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A Village on the Outskirts of the Ottoman Empire: Archaeological Research at Tell Zeyd

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Abstract This paper presents the most recent results from the research programme *Zeyd Archaeological Project*; launched in 2022, this project aims at exploring economy and society in the hinterland of the historical province of Mosul in the long Islamic period focusing on a highly representative site of the area, Tell Zeyd. Three seasons of archaeological research at the site have made it possible to put together a rich assemblage of data that illustrates settlement patterns and production at the village in the Ottoman period. This paper focuses on the evidence that emerged from the 2024 excavations, and, more specifically, on the occupation phases that can be ascribed to the Early Ottoman period (Period E), datable to around the sixteenth century.

Keywords Ottoman archaeology. Ottoman rural settlement. Ottoman pottery production. Ottoman economy. Ottoman history.

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1 Zeyd Archaeological Project

Tell Zeyd is a site on the high eastern plains of the River Tigris, in the autonomous Kurdistan Region in northern Iraq **[fig. 1]**.

Figure 1 General map of northern Iraq, with the location of Tell Zeyd and Mosul. Google Earth.

The site comprises a tell and a lower mound, with a wadi flowing through its eastern outskirts; it is now surrounded by cultivated fields **[fig. 2]** and the closest settlement is the modern village of Marani, 2.3 km to the North, though two farms are located nearby.

The site was surveyed in the framework of the 'Land of Nineveh Archaeological Project' (LoNAP: Morandi Bonacossi, Iamoni 2015), and surface finds provided evidence of continuous occupation from the Late Chalcolithic until the Late Ottoman period (Morandi Bonacossi, Iamoni 2015; Morandi Bonacossi, Tonghini forthcoming). No structural remains are visible today, with the exception of those of a watermill between the wadi and the lower part of the site **[fig. 3]**; this structure is currently being studied to establish its chronology. The remains of another watermill are preserved on the opposite side of the wadi.

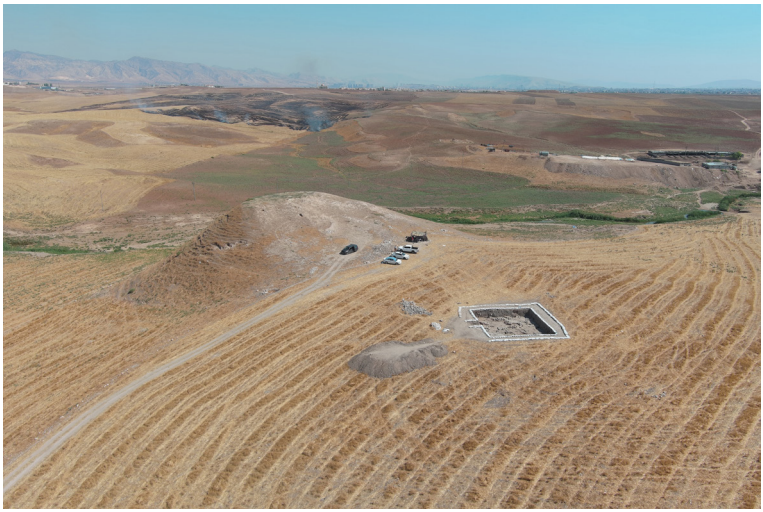

Figure 2 Tell Zeyd: general view, with the excavation area A.1; from the North-West. © ZAP

Figure 3 The watermill during excavations; from the East. © ZAP

Tell Zeyd is located in an area that played a primary role in agricultural production over several centuries. As to the Islamic period, the written texts state that the Umayyad Caliphs, with the establishment of the district of Mosul, were already making major

investments in the agriculture of the area at the end of the seventh century (Robinson 2000, 36-40 and 77-86), thus resuming its role as the 'granary of the empire' that characterised various phases of its long history. This role became even more crucial at the time of the Abbasid Caliphs, with the urban development of Iraq and the growth of its population.[1] The various waves of invasion from the East that affected these territories between the thirteenth and fifteenth centuries may have resulted in a period of settlement decline and disruption of agricultural production (Ashtor 1976). In fact, texts mention various activities carried out by the Ottoman power in the sixteenth century to regenerate agricultural productivity, such as the reorganisation of land ownership and the restoration of abandoned watermills.[2] Despite its significance for the understanding of settlement patterns, agricultural economy and material culture of the long Islamic period, this area has been overlooked by archaeological research. Only in recent decades, thanks to several multi-period surveys, has its potential for understanding the complex history of northern Iraq emerged (Kopanias, MacGuinnis 2016). In the context of one of these multi-period regional studies, the 'Land of Nineveh Archaeological Project' (LoNAP), a specific research programme was established in 2016 to investigate the agricultural hinterland of Mosul in the long Islamic period. After a first phase of analysis of settlement, landscape and material culture based on the evidence gathered by LoNAP (Morandi Bonacossi, Tonghini forthcoming), and a specific study focused on watermills,[3] research strategy led to the selection of a representative site to be further explored in-depth as an observatory on the rural world of the Mosul area in the long Islamic period.

In consideration of its location, its continuous occupation pattern and its role in the agricultural production of the area, as testified by the presence of a watermill, Tell Zeyd seemed to constitute the ideal sample.

Three field seasons of excavations have been carried out so far. Stratigraphic excavation has made it possible to gather a rich documentation that sheds light on occupation modes, crops and farming, local production activities, and material culture. Evidence explored so far can be associated with the Ottoman period, and can be ascribed to a period between the sixteenth and early twentieth centuries.

The area selected for the excavation is located at the margins of the village, where surface finds suggested that production activities

1 Robinson 2000; Heidemann 2011; Kennedy 2011; Tonghini 2022.

2 Khoury 1997; Tonghini, Usta 2021; Usta, Tonghini 2023; Usta forthcoming.

3 Tonghini, Usta 2021; Usta, Tonghini 2023; Tonghini 2022.

may have taken place **[fig. 4; see part 2]**. Indeed, evidence for the production of clay pipes for smoking had already come to light in the first year of excavation, consisting especially in wasters and row material (Tonghini et al. 2022). Together with the consumption of coffee, the practice of smoking, since its introduction at the end of the sixteenth century, constituted a true social revolution that deeply modified habits, practices and the economy. Remains of clay pipes are often found on the surface of sites in the Kurdistan region and throughout the territories of the Ottoman empire. However, the cycle of manufacturing and distribution of clay pipes, as well as the specific chronology of the various types, is still poorly understood, especially in this area. Data from well-stratified archaeological contexts are indeed scarce. The finds from Tell Zeyd are providing evidence of the types of pipes in use in the region, organised in a chronological sequence thanks to stratigraphy and data on the manufacturing process.[4]

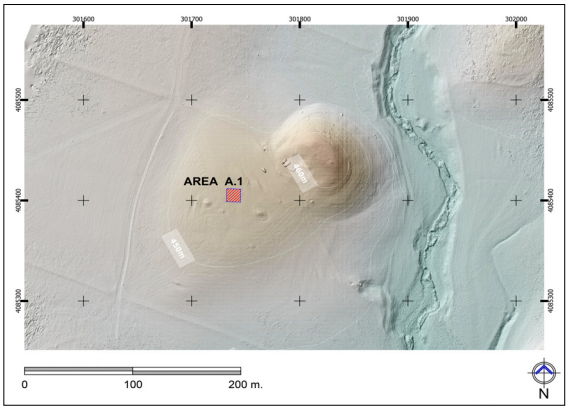

Figure 4
DSM of the site, with location of Area 1 excavation; UAV and topographic survey and data processing by Turin Polytechnic (Lingua et al. 2023), up-dated E. Reali. © ZAP

Study of the pottery is leading to the establishment of a typology, organised chronologically thanks to stratigraphy; for the first time, it will be possible not only to achieve a better understanding of the pottery in use in the Late Islamic period, i.e. the period that corresponds to the Ottoman rule of the area, but also to isolate three major phases within it: Early Ottoman (around the sixteenth

4 A first overview of the finds is offered in Tonghini et al. 2022. J. Boschini is currently studying the whole assemblage of clay pipes retrieved at Tell Zeyd for his PhD thesis at Ca' Foscari University of Venice. Continuation of the excavations at Tell Zeyd will hopefully provide further data in the future, with the exploration of those areas where geo-magnetic surveying has identified traces of firing activity. The geomagnetic survey of Tell Zeyd was carried out by R. Deiana (University of Padua), together with M. Censini, and M. Pavoni (University of Padua) in 2024.

century), Middle Ottoman (seventeenth-eighteenth centuries) and Late Ottoman (nineteenth-early twentieth centuries).[5] An overview of the pottery of the Early Ottoman period is offered below.

Ongoing analysis of the archaeobotanical remains is shedding light on the floral environment, crops and the agricultural economy.[6] This study is a major component of the project, as a fundamental research question specifically aims to use material evidence to address the well-known theory of the Early Islamic 'Green Revolution' (Decker 2009; Watson 1981; 1983).

