ALMA MATER STUDIORUM – UNIVERSITÀ DI BOLOGNA
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EXCAVATIONS AT KARKEMISH
IV
THE NEO-ASSYRIAN WELL IN AREA C

Edited by
Nicolò Marchetti

with contributions by
Barbara Bolognani, Vittoria Cardini, Marialetizia Carra, Marzia Cavriani,
Claudia D'Orazio, Elena Maini, Gianni Marchesi, Nicolò Marchetti,
Hasan Peker, Sara Pizzimenti, Rula Shafiq and Carlo Zaccagnini

Ante
Quem

In memory of
Refik Duru (1932-2024)
and of
John David Hawkins (1940-2023)

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This is the final report on a particular context excavated during the 2015 campaign by the Turco-Italian Archaeological Expedition at Karkemish by the universities of Bologna, Istanbul and Gaziantep. All credit for the results achieved goes to the very professional team that we were fortunate to have on the excavation (Pls. LV-LVI). In 2015, area C South was supervised by Sara Pizzimenti with the assistance of Marzia Cavriani and then of Rosa Rivoltella. Well P.5347 was mostly excavated, due to its reduced space and breathable air (which had to be pumped in through a pipe), only by our worker Bahtiyar Güzel, besides myself, with Ali Kelek and Ömer Faruk Karaçalı at the pulley above. Giampaolo Luglio was our topographer (who found ingenious ways to survey the well), Laura Benucci the conservator, Francesco Prezioso the photographer, Luisa Guerri the registrar, Hasan Peker (also serving as deputy director) and Gianni Marchesi the epigraphists, Mustafa Özakça the consultant for the archaeological park, and Elena Maini the zooarchaeologist (Miriam Giannantoni and Marco Benatti processed the paleobotanical samples in subsequent years). Pottery sherds were drawn by Valentina Gallerani and Halil al-Hamid; the latter also drew all the small finds. The archaeological material published here is now stored at the Museum of Gaziantep or in the main storeroom of our Expedition house.

Our thanks go to our main financial sponsors at that time: the Alma Mater Studiorum – University of Bologna and the Italian Ministry for Foreign Affairs and International Cooperation, with the Directorate-General for Public and Cultural Diplomacy (as it is currently called) and its 6th Office. Furthermore, 2015 marked the beginning of the sponsorship by the Sanko Holding, thanks to the enthusiasm of Adil Sani Konukoğlu for the Karkemish project. The Metropolitan Municipality of Gaziantep and its mayor Fatma Şahin constantly strove to meet the Expedition's needs.

The Turkish Ministry for Culture and Tourism has supported our project since its inception and we cannot think of a better and more rewarding mutual collaboration. To the colleagues of the Directorate General for Cultural Heritage and Museums in Ankara I express the warmest gratitude. I am also deeply grateful to our 2015 representatives Mustafa Poyraz and then Ayşe Bozkurt, as well as to our colleagues at Gaziantep Museum, Gaziantep Provincial Directorate for Culture and Tourism, and Gaziantep Regional Committee for the Conservation of Cultural Heritage. We are also indebted to the Governorate of Gaziantep and, in Karkamış, to the Municipality and the Local Governorate for their constant helping the Expedition during its stay. The head of the village of Türkyurdu, Hüseyin Aksoy, made

our stay there a memorable one, as every year. Our workers from the villages of the Karkamış province deserve much praise for their commitment and good humour.

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This book is dedicated to the memory of two great friends of our Expedition, the masters, respectively, of Anatolian archaeology, Refik Duru, and of Luwian studies, John David Hawkins.

The Editor

Chapter 1

THE NEO-ASSYRIAN PALATIAL COMPOUND IN AREA C AND THE WELL P.5347

This volume reports on the finds from a single well, sealed at the end of the 7th century BCE. Since these finds bear significantly on the historical reconstruction of Neo-Assyrian Karkemish, it was deemed appropriate to present them here separately from the final report on our excavations in area C and, especially, on the articulated building complex that we call the palatial compound. This lay at the edge of Woolley's Lower Palace area. Woolley had exposed – in addition to two temples and the Water gate — only two adjoining boundary walls (decorated with sculpted orthostats, i.e. the Herald's Wall and the Processional Entry/King's Gate) of the palatial building that we have extensively excavated since 2011 (Pls. I-II). Our excavations established for it a remarkable functional continuity between the Neo-Hittite (or Iron II) and the Neo-Assyrian (or Iron IIIA) phases (Fig. 1.1).[1] In the Post-Assyrian or Neo-Babylonian (or Iron IIIB, but see n. 2 on p. 25) phase the building began to be abandoned, before its complete obliteration by a village during the Achaemenid period (or Iron IV). Nowhere has a clear level of destruction been identified within the 1st millennium BCE layers (Marchetti 2019-2020).

In 717 BCE, Sargon II used a bland political pretext for waging war against King Pisiri (as the Assyrians called Piyaššili [III]; see H. Peker in Marchetti 2019-2020: 278, table 3) and conquering the vassal kingdom of Karkemish; with the resulting very rich booty, he financed in the same year the expensive building programs at Khorsabad, where his new capital, Dur-Sharrukin, was to be built (Melville 2016). Based on a unique inscription of his recovered from well P.5347 and from its vicinities (see § 6.1), he seems to have decided, a few years later, to make Karkemish a sort of his capital city in the West, probably to manage and coordinate Assyrian activities in the Levant and southern Anatolia. However, this project was abandoned

1 In fact, this continuity in material culture goes back to the Late Bronze age at least, see Otto 2018 for the sketching of a cultural koiné of the Middle Euphrates.

by his son Sennacherib after Sargon's dramatic death in Tabal in 705 BCE: the town only became the seat of an Assyrian provincial governor.

The building activities of Sargon II at the site are archaeologically attested by a series of refurbishments in the earlier palace originally built by the Karkemishean country-lord Katuwa in the late 10th century BCE: floors were raised, partition walls added, installations built, doors opened or closed, baked bricks inscribed in cuneiform ("Palace of Sargon, king of the world, king of Assyria", see Cavriani et al. 2019-2020: fig. 9.4) set into the structures, all actions that significantly transformed the original building of Katuwa (not to mention the obliteration of the temples, at least those in the Lower Palace area). Two stelae of the king stood in the large plaza behind the palace, both featuring a royal image and a long cuneiform inscription. The first one was made of basalt and is known from three fragments, two unearthed by the British expedition and one found by us at a short distance from well P.5347 (whether this stela originally stood over the nearby stone-made square base, we cannot tell any more). The second one, of limestone, came to light in 2024, smashed over the cobbled surface of the plaza to the South-West (around which, we think on the basis of evidence unearthed in area GG, there must have been more official buildings). These new items of visual communication did not compete in a crowded space, since Neo-Hittite sculptures had disappeared from public view: they were either removed and smashed or smoothed, or covered by fills or new structures. The very room in which well P.5347 was realized (L.5099; Fig. 1.1, Pl. V) had, in the previous Phase 10, a decoration of sculpted orthostats (Marchetti 2015a; 2015b; 2019-2020), which were almost no longer visible in Assyrian times (Pls. III-IV, VII).

For the 7th century BCE the most significant written sources from Karkemish (actually from the eastern building in the palatial compound of area C) are three legal texts (Cavriani et al. 2019-2020: fig. 9.5), one of which – a silver-loan tablet – provides us with the names of a new governor of Karkemish, Ilu-zeru-ukin, and a new eponym, Geja (see, provisionally, G. Marchesi apud Zaccagnini 2019: 40 with n. 8). Furthermore, that same tablet represents the first written attestation of the famous "mina of Karkemish" on a document found at the site itself (G. Marchesi in Cavriani et al. 2019-2020: 283).[2] Assyrian administration continued until 605 BCE, when the last remnants of the Assyrian army and their Egyptian allies were defeated in the battle of Karkemish by the then-crown prince of Babylon, Nebuchadnezzar, just before his father Nabopolassar passed away. It must have been at this time that items belonging to the palace started to be thrown into well P.5347: they were thrown in after having

2 A tablet of literary content with a bilingual incantation (Marchesi 2014) was probably part of a library since it dates to at least three centuries prior to the demise of the palace.

been broken and piled around the well, since in many cases we could join pieces that were found several meters apart in the fills of the well. When the debris backfilled the lower half of the well and its water-dripping holes hewn into the bedrock, the well dried up and became only a dumping ground (see Chapter 2).[3]

The types and quality of the assemblages that were discarded (see Table 2.1) help us to reconstruct the furnishings of the Iron III palatial compound, which was found almost devoid of mobile finds (see Zaina et al. 2019 for Egyptian blue ingots found in the eastern building), and the activities carried out there. The objects employed in administrative operations belong to the official sphere: tokens for basic accounting, a weight, impressed sealings (all burnt, they were attached to parcels and containers, one sealing even preserves carbonized ropes inside), and three seals (see Chapter 3). The pottery assemblages from the well show a clear functional distinction: when the well only served as a water source in subphase 1, we have a marked prevalence of closed shapes, mostly jugs, while we have a greater variety when in subphase 2 it became a dumping ground (see Chapter 4). Among other classes of objects, we have stone vessels (some of which are identical in type to those from the palaces of the Assyrian core), metal tools and containers, an iron cuirass, and some other items of daily use, such as tools, astragali, and terracotta figurines, which become ubiquitous at the site during Iron III (see Chapter 5). Bioarchaeological analysis informs us about the dietary habits of the elite occupants of the area, while the presence of two human bones cannot be readily explained (see Chapter 7).

As far as inscribed material is concerned (Chapter 6), two fragments of terracotta prismatic cylinders inscribed in cuneiform with a unique royal inscription of Sargon II were found in the well and other two fragments nearby (Marchesi 2019; Cavriani et al. 2019-2020: fig. 9.10): these fragments originally belonged to three different cylinders that must have been displayed in the palace itself, as the colophon of one of them clearly indicates ("Palace of Sargon"). A new and updated edition of this extraordinary text is presented here, which includes a new small but significant fragment found during the 2024 excavations, providing us with the beginning and the end of the inscription. The epigraphic evidence is completed by the inscribed rim of a luxury stone vessel and the corner of a Neo Hittite basalt orthostat inscribed by Katuwa; the latter, from the uppermost fill, was a residual, ancient stray item.

When the Neo-Assyrian Empire fell in 612 BCE under the blows by the allied forces of the Medes and the Babylonians, the Assyrian royal palaces were pillaged and many of their

3 After the completion of the excavation of the well, the water started filtering again from the holes and nowadays the bottom of the well is filled up with water.

furnishings were thrown into wells. In the North-West Palace at Nimrud, built by Ashurnasirpal II and where Sargon II himself resided until he moved to Khorsabad in 706 BCE, four wells were excavated by British and Iraqi archaeologists in courtyards NN, AJ, AB, and 80 (Mallowan 1966: 149-152; Oates and Oates 2001: 90-104, fig. 33). Although they were made of baked bricks (down to the bedrock encountered at great depth), their capstones were very similar, though larger, to those of P.5347 (Pl. VI.1; see Mallowan 1966: figs. 87-88; Oates and Oates 2001: fig. 53). Moreover, the wells at Nimrud presented the same situation as that at Karkemish, with broken jugs found in their bottom fills dating back to their actual use as wells, over which the palace furnishings were deposited when the city was taken.

Notes on the registration system:

SU means Stratigraphic Unit. Each SU/layer is identified by a capital letter defining its function and an absolute progressive number: F. = fill; L. = floor; P. = pit; W. = wall.

Each find is registered according to the following system: site code (KH); year (15); an infix for pottery find (P) or small find/object (O), each series receiving a progressive number within that year (in fact small finds are numbered on the field according to the associated bucket and a letter, receiving an O number later on during registration; the same goes for samples, numbered on the field according to the associated bucket and an s-number, before receiving an S number of their own within that year after their registration at the dig house). Selected pottery finds are provided with sherd numbers within their bucket number (for example KH.15.P.800/1).

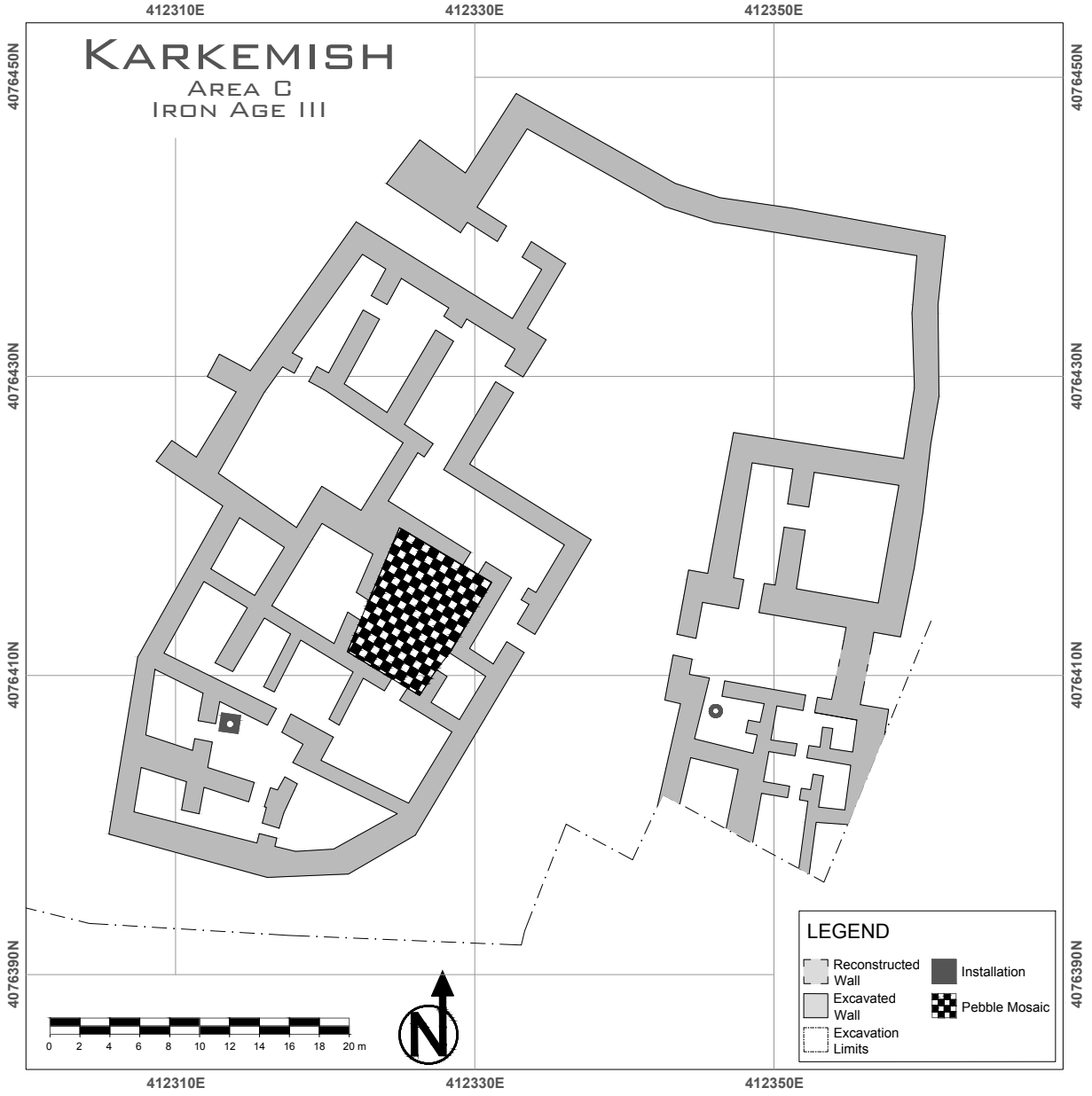


Fig. 1.1 Schematic map of the Iron III palatial compound in area C, phase 9 (the position of well P.5347 is marked on the lower left); by Marco Valeri.

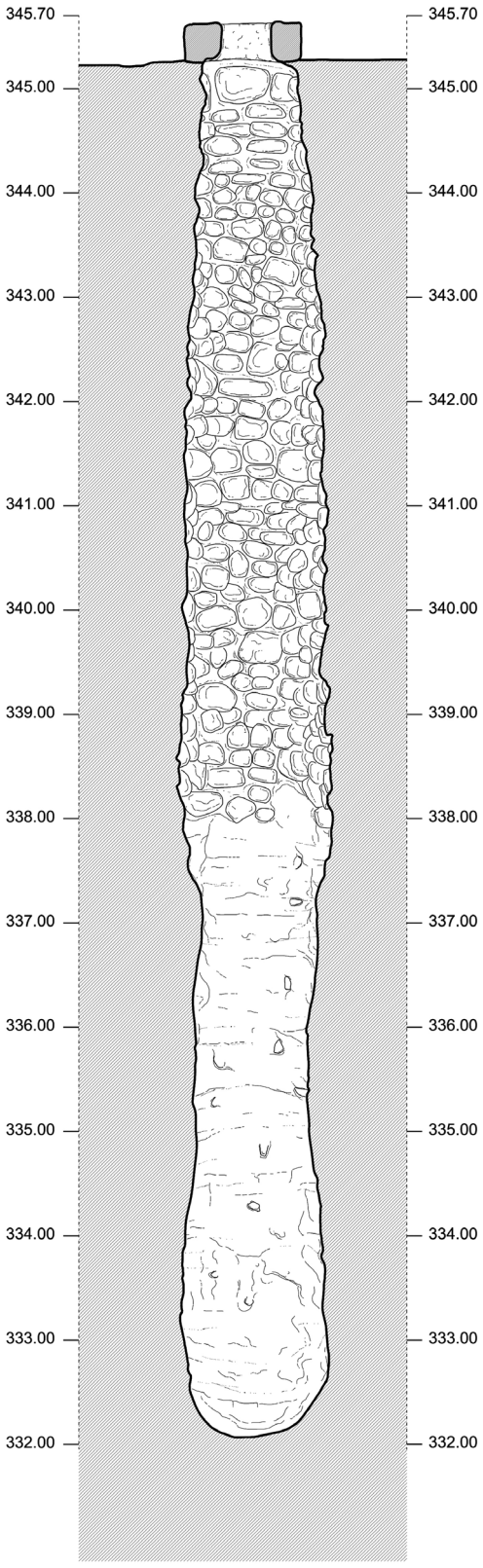


Fig. 1.2. Sectional elevation of well P.5347, Iron III, phase 9; by Giampaolo Luglio.

Chapter 2

THE STRATIGRAPHY OF WELL P.5347

The excavations established a complex stratigraphic history for well P.5347 (Pl. X): it was newly realized during the Neo-Assyrian phase and it actually functioned for some time as a water well, before being turned into a dumping ground at the time in which the palace went out of use.

