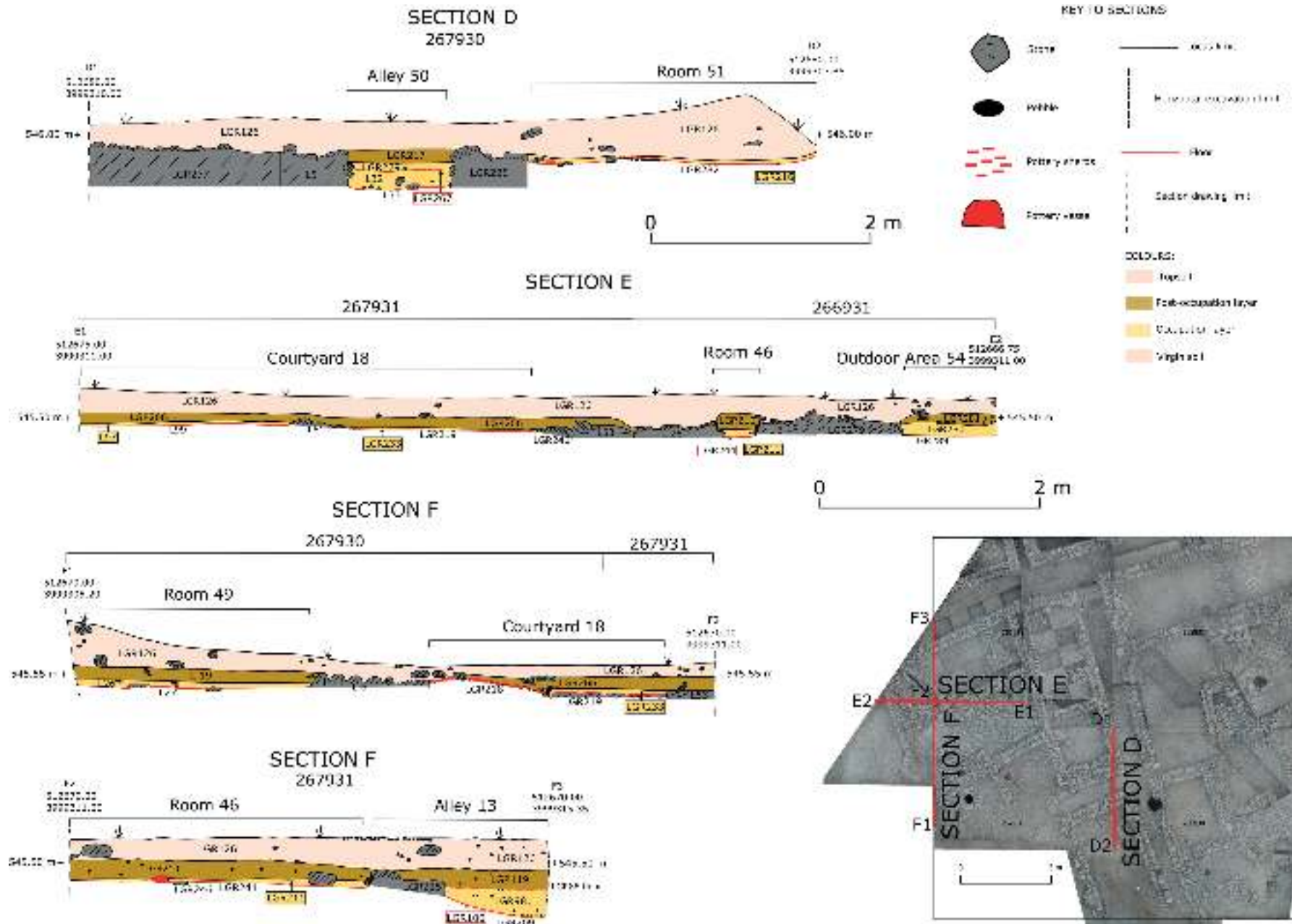


Fig. D54: Sections D, E and F. Prepared by Andrea Squitieri, based on drawings by Peter Bartl.

D24. Gird-i Bazar 2015-2017: some preliminary conclusions

F. Janoscha Kreppner

Our 2015-2017 salvage excavations in the Bora Plain focused on the area damaged by the construction of the modern chicken farm in Gird-i Bazar. Here, we uncovered an area of 1070 m². The application of a delicate stratigraphic excavation method and the use of the flotation machine resulted in a high amount of available data, which allows precise dating as well as a nuanced and comparative evaluation of the findings in relation to individual buildings and rooms. The excavation of the early first millennium BC architecture in the fenced off area of the chicken farm can be considered largely completed after the three excavation campaigns in 2015-2017. It was possible to obtain a clear picture of the organisation, structure and function of the small settlement built around a central place.

Only a few modifications in the stratigraphy of the previously excavated areas resulted from the 2017 investigations. We have now established that there are no re-use occupation periods in Building B, Room 6 (§D6) and Building A, Courtyard 2, (§D4.2). Because of the connections now exposed, the floors can be assigned to the main usage period. In the stratigraphic table (Table D2), small changes were made also for Buildings H and I within the main occupation period, the results of our improved understanding due to their continued excavation (§D17, §D19).

The archaeological record of Gird-i Bazar reveals a small Early Iron Age settlement in which buildings were arranged around a central open square. All buildings at Gird-i Bazar were erected on the virgin soil. All floors of the rooms, courtyards and alleyways were connected with each other through the doorways. It is therefore clear that the settlement was inhabited during one main occupation phase, during which only small changes to the buildings can be observed, and only in some places. For the time being, we assume that this part of the Dinka Settlement Complex was destroyed when the Assyrian control over the Peshdar Plain was established in the second half of the ninth century BC (for the preliminary chronological assessment see already §D2.1).

The buildings of Gird-i Bazar are organised according to a general pattern but differ in detail. The largest room usually has few or no installations and few finds including ceramics: Building A, Room 3 (Fig. D8); Building E, Room 19 (Figs. D19, D20); Building F, Room 15 (Figs. D19, D37); and Building H, Room 17 (Fig. D37). This may indicate that these rooms were used as living and reception rooms. The rooms were directly accessed from the alleyways that separate the buildings of Gird-i Bazar from each other. They are usually connected to the building's courtyard area where wells and bread baking ovens provided the comforts of everyday life.

Finds and installations indicate that the smaller rooms served as production areas and workshops. The presence of kilns in Outdoor Area 8 and Room 31 as well as the installations and finds in Building I, especially the discovery of the pivot of a slow rotating potter's wheel (§G2.4, no. 53), demonstrate that pottery was locally produced. Different types of ovens and kilns indicate the production of other products as well. The discovery of iron slags (§G2) suggests that also metal production and/or processing took place at Gird-i Bazar.

The well in Outdoor Area 7 (Fig. D8) is much bigger than the wells in the inner courtyards of the houses in the west. It is open to the public on the large square. It can therefore be assumed that this well was a collectively used source of water, which may also have served for particularly water-intensive production processes.

A peculiarity of the architecture of Gird-i Bazar is the presence of many double walls. Some are the result of changes to the buildings in the course of time (Buildings E/D). Others, however, cannot be explained in this way and point to a particular, local building style (Buildings H/I).

Now that the excavations at Gird-i Bazar have been completed, we look forward to analysing the architecture of the entire excavated area. We also intend to carry out activity area analyses, using the results gained from archaeobotany, archaeozoology and the analysis of small finds and ceramics.