Ongoing analysis of the archaeo-zoological remains is illustrating the faunal environment and making it possible to identify farming strategies and diet practices.[7]

Historical research is also being carried out to supplement the archaeological data. This takes the written sources into account, but also uses oral interviews to shed light on the most recent periods.[8] So far, the documentation collected specifically concerns the Ottoman period. Although data is extremely limited, the picture that emerges from the texts is that of a marginal area, thinly populated and frequented by nomadic tribes (Usta forthcoming); in this respect, the picture derived from archaeology is much richer and more complex (Part 2 below; Tonghini et al. 2022; Tonghini et al. forthcoming).

Since 2023, anthropological research is also being conducted to document traditional agricultural practices and production processes, and to gain a better understanding of the composition of today's society and its tribal heritage in the area.[9]

As to the toponym, a *TilZeyt* that may correspond to the site under study appears in the *tahrir defters* of Diyarbekir of H 937/1530-31 (Usta forthcoming); it is not possible at present to establish if this name derives from an Arabic toponym (i.e. the tell of Zeyd, for example) or if it represents the corruption of an ancient toponym that

5 A first overview of the pottery in use in the area in the Late and Middle Ottoman periods can be found in Tonghini et al. forthcoming.

6 R. Dal Martello (Ca' Foscari University of Venice) studied the archaeobotanical remains from the 2023 season, see Dal Martello in Tonghini et al. forthcoming. The remains from the 2022 season have been analysed by M. Jaquet for her MA thesis (2023-24), under the supervision of C. Pagnoux (CNRS, Musée National d'Histoire Naturelle) and C. Douché (University of Oxford): *Étude carpologique du site de Tell Zeyd*. A publication is currently in preparation. Archaeobotanical studies of the Tell Zeyd finds will continue thanks to cooperation that is being established between these institutions.

7 C. Minniti and Y. Naime, Sapienza University of Rome, are conducting the study of the faunal remains. A first publication on the 2022 and 2023 finds is currently in preparation.

8 O. Usta (University of Çanakkale) is working on the Ottoman sources; S. Siviero (Ca' Foscari University of Venice) on the texts in Arabic.

9 This research is being carried out by F. Vacchiano (Ca' Foscari University of Venice), in cooperation with the University of Dohuk, Department of Sociology.

goes back to the long pre-Islamic history of the site. It is hoped that the ongoing research on the pre-Ottoman written texts will provide further information in the future.

The present paper illustrates the results so far achieved in relation to the sequence of occupation of the site, with a focus on the evidence that pertains to the phases ascribed to Period E, corresponding to the Early Ottoman period, around the sixteenth century. The paper also presents the pottery from Period E and its contribution to the definition of pottery production in the Ottoman period, previously very poorly represented in the archaeological record and in publications.

Cristina Tonghini

2 The Occupation Sequence in Area 1[10]

This chapter presents an overview of the occupation sequence on the basis of the stratigraphic excavation of Area 1 at Tell Zeyd. The evidence concerning Periods A-D, already discussed in a previous paper (Tonghini et al. 2023; Tonghini et al. forthcoming), is summarised here and supplemented with new data that emerged from the 2024 excavations.[11] The evidence concerning Periods E and F, identified in the 2024 season, is presented together with a first interpretation.

A general chronological framework for the various Periods is also provided here. This is based on the relative sequence, on the dating of specific finds from available publications, such as clay smoking pipes and glazed wares, and on data from the study of written sources, integrated with information derived from oral interviews (Usta forthcoming).

Area 1 is located to the West of the tell, and measures 13 × 13 m **[fig. 4]**. The stratigraphic analysis and the interpretation of the evidence follow common archaeological practice: the stratigraphic units identified in the excavation are organized into a Harris diagram and subsequently grouped into individual activities or groups of activities; these are then organised into Phases and ascribed to

10 Periods A-D are discussed by J. Boschini, E-F by S. Palalidis. Excavation, stratigraphic analysis and interpretation is the joint work of both authors.

11 Two members of the Directorate of Antiquities and Heritage of Dohuk worked jointly with the Italian team at the excavation of the site: Tahsin Ahmad and Walat Ayub. The excavation was carried out with the help of 12 workers from the neighbouring villages: Sliman Habib, Saud Antar, Hawar Ahmad, Muhammad Ahmad, Zakariya Mohammad, Ayyub Mohammad, Omar Jama', Serbist Nazar, Husin Antar, Farman Hido, Abdallah Mohammad, Jiwar Ahmad; Sharhan Antar served as site guard for the duration of the field operations.

Periods (Carandini 1981). SUs are numbered in the course of the excavation and do not follow a specific order, while Phases are numbered in ascending order from the most recent to the earliest. Periods are indicated with the letters of the alphabet in a progressive sequence starting from the most recent period identified, and they will be renamed or numbered on completion of the excavation.

Jacopo Boschini, Stefano Palalidis

2.1 Period A: Contemporary Agricultural Activity

Area 1 is located in an area that is today used for the cultivation of vegetables and cereals; Period A features a layer of ploughed soil approximately 15 cm deep that covers a compact layer with plough marks.

Jacopo Boschini

2.2 Period B: Late Ottoman Village B (Twentieth Century)

The structural evidence of Period B consists of fragments of wall foundation composed of small and medium-sized stones; these remains have been extensively damaged by contemporary agricultural activities. In addition to the walls, which are mainly concentrated in the north-western and eastern areas, four bases of *tannurs* pertaining to Type 2[12] came to light in the western part, together with a platform composed of rubble and clay which may also have been used for installing *tannurs*. The disturbance caused by modern agricultural activities has critically affected this evidence; however, the presence of ovens and of the platform may be interpreted in relation to a domestic courtyard context.

Study of the Ottoman written texts and interviews carried out in the area make it possible to relate the abandonment of the village to the Simel massacre of 1933; this may therefore constitute the *terminus ante quem* for Period B (Tonghini et al. forthcoming).

Jacopo Boschini

12 For a description of the types of *tannurs* identified at Tell Zeyd, see Tonghini et al. forthcoming.

2.3 Period C: Late Ottoman Village C (Nineteenth Century)

Several structural remains have been ascribed to Period C, a period when the village seems to have flourished. The corner of a building with a series of ten *tannurs* was brought to light near the eastern edge of the excavated area **[fig. 5]**;[13] this building has been interpreted as a bakery with a high production rate, which may have been used by the entire village. Six more *tannurs* came to light at the centre of Area 1, their features suggesting that they may have been used for cooking food. A further Type 1 *tannur* emerged in the north-west corner of Area 1; this was surrounded by stone and *tannur* fragments, very likely to provide insulation. This structure was stratigraphically connected to an earthen floor extending towards the north-west. This context has been interpreted as part of a workshop producing clay pipes for smoking because of the presence of raw material fragments and numerous pipes, including unfinished and faulty specimens (Tonghini et al. 2023).

Study of the archaeobotanical remains from this Period has provided significant data. Evidence for the cultivation of barley and wheat was identified, as well as for other species with economic value, such as tobacco, cotton and numerous fruit species.

All these data, integrated with those emerging from the study of the historical sources (Usta forthcoming), make it possible to interpret Period C as a time of intense production activity in the village. In consideration of the stratigraphy (i.e. it pre-dates Period B of the early twentieth century) and of the presence of specific types of clay pipes and pottery, a nineteenth century dating has been proposed for Period C.

Jacopo Boschini

13 Eight of these belong to Type 1 as defined at Tell Zeyd, and two to Type 2: Palalidis in Tonghini et al. forthcoming.

Figure 5 Group of *tannurs* interpreted as a bakery in Period C. © ZAP

2.4 Period D: Settlement Contraction/Abandonment and Nomadic Occupation (Eighteenth-Seventeenth Century)

A total of twelve phases have been ascribed to Period D; of these, six phases can be interpreted as abandonment contexts (Phases 5, 7, 9, 11, 13, 15) which alternate with six phases of site frequentation (Phases 6, 8, 10, 12, 14, 16). The phases of abandonment are characterised by the absence of structural archaeological evidence; a strong element for this interpretation is provided by the archaeobotanical remains, which consist of wild flora specimens only, indicating the absence of agricultural activities and of stable human occupation (Tonghini et al. forthcoming).

As to the phases of occupation or frequentation of the site in Period D, they are characterised by the large number of pits and by poorly preserved and very fragmented wall remains. Most of the pits show similar features: a diameter of between 1 m-1.90 m

and a depth varying between 20-60 cm, a filling with a cinerous-sandy matrix rich in plant remains, few finds of ceramics and other materials, and the presence at the bottom of a whitish layer formed by plant remains. These characteristics led to the identification of these archaeological features as pits for the storage of goods by the nomadic populations that frequented the site. An exception to this is P16 (SU 1141), composed of layers of black combusted plant remains alternating with layers of red clay and sand and containing ceramic and bone fragments. This pit type can thus be interpreted as a waste pit used by the inhabitants, as is the case at other sites in the vicinity (Conti, Fiorina 1997).

In the most recent Phase 6, three pits (P1ZD22 - SU 149; P3ZD22 - SU 151; P1 - SU 1084) and a fragment of a small stone wall foundation (SU 133) came to light.