2.1. THE STRATIGRAPHIC PHASING OF AREA C SOUTH

Well P.5347 is located in the south-western sector of the palace compound in Area C (Fig. 1.1, Pls. II, III.1, VII), where the excavations by the Turco-Italian Archaeological Expedition revealed a complex stratigraphic sequence consisting of 12 structural phases ranging from LB I (15th-early 14th century BCE) to the Early Islamic period (9th-10th century CE) (Marchetti 2012; 2014; 2015a; 2015b; 2019-2020; Pizzimenti and Zaina 2016). The well is attributed to phase 9(a-b), which belongs to Iron III or the Neo-Assyrian period (717-605 BCE at the site). At the end of the 8th century BCE, in fact, the inner plan of the Neo Hittite palace (phase 10)[1] was deeply transformed and adapted to become part of the "Palace of Sargon, king of the world, king of Assyria" (Marchetti 2015b: 368).[2] This new palace consisted of at least three main blocks enclosed within the same perimeter of the previous one (phase 10) and arranged

1 Phase 10 corresponds to the first massive architectural and urban re-organization of the area which probably took place in the late 10th century BCE, under the ruler Katuwa, marking the beginning of Iron II at the site.

2 For the discovery *in situ* of a complete baked brick with that inscription of Sargon II, cf. Pizzimenti and Zaina 2016: 365.

around a large pebbled courtyard (L.4649).[3] The previous structures were only partially reused, as indicated by a different architectural layout and the floors refurbished over the previous ones (Pls. III.2, IV.1-2). The large Iron II courtyard L.5085 was in fact obliterated, and in its place, three smaller rooms have been built. Well P.5347 (Pls. V, VI.1) is located in the southernmost room that obliterates the courtyard, cutting its beaten earth floor L.5085. It was used during both the Neo-Assyrian subphases (9a and 9b), as shown by the two superimposed floors associated (one for each subphase: L.5099 for 9a [Pl. VI.2] and L.5060 for 9b [Pl. VI.3]), both made with small pebbles and small eroded pottery sherds, indicating the room as an open space.

The well is no longer in use in the following subphase 9c, dated to Iron IIIB (i.e., the Neo-Babylonian period), during which the palace compound sees more changes in the architectural layout together with floors refurbishing. At the beginning of the latter phase, in fact, the well was filled (cf. § 2.2) and then obliterated by a floor made with small pebbles and small, eroded pottery sherds (L.5896). The recovery of one fragment of a terracotta prism, bearing a royal inscription of king Sargon II (see Marchesi 2019: figs. 3, 12-18), reused into the above-mentioned L.5896, indirectly supports the dating of subphase 9c to the end of the 7th-beginning of the 6th century BCE, following the conquest of Karkemish by the Babylonians in 605 BCE (see Chapter 1). Two more inscribed terracotta prisms, the inscriptions of which overlap in part with that of KH.15.O.300, have been recovered into the filling of well P.5347 (cf. § 6.1).

2.2 THE CONSTRUCTION TECHNIQUE, THE INNER STRATIGRAPHY AND THE DISTRIBUTION OF MATERIALS IN THE WELL

It took us a full season to reach the bottom of well P.5347 (in 2015, the well having been first identified in the 2014 campaign): its depth is about 13.62 m, from the well's capstone to the bottom (Fig. 1.1). The upper part of the well (cutting through earlier archaeological levels) is characterized by a liner made of medium-sized stones (with an inert fill between them and the pit's cut), while the lower part was hewn into the bedrock (Pl. VIII.1-3). The stone liner is 7 meters high from the well-head or the base of the well's capstone (from 345.70 to 338.00 m asl), while the lower portion hewn into the bedrock is 6 meters deep (from 338.00

3 This court was paved with a black and white mosaic of pebbles forming a checkerboard pattern, which finds contemporary parallels at sites such as Arslan Tash (Thureau-Dangin et al. 1931), Tell Ahmar (Bunnens 1998) and Ziyaret Tepe (Matney and Rainville 2005), as well as in more distant areas like the recently discovered Phoenician *Santuario de Càstulo* in Spain (Blásquez Martínez 2006).

m asl to 332.00 m asl depth). The stones of the liner are bound together by a whitish mortar, as it could be noted in a small collapsed portion of it (subsequently restored for safety reasons), which also showed the cut through the earlier stratigraphy of the well shaft. The capstone is carved in a square block of limestone with a round perforation in its middle featuring a curb (Pl. VI.1) and placed on the upper edge of the stone liner of the well. The shaft from below the well-head is about 1 m wide (the perforation in the capstone has a diameter of just 0.5 m), while farther down the stone liner widens up to 2 meters of width at 343.00 m asl and then keeps, with a squarish rather than circular section, the same width before narrowing slightly after meeting the bedrock (at the elevation 337.00 m asl). In the portion cut into the bedrock, some horizontally carved holes are present along the shaft, roughly placed at regular distances (Pl. VIII.2-3). Following a suggestion (derived from his direct knowledge of traditional techniques) by the then Mayor of Karkamış, Nuh Kocaaslan, we may surmise that, since the limestone bedrock in Karkemish is permeable and since the water table was higher in pre-dam times, the function of the carved holes was, most probably, to continually refill with water the well in its lower half.

The stratigraphy of well P.5347 is characterized by a sequence of stratigraphic units divided into two subphases (Fig. 2.1, Pl. V): the first one, subphase 1, belongs to the period of use of the well as such during Iron III, while the second one, subphase 2, refers to the fill resulting from the sack and abandonment of the Neo-Assyrian palace. The finds are tabulated below according to their stratigraphic unit (Table 2.1, Pl. IX.1-4).

Subphase 1 is composed by fill F.6372, very compact and muddy, characterized by inclusions of small size pebbles and in which the presence of pottery was very significant. The objects found in F.6372 are very few and they consist of bronze and iron tools and one iron projectile (see Cardini in this volume). The elevation of F.6372 goes from the bottom up to 333.04 m asl.

Subphase 2 begins at the elevation 333.04 m asl with fill F.6309, compact and again characterized by abundant pottery. The matrix is devoid of inclusions. F.6309 gave clay figurines, a fragmentary bronze vessel, iron and bone tools, a clay sealing, a scarab seal, a limestone stamp seal and clay tokens.

At the elevation 333.95 m asl of the well, where its width is 1.27 meters, a new stratum starts, F.5882, incoherent, sandy, without inclusions (during the excavation, the fill F.5919 was equated with F.5882). This layer occupied the majority of the portion cut in the bedrock, until the elevation 337.36 m asl. From the fill, fragments of stone vessels and plates, a bone stylus, clay figurines, a spindle whorl, tokens and a clay sealing were retrieved.

Between the elevation 337.36 m asl and 338.00 m asl, two layers were present (at this depth, the width of the well is about 1.18 meters): F.5874, compact, and F.5859, very compact and without inclusions. From F.5874 only fragments of an indeterminate bronze object were retrieved, while F.5859 gave fragments of stone vessels and plates, a fragmentary cuneiform cylinder and a clay figurine.

Between the elevation 338.00 m asl and 338.82 m asl, it was possible to recognize two fills, with a different matrix. The first one was F.5858, a sandy stratum with a very little presence of charcoal (see Pl. IX.3), while the other one is F.5857, a layer of charcoal, without inclusions. The layer of charcoal F.5857 was about 20 centimeters thick. F.5858 gave fragments of stone plates, while in F.5857 a stone cylinder seal and a fragmentary stone plate were retrieved.

The last fill of well P.5347 was F.5801 starting at the elevation 338.82 m asl: it was sandy, without inclusions and it filled both the upper portion of the liner up to the capstone. From this fill, a fragment of a monumental inscription in Luwian, fragments of stone vessels, a stone vessel with a cuneiform inscription, scales of an iron armor and two astragalus bones were retrieved.

SU	Top elevation (m amsl)	Pottery buckets (KH.15.P.)	Small finds (KH.15.O.)	Bone samples (KH.15.S.)	Soil samples (KH.15.S.)
F.5801	345.30	301, 307, 313, 314, 316, 318, 321, 326, 329, 331, 333, 336, 337, 340	St.v.: 58, 99, 102+, 103+, 385+, 406+, 407+, 408+, 387; Met.: 96, 291, 435, 597; Fig.: 75, 128, 186 ; Var.: 81, 83, 94, 131, 136, 140, 170, 177, 670, 672, 673, 674; Cun.: 100; Hier.: 40	11, 12, 19, 22, 23, 32, 33, 35, 52, 53, 55, 63, 396, 400, 403, 404, 405, 406, 407, 408, 409	10, 24, 25, 27, 29
F.5857	338.82	343	St.v.: 385+	56, 402	46, 50
F.5858	338.20	344	Gly: 368; St.v.: 351+, 408+	65	
F.5859	338.00	346, 347	St.v.: 102+, 103+, 351+; Met.: 216, 517, 601; Fig.: 340; Cun.: 221	68, 72, 393	
F.5874	337.70	351	Var.: 581	75	
F.5882	337.36	360, 369, 370, 372, 378, 381, 386, 388, 393, 400, 407, 412, 420, 425, 435, 442, 451	Gly.: 292, 310, 318, 436; Tok.: 487, 488, 489, 490, 492, 493, 495, 497, 498, 499, 500, 502, 505, 506; St.v.: 103+, 351+, 405, 406+, 407+, 427; Met.: 343, 515; Fig.: 467; Var.: 290, 434, 563, 582, 608, 621	82, 93, 99, 111, 176, 177, 180, 203, 224, 231, 290, 389, 390, 391, 392, 395, 398	320, 322
F.6309	333.95	455, 461, 463, 467, 474, 476, 478, 479, 486, 487, 489, 490, 492, 496, 498, 499, 803	Gly.: 354, 449, 668; Tok.: 486, 491, 494, 496, 501, 504; St.v.: 412; Met.: 409, 437, 438, 439, 440, 442, 443, 444, 447, 637, 640, 641; Var.: 351, 353, 401, 429, 430, 432, 445, 448, 481, 482, 483, 533, 568, 592, 596, 619, 622, 623, 631, 642, 649, 658, 660; Fig.: 391, 393, 402, 465, 473, 550 552, 553, 557, 588; Cun.: 355	227, 260, 268, 278, 281, 289, 386, 388	226, 418
F.6372	333.04	808, 809, 814	Met.: 513; Var.. 626, 664, 665		352, 387

Table 2.1. Filling layers of well P.5347 and material culture associated with each stratigraphic unit.

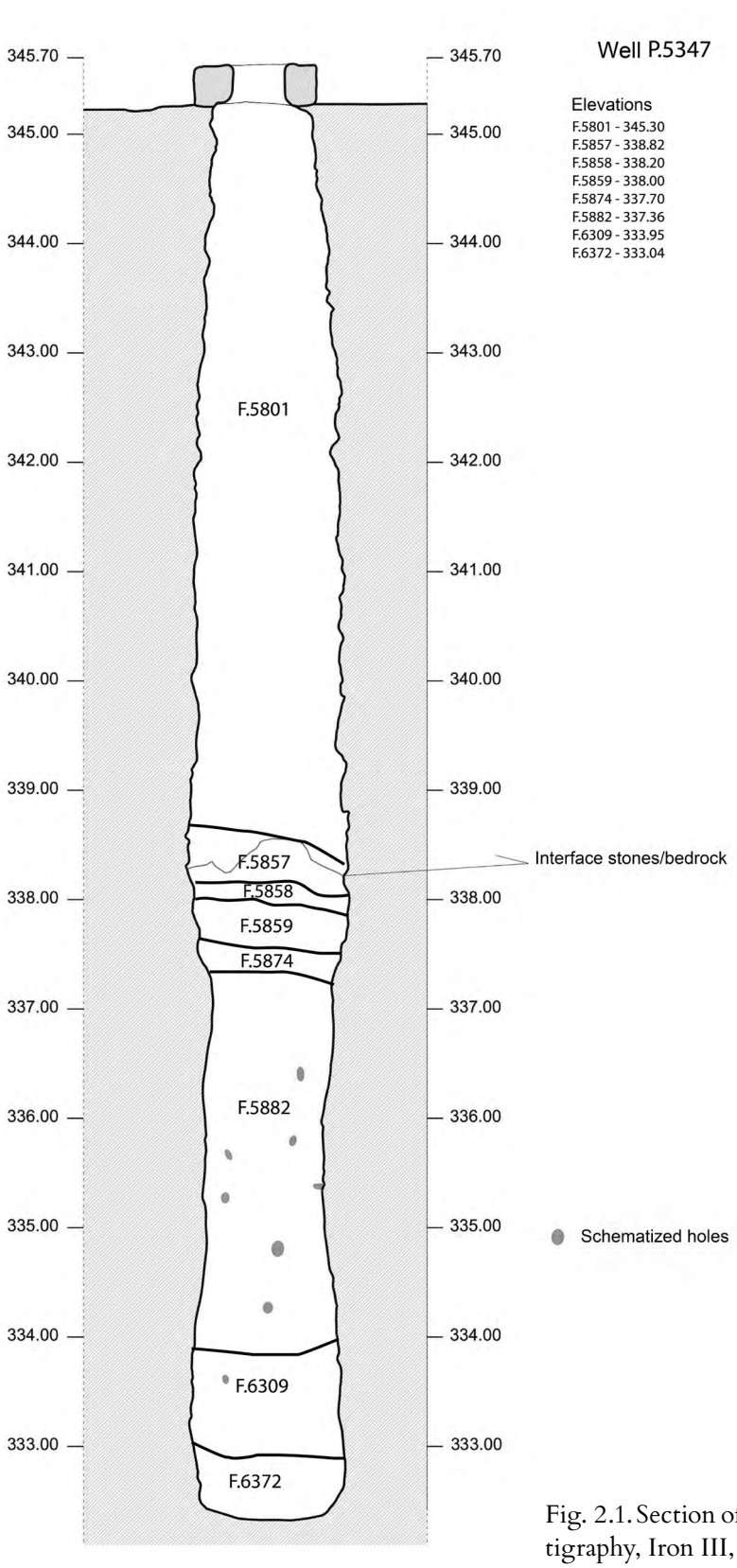


Fig. 2.1. Section of well P.5347 with its inner stratigraphy, Iron III, phase 9; by Giampaolo Luglio.

Chapter 3
ADMINISTRATIVE MATERIALS FROM WELL P.5347

Relatively few, but significant items attesting to the nature of the administrative operations taking place within Sargon's palace area have been found in the well and they are discussed below.

3.1 SEALS AND SEALINGS

The glyptic assemblage from the Neo-Assyrian well in area C includes eight finds, three from the second to last layer, four from the one above it and one from a middle layer. These pieces from various filling layers of the shaft were retrieved at different elevations, having been thrown away at the time when the Babylonians in 605 BCE put an end to the Assyrian domination at the site (see Chapter 1).

Three seals were found: the first one is a scaraboid seal (KH.15.O.354; Pl. XI.1; Cavriani et al. 2019-2020: fig. 9.13). It was found attached to an iron nail that most probably was not part of the original mounting of the seal, but they rather were brought together by post-depositional processes in the deposit. The corrosion of the metal slightly altered the original whitish color of the stone. The upper side presents a rounded plain surface, while on the base there is a carved scene depicting a worshipping male figure with the right arm raised up to his mouth. He wears a long robe with fringes at the bottom and he is flanked on both sides by palmette-like vegetal elements. A close comparison is represented by an ovoid scarab seal from a cremation burial at Deve Höyük (Moorey 1980: 114, no. 473, fig. 19, pl. II; see also an impression on a tablet from Tell Sheikh Hamad, Fügert 2015: 211-212, no. 247). The second is a cylinder seal (KH.15.O.368; Pl. XI.2), which is made of dark serpentine stone with a worn-out surface. Nevertheless, it is possible to infer the subject of the carved scene in cut-style: it possibly depicts a four-legged animal looking left, a crescent above and a spade (possibly Marduk's symbol) at the bottom. Similar scenes with series of animals or monsters

associated with astral and religious elements are quite common among Neo-Assyrian themes of cut-style seals (Collon 2001: 49-50, nos. 54-65; see also Fügert 2015: 169-170, nos. 152-158). The third piece (KH.15.O.668; Pl. XI.3) is a stamp seal crudely made in soft limestone, with quite an irregular conical shape and a pierced hanging hole on the top and incised, unclear geometric marks on its flat base.

The remaining five pieces are sealings made of unbaked, if burnt clay (where the burning does not seem to result from a destruction , of which there are no other traces), all bearing traces of stamp seal impressions (except for the last specimen). The first sealing (KH.15.O.310; Pl. XII.1; Cavriani et al. 2019-2020: fig. 9.12), made of burnt clay, was applied on a sack or a different container closed with textile, then tied with several laps of a twisted rope (0.35 cm in diameter; for a reconstruction of the type of closure, see Otto 2010: 469-470, fig. 3).[1] On the obverse, alongside multiple traces of fingerprints, it is possible to distinguish five seal impressions, made by two different seals. The first seal (a), impressed three times, depicts cultic symbols: an altar or offering table with decorated legs, standing on a floor, surmounted by a winged sun-disk, with fine detailed decoration. A close comparison for this seal is the impression on two sealings from Nineveh, possibly dating from the late 8th-7th cent. BCE, depicting a very similar table with a winged sun-disk (see Herbordt 1992: 157, pl. 20.12; Mitchell and Searight 2008: 111, no. 257). According to Herbordt (1992: 157), this seal can be counted among the so-called official seals (different from the so-called private seals) belonging to kings and dignitaries of the imperial administration. The second seal (b) depicts a winged sun-disk and a crescent above, formed by simple straight lines. Similar depictions with isolated winged sun-disks or together with astral symbols are quite common among the glyptic evidence of the 8th-7th cent. BCE (Herbordt 1992: 98-99, pl. 10.1-6; 10.24-32; Mitchell and Searight 2008: nos. 208-132). Thus, if we consider the first stamp seal as one of the official seals of the Assyrian administration, the two seals might belong to the same high-ranking individual using the so-called office or bureau seal (a), as well as his personal seal (b), as it is attested in the Governor's Palace at Nimrud (Radner 2008: 507-508, nos. 1-2; see also Herbordt 1992: 194, Nimrud 89 and p. 199 Nimrud 111). However, we cannot exclude that the seals were instead owned by two different individuals, both being responsible for the registration and storage of the sealed items.

Another burnt fragmentary sealing (KH.15.O.318; Pl. XII.2), the reverse of which is mostly broken and shows unclear functional traces, presents on the obverse an almost com-

1 The sealing was found in a single layer of the deposit but broken in four pieces, which were then restored back together by Laura Benucci, the conservator of the Turco-Italian Archaeological Expedition at Karkemish during the 2015 campaign.

plete oval stamp seal impression with a worshipping scene depicting a standing figure with raised right arm in front of a seated deity, both wearing a long robe; between them there is a globe-topped dagger-shaped symbol, interpreted as a *patru* or dagger, an attribute of the god Aššur (see Collon 2001: 13, nos. 155, 158, 210, 228, 236). As observed by Herbordt (1992: 109-111), depictions of worshipping scenes in front of a deity and seated gods are rarely attested in stamp seals, while more common are the depiction of the sole worshipper in front of divine attributes (see Fügert 2015: 173-175, nos. 228-245).

Another almost complete sealing, also burnt and of an oval shape (KH.15.O.292; Pl. XIII.1), was most probably applied on a wooden lid closing a box or a different type of container without a knob, as suggested by the negative impression of fine wood grains on its flat back. The package was likely secured with a twisted small string (0.2 cm in diameter), on two different directions as indicated by the traces left by the string on the lower and upper side of the sealing (for a discussion of this type of rounded sealing applied on wooden objects or writing boards, see Herbordt 1992: 60-61, fig. 10.4, pls. 33.10, 36.1,3,5-6). On the obverse, faint traces of dots can be distinguished, perhaps belonging to a stamp seal: seven dots or stars are used both on cylinder and stamp seals to represent the *Sibitti* (for comparisons, see Herbordt 1992: 102-103, pl.10.16-20; for other depictions of dots, see also *ibid.*: 120, pl. 12.23-24; see also Collon 2001: 14).

A fragmentary sealing (KH.15.O.449; Pl. XIII.2), with broken back, bears on the obverse the upper part of a rounded stamp seal impression showing a crescent on staff with two (?) crossing horizontal lines, likely resembling a standard (for comparisons, see Herbordt 1992: 101, pl. 10.21-22; Mitchell and Searight 2008: nos. 19, 206; see also a seal from Tell Ahmar, Bunnens 2022: 160-161, fig. 246).

The last piece (KH.15.O.436; Pl. XIII.3), without traces of seal impressions preserved, shows on the reverse negative impressions of several parallel laps of a twisted rope (0.4 cm in diameter). However, there are no further elements allowing for a more precise functional identification.

The presence of discarded sealings that were previously attached to parcels and containers are the results of administrative operations which were performed within the palatial compound uncovered in area C, although the sector which was there employed for administrative and storage activities cannot yet be identified (on the Neo-Assyrian palace, see Marchetti 2015; Pizzimenti and Zaina 2016; Cavriani et al. 2019-2020). It is not possible to infer whether the sealings were attached to incoming parcels before shipment perhaps from one of the cities of the core of the empire towards the provinces or if they were rather applied upon

their arrival by local officials using stamp seals of Assyrian style. Nevertheless, the types of sealings documented at Karkemish, such as those applied to different types of containers are coherent with the typology already known from the core of the empire (Herbordt 1992: 63–65, fig. 6).

Overall, the glyptic assemblage from the Neo-Assyrian well in area C can be regarded as a coherent corpus of Iron III(A) date. The actual seals were perhaps manufactured by a local workshop, situated at Karkemish or in its surroundings. One cylinder seal is executed in a typical Neo-Assyrian manner both for its cut-style and for the choice of motifs. On the other hand, the stamp seal impressions can be compared with the large corpora of impressions on tablets and sealings found at Nineveh, Nimrud, Khorsabad (Herbordt 1992), and Tell Sheikh Hamad (Fügert 2015).

KH.15.O.292, Sealing (Pl. XIII.1)
Material: unbaked clay
Dimensions: l. 2.9+; w. 2.6+; th. 1.2+ cm
SU: F.5882
Bucket: KH.15.P.407
Preservation: almost complete

KH.15.O.310, Sealing (Pl. XII.1)
Material: unbaked clay
Dimensions: l. 5.1+; w. 4.8+; th. 2.4+ cm
SU: F.5882
Bucket: KH.15.P.372; 378
Preservation: almost complete

KH.15.O.318, Sealing (Pl. XII.2)
Material: unbaked clay
Dimensions: l. 2.1+; w. 1.5+; th. 1.2+ cm
SU: F.5882
Bucket: KH.15.P.442
Preservation: fragmentary

KH.15.O.354, Scarab seal (Pl. XI.1)
Material: quartz
Dimensions: l. 1.9; w. 1.5; th. 0.8 cm
SU: F.6309
Bucket: KH.15.P.478
Preservation: complete

KH.15.O.368, Cylinder seal (Pl. XI.2)
Material: stone
Dimensions: h. 1.4; diam. 0.7; perf. diam. 0.3 cm
SU: F.5858
Bucket: KH.15.P.344
Preservation: complete

KH.15.O.436, Sealing (Pl. XIII.3)
Material: unbaked clay
Dimensions: l. 3.9+; w. 3.4+; th. 1.9+ cm
SU: F.5882
Bucket: KH.15.P.407
Preservation: fragmentary

KH.15.O.449, Sealing (Pl. XIII.2)
Material: unbaked clay
Dimensions: l. 2+; w. 1.7+; th. 1.8+ cm
SU: F.6309
Bucket: KH.15.P.479
Preservation: fragmentary

KH.15.O.668, Stamp seal (Pl. XI.3)
Material: limestone
Dimensions: l. 3; w. 2.1; th. 2.3 cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: nearly complete

3.2 CLAY TOKENS

The excavations in well P.5347 produced a significant corpus of tokens from the Iron III phase of the site. The corpus includes four primary shapes: tetrahedra, discs, cylinders, and one bent cone (Pl. XIV.1-2). A total of 20 tokens were recovered, displaying varying states of preservation, ranging from fragmentary to nearly complete (only six are complete: KH.15.O.488, KH.15.O.489, KH.15.O.490, KH.15.O.492, KH.15.O.498, KH.15.O.499). Fifteen tokens display traces of burning over their entire surface. Interestingly, the burnt marks extend also over the cracked areas, suggesting that the objects were subjected to fire after they had already sustained damage. The four primary shapes likely indicate different administrative meanings. Below is a detailed catalogue based on their typology, measurements, and condition:

1. Tetrahedron (9 tokens): These are the most common type, with sides measuring 0.9–1.5 cm.
2. Disc (3 tokens): These measure 1.4–1.5 cm in diameter and are 0.5 cm thick.
3. Cylinder (5 tokens): These measure 1.3–1.8 cm in height and have a diameter of 0.8 cm.
4. Bent Cone (1 token): This rare type is characterized by the tip being bent to one side at a 90° angle, suggesting it encoded a specific functional distinction. The only bent cone found measures 1.6 cm in height with a diameter of 1.1 cm.

The tokens were recovered from two fills of subphase 2 in well P.5347, F.6309 and F.5882, both containing pottery and an array of different objects originally kept in the palace (while the fill from subphase 1, F.6372, lacked significant materials). The tokens were found alongside various administrative artifacts, such as clay sealings, seals, and a weight, in addition to other classes of objects.

While the exact original distribution of the tokens within the palace remains uncertain, the context of their recovery strongly indicates their association with administrative functions. The tokens were found in the following sequence, here listed by decreasing elevation:

- F.5882: KH.15.O.487, KH.15.O.488, KH.15.O.489, KH.15.O.490, KH.15.O.493, KH.15.O.495, KH.15.O.499, KH.15.O.500, KH.15.O.492, KH.15.O.506, KH.15.O.498, KH.15.O.497, KH.15.O.502, KH.15.O.505, KH.15.O.506.
- F.6309: KH.15.O.491, KH.15.O.496, KH.15.O.501, KH.15.O.494, KH.15.O.504, KH.15.O.486.

These tokens, the only ones discovered at Karkemish thus far, represent a rare and unique administrative find. Their relatively small number could indicate a limited use in the palatial

context, at least at the very end of the 7th century BCE. Similar findings were uncovered at Ziyaret Tepe, located in the province of Diyarbakır in south-eastern Türkiye (MacGinnis 2023: 124). Hundreds of small, geometrically shaped clay artifacts displaying comparable characteristics were found within an administrative complex near the southern city gate in the lower town, an area identified as Operation G/R/W (MacGinnis et al. 2014a: 295–299; MacGinnis 2023: 124–127). These artifacts suggest their use in daily commodities accounting. The Neo-Assyrian complex there was constructed around two courtyards paved with black and white pebble mosaic floors (MacGinnis 2023: 124), as at Karkemish. Over 20 rooms opened onto these courtyards, emphasizing the area's administrative importance (ibid.). The concentration of tokens in this setting – particularly within a large administrative complex – alongside other administrative artifacts such as weights, clay sealings, cuneiform tablets, and pithoi underscores their role in economic and bureaucratic functions (MacGinnis et al. 2014b; MacGinnis 2023). The archaeological context strongly supports their interpretation as accounting tokens. Over 1,100 tokens were uncovered during the excavation seasons of the late 1920s and early 1930s at Tell Tayinat in the Hatay (MacGinnis 2023 : 124). At Tell Tayinat, the earliest tokens were found in Building I, primarily in rooms P and J, located on the lowest levels of the Iron II *bīt hilāni* palace (ibid.). Tokens from the 1937–1938 seasons were recovered from various unstratified contexts, around the eastern area outside Building I (ibid.). The token repertoire at Tell Tayinat includes cones, bent cones, cylinders, triangles, oxhides, and rarer – at that site – shapes such as tetrahedra and discs (ibid.).

The discoveries at Tell Tayinat support the interpretation of the small geometrically shaped clay artifacts from Karkemish as tokens. The tokens from Ziyaret Tepe provide compelling evidence of their use in administrative and economic activities, further highlighting their significance in Neo-Assyrian bureaucratic practices (and tokens associated with sealings have also been found in the contemporary houses of area H at Nineveh, N. Marchetti, pers. comm.).

The artifacts from Karkemish, Tell Tayinat, and Ziyaret Tepe share similar characteristics, reinforcing the notion that these objects served comparable administrative functions across these sites. At Karkemish, the occurrence of recovered tokens shows a hierarchical pattern, with tetrahedral tokens being the most abundant, followed by disc-shaped ones. This pattern mirrors that observed at Ziyaret Tepe (MacGinnis et al. 2014a: 293–295), with the tetrahedron being the most common shape (ibid.: 293, table 1). As noted by MacGinnis (MacGinnis 2023), the advent of more complex technologies like writing does not necessarily render earlier ones obsolete. In fact, tokens may have provided advantages in certain contexts, offer-

ing greater flexibility, simplicity, and accessibility than writing, thereby complementing the bureaucratic process (Oppenheim 1959: 126).

The lack of specific depositional patterns for the Karkemish tokens prevents us from drawing definitive conclusions about their numerical or semantic values and exact functions. However, the dominance of tetrahedral tokens in the assemblage is notable. The purely geometric nature of these tokens, without any identifiable markings or inscriptions, complicates their precise interpretation. The tokens recovered at Karkemish illustrate the ongoing use of tokens well into the 1st millennium BCE. These tokens appear to complement the use of cuneiform tablets, offering a more flexible approach to record-keeping than tablets alone could provide. However, the exact contexts in which these tokens were used remain unclear based on the available evidence, although their distribution suggests that they were an essential tool in the more distant Assyrian provinces, reflecting the far-reaching impact of Neo-Assyrian governance.

KH.15.O.486, Token (Pl. XIV)
Material: clay
Dimensions: h. 1.1+; w. 1; th. 0.7 cm
SU: F.6309
Bucket: KH.15.P.498
Preservation: fragmentary

KH.15.O.487, Token (Pl. XIV)
Material: clay
Dimensions: h. 1.6+; diam. 1.1 cm
SU: F.5882
Bucket: KH.15.P.407
Preservation: nearly complete

KH.15.O.488, Token (Pl. XIV)
Material: clay
Dimensions: l. 1.5; h. 1.2; wh. 1.2 cm
SU: F.5882
Bucket: KH.15.P.407
Preservation: complete

KH.15.O.489, Token (Pl. XIV)
Material: clay
Dimensions: l. 0.9; h. 0.9; wh. 0.9 cm
SU: F.5882
Bucket: KH.15.P.407
Preservation: complete

KH.15.O.490, Token (Pl. XIV)
Material: clay
Dimensions: l. 0.9; h. 0.9; wh. 0.9 cm
SU: F.5882
Bucket: KH.15.P.407
Preservation: complete

KH.15.O.491, Token (Pl. XIV)
Material: clay
Dimensions: th. 0.5; diam. 1.5 cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: fragmentary

KH.15.O.492, Token (Pl. XIV)
Material: clay
Dimensions: th. 0.5; diam. 1.4 cm
SU: F.5882
Bucket: KH.15.P.442
Preservation: complete

KH.15.O.493, Token (Pl. XIV)
Material: clay
Dimensions: l. 1; h. 1; wh. 0.8+ cm
SU: F.5882
Bucket: KH.15.P.425
Preservation: nearly complete

KH.12.O.494, Token (Pl. XIV)
Material: clay
Dimensions: h. 1.2+; l. 1.3; w. 1.1 cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: nearly complete

KH.15.O.495, Token (Pl. XIV)
Material: clay
Dimensions: l. 1.2+ ; w. 1+ ; th. 0.6+ cm
SU: F.5882
Bucket: KH.15.P.412
Preservation: fragmentary

KH.15.O.496, Token (Pl. XIV)
Material: clay
Dimensions: h. 1.1+ ; th. 0.5 cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: fragmentary

KH.15.O.497, Token (Pl. XIV)
Material: clay
Dimensions: l. 1; h. 1.1; wh. 0.9 cm
SU: F.5882
Bucket: KH.15.P.451
Preservation: nearly complete

KH.15.O.498, Token (Pl. XIV)
Material: clay
Dimensions: l. 1.3; diam. 0.8 cm
SU: F.5882
Bucket: KH.15.P.442
Preservation: complete

KH.15.O.499, Token (Pl. XIV)
Material: clay
Dimensions: l. 0.9; h. 0.9; wh. 0.9 cm
SU: F.5882
Bucket: KH.15.P.412
Preservation: complete

KH.15.O.500, Token (Pl. XIV)
Material: clay
Dimensions: l. 0.7+; h. 0.7+; th. 1+ cm
SU: F.5882
Bucket: KH.15.P.442
Preservation: fragmentary

KH.15.O.501, Token (Pl. XIV)
Material: clay
Dimensions: h. 0.8+; th. 0.6 cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: fragmentary

KH.15.O.502, Token (Pl. XIV)
Material: clay
Dimensions: l. 0.9; h. 0.8; wh. 0.9 cm
SU: F.5882
Bucket: KH.15.P.451
Preservation: nearly complete

KH.15.O.504, Token (Pl. XIV)
Material: clay
Dimensions: h. 1.1+; th. 0.7 cm
SU: F.6309
Bucket: KH.15.P.467
Preservation: fragmentary

KH.15.O.505, Token (Pl. XIV)
Material: clay
Dimensions: l. 1.1; h. 0.9; w. 1 cm
SU: F.5882
Bucket: KH.15.P.442
Preservation: nearly complete

KH.15.O.506, Token (Pl. XIV)
Material: clay
Dimensions: h. 1.8+; th. 0.8 cm
SU: F.5882
Bucket: KH.15.P.442
Preservation: nearly complete

3.3 STONE WEIGHT

The weight KH.15.O.481 was found in the fill F.6309 in association with other Neo-Assyrian materials which included one fragment of a terracotta cylinder with an inscription of Sargon II (Marchesi 2019; see also § 6.1 below).

— KH.15.O.481. Spherical. Flat base with rounded top. Mass: 19.75 g. The mass of 19.75 g can only be interpreted as 3 units of 6.58 g, the well-known unit of ~6.7 g, which is 1/10 of the "Aegean" standard of ~67 g, as well as 1/2 of the Old Babylonian Dilmun unit of ~13.4 g = the "gold *dbn*" of 3rd–2nd millennium Egypt of ~13.4 g[2] = the shekel of Hama of Iron Age Syria of ~13.4 g.[3] Therefore, the unit of 6.58 g of KH.15.O.481 corresponds to an Aegean standard of 65.8 g and a shekel of Hama of 13.16 g.

KH.15.O.481, Weight (Pl. XV.1)
Material: black stone
Dimensions: h. 2.1; diam. 2.2 cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: Complete

At Karkemish, an almost identical mass is documented by the weight KH.13.O.1350, from a context dated to Iron II (late 10th– 8th century BCE).

— KH.13.O.1350. Area H, dismantling of floor L.2421. Roughly truncated cone of brownish stone (goethite?). H. 3 cm; diam. 1.8 cm. Mass: 19.60 g (–). Nearly complete (Pl. XV.2). The mass of 19.60 (slightly underweight) of KH.13.O.1350 corresponds to 3 units of 6.53 g, which means an Aegean standard of 65.3 g and a shekel of Hama of 13.06 g.

The Iron Age weight stones found at Karkemish (including the 6 ducks published by Zaccagnini 2019) show a remarkable *koiné* of metrological systems, which will be addressed in a forthcoming study. However, it is noteworthy that the basic unit of 6.7 g, and its double of

2 See Zaccagnini 1986a; Zaccagnini 1986b: 420–422; Zaccagnini 1993; Zaccagnini 1999–2001: 49–51; Zaccagnini 2019: 45–46, no. 34; 67 with nos. 102–104 (with bibliographic references). I agree with the sharp comments of Petruso 2019 about the untrustworthiness of sheer arithmetic equivalences between different weights and weight systems, as synthetically advocated long time ago by Mederos and Lamberg-Karlovsky 2001, but at the same time I stress the importance of taking into account unavoidable yet reasonable margins of approximation whenever analyzing and comparing different pieces and different standards. In this respect, the case of the "Dilmun"/"Aegean" unit of ~6.7 g, corresponding to 1/10 of the ~67 g "Aegean" standard, is paradigmatic.

3 Cf. Deutsch and Millard 2014, with bibliographic references. See in particular the following inscribed weights listed on *ibid*., pp. 16–17: no. 5: 13.3 g ("shekel of Hamath"); no. 6: 12.65 g ("shekel of Hamath"); no. 2: 26.6 g ("two shekels of Hamath") = 2 × 13.3 g; no. 18: 3.3 g ("quarter shekel of Hamath") = 13.3 g ÷ 4.

13.4 g (i.e. the shekel of Hama), are not attested. Only two weights probably represent round multiples of these units:

— KH.19.O.14. Area S, F.9719. Limestone sphere? H. 3.7 cm; diam. 2.8 cm. Mass: 78.94 g. (Pl. XV.3). The mass of 78.94 g corresponds to 12 units of 6.57 g = 6 shekels of Hama of 13.15 g. At the same time, 78.94 g precisely corresponds to 10 standard shekels of Karkemish of 7.894 g, yielding a standard Western mina of 463.64 g.