Lower in the sequence, in Phase 8, seven pits were found (P2ZD22 - SU 143; P2 - SU 1090; P3 - SU 1094; P4 - SU 1091; P5 - SU 1093; P6 -1096; P7 - SU 1099); it is in this phase that the waste pit mentioned above (P16 - SU 1141) came to light. The remains of another poorly preserved wall foundation in stone were also found (SU 1105).

In Phase 10 a series of ten pits was identified (P4ZD22 - SU 154: P5ZD22 - SU 156; P6ZD22 - SU 158; P7ZD22 - SU 160; P8 - SU 1117; P9 - SU 1116; P10 - SU 1119; P11 - SUs 1120, 1121, 1125, 1126; P12 - SU 1124; P13 - 1131), scattered throughout Area 1. Four fragments of wall foundation also came to light (SU 1106; SU 1107; SU 1110; SU 1129), together with a Type 1 *tannur* oven for baking bread (T17 - SU 1101). The higher concentration of structural remains, especially if compared to the later Phases 6 and 8, may indicate that frequentation of the site was more regular and extended over time in Phase 10 than in the others, and the possibility of the presence of a settled community at this time cannot be ruled out.

Proceeding downwards to Phase 12, three pits (P14 - SU 1134; P15 - SU 1136; P18 - SUs 1148, 1150) and two very damaged wall fragments (SUs 161, 162) were identified in the western part of Area 1.

Seventeen pits (P17 - SU 1143; P19 - SU 1140; P20 - SU 1152; P21 - SU 1154; P22 - SU 1157; P23 - SU 1159; P24 - SU 1161; P25 - SU 1163; P26 - SU 1165; P27 - SU 1167; P28 - SU 1169; P29 - SU 1176; P30 - SU 1177; P31 - SU 1179; P32 - SU 1181; P33 - SU 1183; P34 - SU 1187) came to light in Phase 14 **[fig. 6]**, constituting the highest concentration identified so far in a phase in Area 1. The large number of pits and the absence of structures in this phase, suggests a more frequent but less stable phase of occupation of the area. The earliest phase of Period D, Phase 16, presents only three pits (P35 - SU 1193; P36 - SU 1195; P37 - SU 1198) and four badly preserved wall fragments (SUs 1103, 1109, 1170, 1171). Wall SU 1103 is preserved to a height of three courses and is built in two parallel lines of stones. It is located

at the eastern border of Area 1, but, like the rest of the wall evidence from this period, it is poorly preserved. Probably the village did not disappear completely in this phase but underwent a contraction.

The stratigraphic interpretation of period D is extremely complex due to the numerous pits that disrupt the sequence, and to the extremely deteriorated state of the few wall fragments that were identified. However, the picture that emerges from the evidence summarised above depicts a situation of regular frequentation of the site by nomadic communities. Study of the archaeobotanical remains from Period D revealed the presence of abundant vegetable waste, probably used to feed herds, and animal dung (Dal Martello in Tonghini et al. forthcoming). In this period, animal husbandry rather than agriculture very likely prevailed among the communities frequenting or occupying Tell Zeyd. These data match those provided by the study of the written sources that describe a long phase of intense regional instability, with the abandonment of sedentary occupation in favour of nomadism (Usta forthcoming). Although the existence of a much-reduced stable population cannot entirely be ruled out, most of the evidence can be interpreted in relation to a seasonal frequentation, with temporary structures and the creation of storage pits. Tell Zeyd was very likely transformed into a nomadic transhumance stopping point in Period D. As to absolute date, this is based on the relative sequence, and on the chronology of some clay pipes and specific glazed wares (Tonghini et al. forthcoming).

Jacopo Boschini

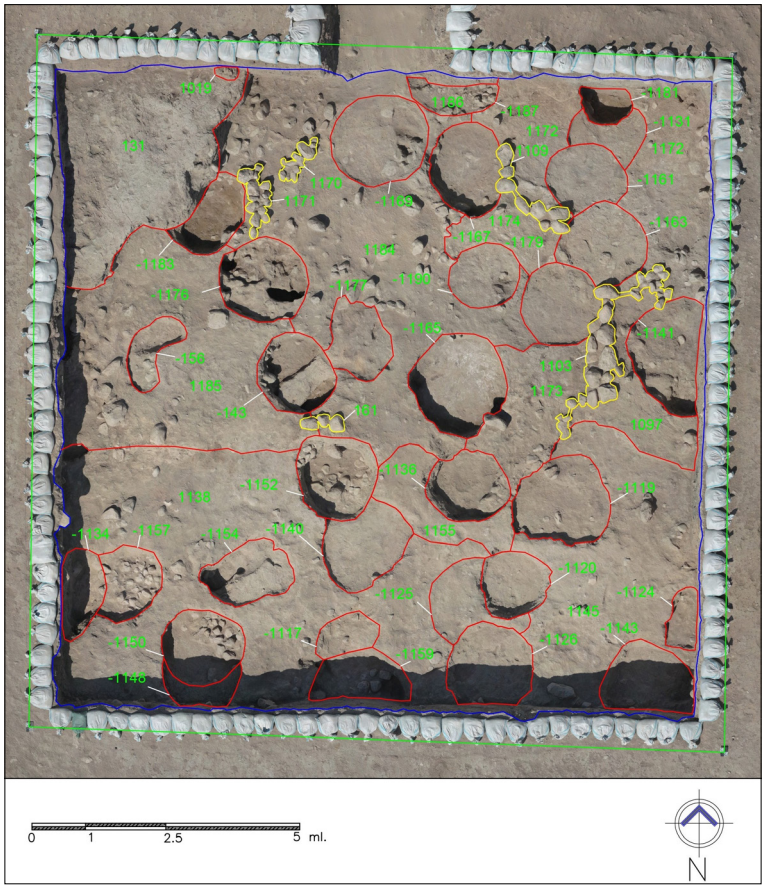

Figure 6 Orthomosaic of Area 1 at Tell Zeyd documenting Period D, Phase 14 (16/09/2024). © ZAP

2.5 Period E: Early Ottoman Occupation (Sixteenth Century)

A phase of abandonment (Phase 17) separates the predominant nomadic activities of Period D from a series of production structures and installations in Phases 18-21 that can be interpreted in terms of a sedentary occupation of the site, designated as Period E. Stratigraphy and contextual finds, especially pottery and clay pipes (Part 3 below), suggest that this period should be ascribed to the sixteenth century, and that it can therefore be interpreted as the earliest Ottoman village of Tell Zeyd.

A large trapezoidal structure (S1) has been partially uncovered along the northern border of the excavation, oriented north-northeast-south-southwest and extending beyond the northern edge

of the excavation area **[fig. 7]**. The southern wall, which has been fully excavated, measures 4 m in length; the longer of the two orthogonal walls exceeds 2 m in length, but they both extend beyond the northern edge of the excavation site. A wall consisting of a foundation in stone (SU 1188) and a superstructure in pisé (SU 1200) appears on the eastern side of structure S1; the portion in pisé is preserved to a height of 30 cm, and it is coated with a 2 cm-thick layer of reddish plaster on both the internal and external surfaces; the foundation is composed of one course of a double-faced wall made of unworked stone measuring 20-40 cm. Collapsed and weathered remains of the pisé walls have been documented inside (SU 1199) and outside (SU 1208) the structure S1.

Figure 7 Trapezoidal structure (S1) by the northern border of the excavation. © ZAP

Artefacts recovered from the interior of this building include a small quantity of iron slag, iron nails and tacks, and fragments of ceramic vessels with a thick layer of bitumen that can be interpreted either as an unusually heavy coating or production-related residues. These finds suggest that the structure was used primarily for manufacturing activities rather than for domestic purposes.

To clarify the stratigraphy of the archaeological deposit, a 6 × 6 m square trench was opened in the south-eastern sector of Area 1 **[fig. 8]**.