— KH.17.O.355. Area AA, F.8787. Limestone sphere. A small flattened part serving as a base. Diam. 4 cm. Mass: 80.51 g. (Pl. XV.4). The mass of 80.51 g precisely corresponds to 12 standard units of 6.71 = 6 shekels of Hama of 13.41 g. The resulting shekel of Karkemish would weigh 8.05 g, yielding a slightly overweight (+3%) Western mina of 483 g.[4]

As it is well known, the attestations of the 6.7-g and 13.4-g units, of their decimal multiples (67 g [i.e. the Aegean standard] and 1,340 g [i.e. the Dilmun mina]), and of other related values, are extremely abundant and do not need to be reviewed here again.[5] By contrast, it is worth pointing out the relatively scarce attestations of weights representing 3 units of ~6.7 g = ~20.1 g, with masses ranging from 19.5 g (i.e. 3 × 6.5 g) to 20.4 g (i.e. 3 × 6.8 g). In the following, a short list of weights, of different provenience and periods, is provided, starting with 4 Iron Age pieces.

Nimrud (Reade 2018: 184): no. B 44 (ND 5211): 19.8 g = 3 × 6.6 g.

Zincirli (Archi and Klengel-Brandt 1984; cf. Zaccagnini 1991: 345 n. 3): no. 27: 19.082 g = 3 × 6.36 g; cf. no. 2: 38.9 g = 2 × 19.45 (= 6 × 6.48 = 3 × 12.97).[6]

Acco (Eran and Edelstein 1977: 58-62): no. 15: ca 20 g (restored) = 3 × 6.67 g; no. 16: 19.23 g = 3 × 6.41 g.

Interesting evidence is provided by some Late Bronze Age weights from the Ulu Burun shipwreck and from various Aegean sites.

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4 The ~7.83-g shekel of Karkemish is attested in KH.13.O.1244, a heptagonal prism of 23.98 g, corresponding to 3 shekels of 7.99 g (+2%), and in KH.16.O.158, and possibly also in KH.16.O.158, a partially broken sphere of 30.86 g (–), corresponding to 4 shekels of 7.71 g (–).

5 See above, n. 3 for inscribed weights. The mass of ~20.1 g is not attested at Hama. The 13.4-g shekel of Hama is attested in the following weights (Riis and Buhl 1990: 79-81): no. 123: 6.5 g (i.e. half shekel of Hama of 13 g); no. 126: 13.3 g (i.e. 1 shekel of Hama); no. 121: 27 g (i.e. 2 shekels of 13.5 g); no. 133: 54 g (i.e. 4 shekels of 13.5 g).

6 Cf. Archi and Klengel-Brandt 1984: no. 10: 13.215 g (= 2 × 6.6 g); no. 13: 13.91 g (=2 × 6.9 g).

Ulu Burun (Pulak 1996): W 59:[7] 19.62 g = 3 × 6.54 g; W 60:[8] 19.88 g (–) = 3 × 6.62 g (–); W 143:[9] 19.52 g (–) = 3 × 6.5 (–).

Aegean:[10] no. 62 (Knossos): 19.4 g = 3 × 6.47 g; no. 74 (Mochlos): 19.4 g = 3 × 6.47 g; no. 63 (Knossos): 19.82 g = 3 × 6.6 g; no. 92 (Akrotiri): 20.2 g = 3 × 6.73 g; No. 8 (Aya Irini): 20.25 g = 3 × 6.75 g; no. 9 (Aya Irini): 20.35 g = 3 × 6.78 g.

Very interesting yet isolated "forerunners" of this ~20.1-g unit are documented by some Early Bronze and Middle Bronze age weights from Ebla:

Ebla (EBA):[11] no. 42: 19.5 g = 3 × 6.5 g; no. 31: 19.6 g = 3 × 6.53 g; cf. no. 36: 39.4 g = 2 × 19.7 (= 6 × 6.57 = 3 × 13.13).

Ebla (MBA):[12] no. 166: 20.5 g = 3 × 6.83; cf. no. 109: 40 g = 2 × 20 g (= 6 × 6.67 g = 3 × 13.3 g); no. 205: 40.3 g = 2 × 20.15 g (= 6 × 6.72 g = 3 × 13.43 g).

7 Pulak 1996: 90, table 6, and 381.

8 Pulak 1996: 90, table 6, and 382.

9 Pulak 1996: 140, table 22, and 485.

10 Cf. Pulak 1996: 132, table 18 ("Aegean disk weights in the mass range of 19.4 g to 20.35 g …"). Pulak's metrological interpretation of these weights has been questioned by Zaccagnini 2019: 45–46, no. 34 (end).

11 Ascalone and Peyronel 2006: 101, table 3.18 ("Pesi ricondotti al siclo egeo") [Ascalone].

12 Ascalone and Peyronel 2006: 161, table 4.23 ("Pesi ricondotti al siclo egeo") [Peyronel].

Chapter 4

THE POTTERY ASSEMBLAGE FROM WELL P.5347

The pottery assemblage from well P.5347 consists of a total of 5707 collected sherds, 558 of which are diagnostic (rims, body sherds and bases), and are discussed here.[1] The entire corpus exhibits a strong homogeneity, with recurring shapes that allow the dating of both subphases 1 and 2 to the Iron III period. However, the presence of some late Iron III types in subphase 2 suggests that it dates to the end of Iron III.[2]

Due to the proximity to Karkemish and of their sizable amount of pottery that has been published, the sites of Tell Ahmar (Jamieson 2012) and Tell Shiukh Fawqani (Bachelot and Fales 2005) serves as excellent comparisons for the pottery assemblage from P.5347. Additional comparisons include several sites in the Middle Euphrates valley, such as Tille Höyük (Blaylock 2016), Deve Höyük (Moorey 1980), Tell Sheikh Hassan (Schneider 1999) and Tell Jurn Kebir (Eidem and Ackermann 1999). Connections with the Assyrian heartland can be noticed in the assemblages from Nimrud (Oates 1959; Hausleiter 1999), Nineveh (Lumsden 1999) and Khirbet Khatuniyeh (Curtis and Green 1997). The most useful and comprehensive studies are those by G. Lehmann (1996), M. Whincop (2009) and S. Anastasio (2010).

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1 The pottery collection and recording methods applied at Karkemish consists in the collection of pottery sherds and complete shapes in a bucket associated to the layer from which they have been found. To each layer, one or more buckets can be associated (depending on to the physical fill of the bucket or to distinguish particular clusters of sherds). The ceramic collected on the excavation is then studied and selected. Diagnostic selected sherds, preserved enough to be drawn and chronologically diagnostic are drawn, photographed (together), filed (according to a specific form) and stored. An inventory code is given to each selected sherd using the codes explained on p. 4 above, while unselected sherds are instead read, counted and discarded. The pottery form, used to file selected sherds, includes different types of information, the majority of which can be found in the tables next to the pottery illustrations. The measurements of the vessels illustrated in the figures may be found in the online digital documentation. See below for the abbreviations used in the tables of the figures of this chapter.

2 In fact, the following period, extending into the 6th century BCE, is as yet defined at the site not well enough to justify a label for it as Iron IIIB (see § 2.1 for floor L.5896), which would entail calling IIIA the period with which we mainly deal in this volume: however, such is the situation that for the time being it is more prudent to simply retain Iron III for the 7th century BCE at Karkemish.

4.1 SUBPHASE 1

Only Simple Ware is attested in subphase 1 (i.e. the bottom layer F.6372; Pl. XVIII.1), with both Preservation and Kitchen Ware absent. Surface treatments are observed on 44% of the recovered sherds, predominantly White Slip[3] (78%), while burnishing is present on 22% of them (Pl. XVI.1-2). Decorations are barely present (6%) and include brown painted motifs (Fig. 4.3.12), or grooved patterns (Fig. 4.2.2) (Pl. XVII.1-2). Approximately 79% of the pottery assemblage has fine homogeneous fabrics with a low frequency (<3%) of small (<0.5mm) mineral inclusions. A coarser fabric is also identified, characterized by a high-medium frequency (3-10%) of small (<5%) inclusions.[4] Among the fabric colors, pinkish tones (2.5YR 8/3-4; 5YR 7/3-4, 8/3-4; 7.5YR7/3-4, 8/3-4) and very pale brown (10YR 8/2-4) are the most attested.[5]

Simple Ware

Simple Ware includes both open and closed shapes, with closed vessels making up the majority.

Open shapes primarly consists of mainly bowls with a thickened in-turned rim (Figs. 4.1.10-16) and, in at least one instance, a high ring base (Fig. 4.1.17).[6] These are followed by carinated bowls with slightly out-turned rim (Figs. 4.1.7-9), which represent a typical shape of the pottery assemblage from Assyria in the 7th century BCE.[7] Bowls with plain out-turned

3 The term White Slip is used here to define a whitish surface on beige, reddish or pinkish fabric. This term has already been used in other studies on the pottery assemblage from the Turco-Italian Expedition at Karkemish (Bonomo and Zaina 2014; Pizzimenti and Zaina 2016; Zaina [ed.] 2018) based on the same definition. Other terms such as Self-Slip, which have been used for contemporary and neighbouring assemblages (Barbanes-Wilkinson and Ricci 2016: 143), cannot be applied to the pottery assemblage from well P.5347.

4 To define dimensions and frequency a proper chart (Zaina 2018: fig. 1.1) has been created according to the framework proposed by S. Levi (2010). The chart is designed to produce an accurate and quick autoptical analysis of the inclusions. Frequency is calculated in percentage of the whole assemblage, according to four different ranges (<3%, 3-10%, 10-20%, >20%, from 1 to 4), while dimensions are in millimeters and divided into three different groups (>0.5 mm, 0.5-1 mm, 1- 2 mm, from a to c).

5 Fabric colors have been defined using Munsell Color Soil Chart™.

6 This shape makes its first appearance in the Iron II period, increasing its frequency in the following Iron III, as also shown by the pottery assemblage from area C (Pizzimenti and Zaina 2016: 370, fig. 6). Comparisons can be found in Tell Shiukh Fawqani, "period IX" (Makinson 2005: pl. 5.21), Khirbet Qasrij (Curtis 1989: figs. 23.2, 28.87), Khirbet Hatara, "level 8" (Fiorina 1998: 183, fig. 1.12; Negro 1997: fig. 1.12) and the neo assyrian levels of Tille Höyuk (Blaylock 1999: fig. 13.10).

7 This type of bowl has been recovered in many Assyrian capitals including Nimrud (Hausleiter 1999: fig. 2.4-5) and Niniveh (Lumsden 1999: 5, fig. 5.17-23), while it is less present in the Middle and Upper Euphrates valley (Eidem and Ackermann 1999: fig. 8.7; Schneider 1999: fig. 5.1-3). Comparisons can also be found at Tell Shiukh Fawqani (Makinson 2005: pl. 8:43-45; Luciani 2005: pl. 7.99) and Tell Abu Dahir (Green 1999: fig. 5:14).

rims and a slight carination of the body immediately below the rim are also present (Fig. 4.1.2),[8] along with bowls featuring a globular body and either vertical (Fig. 4.1.6) or slightly flaring simple rim (Figs. 4.1.4-5). This bowl type, which first appeared during the Iron II period, is characteristic of the Northern Levant and the Middle Euphrates region. Comparisons can be found in the pottery assemblages from Tell Shiukh Fawqani (Makinson 2005: pl. 9), Lidar Höyuk (Müller 1999: 423, fig. 5:13,17) and Tell Afis (Degli Esposti 1998: 261, fig. 10:11).

Among the closed shapes, jugs with in-turned thick rim are the most common (Figs. 4.2.3-17). This type has been attested at Karkemish since the Iron II period, appearing in area C (phase 10a) (Pizzimenti and Zaina 2016: 368-370, figs. 4.13-14) and area G (phases 8-6) (Zaina 2018: 136, figs. 3.41.2, 3.41.7-8, 3.42.16, 3.43.14, 3.45.5, 3.46.5, 3. 3.47.12, 3.48.3, 3.48.5-6, 3.48.8; 3.50.7, 3.53.4, 3.54.11-13, 3.57.1-2, 3.58.5-6, 3.58.11, 3.60.14-18). However, it becomes more predominant during the Iron III.[9] Among jars, those with high neck, thickened out-turned rim and rounded (Figs. 4.3.5-10) or triangular lip (Figs. 4.3.1-4) are present.[10] This type first appeared during the Iron I period but becomes more common during the Iron II and frequent in Iron III contexts at Karkemish such as in areas C (Zaina and Pizzimenti 2016: 1430, figs. 5.10-11, 6) and G (Zaina 2018: figs. 3.63.3,-4, 3.46.4, 3.41.5, 3.64.6, 3.59.4). Painted Ware is rare, with only one body sherd of a jar attested.[11] This sherd, representing the upper part of a shoulder, bears painted decoration consisting of horizontal bands together with cross-hatched triangles and a cross (Fig. 4.3.12).[12]

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8 Comparisons can be found from stratum 2 in Area C at Tell Ahmar (Jamieson 2012: fig. 3.5:1-3), as well as at Khirbet Qasrij (Curtis 1989: fig. 23:18), Assur (Haller 1954: pl. 61.k) and Tell Afis (Cecchini 1998: fig. 38.18).

9 See comparisons from phase IX at Tell Shiukh Fawqani (Luciani 2005: pl. 17: 182-184,191-194, pl. 48.550; Makinson 2005: pl. 17.105-108). This shape is present also in Inner Syria, such as at Tell Afis (phases 7b-6, Cecchini 1998: 286, fig. 24.9,11), where it is generally earlier than at Karkemish, while just a handful of jugs are coming from the following phases.

10 See comparisons from Tell Ahmar (Jamieson 2012: figs. 3.8:2, 3.9:4-7), Assur (Haller 1954: pl. 3f), Tell Shiukh Fawqani (Makinson 2005: pls. 21.133, 24.156, 46.525-526; Luciani 2005: pls. 19.224-225, 46.528).

11 Painted decorations are generally associated to a restricted number of shapes, such as kraters, bottles and jars, while on open shapes is unusual (Jamieson 2012: 124).

12 At the present state of the research, Painted Ware is quite rare in the Iron III period in the Middle and Upper Euphrates valley (Curtis and Green 1997: 88; Jamieson 2012: 124-125). This datum is confirmed by the evidence in the area around Karkemish, thanks to the excavations, among others, at Tell Ahmar (Jamieson 2012: 124), Tell Jurn Kabir (Eidem and Ackermann 1999) and Tille Höyük (Blaylock 1999). At Karkemish, the cemetery of Yunus provides the most part of the painted assemblage (Lehmann 1996: pls. 32, 34; Bonomo and Zaina 2014: 141-142, fig. 5.2), however, several painted sherds have been recovered from extra-funerary contexts (Bonomo and Zaina 2014: 141-142, fig. 5.2; Zaina 2018: 136-137, figs. 3.64.9, 3.66.7).

Bases

Ring base is the only base type attested (Figs. 4.3.13-15)

4.2 SUBPHASE 2

The pottery assemblage of subphase 2 reflects the final phase of use of Sargon II's palace, the remains of which have repurposed to fill and obliterate the well. It demonstrates a strong continuity with the previous subphase 1, while also featuring a broader wider range of shapes and ware types (Pls. XVIII.2 [illustrated here only in photograph], XIX-XXI). The most represented ware is the Simple Ware (92% of the total collection), followed by Preservation Ware (7% of the total collection) and the Kitchen Ware (1% of the total collection). Surface treatments are observed on 46% of the recovered sherds, predominantly White Slip (80%), with Red Slip (1%) and burnishing (19%) being much less common (Fig. 4.2-3). Decorations are rare, present on only 10% of the sherds and consist in incised (31%) as well as painted (27%) (reddish, brownish, and blackish), impressed (18%), grooved (18%) and combed decorations (6%) (Pl. XVII.1-2).

Approximatly 66% of the Simple Ware pottery assemblage from subphase 2 is characterized by fine homogeneous fabrics with a low frequency (<3%) of small (<0.5mm) mineral inclusions. A coarser fabric is also observed, with a high-medium frequency (3-10%) of small (<5%) inclusions. For Preservation Ware, three main fabric types are identified. Around 41% of the collected diagnostic sherds have a coarse fabric with a high frequency (>20%) of large (1-2 mm) inclusions, while 22% exhibit a high-medium frequency (3-10%) of large (1-2 mm) inclusions. Additionally, 16% of the sherds display a fine fabric with a low frequency (<3%) of small (<0.5 mm) inclusions. Finally, Kitchen Ware presents a coarse fabric with a high frequency (10-20%) of medium size (0.5-1 mm) inclusions. The most common fabric colors are pinkish tones (2.5YR 8/3-4; 5YR 7/3-4, 8/3-4; 7.5YR7/3-4, 8/3-4) and very pale brown (10YR 8/2-4).

Simple Ware

Simple Ware encompasses a broad variety of open and closed shapes, some of which are already attested in the previous subphase 1. The morphological and functional repertoire of shapes is dominated by closed vessels, followed by smaller proportion of open shapes.

Among the open shapes, Simple Ware includes both platters and bowls. Platters are characterized by a flat rim with a rounded lip (Figs. 4.14.1-6, 4.14.10, 4.20.1, 4.20.4, 4.23.1,

4.24.1-7, 4.24.14-15, 4.24.19-20, 4.25.5-6),[13] with only one example exhibiting slight carination (Fig. 4.25.3). Some platters also feature an everted rim with rounded lip (Figs. 4.14.11, 4.14.13, 4.25.1). An analysis of rim diameter reveals two primary patterns: the first group has rims measuring approximately 13-16 cm in diameter, while the second and most frequently attested group fails between the range of 18-24 cm.

Several distinct types of bowls have been identified. Hemispheric bowls with a flat rim are common, featuring a variety of lip shapes, including rounded (Figs. 4.25.10-11, 4.14.7, 4.24.14), thinned (Figs. 4.24.8-13, 4.24.16, 4.25.12-13, 4.25.16, 4.4.2), squared (Fig. 4.25.15) or slightly flaring lips (Fig. 4.14.9).[14] In addition, bowls with flaring rim are well-represented, including those with rounded lip (Figs. 4.14.14, 4.24.18, 4.25.2, 4.25.4), and those with thickened lip (Fig. 4.23.2).