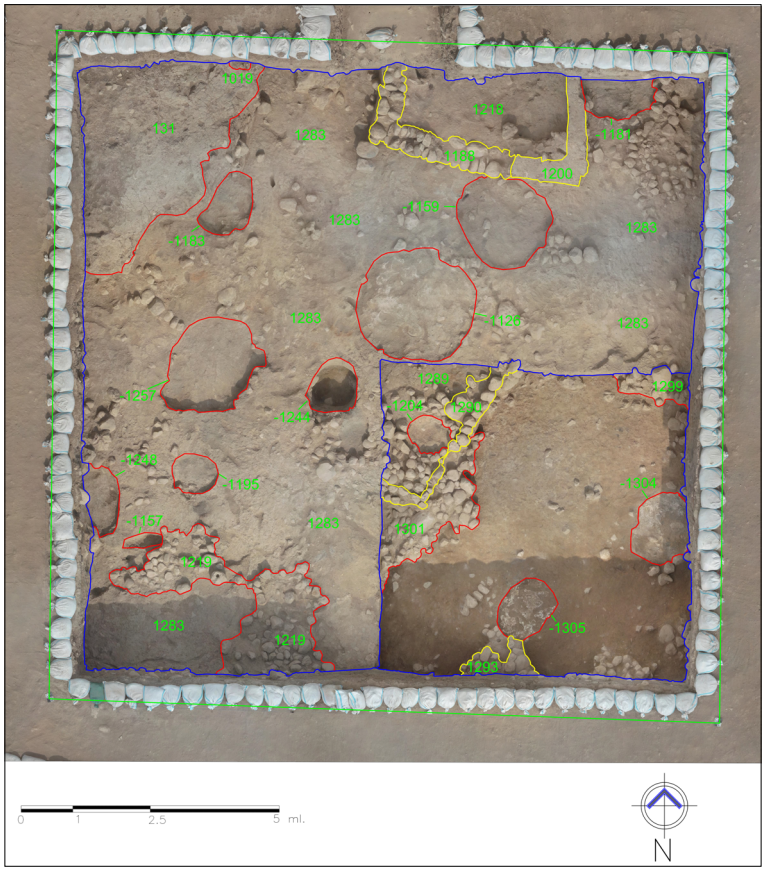

Figure 8 Orthomosaic of Area 1 at Tell Zeyd documenting Period E and sounding trench opened in the south-eastern sector documenting Period F (17/10/2024). © ZAP

A second rectangular structure (S2) was partially uncovered in the centre of Area 1. Only one corner, formed by two single-face stone foundation walls (SU 1290), has so far been brought to light and fully excavated within this smaller trench; the rest of this structure will be investigated during the next field season. Structure S2 is oriented northeast-southwest, with the longer wall measuring 3 m and the shorter wall approximately 1 m.

A large clay furnace (T19 - SU 1203) came to light in the southern corner of structure S2 **[fig. 9]**. This oven was 70 cm in diameter at the base, narrowing to 60 cm at the top, and 70 cm high. This installation displayed structural features that suggest it may have functioned as a furnace or bloomery (Tylecote 1992, 48-9). Its thick walls, ranging from 12 to 21 cm, were externally coated with small stones, very

likely to improve insulation. Four holes, 8-10 cm in diameter, were identified in the southern, western, and north-western walls of the oven. However, their irregularity leaves it unclear whether they served as tuyere holes for bellowing or were created by animals. No openings for cleaning, fuelling, or ventilation were identified at the base of the oven; it should be noted, however, that a significant portion of the eastern wall had been destroyed by a storage pit (P15 - SU 1136) dug after the village was abandoned. The contents of the oven included ashes, other residues from combustion, and a thick layer of burnt animal bones at the bottom; no slag or other artefacts were found to indicate a specific type of production.

Figure 9 Large clay oven or furnace (T19) inside structure S2. © ZAP

Due to their value, blooms are rarely recovered, and iron slag is generally removed from the bloomery during the cleaning process.[14] However, the presence of slag, and possibly some blooms, is well-documented at Tell Zeyd across all layers attributed to Period E, suggesting that iron smelting activities were conducted at the site.

A series of ten ovens were installed in the central and northern sectors of Area 1, near the two structures S1 and S2 (T18 - SU 1190; T20 - SU 1206; T21 - SU 1212; T22 - SU 1223; T24 - SU 1233; T25 - SU 1254; T26 - SU 1263; T27 - SU 1266; T28 - SU 1269). Many of these

14 Voroshilov, Voroshilova 2023, 94-105; Burja, Batič, Pavlovič 2024, 3920.

ovens were constructed on the partially razed remains of earlier installations.

Eight of the ovens (T20, T22, T23, T24, T25, T26, T27, and T28) were thin-walled (1.5-3 cm thick), larger in size (50-65 cm in diameter, 40 cm in height), and correspond to the Type 1 *tannurs* identified in the later Phases 2 and 4 (Tonghini et al. forthcoming). In contrast, two ovens (T18 and T21) were thick-walled (6-8 cm thick) and smaller in size (40-45 cm in diameter, 25-30 cm in height). These represent a distinct typology not previously attested at Tell Zeyd and were possibly used for cooking food.

The effect of pastoral nomadic groups excavating seasonal storage pits during several phases also disturbed the layers of the Period E village. A total of 18 empty storage pits, often characterized by a white organic layer at the bottom, came to light within these phases throughout the entire excavation area (P38 - SU 1215; P39 - SU 1217; P40 - SU 1221; P41 - SU 1226; P42 - SU 1231; P43 - SU 1242; P44 - SU 1244; P45 - SU 1246; P46 - SU 1248; P47 - SU 1252; P48 - SU 1257; P49 - SU 1259; P50 - SU 1261; P51 - SU 1272; P52 - SU 1275; P53 - SU 1277; P54 - SU 1279; P55 - SU 1285).

The excavation of these pits, combined with the removal of stones from abandoned structures, caused significant damage to several architectural features. This includes the southern and eastern walls of the northern structure S1 (SUs 1188 and 1200), the central section of the middle structure (SU 1290) and the eastern wall of the furnace (T19 - SU 1203).

Pit 56, by the southern excavation border, in the south-eastern sector of Area 1 (SU 1295), seems to represent a different type; in fact, besides the white organic layer at the bottom, as found in the other pits, it contained a rich assemblage of large, fragmented vessels and 48 iron tacks; it may therefore be interpreted as a garbage pit.

The evidence from Period E can be interpreted as indicating both domestic and industrial activities. Food production appears to have played a central role in this period, as shown by the concentration of *tannurs* and cooking installations around the two structures S1 and S2. Numerous basalt quern-stone fragments, used for grinding grain, also came to light and give support to this interpretation. Moreover, several fragments of small table legs were recovered from Period E **[fig. 10a]**; these small tables are made of a kind of coarse stucco composition, characterised by coarse sand inclusions, and were used for rolling out bread during the process of preparation; they are well represented in the folklore museums of the area, in Dohuk and al-Qosh.

Evidence of production related to metallurgy also came to light. Together with quantities of metal slag **[fig. 10b]**, several stone pestles and mortars were found. In consideration of their size (30-40 cm), they seem more suitable for metallurgical activities rather than

food processing. Indeed, one of the initial steps in ore preparation involves crushing and grinding the raw material to reduce it to smaller particles, so as to facilitate the separation of metal before smelting.[15] While the interpretation of oven T19 as a furnace or bloomery remains uncertain due to the lack of clear production traces in its contents and the ambiguous nature of some structural features, the abundance of iron slag from this period strongly indicates that metallurgical activities were conducted at the site, in installations yet to be identified.

A total of 164 short iron tacks, characterized by domed heads and short nails, were recovered **[fig. 10c]**. In some cases, these tacks were found in clusters within pit contents. Their presence could suggest local production of these items or, at the very least, indicate the widespread use of artefacts requiring leather or textiles to be fixed to a frame with tacks. Unfortunately, no primary depositions of the iron tacks were documented at Tell Zeyd, making it impossible to determine the shape or nature of the perishable objects to which they were once attached.

Finally, several pottery fragments from Period E had a thick layer of bitumen on their internal surface **[fig. 10d]**. Bitumen, which has been extracted and traded in the region since prehistory, was commonly used as an adhesive, building mortar, waterproof coating for vessels, and as a sealant.[16] As some fragments from large vessels show traces of fire, and in consideration of the amount of bitumen, the possibility that these may have been used for melting bitumen into liquid form or for producing bitumen mastic must be taken into consideration (Schwartz, Hollander 2000, 85-8).

Stefano Palalidis

15 Haaland 2004, 4-9; Jemkur 2004, 41; Fluzin 2004, 66; Thiele 2010, 100-1.

16 Connan 1999, 34-8; Connan, Van de Velde 2010, 2-3; Breu et al. 2019.

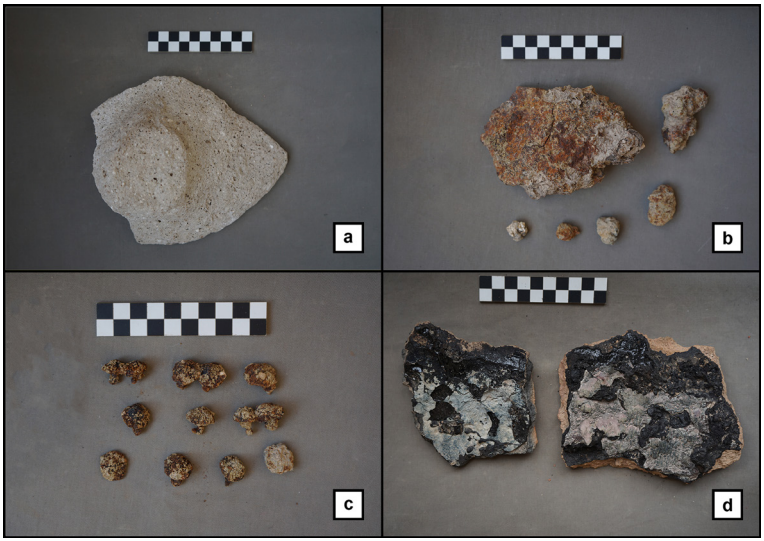

Figure 10 Selected finds from the 2024 excavations at Tell Zeyd: a) leg fragment of small stucco table for rolling out bread (SU 1300); b) iron slags (SU 1300); c) iron tacks (SU 1296); d) potsherds showing a thick layer of bitumen on their internal surface (SU 1188). © ZAP

2.6 Period F: Pre-Ottoman period (Fifteenth c. and Earlier)

The final phase excavated during the 2024 excavation campaign (Phase 22) consists of several layers of accumulation (SUs 1291, 1294, 1297, 1300, and 1301), two short wall fragments (SUs 1298 and 1306), and two additional storage pits (P57 - SU 1304; P58 - SU 1305), all predating Period E. These layers seem to indicate a period of abandonment that only the continuation of the excavations will make it possible to define.