Bowls with projecting rim make their first appearance (Figs. 4.4.8 4.26.14-16, 4.29.7),[15] along with two distinct types of bowls featuring folded in-turned thick rim.[16] The most preminent group is characterized by a thinner and highly in-turned rim (Figs. 4.15.14, 4.22.5, 4.27.7-8, 4.27.10). Additionally, a few sherds of the typical large bowls with folded in-turned thick rim, finely made and generally covered with a white slip surface treatment have been recovered (Figs. 4.20.5, 4.27.11).[17] Bowls with thickened in-turned rim remain widely attested (Figs. 4.14.15-18, 4.4.5-7, 4.15.1-3, 4.26.7-12), alongside carinated bowls with slightly out-turned rim and rounded lip (Figs. 4.4.10-11, 4.28.3-5, 4.28.9-10). Bowls with globular body and a vertical or slightly flaring rim are also present (Figs. 4.15.15-17). Later Iron III open shapes include a small number of high carinated bowls with out-turned thick rim (Figs. 4.27.3-4, 4.27.7).[18] An analysis of rim diameters reveals three primary pat-

13 Comparisons can be found at Tell Shiukh Fawqani period IX (Luciani 2005: pl. 2; Makinson 2005: pl. 1) and Tell Ahmar (Jamieson 2012: fig. 3.1:1-5).

14 Comparisons can be found both at Tell Ahmar (Jamieson 2012: fig. 3.2:1-2), Tell Shiukh Fawqani (Luciani 2005: pl. 4.41-42,50-56), Tell Sheikh Hassan (Schneider 1999: fig. 16.30) and Lidar Höyük (Müller 1999: fig. 7.AB09).

15 This type of bowl, which makes its first appearance in the Iron II period, notably increase in quantity especially at the end of the 7th century BCE. Comparisons with specimens of the second half of the 7th century BCE from Sheikh Hammad (Hausleiter 1999: pl. 95.1) can be found, while others are from level A of Area G (Luciani 2005: pls. 38.464, 39.469) and in period IX of Area F (ibid., pl. 5.24) at Tell Shiukh Fawqani.

16 This shape has a chronological distribution that covers the entire 7th and 6th centuries BCE. For details, see Jamieson 2012: 56 and fig. 3.4:1-3.

17 Comparisons can also be found in other Iron III contexts at Karkemish, such as area G (Zaina 2018: figs. 3.40.6, 3.43.5-6, 3.45.3-4, 3.47.6-10, 3.50.3-5, 3.52.5, 3.53.8, 3.54.4-7, 3.56.5, 3.58.1, 3.60.2-3, 3.62.8, 3.62.13, 3.62.14-15, 3.66.4).

18 Comparisons can again be found in area G (Zaina 2018: figs. 3.56.2-4, 3.62.10, 3.67.2).

terns: the first group has rim s measuring approximately 13-18 cm in diameter, the second and more prevalent group ranges between 22 and 37 cm, and the third consists of very large bowls with diameters of 46 to 50 cm. Craters with expanded rectangular rim are minimally attested (Figs. 4.9.12, 4.18.5).

Several closed shapes have been recovered with jugs featuring in-turned thick rimbeing the most common the most attested (Figs. 4.7.1-10, 4.8.12, 4.7.12-15, 4.8.1-20, 4.17.1-10, 4.21.9-10, 4.29.1-11). This are followed by jars with high neck and thickened out-turned rim, which have either rounded (Figs. 4.5.14, 4.5.17, 4.6.2-3, 4.16.10, 4.30.1-4, 4.30.12) or triangular lip (Figs. 4.5.4, 4.5.8-13, 4.5.15, 4.5.18, 4.5.19, 4.6.4, 4.6.6, 4.16.9, 4.16.13, 4.18.4, 4.16.15-16, 4.30.5-12, 4.30.15-17). Jars with tringular rim become the most popular among these. Jars with a short neck and an everted thickened rim are also present, with either squared (Figs. 4.9.4, 4.9.7-8) or rounded lip (Figs. 4.31.4, 4.31.6, 4.31.8-9). Another typical Iron III shape is the jar with horizontal shoulder and in-turned thickened rim (Fig. 4.31.7). This type is well attested in Iron III context at Karkemish such as areas C (Pizzimenti and Zaina 2016: 1430; Bonomo and Zaina 2014) and G (Zaina 2018: figs. 3.46.7, 3.61.2, 3.64.2). Lastly, jars with flaring rim, and inner lid-sustaining ring are poorly attested (Figs. 4.17.18-20, 4.29.13-15, 4.23.4) as are jars with in-turned thickened rim and vertical walls (Figs. 4.9.13-15).[19]

Bottles with ovoidal body and flat slightly flaring rim and rounded lip have been recovered (Figs. 4.5.1-3, 4.5.5, 4.16.1-5). Some of these bottles feature a single-rib at the base of the neck (Figs. 4.5.6-7), while others have an out-turned thickened rim and a single rib just below it (Figs. 4.6.15-19).[20]

Painted Ware is scarcely represented, consisting primarly of craters and jars with brown, red or blackish painted decorations. A single sherd of a crater shows black painting on both the rim and body, including single arcs - on the rim - and vertical lines - on the body (Fig. 4.17.5).[21] Jars display a wider variety of decorations, including horizontal and vertical lines (Fig. 4.11.3), horizontal bands (Figs. 4.29.13, 4.23.4) and triangular patterns filled with cross-hatching (Fig. 4.11.5). One jar also features a cross motif (Fig. 4.11.4), a design that was also found in subphase 1 (Fig. 4.3.12). Notably, one hallmark of the period, the finely made Palace Ware, is entirely absent.

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19 Parallels can be found in the contemporary assemblage from area C at Karkemish (Bonomo and Zaina 2014: fig. 4.17).

20 Those two types find comparisons with the Iron III contexts in Area C at Tell Ahmar (Jamieson 2012: fig. 3.18:4,6, who interprets them as decanters, ibid., pp. 80-81).

21 This decoration finds comparisons at Tell Ahmar (Jamieson 2012: fig. 3.29: 6).

Preservation Ware

Two types of Preservation Ware have been identified: pithoi, large bowls, and large vats (Figs. 4.34.1, 4.34.3). Pithoi are the most prevalent type within the assemblage and are generally characterized by out-turned thick rim and applied rope on the upper wall (Figs. 4.27.4, 4.37.3). A remarkable variety of rim types has been observed, with the fairly rounded ones rims being the most common (Figs. 4.36.3-4, 4.37.1-2, 4.19.1, 4.13.1-2), followed by squared rims (Figs. 4.35.4-5).[22] The published stratigraphic and pottery sequence in area G at Karkemish suggests that roundeds rim may represent a later typological development, while rectangular or pseudo-squared rims are generally attested with earlier phases (Zaina 2018: 137). Finally, three specimens of rims from large vats with cylindrical bodies are attested (Fig. 4.12.1-3): they are characterized by a very thick rim with a flat upper surface, directly attached to the outer side of the jar.[23]

Kitchen Ware

Kitchen Ware is minimally represented, consisting primarly of hole-mouth pots with in-turned thickened rim and globular body (Figs. 4.18.1-2).

Bases

Bases exhibit limited little variation, with the following types identified: flat (Figs. 4.10.2, 4.10.4, 4.18.7-9, 4.32.6-8, 4.32.10), ring (Figs. 4.10.11-19, 4.18.12-18, 4.33.1-13), disk (Figs. 4.18.10-11, 4.32.9, 4.32.11-13) and rounded bases (Figs. 4.10.1, 4.10.3, 4.10.5-10, 4.18.6, 4.32.14). Among these, bases appear to be ring one is slightly more common.

Abbreviations:

In the tables of the pottery figures, the following abbreviations/codes have been used:

- Class: SW = Simple Ware; PW = Preservation Ware; KW Kitchen Ware
- Technique: W = wheel; WH = wheel-hand
- Firing: H = high; M = medium; L = low
- Inclusions type: M = mineral; V = vegetal; Y = vegetal and mineral
- Inclusions size: a = < 0.5 mm; b = 0.5-1 mm; c = 1-2 mm
- Inclusions frequency: 1 = < 3%; 2 = 3-10%; 3 = 10-20%; 4 = > 20%
- Fabric color: I/O = inner/outer; C = core

22 Close comparisons come from Tell Ahmar (Jamieson 2012: pl. 3.20), where it is possible to notice a similar variety of rims.

23 This shape is most likely associated with beer production activities, as suggested by comparisons with finds from Tell Bazi, albeit from the Late Bronze age (Otto 2014: type 22, pl. 16), together with the results of an interdiciplinary project of the University of Munich involving beer technologists, archaeologists and philologists (Zarnkow et al. 2006).

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.808/2	1	F.6972	W	H	Ma1	2.5Y 8/3 (C-I/O)	-
2	KH.15.P.808/3	1	F.6972	W	H	Ma1	7.5YR 7/5 (C-I/O)	Slip Whitish
3	KH.15.P.808/9	1	F.6972	W	H	Ma1	5YR 7/4 (C-I/O)	-
4	KH.15.P.809/3	1	F.6972	W	H	Ma1	7.5YR 8/2 (C-I/O)	-
5	KH.15.P.809/2	1	F.6972	W	H	Ma1	5YR 8/4 (C-I/O)	Slip Whitish Burnish
6	KH.15.P.814/2	1	F.6972	W	H	Ma2	2.5YR 6/5 (C-I/O)	-
7	KH.15.P.809/7	1	F.6972	W	H	Ma1	7.5YR 7/4 (C-I/O)	-
8	KH.15.P.808/4	1	F.6972	W	H	Mb2	7.5YR 7/4 (C-I/O)	-
9	KH.15.P.809/6	1	F.6972	W	H	Ma1	5YR 7/5 (C-I/O)	-
10	KH.15.P.808/5	1	F.6972	W	H	Ma2	7.5YR 7/5 (C-I/O)	Burnish
11	KH.15.P.809/4	1	F.6972	W	H	Ma1	7.5YR 8/4 (C-I/O)	-
12	KH.15.P.814/1	1	F.6972	W	H	Mb2	5YR 7/5 (C-I/O)	Burnish
13	KH.15.P.809/5	1	F.6972	W	H	Ma1	2.5YR 7/5 (C-I) 7.5YR 8/4 (O)	-
14	KH.15.P.808/6	1	F.6972	W	H	Mb2	7.5YR 7/4 (C-I/O)	Slip Whitish
15	KH.15.P.808/7	1	F.6972	W	H	Ma1	10YR 8/4 (C-I/O)	-
16	KH.15.P.808/8	1	F.6972	W	H	Ma1	5YR 7/5 (C-I/O)	Slip Whitish Burnish
17	KH.15.P.809/1	1	F.6972	W	H	Mb1	2.5YR 7/5 (C-I/O)	Slip Whitish

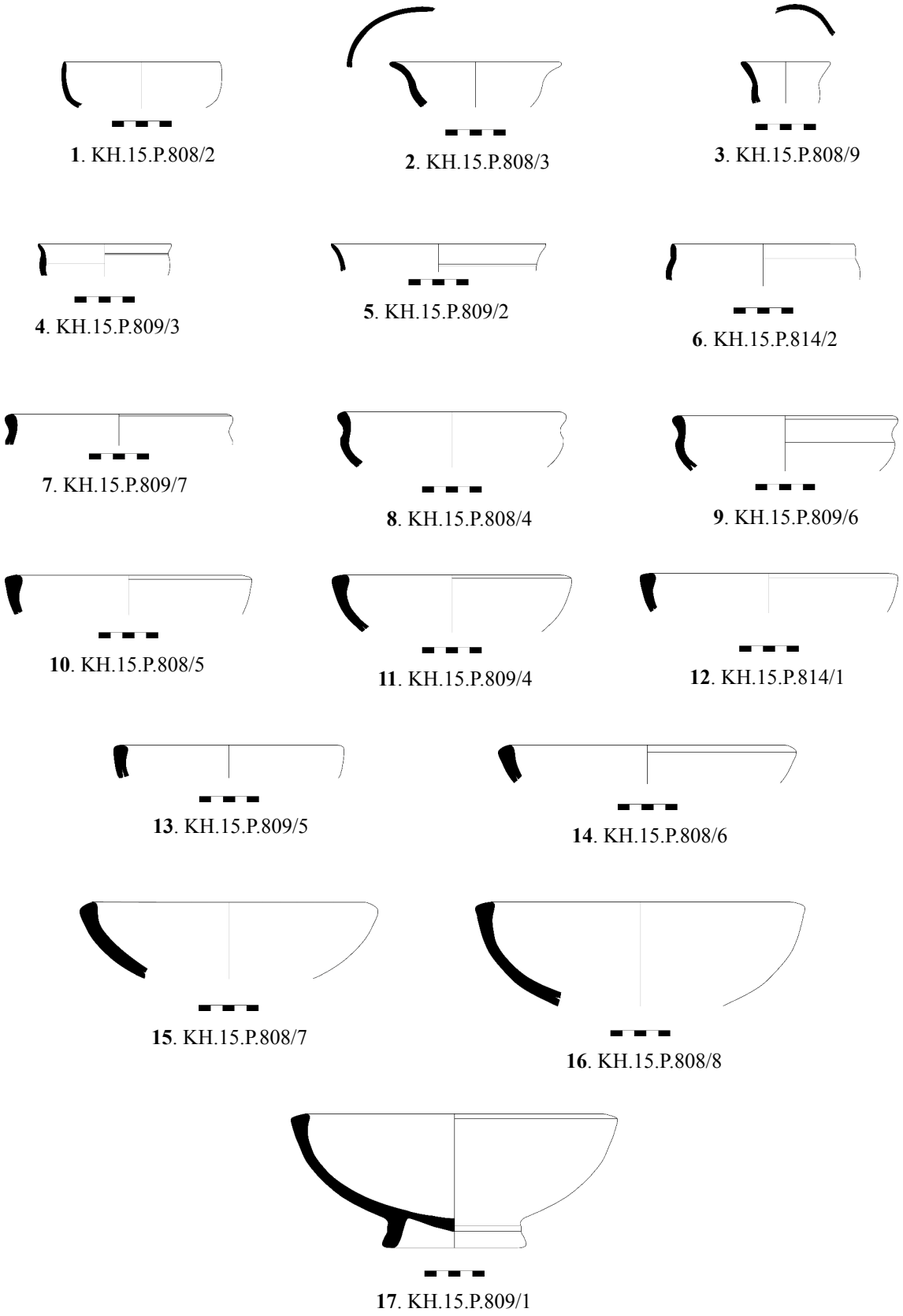


Fig. 4.1. Pottery sherds from F.6972.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.814/13	1	F.6372	HW	H	Ma1	10YR 8/4 (C-I/O)	-
2	KH.15.P.814/4	1	F.6372	W	H	Ma1	10YR 8/3 (C-I/O)	-
3	KH.15.P.809/20	1	F.6372	W	H	Ma1	5YR 7/4 (C-I/O)	Slip Whitish
4	KH.15.P.809/21	1	F.6372	W	H	Ma1	10YR 8/3 (C-I/O)	-
5	KH.15.P.814/3	1	F.6372	W	H	Ma1	10YR 8/3 (C-I/O)	-
6	KH.15.P.809/11	1	F.6372	W	H	Ma1	10YR 8/3 (C-I/O)	-
7	KH.15.P.809/12	1	F.6372	W	H	Ma1	10YR 8/3 (C-I/O)	-
8	KH.15.P.809/13	1	F.6372	W	H	Ma1	10YR 8/3 (C-I/O)	-
9	KH.15.P.814/10	1	F.6372	W	H	Ma1	5YR 7/4 (C-I/O)	-
10	KH.15.P.814/12	1	F.6372	W	H	Ma1	5YR 7/4 (C-I/O)	-
11	KH.15.P.814/8	1	F.6372	W	H	Ma1	7.5YR 7/4 (C-I/O)	-
12	KH.15.P.814/6	1	F.6372	W	H	Ma1	7.5YR 7/4 (C-I/O)	-
13	KH.15.P.814/7	1	F.6372	W	H	Ma1	10YR 8/3 (C-I/O)	-
14	KH.15.P.814/15	1	F.6372	W	H	Ma1	10YR 8/3 (C-I/O)	-
15	KH.15.P.809/14	1	F.6372	W	H	Ma1	5YR 7/4 (C-I/O)	-
16	KH.15.P.814/9	1	F.6372	W	H	Ma1	5YR 7/4 (C-I/O)	-
17	KH.15.P.814/11	1	F.6372	W	H	Ma1	7.5YR 7/4 (C-I/O)	-