Stefano Palalidis

3 The Pottery

3.1 Introduction

Archaeological research into the long Islamic period in the region is impeded by the paucity of reliable research tools, such as a regional chrono-typology of reference for pottery production. This stems in part from the scarcity of excavations carried out so far into Islamic period deposits in Iraqi Kurdistan; the numerous survey projects that have been carried out in this region in the last decade have attracted attention to this problem, and have tried to establish a preliminary framework for pottery production in order to date settlement in broad terms.[17] Some periods, such as the Early Islamic, are better known than others in terms of pottery indicators, while diagnostics for the long Ottoman period remain more difficult to establish. Therefore, the definition of a chrono-typology for the pottery of the entire Islamic period is among the aims of the ZAP project.

Thanks to stratigraphy, the pottery finds from Tell Zeyd can be anchored to a relative sequence; however, the difficulty of identifying residual pottery in the excavated contexts remains, especially at a site continuously occupied since the Late Chalcolithic such as Tell Zeyd. Quantity evaluation can help to isolate residual types, but rarity is not necessarily an indicator of chronology, as it may be associated with imported fine wares. Moreover, only on completion of the excavation of the entire occupation sequence of the Islamic period, with a full evaluation of the entire assemblage, will a definitive picture emerge. So far, some steps forward have been made in relation to the Late and Middle Ottoman period (Period C, D: Tonghini et al. forthcoming); this paper presents an overview of the pottery from Period E that contextual data make it possible to ascribe to the Early Ottoman period.[18]

The pottery finds from Tell Zeyd are organised into four major groups: Glazed Wares, Buff Wares, Kitchen Wares, and Hand-made Wares. Within these major groups, wares are defined according to fabric, macroscopically analysed through a magnifying lens, and

17 Ahmad 2021; Nováček 2008; Nováček et al. 2016; Nováček 2022; Tonghini, Vezzoli 2020; Morandi Bonacossi, Tonghini forthcoming.

18 The chrono-typology for Tell Zeyd is being built on a basic framework created by the present writer and V. Vezzoli within the Land of Nineveh Archaeological Project (Tonghini, Vezzoli 2020); new types and chronological data are being added as the finds from Tell Zeyd continue to be studied, season after season, under the supervision of C. Tonghini. The study of the pottery from the 2024 season was carried out by C. Tonghini and M. Thuesen, assisted by three students from the Ca' Foscari University of Venice (L. Gobbo, G. Brandoni, L. Zebochin).

surface treatment, and, subsequently, on the basis of form and function.

Cristina Tonghini

3.2 The Glazed Wares of Period E

Glazed wares appear in limited quantities in the various phases of Period E: 148 fragments were identified, constituting a percentage between 1.1 and 2.1 % if we consider the whole of the pottery assemblage, between 2.6 and 6.3 % if we exclude unidentified and pre-Islamic residual pottery **[fig. 11]**.

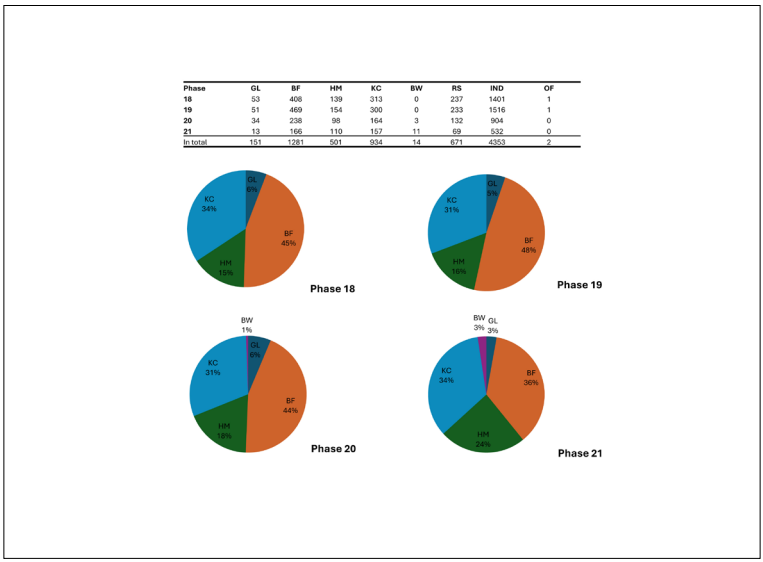

Figure 11 Quantitative tables and graphics showing the total amount of sherds and the distribution by phase of the main groups: GL (glazed wares), BF (buff wares), HM (hand-made wares), KC (kitchen wares), BW (black wares), RS (residual pottery), IND (undetermined pottery), OF (over-fired pottery). © ZAP

This percentage, moreover, does not precisely represent the glazed wares in use in Period E only, as some residual Middle Islamic sherds may have been included in the account. Only on completion of the excavation, with the establishment of the entire pottery sequence for the Islamic period, will a better understanding of the characteristics of the various groups make a more precise distinction possible.

A good example of this difficulty is represented by **Ware 21**, characterised by a light buff body and a monochrome turquoise/light blue glaze. So-called *Turquoise-glazed* ware constitutes a vast group

that was produced in different varieties in the Islamic period; an Early Islamic Turquoise-glazed variety is now relatively well known,[19] while the features of a Middle Islamic variety in this region have yet to be clearly determined (Vezzoli, LoNAP forthcoming a). Moreover, there is also evidence of Turquoise-glazed varieties in the Late Islamic period: some are well defined, such as Tell Zeyd Ware 39, found in Period D (Tonghini et al. forthcoming); others require further research. In the present state of our knowledge, therefore, we have preferred to group all sherds with a buff body and a monochrome turquoise/light blue glaze in a large category, Ware 21. In Period D, Ware 21 occurs rarely, and this may indicate that it is residual, i.e. it constitutes a pottery group of the Middle Islamic period. Only a variety of it, Ware 21B, may be regarded as an Early Ottoman type in consideration of its occurrence in Period E: it constitutes 5.9 % of the glazed pottery assemblage in Phase 18, and 15.6 % in Phase 19. It has a light buff body with frequent fine and medium-size inclusions, especially lime, and it is covered by a light-blue glaze, fairly decayed in most cases; all sherds belong to closed forms **[figs 12, 13d]**. It is extremely difficult to find comparanda for this ware in publications unless they include colour photos. A similarity has been noted with two specimens from Baalbek that belong to closed forms; in the publication they are attributed to the thirteenth century, but they are part of a large unstratified assemblage that is dated between the ninth and the sixteenth century (Daiber 2006, Pl. 15j).

19 For an overview of the various Early Islamic types and their distribution see Hardy Guilbert et al. 2004, 84-6. Kennet 2004, 35-7. Müller-Wiener 2017, 48-9. Petřík et al. 2020, 22. Rougelle 2005. Tonghini, LoNAP forthcoming.

Figure 12
ZD.1208.1, Ware 21B. © ZAP

A similar difficulty is encountered with the *Green-glazed ware*. This constitutes the majority of the glazed pottery assemblage in all phases of Period E. Differences within this group relate to fabric, the presence/absence of slip, the colour and the quality of the glaze, and the general care in the manufacturing process; several fragments present a badly fired glaze, with irregular, blistered surfaces and other faults. Thus, fragments that do not present specific features other than a green glaze are grouped under **Ware 101**; this constitutes the widest of the glazed group, with occurrences varying from 33.3% to 66.7 % of the total assemblage of glazed wares. A variety characterised by a sandy, pinkish or buff body with abundant calcareous grit has been classified as **Ware 43**; it is only associated with closed forms, and a thin slip can appear on the exterior **[fig. 13 a-c, e-f]**. Ware 43 appears in significant quantity in Period E: its percentage varies between 11.8 % and 33.3 % of the glazed pottery assemblage. These figures seem to support the identification of Ware 43 as a group in use in Period E.