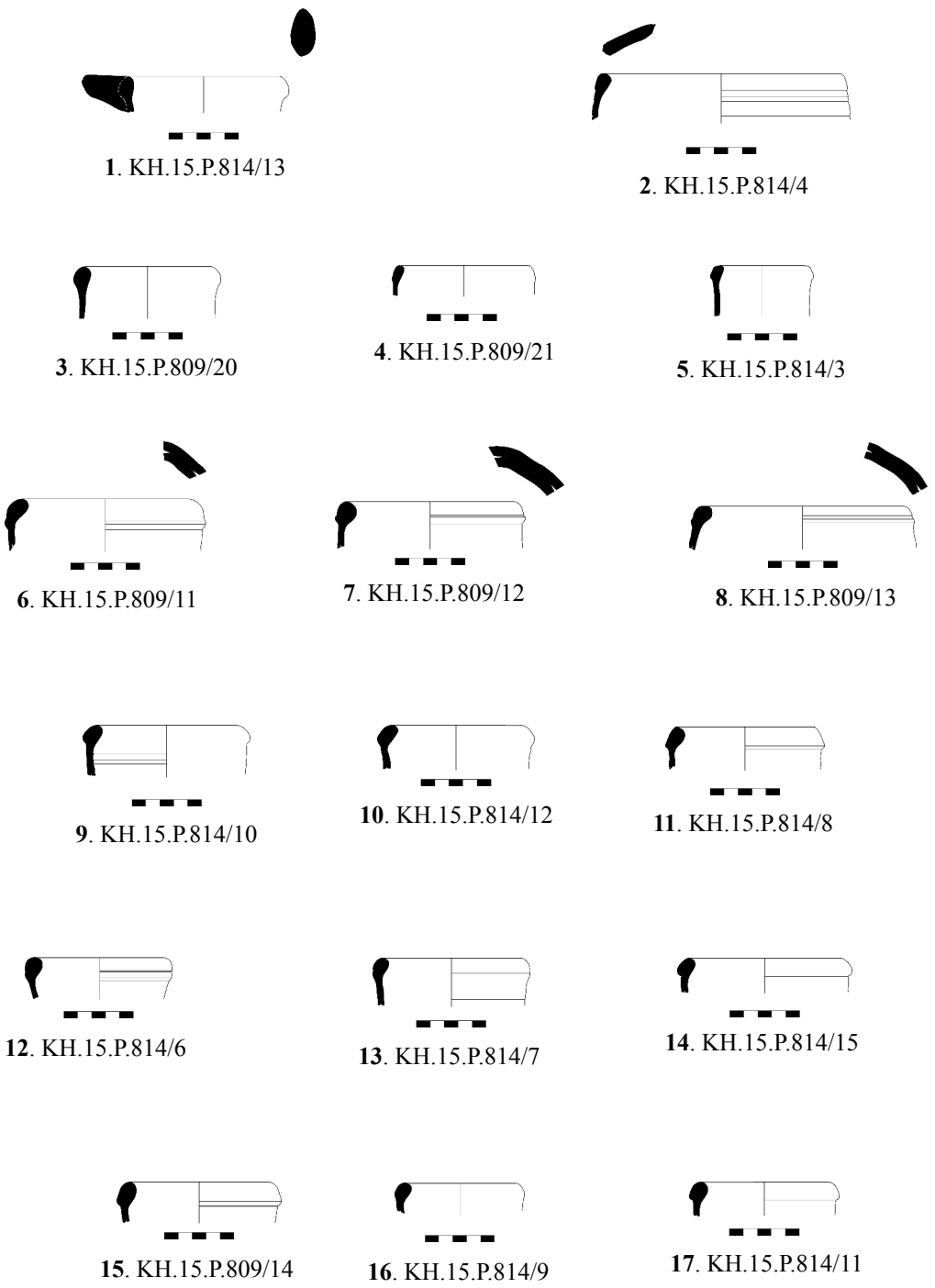


Fig. 4.2. Pottery sherds from F.6372.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.809/8	1	F.6372	W	H	Ma1	10YR 8/2 (C-I/O)	-
2	KH.15.P.809/15	1	F.6372	W	H	Ma1	10YR 8/2 (C-I/O)	-
3	KH.15.P.814/14	1	F.6372	W	H	Mb2	5YR 8/5 (C-I/O)	-
4	KH.15.P.809/17	1	F.6372	W	H	Ma1	5YR 7/4 (C-I/O)	Slip Whitish
5	KH.15.P.809/16	1	F.6372	W	H	Ma1	10YR 7/3 (C-I/O)	-
6	KH.15.P.808/10	1	F.6372	W	H	Ma1	5YR 7/5 (C-I/O)	Slip Whitish
7	KH.15.P.809/10	1	F.6372	W	H	Ma1	5YR 7/4 (C-I/O)	-
8	KH.15.P.809/18	1	F.6372	W	H	Ma1	10YR 8/4 (C-I/O)	Slip Whitish
9	KH.15.P.809/9	1	F.6372	W	H	Ma1	5YR 7/5 (C-I/O)	Slip Whitish
10	KH.15.P.809/19	1	F.6372	W	H	Ma1	5YR 6/4 (C-I/O)	-
11	KH.15.P.808/12	1	F.6372	W	H	Ma1	5YR 6/4 (C-I/O)	-
12	KH.15.P.808/11	1	F.6372	W	H	Mb3	7.5YR 8/4 (C-I/O)	-
13	KH.15.P.809/24	1	F.6372	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
14	KH.15.P.809/23	1	F.6372	W	H	Ma2	7.5YR 8/4 (C-I/O)	Slip Whitish
15	KH.15.P.809/22	1	F.6372	W	H	Mb2	5YR 7/5	-

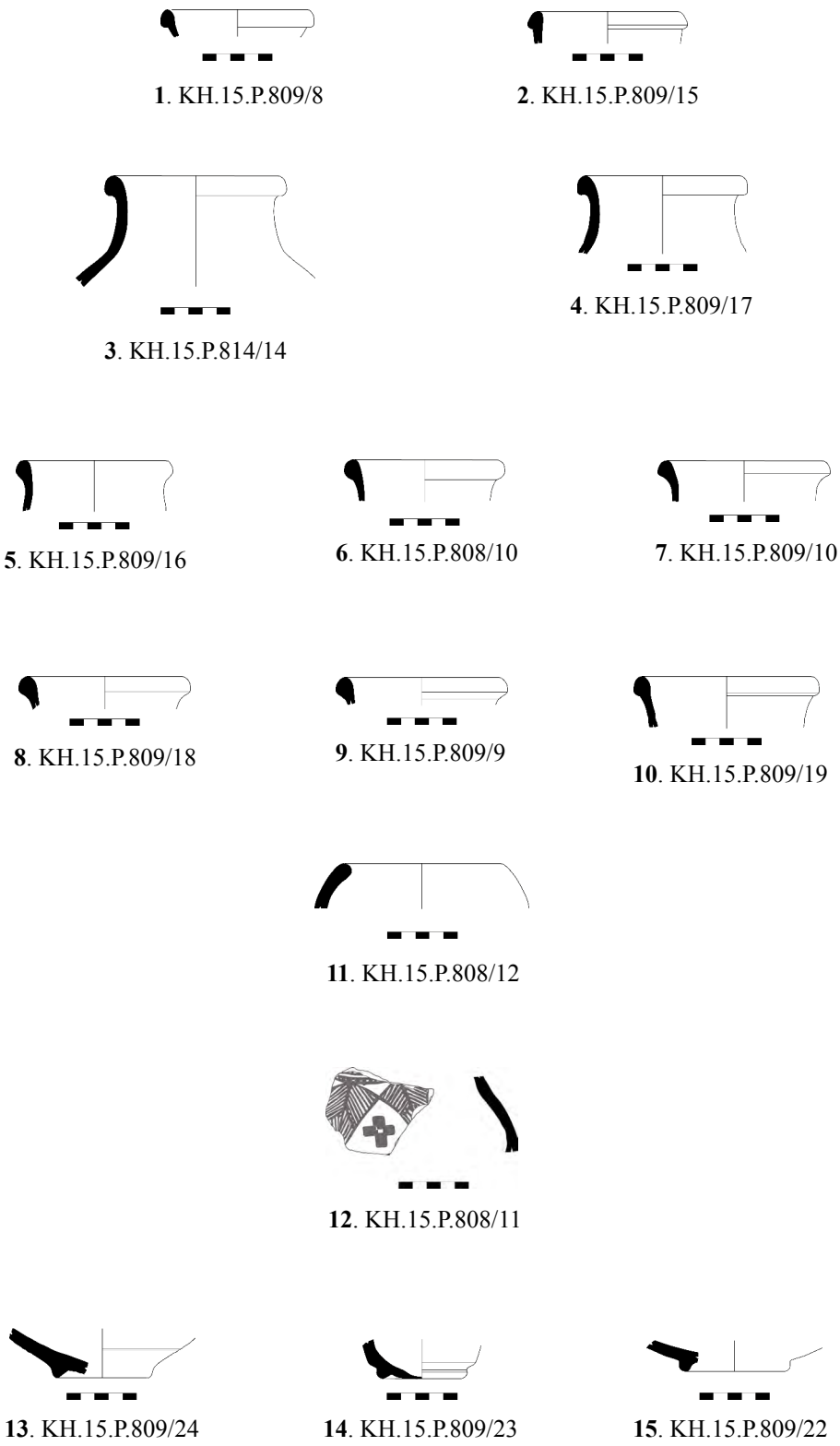


Fig. 4.3. Pottery sherds from F.6372.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.478/20	2	F.6309	W	M	Ma2	2.5YR 8/1 (C) 2.5YR 6/6 (I/O)	-
2	KH.15.P.474/1	2	F.6309	W	H	Ma1	5YR 6/6 (C-I/O)	Slip Whitish
3	KH.15.P.478/2	2	F.6309	W	H	Ma1	5YR 8/1 (C-I/O)	Slip Whitish Burnish
4	KH.15.P.478/1	2	F.6309	W	H	Ma1	5YR 7/4 (C-I/O)	-
5	KH.15.P.803/3	2	F.6309	W	H	Ma1	5YR 6/4 (C) 2.5YR 5/6 (I/O)	-
6	KH.15.P.479/2	2	F.6309	W	H	Ma1	7.5YR 7/3 (C-I/O)	Slip Whitish
7	KH.15.P.498/3	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	-
8	KH.15.P.478/4	2	F.6309	W	H	VMa1	5YR 7/4 (C-I/O)	Burnish
9	KH.15.P.497/1	2	F.6309	W	H	Ma1	2.5Y 7/3 (C-I/O)	Slip Whitish
10	KH.15.P.498/2	2	F.6309	W	H	Ma2	5YR 7/5 (C-I/O)	-
11	KH.15.P.803/1	2	F.6309	W	H	Ma1	5YR 6/4 (C-I/O)	-
12	KH.15.P.489/1	2	F.6309	W	H	Ma1	2.5Y 7/3 (C-I/O)	-
13	KH.15.P.497/4	2	F.6309	W	H	Ma1	5YR 5/6 (C-I/O)	Slip Whitish

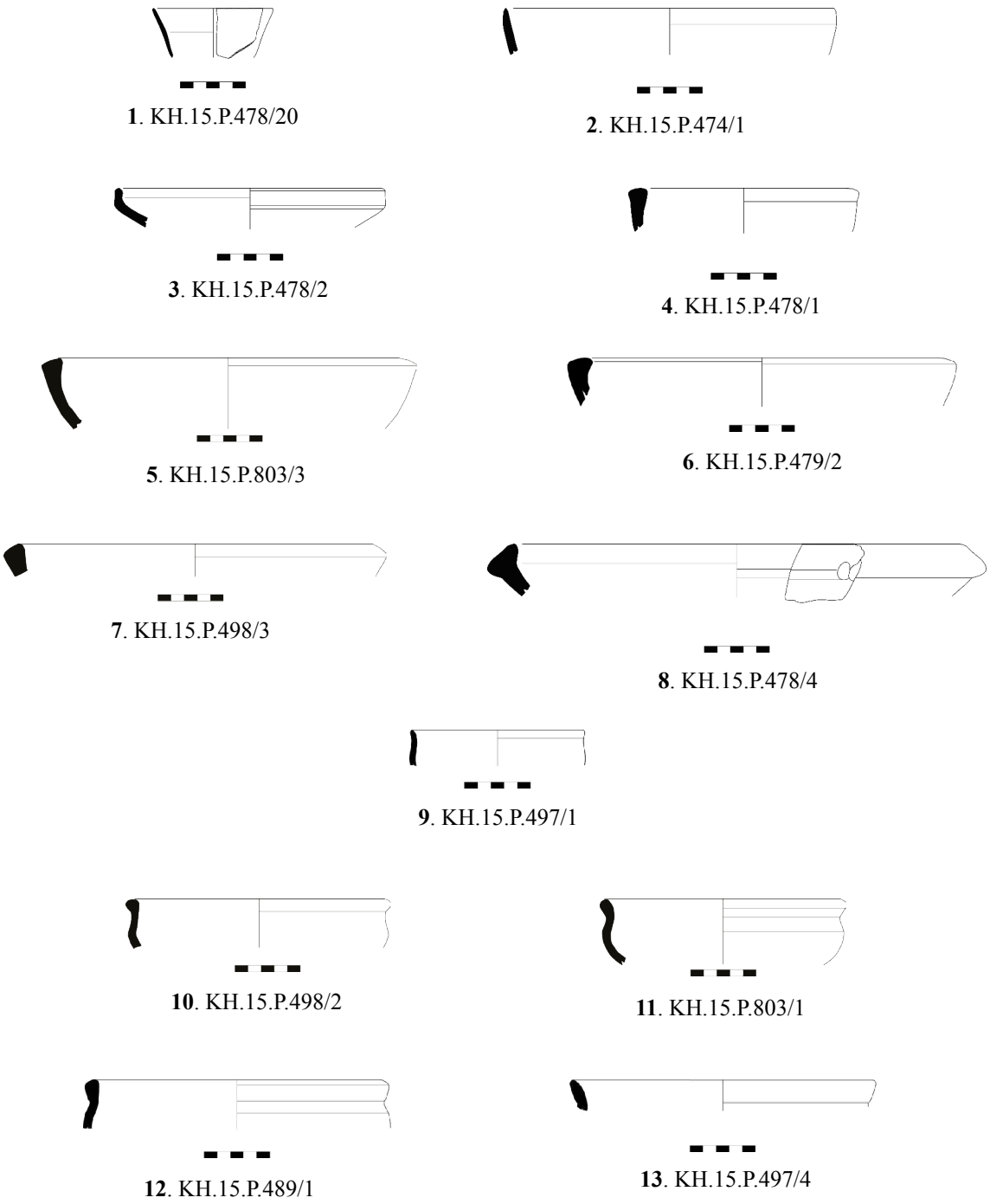


Fig. 4.4. Pottery sherds from F.6309.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.467/1+3	2	F.6309	W	H	Ma1	5YR 7/5 (C-I/O)	Slip Whitish
2	KH.15.P.463/1	2	F.6309	W	H	Ma1	7.5YR 7/4 (C-I/O)	-
3	KH.15.P.467/2	2	F.6309	W	H	Ma2	5YR 7/4 (C-I/O)	Slip Whitish
4	KH.15.P.489/2	2	F.6309	W	H	Ma1	7.5YR 7/4 (C-I/O)	-
5	KH.15.P.461/1	2	F.6309	W	H	Mb2	5YR 7/5 (C-I/O)	-
6	KH.15.P.478/5	2	F.6309	W	H	Ma1	7.5YR 7/4 (C) 10YR 8/3 (I/O)	Slip Whitish
7	KH.15.P.478/6	2	F.6309	W	H	Ma1	7.5YR 7/4 (C) 10YR 8/3 (I/O)	Slip Whitish
8	KH.15.P.479/3	2	F.6309	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
9	KH.15.P.487/1	2	F.6309	W	H	Ma1	2.5Y 8/2 (C-I/O)	Burnish
10	KH.15.P.487/2	2	F.6309	W	H	Ma1	2.5Y 8/2 (C-I/O)	-
11	KH.15.P.486/2	2	F.6309	W	H	Ma1	7.5YR 8/4 (C-I/O)	Burnish
12	KH.15.P.474/4	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	-
13	KH.15.P.478/16	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	-
14	KH.15.P.478/12	2	F.6309	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
15	KH.15.P.476/5	2	F.6309	W	H	Ma1	7.5YR 8/4 (C-I/O)	Slip Whitish
16	KH.15.P.478/10	2	F.6309	W	H	Ya2	5YR 7/5 (C-I/O)	-
17	KH.15.P.803/9	2	F.6309	W	H	Ma2	5YR 6/4 (C-I/O)	-
18	KH.15.P.803/10	2	F.6309	W	H	Ma1	7.5YR 6/4 (C-I/O)	Slip Whitish
19	KH.15.P.463/4	2	F.6309	W	H	Mb2	7.5YR 7/4 (C-I/O)	-

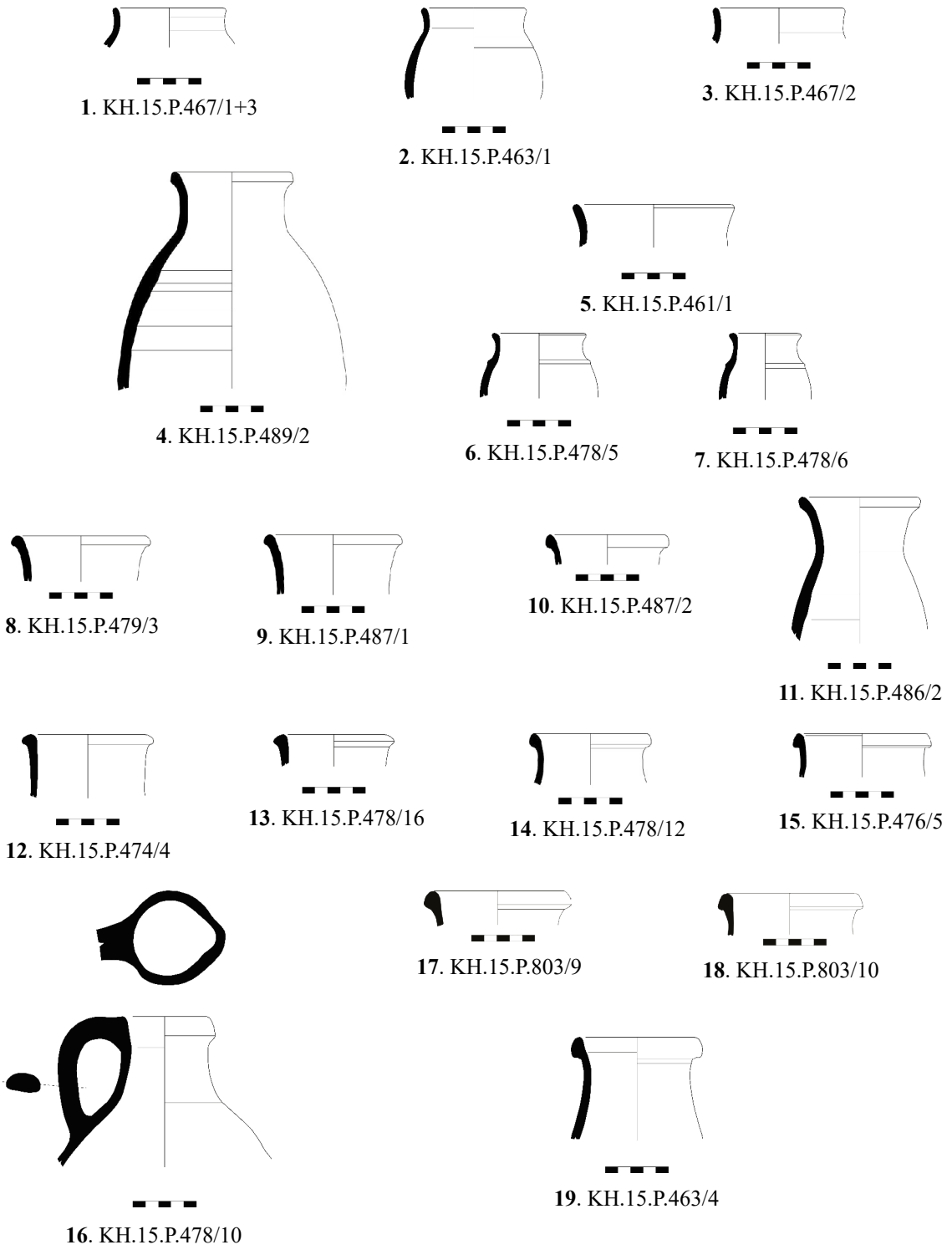


Fig. 4.5. Pottery sherds from F.6309.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.479/11	2	F.6309	W	H	Yb4	7.5YR 7/4 (C-I/O)	-
2	KH.15.P.474/8	2	F.6309	W	H	Ma2	7.5YR 7/3 (C-I/O)	-
3	KH.15.P.478/11	2	F.6309	W	H	Ma1	5YR 7/5 (C-I/O)	-
4	KH.15.P.803/4	2	F.6309	W	H	Ma1	2.5Y 7/3 (C-I/O)	Slip Whitish
5	KH.15.P.489/5	2	F.6309	W	HM	Ma1	10YR 7/3 (C-I/O)	Slip Whitish
6	KH.15.P.476/10	2	F.6309	W	H	Mc3	7.5YR 8/3	-
7	KH.15.P.479/4	2	F.6309	W	H	Ma1	2.5Y 8/3 (C-I/O)	-
8	KH.15.P.479/10	2	F.6309	W	H	Mb2	7.5YR 7/4 (C-I/O)	Slip Whitish
9	KH.15.P.487/6	2	F.6309	W	H	Ma1	7.5YR 7/4 (C) 2.5Y 8/2 (I/O)	-
10	KH.15.P.498/4	2	F.6309	HW	H	Ma1	10YR 8/3 (C-I/O)	-
11	KH.15.P.479/9	2	F.6309	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
12	KH.15.P.803/8	2	F.6309	W	H	Ma1	7.5YR 6/4 (C.I/O)	-
13	KH.15.P.467/8	2	F.6309	W	H	Mb3	10YR 8/3 (C-I/O)	
14	KH.15.P.455/5	2	F.6309	W	H	Mb3	10YR 8/3 (C-I/O)	-
15	KH.15.P.476/ 6+7+8	2	F.6309	W	H	Ma1	7.5YR 8/4 (C-I/O)	Slip Whitish
16	KH.15.P.455/6	2	F.6309	W	H	Mb2	10YR 8/3 (C-I/O)	-
17	KH.15.P.478/14	2	F.6309	W	H	Ma1	7.5YR 8/2 (C-I/O)	-
18	KH.15.P.476/2	2	F.6309	W	H	Ma2	7.5YR 8/4 (C-I/O)	-
19	KH.15.P.478/13	2	F.6309	W	H	Ma1	5YR 7/5 (C-I/O)	-
20	KH.15.P.487/5	2	F.6309	W	H	Ma1	5YR 7/4 (C-I/O)	-

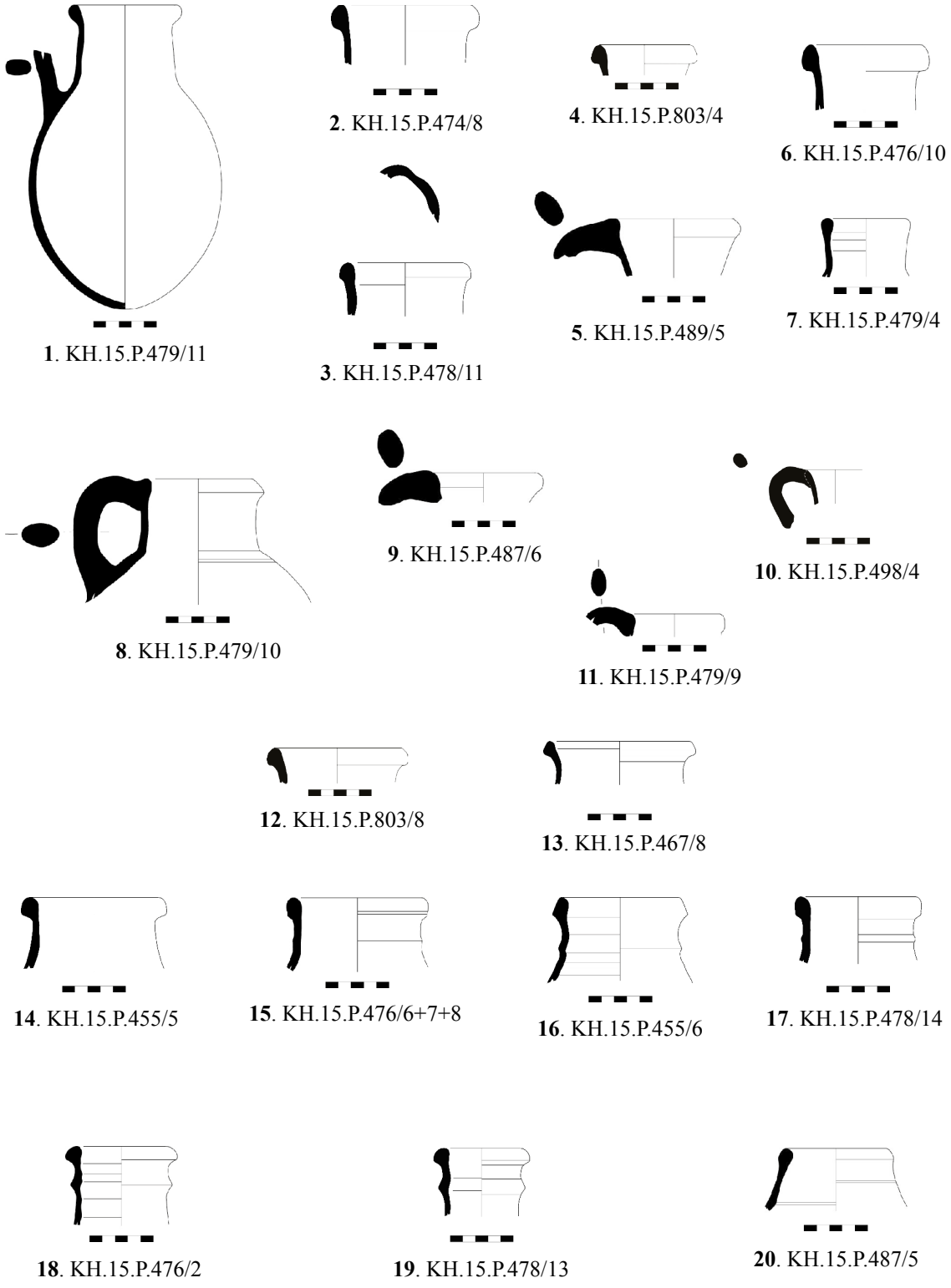


Fig. 4.6. Pottery sherds from F.6309.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.487/3	2	F.6309	W	H	Ma1	10YR 8/2 (C) 7.5R 8/3 (I/O)	-
2	KH.15.P.486/6	2	F.6309	W	H	Ma1	10YR 8/1 (C-I/O)	-
3	KH.15.P.476/4	2	F.6309	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
4	KH.15.P.497/7	2	F.6309	W	H	Ma1	7.5YR 7/3 (C-I/O)	Slip Whitish
5	KH.15.P.455/2	2	F.6309	W	H	Mb2	5YR /7/3 (C-I/O)	-
6	KH.15.P.490/1	2	F.6309	W	H	Ma1	2.5Y 8/2 (C-I/O)	-
7	KH.15.P.476/3	2	F.6309	W	H	Mc4	7.5YR 7/5 (C-I/O)	-
8	KH.15.P.479/ 7+8	2	F.6309	W	H	Ma1	7.5YR 7/5 (C-I/O)	-
9	KH.15.P.498/6	2	F.6309	W	H	Ma1	7.5YR 8/4 (C-I/O)	Slip Whitish
10	KH.15.P.467/9	2	F.6309	W	H	Mb1	10YR 8/3 (C-I/O)	-
11	KH.15.P.478/8	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	-
12	KH.15.P.478/9	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	-
13	KH.15.P.479/6	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	Slip Whitish
14	KH.15.P.479/5	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	-
15	KH.15.P.803/18	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	-

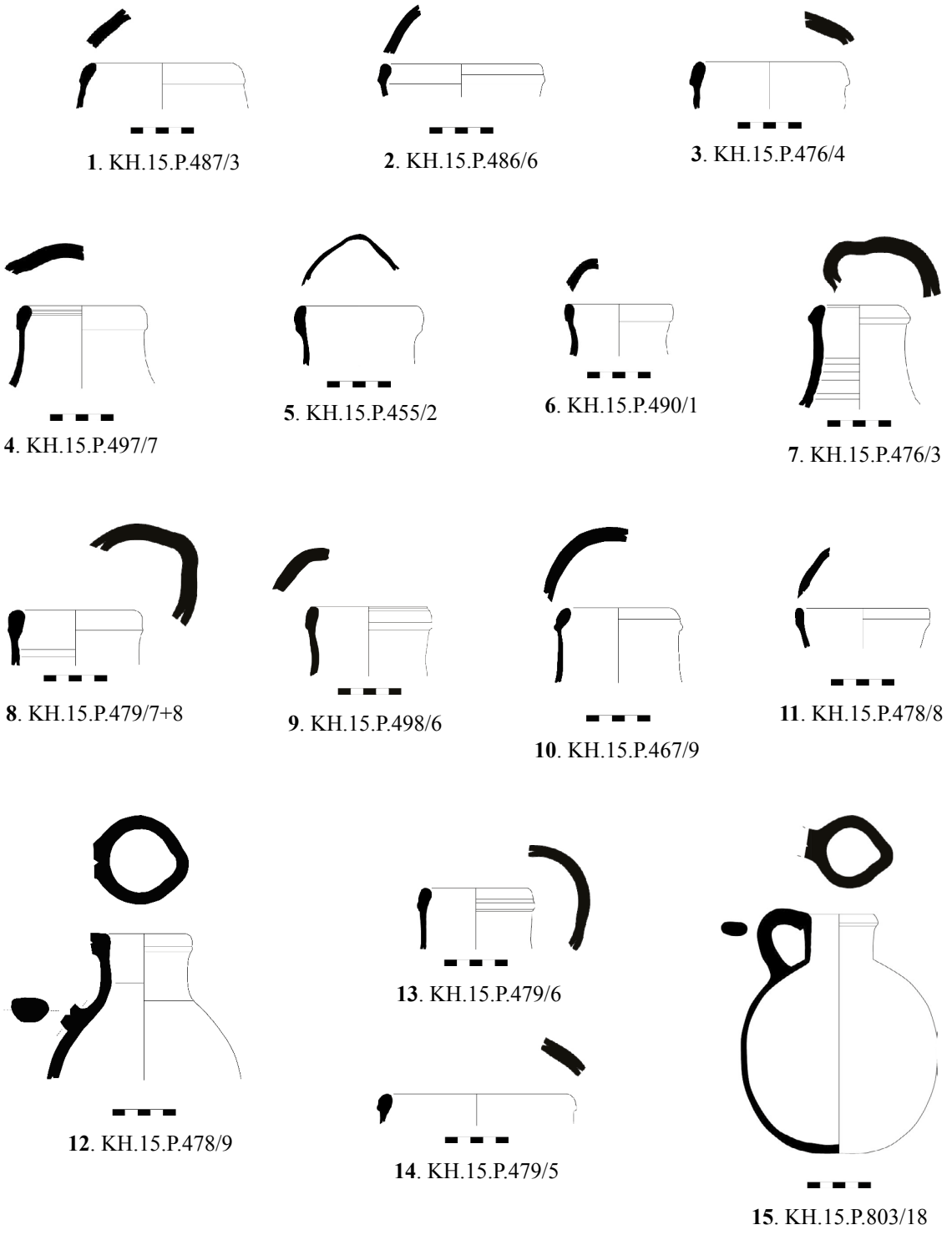


Fig. 4.7. Pottery sherds from F.6309.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.486/4	2	F.6309	W	H	Ma1	7.5YR 8/3 (C-I/O)	-
2	KH.15.P.497/3	2	F.6309	W	H	Ma1	5YR 6/6 (C-I/O)	-
3	KH.15.P.497/6	2	F.6309	W	H	Ma1	10YR 7/3 (C-I/O)	Slip Whitish
4	KH.15.P.486/5	2	F.6309	W	H	Ma1	10YR 8/2 (C-I/O)	-
5	KH.15.P.474/6	2	F.6309	W	H	Ma1	7.5YR 6/4 (C-I/O)	-
6	KH.15.P.474/7	2	F.6309	W	H	Ma1	10YR 6/3 (C-I/O)	Slip Whitish
7	KH.15.P.467/5	2	F.6309	W	H	Ma1	10YR 7/4 (C-I/O)	-
8	KH.15.P.489/4	2	F.6309	W	H	Ma1	2.5Y 8/3 (C-I/O)	Slip Whitish
9	KH.15.P.467/6	2	F.6309	W	H	Ma1	2.5YR 7/5 (C-I/O)	Slip Whitish
10	KH.15.P.467/7	2	F.6309	W	H	Ma1	2.5YR 7/4 (C-I/O)	Slip Whitish
11	KH.15.P.455/1	2	F.6309	W	H	Ma1	5YR 7/4 (C) 10YR 8/3 (I/O)	Slip Whitish
12	KH.15.P.478/15	2	F.6309	W	H	Ma1	7.5YR 8/1 (C-I/O)	-
13	KH.15.P.497/10	2	F.6309	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
14	KH.15.P.497/9	2	F.6309	W	H	Ma1	5YR 6/6 (C-I/O)	-
15	KH.15.P.497/8	2	F.6309	W	H	Ma1	5YR 5/6 (C-I/O)	Slip Whitish
16	KH.15.P.487/4	2	F.6309	W	H	Ma1	7.5YR 7/4 (C) 10YR 8/2 (I/O)	-
17	KH.15.P.455/4	2	F.6309	W	H	Mc2	5YR 7/5 (C)	Slip Whitish
18	KH.15.P.489/3	2	F.6309	W	M	Ma1	10YR 7/3 (C)	Slip Whitish
19	KH.15.P.803/11	2	F.6309	W	H	Ma1	7.5YR 8/2 (C)	Slip Whitish
20	KH.15.P.455/3	2	F.6309	W	H	Mb3	5YR 7/3 (C)	-

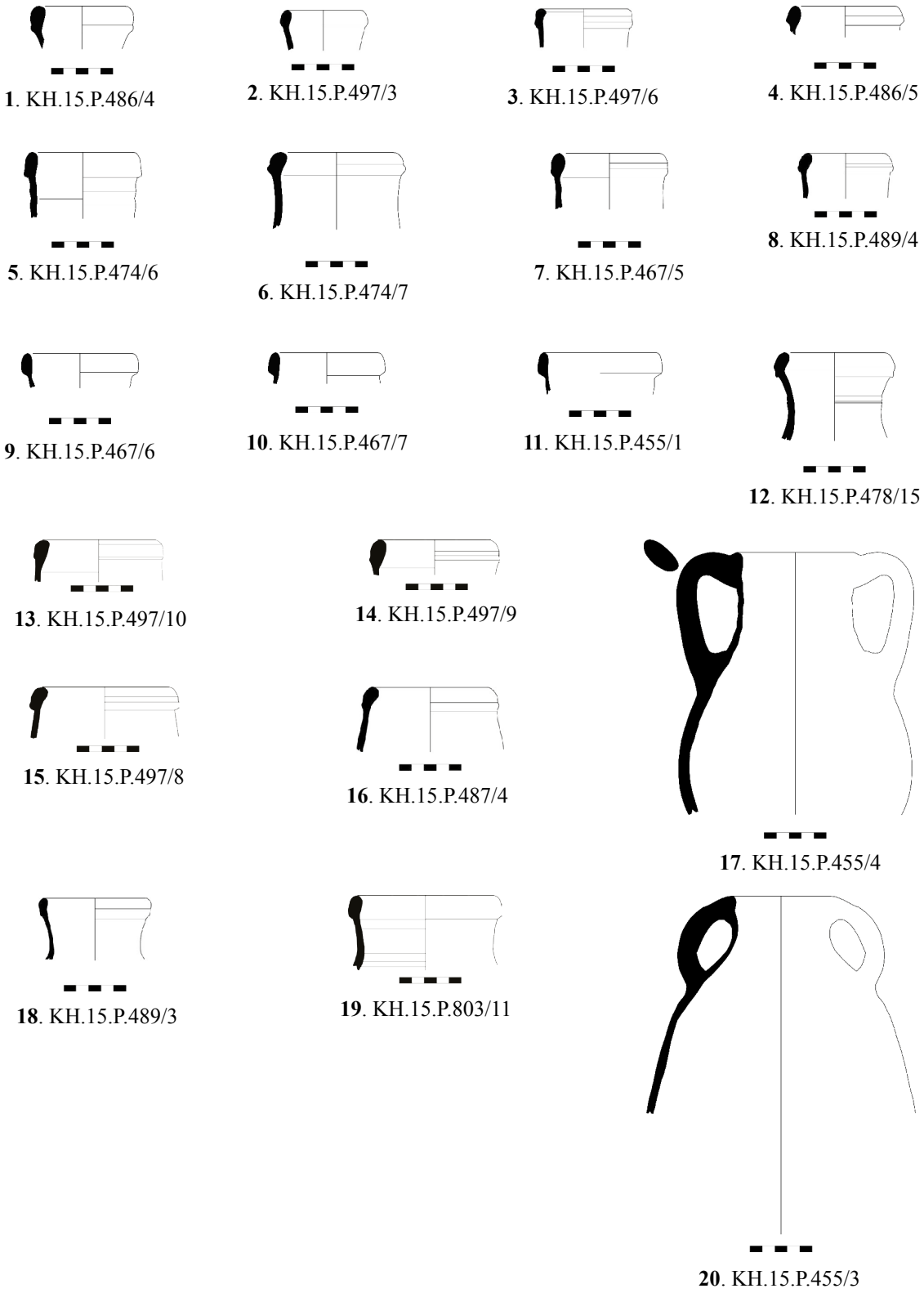


Fig. 4.8. Pottery sherds from F.6309.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.496/2	2	F.6309	W	H	Ma2	10YR 8/2 (C-I/O)	-
2	KH.15.P.496/1	2	F.6309	W	H	Ma1	2.5YR 7/5 (C-I/O)	Slip Whitish
3	KH.15.P.474/5	2	F.6309	W	H	Ma1	5YR 6/4 (C-I/O)	-
4	KH.15.P.455/7	2	F.6309	W	H	Mb3	5YR 7/5 (C-I/O)	-
5	KH.15.P.476/9	2	F.6309	W	H	Ma1	10YR 8/4 (C-I/O)	Slip Whitish
6	KH.15.P.803/7	2	F.6309	W	H	Mb1	7.5YR 7/3 (C-I/O)	Slip Whitish
7	KH.15.P.490/2	2	F.6309	W	M	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
8	KH.15.P.803/12	2	F.6309	W	H	Ma1	2.5Y 8/3 (C-I/O)	-
9	KH.15.P.478/21	2	F.6309	W	H	Ma1	2.5Y 8/3 (C-I/O)	-
10	KH.15.P.486/10	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	Burnish
11	KH.15.P.486/9	2	F.6309	W	H	Ma1	10YR 8/1 (C-I/O)	-
12	KH.15.P.478/3	2	F.6309	W	H	Ma1	5YR 7/4 (C) 7.5YR 8/2 (I/O)	Slip Whitish
13	KH.15.P.476/1	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	Slip Whitish
14	KH.15.P.467/4	2	F.6309	W	H	Ma2	10YR 8/4 (C-I/O)	-
15	KH.15.P.463/2+3	2	F.6309	W	H	Mb2	10YR 8/3 (C-I/O)	-