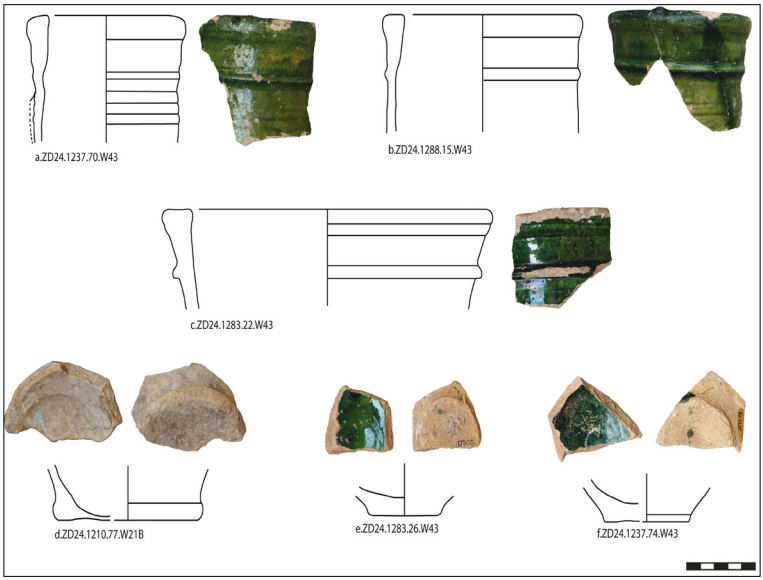

Figure 13 Glazed Wares 21B and 43. © ZAP

Equally in need of further research is **Ware 19.** It features a pinkish body with few inclusions; it is covered by a white slip and a green or mustard yellow monochrome glaze; an incised decoration may also occur. These sherds may, in many cases, be interpreted as residual from the Middle Islamic period, especially those with an incised decoration. However, the occurrence of a ware with similar features in the Ottoman period cannot be ruled out. This may be the case of a large dish fragment that is covered by a deep-green glaze of good quality but speckled [ZD.1210.74: **fig. 14**]; its fabric is characterised by abundant grit, quite unlike most of the other W19 specimens. It is a unique occurrence, and no specific ware has yet been associated with it, but it may represent an Ottoman variety.

Figure 14
ZD.1210.74, Ware 19. © ZAP

Fine glazed table wares have also been found; two can be associated with types that are well known in the specialist literature, while others require further research. Two fragments with a siliceous body and a black and blue underglaze-painted decoration can be interpreted as the product of the Damascus workshop manufacturing stone-paste vessels in the Iznik style, and ascribed to the sixteenth century **[fig. 15]**.[20] Two others (not ill.), have a very hard siliceous body and a underglaze-painted decoration in blue; their characteristics are comparable with those of the Early Iznik production (late fifteenth-sixteenth centuries), but their size makes it impossible to be more conclusive at this point. This is also the case of a sherd with an earthenware fabric and a blue underglaze-painted decoration (not ill.)

These fine wares, certainly unexpected in a rural settlement such as Tell Zeyd, thus provide some chronological indications for Period E.

Three other fragments with a siliceous body and under-glazed painted decoration occur in Period E; they can be dated to the Middle Islamic period, and can thus be regarded as residual in Period E.

Cristina Tonghini

20 I wish to express my gratitude to Véronique François, CNRS-Université de Provence, Aix-en-Provence, for the identification of these two sherds. For a discussion of this group, and an assemblage from Damascus, see François 2008, 'Imitations damascènes des céramiques d'Iznik'.

Figure 15 Glazed Ware: Iznik style Damascus ware. © ZAP

3.3 The Buff Ware of Period E

Wheel-thrown buff ware constitutes the most dominant group among the pottery from Period E with a total of 1,281 collected sherds. Their percentage ranges from 15.6 to 17.2% of all excavated sherds, or 36.3 to 48.2% when pre-Islamic residual material and unidentified sherds are excluded **[fig. 11]**.

Ware 40 is the most prominent type, accounting for up to 41.6 % of buff ware found during Period E. It is characterised by a light yellow or green-coloured fabric with coarse calcium inclusions and carbonate burnouts, which are particularly visible on the interior surfaces. The main form associated with this ware consists of long-necked jars with an externally thickened rim and one/two wide handles attached to the lower part of the neck and the upper part of the body **[fig. 17]**. Both flat bases and ring bases occur among this type (Tonghini et al. forthcoming, fig. 10). The final finishing of the external surface appears irregular, while the neck has sometimes been incised with a tool, creating up to six single lines running horizontally around the neck. Roulette decoration has also been observed on fragments deriving from the neck and the upper part of the body. These sherds were classified according to their roulette motifs, which could be distinguished as zig-zag patterns (Ware 40D1) and spirals (Ware 40D2) **[fig. 16]**. This type of surface treatment has also been documented at ʻAna (Northedge et al. 1988, 113 fig. 51:8) and within the Late Ottoman assemblage from Kharabeh Village (Simpson, Watkins, 184 fig. 62:14).

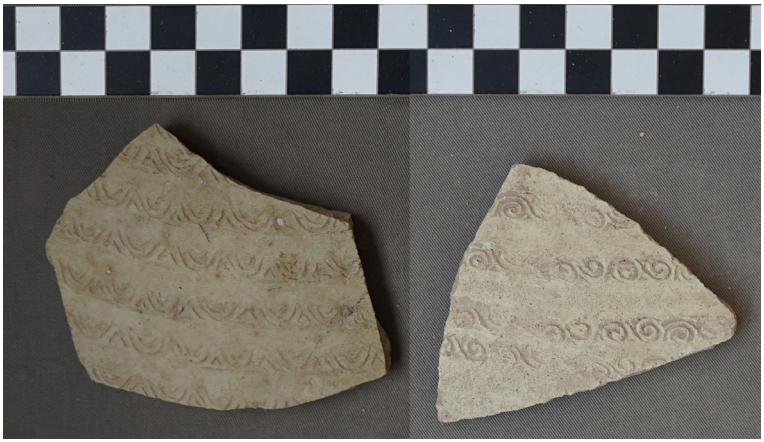

Figure 16 Decoration W40D1 (ZD.1300.90) and W40D2 (ZD.1283.39). © ZAP

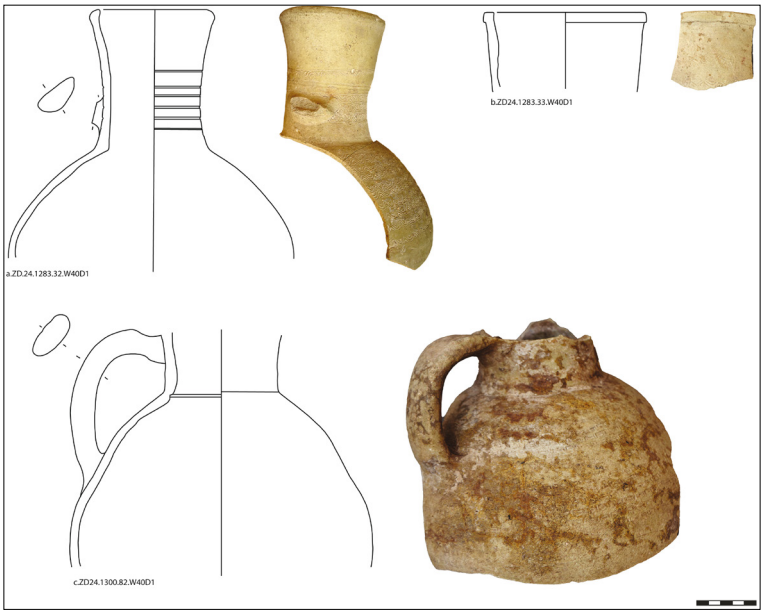

Figure 17 Buff Ware: Ware 40D1. © ZAP

A version of Ware 40 with lighter surfaces and pink-coloured fabric has been identified and categorised as Ware 41; it features roulette decoration with the same motifs that appear in Ware 40. Notably, the zig-zig pattern remains the most common design in both wares. Ware 41 only appears in small quantities throughout Period E, ranging

between 1.2 and 7.14% of all buff ware. Apart from a potential difference in firing strategies, this group also seems to be different as regards forms, as sherds from more thin-walled and smaller vessels were recognised as belonging to this ware. Unfortunately, the lack of diagnostic sherds obstructs the further reconstruction of vessel shapes within this group, which will hopefully be expedited by future studies.

The further construction of a typology for buff ware is faced with difficulties concerning dating due to the lack of stratified references. When lacking diagnostic features, as in the case of Ware 40 body fragments, these sherds were therefore classified as Ware 100. This represents buff and light-coloured sherds considered non-residual, but which could not be placed with certainty in one of the established ware types. Ranging between 44.5 and 68.9% of all sherds assigned to buff wares in Period E, this constitutes a significant portion of the excavated assemblage. However, it is expected that this group will be reappraised at a later stage of our research. The same applies to Ware 103, which has a similar type of fabric to W100, but is defined by its lighter and more pinkish surface. The highest proportion of sherds assigned to this group was found within Phase 18, where they amount to 12.8% of sherds of buff ware. Their proportion remains relatively low in other phases (between 3.2 and 6.8%).

Mette Bangsborg Thuesen

3.4 The Kitchen Ware of Period E

Kitchen ware is defined as vessels that appear to have been specifically designed for the thermal processing of food. They are primarily recognised by their prominent mineral temper and the presence of fire damage. A total of 934 excavated sherds were classified within this group, representing 10.3 to 13.7% of the Period E assemblage, or 30.6 to 34.4% when pre-Islamic and unidentified pottery are excluded **[fig. 11]**. For dating, we have mainly relied on proportional frequencies among the different ware types, which, interestingly, exhibit a distinct pattern compared to the pottery from the preceding Periods C and D (Tonghini et al. forthcoming). During Period E, Ware 37 emerges as the predominant type of kitchen ware. This group is characterised by its compact fabric that features prominent mineral inclusions of elongated and rounded shapes. Items are formed using the coiling technique and the ware is easily recognisable due to its highly burnished surfaces, inside and out. This ware appears to have been produced with only one shape in mind: a globular jar with a short, flared neck and a simple rim, with two wide handles attached to the rim and the shoulders of the vessel. These are often decorated with an impressed thumb mark on the lower part of the

handle **[fig. 18a-b]**. This mark is potentially diagnostic of Period E, as it is only rarely recorded on handle fragments of Ware 37 found in later periods. Rim diameters range from 12 to 26 cm, with a general tendency towards larger orifices. Burnished cooking ware with the same distinctive form was found within the Late Ottoman assemblage from Hatara Saghir (Simpson 1997, 128-9, fig. 5.3-4). Additionally, this type of ware was also recognised as a chronological marker for the Middle and Late Islamic periods in the LoNAP survey (Tonghini et al. forthcoming; Tonghini, Vezzoli 2020). Its longevity is now further documented within the stratified sequence from Tell Zeyd. From constituting 11% of all excavated Kitchen Ware in Period C to 28% in Period D, Ware 37 accounts for 31.9 to 59.8% of sherds assigned to this ware category in Period E. It can therefore be seen as a constant within the household repertoires, although the current data suggest a primary use phase within the Early Ottoman period. Throughout Period E, Ware 37 is only outnumbered by sherds assigned to Ware 102, which consists of non-residual sherds that need to be evaluated at a later stage. This group accounts for between 31.7 and 52.9% of all Period E sherds.

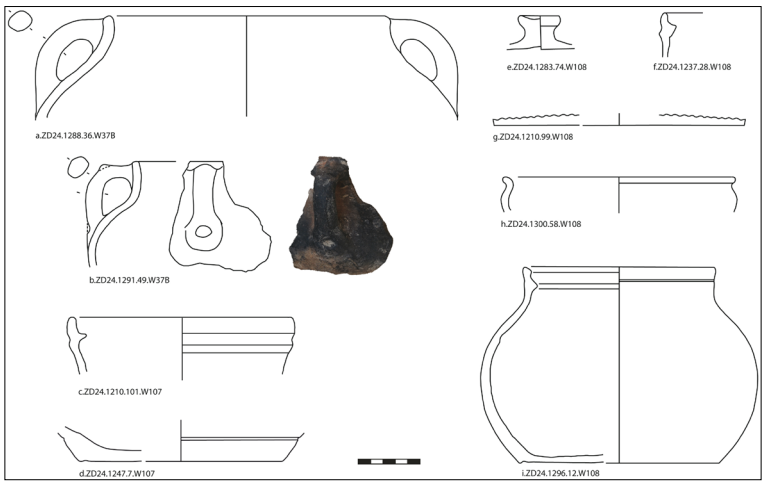

Figure 18 Kitchen Wares. © ZAP

Another notable observation involves the near absence of Ware 35 (see Vezzoli in Tonghini et al. forthcoming), which comprises only 0.7 and 1.3% in Phases 18 and 19, respectively. In comparison to the above-lying layers, where this ware constituted 40% of the fragments associated with kitchen ware ascribed to period D, the significantly lower quantity of sherds suggests that these are intrusive. Ware 35 can therefore be considered diagnostic of Period D.

During the recent field campaign, three new types of kitchen ware were defined: Wares 45, 107, and 108. Ware 45 has only been recognised within the lowest layers so far reached in Area 1 (Phases 19-22). This type represents a group of handmade vessels of primarily closed forms, whose fabric is defined by organic temper with a few mineral inclusions of natural shape. The colour of the vessel surfaces can be characterised as buff to light brown, while the core is black or dark grey, providing a sandwich-like section. The firing is, however, not consistent and may depend on which part of the vessel is being observed. Both the exterior and interior surfaces are regularly smoothed, while a few rim sherds are decorated with a brown-painted line. Both open and closed forms are represented within this ware **[fig. 19e-g]**. Three complete profiles were recovered from context 1296 (Phase 21), all of which were wide-mouthed jars with a vertical or knob-like handle attached to the mid-body. All of these are characterised by thick vessel walls, a simple rim, and flattened bases. Two-handled jars of smaller sizes were also recognised among this group, including a long-necked jug with a simple, slightly everted rim. The other jar strongly resembles the handled pots of Ware 37, including the impressed thumb mark on the lower part of the handle. This indicates familiarity with this design and may point to contemporary production.

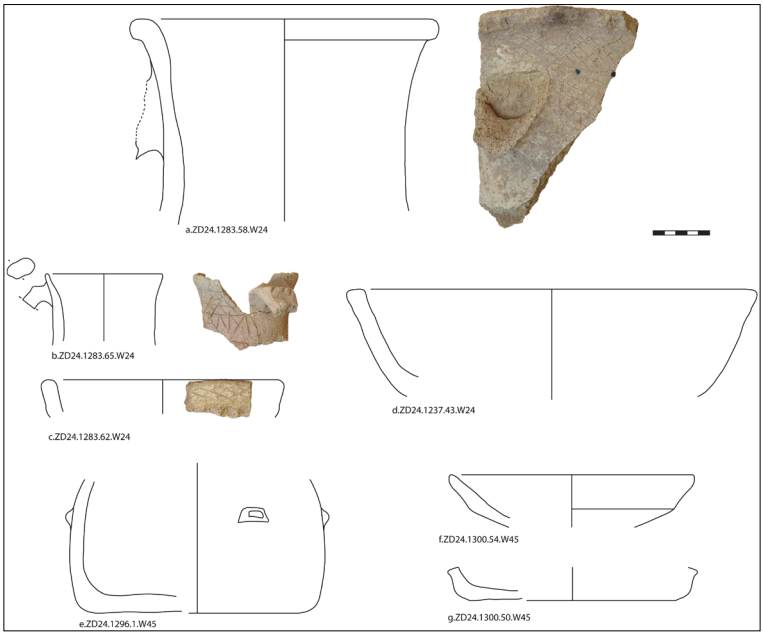

Figure 19 Handmade Wares. © ZAP

Ware 107 represents another fabric group, consisting of thick-walled vessels with an orange-coloured exterior. The coarse fabric features an abundance of elongated or angular mineral inclusions of multiple colours. The interior surface tends to be blackened or overfired. The exterior surface is smoothed and carved decoration was observed on one body sherd in the form of a single wavy line framed by two horizontal lines that appear to have run around the vessel. At this point of the research, Ware 107 has only been found in very small quantities within phases 18 and 19 (0.96 to 2 % of kitchen ware). Some inferences regarding shape can be made from two sherds that seem to derive from closed vessels. This includes the rim sherd of a necked jar with an inner ledge rim (diam. 17 cm), probably designed to hold a lid, and the fragment of a ring base which features an incised line on the lower part of the exterior body **[fig. 18c-d]**. Whether this ware group represents a residual type belonging to earlier settlement phases remains open for now, but future study seasons will hopefully clarify the matter.

Finally, sherds of Ware 108 are defined by their pinkish orange-coloured fabric with prominent mineral grit temper, consisting of sub-angular or sub-rounded inclusions of grey, dark red, brown and buff colours. This ware is similar to fabric group 107 but differs in that it always has an orange-coloured body. Another distinguishing feature is its surface treatment, as the external surface of this ware's base is smoothed. One complete profile is present among this group, a short-necked jar with an inward folded rim and an inner ledge rim. The diameter of the rim measures 15 cm and its ring base 16 cm **[fig. 18i]**. Other rim fragments within this ware type feature the same inner ledge rim, but tend to have a more upright-oriented or simple rim, with diameters ranging between 11-16 cm. This group also includes carinated bowls with outward folded rims and lids **[fig. 18e-h]**. So far, no *comparanda* have been found in the available literature, and notably, both Ware 107 and Ware 108 are absent from the Hatara Saghir assemblage (Simpson 1997).

Mette Bangsborg Thuesen

3.5 The Handmade Ware of Period E

Handmade ware covers a significant portion of the Early Ottoman pottery repertoire at Tell Zeyd, a tendency which has also been recognised at other Islamic sites and during the LoNAP survey.[21] The findings of this season show a steady increase in the proportion of

21 Novacek et al. 2008, 281; Simpson 1997, 113; Vezzoli, LoNAP forthcoming.

handmade sherds among those so far excavated, rising from 5.2 to 11.5% (N=567). In comparison, they constituted less than 5% of all collected sherds during Periods C and D (Tonghini et al. forthcoming), and when omitting residual and unidentified sherds they account for 15.3 to 24.1% of the Period E assemblage **[fig. 11]**.

The most common type of handmade ware is Ware 24, which occurs in pale yellow, pale olive, light brown and pink hues. It has a very coarse fabric defined by negative traces of vegetal temper and a high frequency of large red, grey, and white inclusions. These vessels were not made on a wheel and a great variety of forms are represented within this group, indicating its utilisation in different kinds of domestic practices **[fig. 19a-d]**. However, they mostly appear as thick-walled, open forms. Several sherds of this group feature applied decoration or bluntly incised patterns, mostly of crosshatch or geometric motifs that seem to be located on the upper parts of vessels and on the necks of jars. A new observation this season was the evidence of glaze or glass drop decoration, which seems to be primarily associated with large two-handled jars with a straight neck and thickened, everted folded rim **[fig. 19a]**. Strong parallels can be found among handmade pottery from Hatara Saghir, which share similar forms and the same type of incised decoration (Simpson 1997, 124-5). However, this type of coarse handmade ware has also been excavated from Middle Islamic contexts at sites in Iraqi Kurdistan, such as Kona Makhmur (Nováček et al. 2016, 91) and Kani Shaie (Ahmad 2021, 201-2, Pl. 16-21), which is why within the LoNAP, this ware was considered a chronological marker of both Middle and Late Islamic pottery traditions (Vezzoli, LoNAP forthcoming).

A significant new addition to our typology is Ware 105, which can be characterised as bitumen-covered burnt ware. This ware contains visible residues of bitumen, which covers the interior surface like a thick coating **[fig. 10d]**. Other distinctive features include a light red or orange-coloured fabric with highly frequent organic temper. The vessels were made with the coiling technique and carved decoration in the form of straight lines and dots was observed within this group. The type of deposition and the location of residues within the vessel suggest a connection to bitumen production (Breu et al. 2019, 569; Schwartz, Hollander 2000). Unfortunately, only body sherds are associated with this ware, which makes it difficult to make inferences about their original forms. However, the rather thick walls indicate that these fragments derive from large vessels. This points towards production beyond the household level, thereby further attesting to the function of Area A as an industrial site, which can now add bitumen production to its repertoire. Ware 105 constitutes 2.9 to 9.1% of all handmade ware, increasing in proportion from Phase 19 to Phase 21.

The remaining sherds of handmade ware were assigned to Ware 110, which once again represents a generic group that requires

further evaluation. This group constitutes between 1 and 10 % of all handmade ware in Period E. Likewise, we assigned to Ware 106 the pithoi fragments that could not be conclusively dated to the Ottoman settlement phases. However, their low frequency (0.9 %) seems to suggest residual material or potential import.

Mette Bangsborg Thuesen

3.6 Chronological Assessment

The stratigraphic sequence makes it possible to establish that Period E is earlier than Period D. Period D was associated with a seventeenth-eighteenth century horizon in consideration of the presence of a number of clay pipes for smoking that fit this span of time (Tonghini et al. forthcoming).

Although most of the pottery assemblage of Period E consists of wares that are little represented in publications, a chronological assessment of it can be offered at this stage by combining various data.

First, it should be noted that virtually no clay pipes occur in Period E; the very few, small fragments that were found have been interpreted as intrusive in consideration of their size and frequency, and of the stratigraphic complexity of the archaeological deposit featuring a large number of pits.

A strong element for dating is offered by two of the glazed fine ware fragments that have been associated with a well-known production from Damascus imitating the Iznik style and regarded as sixteenth century products.

In support of this dating, we can also consider the pottery from the earlier Phase 22: this phase has been ascribed to Period F, the excavation of which will only be completed in the next field season; the pottery analysed so far seems to describe a Middle Islamic pottery horizon (tenth-fifteenth c.). A few Middle Islamic sherds do also occur in Period E, where they have been interpreted as residual in consideration of the contextual presence of later types.

As to the assemblage of unglazed wares, a chronological assessment cannot be based on *comparanda*, given how infrequently these appear in publications. However, some chronological indications may derive from the analysis of contextual data. It should be noted that the assemblage of unglazed pottery features both differences and similarities with the assemblage from the later Period D (Tonghini et al. forthcoming): differences may confirm that we are dealing with a different chronological horizon, similarities may suggest a relative chronological proximity. The Buff Wares group is dominated by Ware 40; this ware also appears in the later Period D, but in a completely

different percentage; continuous features include the fabric – and thus very likely the source of raw materials and manufacturing procedures – and the decorative repertoire. However, further research is necessary, the acquisition of a larger repertoire of forms from both periods being a pre-requisite for reliable comparison. Kitchen Wares constitute a group that shows a striking continuity in terms of fabric and forms, as is the case with Ware 37, but it also includes types specific to Period E, such as Wares 45, 107 and 108. In particular, Wares 107 and 108 show fabric and forms that are distinctively different from the predominant Ware 35 of Period C and D. As to the Hand-made Wares group, its occurrence in Period E is much more significant than in Period D, and this difference may thus bear chronological indications.

We can conclude thus that the assemblage of unglazed wares describes a horizon that pre-dates Period D and that shows both differences and similarities: different wares occur together with similar wares but in a different proportion. This difference may be interpreted in relation to chronology, and it fits an association with a period earlier than Period D that other elements (glazed fine wares, absence of clay pipes) enable it to be identified as the sixteenth century.

Cristina Tonghini

4 Conclusions

The research currently in progress at the site of Tell Zeyd is shedding light on the history of this settlement, its society and economy, and this makes it possible to understand poorly documented phases in the long history of the rural hinterland of Mosul.

The excavation of the archaeological deposit at Tell Zeyd led to the acquisition – for the first time in the region – of material evidence pertaining to the Ottoman period, from the sixteenth century until the early decades of the twentieth century, spread over four main Periods (B-E).

The earliest of these Periods, Period E, is ascribed to the sixteenth century. The archaeological evidence shows that at this time the site was occupied by a settled community, very likely mainly devoted to agriculture but also involved in metalwork production and in the processing of bitumen; in-depth studies are currently in progress to improve definition of these activities. The study of the pottery finds for the first time provides an assemblage of reference for this span of time, anchored to an absolute chronology thanks to the relative sequence and to specific fine wares. The evidence points to a lively community, with the skills needed to carry out metalwork production and other manufacturing activities and well connected with a

regional distribution network. In fact, the pottery assemblage is rich and diversified, and a good percentage of it seems to be the product of commercial workshops rather than domestic manufacturing. The presence of fine wares that are generally found in urban contexts confirms this picture. The analysis of production residues in progress will make it possible to reach a better understanding of which specific production activities were carried out at the village, and to clarify if they aimed at the self-sufficiency of the village, for instance producing the tools for local agricultural work, or if they were also meant for a wider horizon.

The evidence for Period D indicates that the site was frequented by a nomad population; at this time the traces of a settled population become extremely thin. Stratigraphic and contextual data suggest a seventeenth-eighteenth centuries date for Period D. The complex stratigraphy of this Period makes it possible to identify the features of the nomadic presence, such as a large number of pits; these pits differ from those commonly used for waste disposal: they are not very deep, and they contain ash, vegetable residues and few ceramic finds; archaeo-botanical residues in the fill consist of vegetable waste, animal dung and wild plants. Conversely, there is very little evidence to reflect the presence of a settled community, such as some structural remains. The evidence for Period D at Tell Zeyd seems to match the picture provided in the written texts, which testifies to the rise of nomadism in the region (Khoury 1997; Usta forthcoming). The evidence from archaeology makes it possible to confirm this picture and to enrich it with data derived from the study of faunal and floral remains; for the first time in the region data on wild flora has come to light, and it is now possible to identify species connected to farming. Study of the pottery has made it possible to isolate the types that were used in this period; besides common ware, it is interesting to note that table ware included glazed vessels that are normally found in urban contexts, confirming that either the nomadic or the settled population of Tell Zeyd in this period was connected with major distribution markets.

The evidence for Period C identifies a settled community devoted to agriculture and other production activities, and can be associated with the nineteenth century. Archeo-botanical analysis has identified the crops of the area, and archaeo-zoology analysis illustrates domesticated and wild species. Evidence of a bakery installation making bread for the market has come to light, together with evidence pertaining to the manufacture of clay pipes for smoking (Tonghini et al. 2023). Historical sources refer to a period of economic development in the region, and archaeology adds significant elements to this chapter.

As to the evidence for Period B, this is much disturbed by the contemporary activities of Period A. Archaeological evidence seems

to illustrate domestic contexts, and historical research suggests that this recent phase was associated with the presence of Christian communities (Tonghini et al. forthcoming; Usta forthcoming).

The archaeological evidence has also demonstrated that Area 1 constituted a marginal area for the settlement of Periods C, D and E, the location of production activities involving the use of fire and the space at the margin where nomads would settle. It is only in Period B that Area 1 was chosen for sparse, domestic occupation.

The evidence briefly described above illustrates the history of Tell Zeyd in the Ottoman period and provides data on its material culture, society and economy. These data also make a major contribution to the general history of the area, confirming certain trends, such as the rise of nomadism, but providing elements that give depth and colour to the general picture reflected in the written sources: archaeology identifies specific crops being cultivated and specific animal species being bred, adding to our understanding of agriculture and farming, and diet practices. Unexpected production activities carried out by a rural community in the various periods have also been identified, conveying an image of a diversified society and lively economy. Finally, the evidence offers a glance at the repertoire of objects employed for daily life, such as the pottery in use in the household.

Cristina Tonghini

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