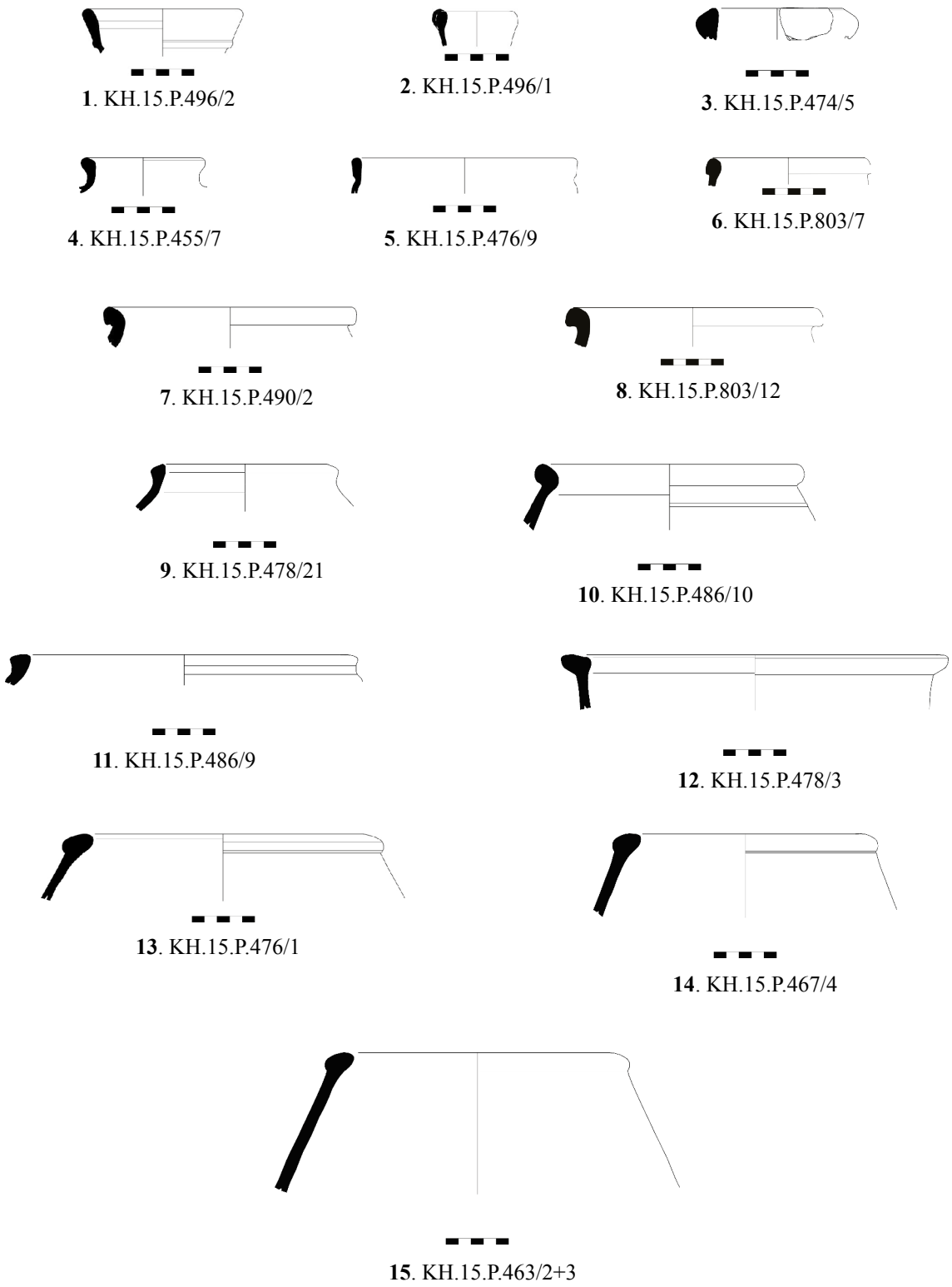


Fig. 4.9. Pottery sherds from F.6309.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.463/5	2	F.6309	HW	M	Yc4	7.5YR 4/2 (C-I/O)	-
2	KH.15.P.474/9	2	F.6309	W	H	Ma2	7.5YR 4/6 (C-I/O)	-
3	KH.15.P.476/11	2	F.6309	W	H	VMb3	7.5YR 8/3 (C-I/O)	Slip Whitish
4	KH.15.P.478/18	2	F.6309	W	H	Ya2	5YR 6/2 (C) 5YR 6/5 (I/O)	-
5	KH.15.P.478/19	2	F.6309	W	H	Mb1	5YR 7/4 (C-I/O)	-
6	KH.15.P.498/10	2	F.6309	W	H	Ma2	5YR 7/5 (C-I/O)	Slip Whitish
7	KH.15.P.490/4	2	F.6309	W	M	Ma1	5YR 6/4 (C-I/O)	Slip Whitish
8	KH.15.P.486/8	2	F.6309	W	H	Ma1	10YR 8/2 (C-I/O)	-
9	KH.15.P.498/9	2	F.6309	W	H	Ma1	2.5YR 7/5 (C-I/O)	Slip Whitish
10	KH.15.P.476/12	2	F.6309	W	H	Ma1	10YR 8/3 (C-I/O)	Slip Whitish
11	KH.15.P.490/5	2	F.6309	W	H	Ma1	2.5Y 8/2 (C-I/O)	-
12	KH.15.P.478/17	2	F.6309	W	H	Ma1	7.5YR 7/5 (C-I/O)	Slip Whitish
13	KH.15.P.498/11	2	F.6309	W	H	Ma2	2.5YR 7/6 (C-I/O)	-
14	KH.15.P.490/6	2	F.6309	W	H	Ma1	5YR 6/6 (C-I/O)	Slip Whitish
15	KH.15.P.803/13	2	F.6309	W	H	Ma1	5YR 6/4 (C-I/O)	-
16	KH.15.P.474/10	2	F.6309	W	H	Ma1	5YR 6/4 (C-I/O)	-
17	KH.15.P.803/14	2	F.6309	W	H	Ma1	5YR 6/4 (C-I/O)	-
18	KH.15.P.498/12	2	F.6309	W	H	Ma2	5YR 7/4 (C-I/O)	-
19	KH.15.P.486/12	2	F.6309	W	H	Ma1	7.5YR 8/3 (C-I/O)	-

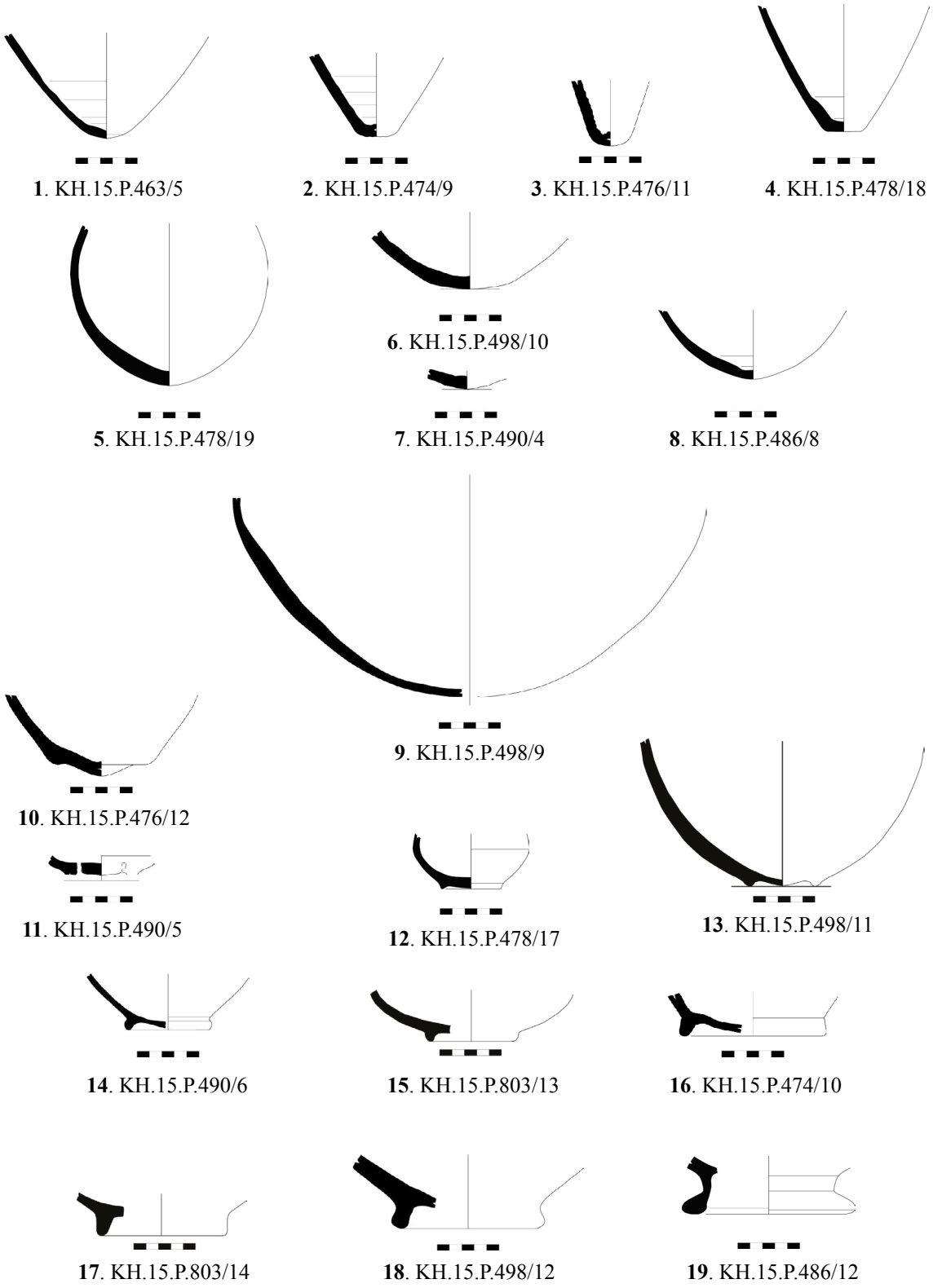
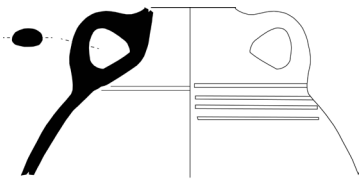
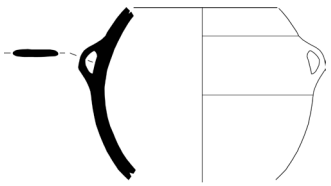


Fig. 4.10. Pottery sherds from F.6309.

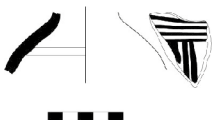
No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.486/7	2	F.6309	W	H	Ma1	5YR 7/5 (C) 10YR 8/1 (I/O)	Burnish
2	KH.15.P.486/1	2	F.6309	HW	H	Ma1	2.5Y 8/2 (C-I/O)	-
3	KH.15.P.497/13	2	F.6309	W	H	Ma1	7.5YR 6/4 (C-I/O)	Slip Whitish
4	KH.15.P.498/7	2	F.6309	W	H	Mb2	2.5YR 7/5 (C-I/O)	Slip Whitish
5	KH.15.P.490/ 3+7	2	F.6309	W	H	Ma1	2.5YR 7/5 (C-I/O)	Slip Whitish



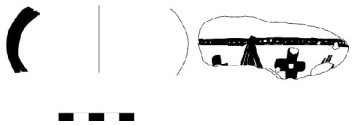
1. KH.15.P.486/7



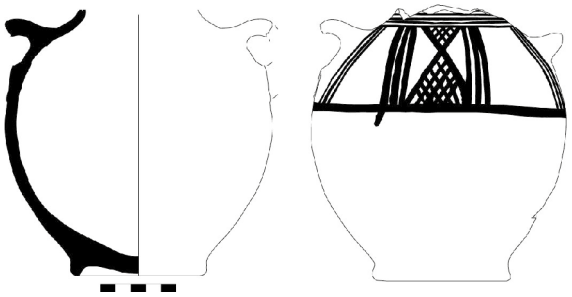
2. KH.15.P.486/1



3. KH.15.P.497/13



4. KH.15.P.498/7



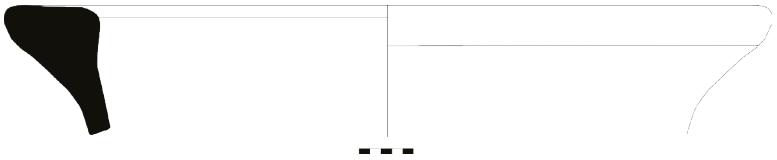
5. KH.15.P.490/3+7

Fig. 4.11. Pottery sherds from F.6309.

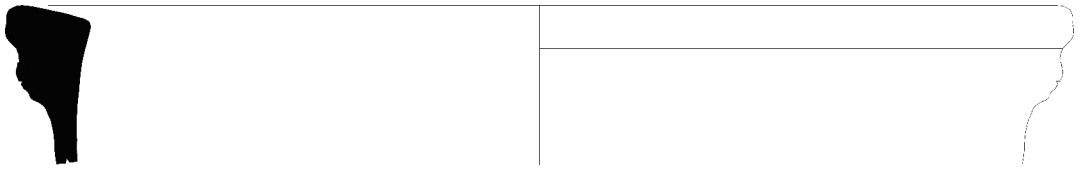
No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.467/10	2	F.6309	HW	M	VMc4	10YR 8/4 (C-I/O)	-
2	KH.15.P.803/15	2	F.6309	W	M	VMc3	7.5YR 7/2 (C-I/O)	Slip Whitish
3	KH.15.P.463/6	2	F.6309	W	M	VMc4	10YR 8/4 (C-I/O)	-



1. KH.15.P.467/10



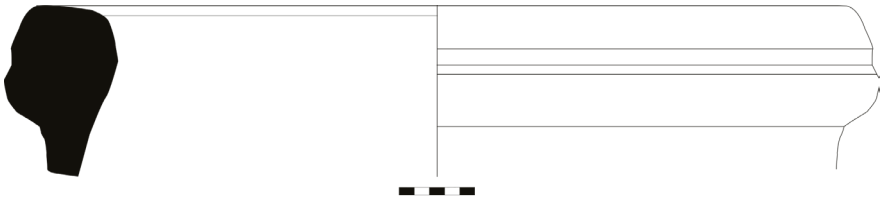
2. KH.15.P.803/15



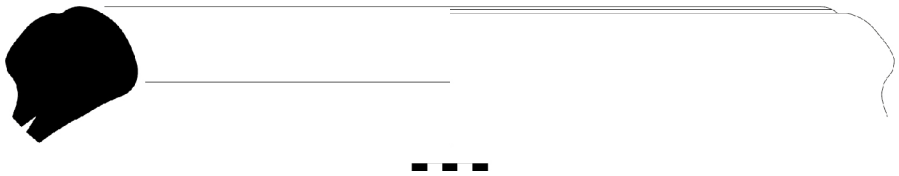
3. KH.15.P.463/6

Fig. 4.12. Pottery sherds from F.6309.

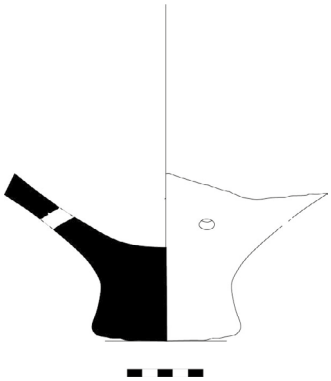
No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.803/16	2	F.6309	W	M	Yc3	7.5YR 6/3 (C-I/O)	Slip Whitish
2	KH.15.P.476/13	2	F.6309	W	M	Yb2	7.5YR 4/2 (C) 7.5YR 8/3 (I/O)	-
3	KH.15.P.487/7	2	F.6309	H	M	Yc3	7.5YR 8/2 (C) 7.5YR 8/4 (I/O)	-



1. KH.15.P.803/16



2. KH.15.P.476/13



3. KH.15.P.487/7

Fig. 4.13. Pottery sherds from F.6309.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.451/1	2	F.5882	W	H	Ma1	7.5YR 6/4 (C-I/O)	-
2	KH.15.P.378/3	2	F.5882	W	H	Ma1	10YR 7/3 (C-I/O)	-
3	KH.15.P.442/1	2	F.5882	W	H	Ya1	5YR 6/6 (C-I/O)	Slip Whitish Burnish
4	KH.15.P.420/3	2	F.5882	W	H	Ma1	5YR 7/6 (C-I/O)	Slip Whitish
5	KH.15.P.378/4	2	F.5882	W	H	Ma1	10YR 6/2 (C-I/O)	-
6	KH.15.P.420/4	2	F.5882	W	H	Ma1	7.5YR 7/6 (C-I/O)	Slip Whitish
7	KH.15.P.381/2	2	F.5882	W	H	Ma1	5YR 7/5 (C-I/O)	Burnish
8	KH.15.P.425/1	2	F.5882	W	H	Ma1	5YR 7/6 (C-I/O)	-
9	KH.15.P.381/1	2	F.5882	W	H	Ma1	10YR 8/3 (C-I/O)	Burnish
10	KH.15.P.378/5	2	F.5882	W	H	Ma1	10YR 6/2 (C-I/O)	Burnish
11	KH.15.P.369/1	2	F.5882	W	H	Ma1	7.5YR 8/3 (C-I/O)	Slip Whitish
12	KH.15.P.425/3	2	F.5882	W	H	Ma1	7.5YR 6/6 (C-I/O)	Slip Whitish
13	KH.15.P.435/3	2	F.5882	W	H	Ma1	10YR 6/4 (C-I/O)	Burnish
14	KH.15.P.425/5	2	F.5882	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
15	KH.15.P.435/6	2	F.5882	W	M	Ma3	5YR 6/4 (C-I/O)	-
16	KH.15.P.425/8	2	F.5882	W	H	Ma1	5YR 7/6 (C-I/O)	Burnish
17	KH.15.P.420/9	2	F.5882	W	H	Ma4	5YR 7/6 (C-I/O)	-
18	KH.15.P.435/4	2	F.5882	W	H	Ma1	5Y 7/2 (C-I/O)	-

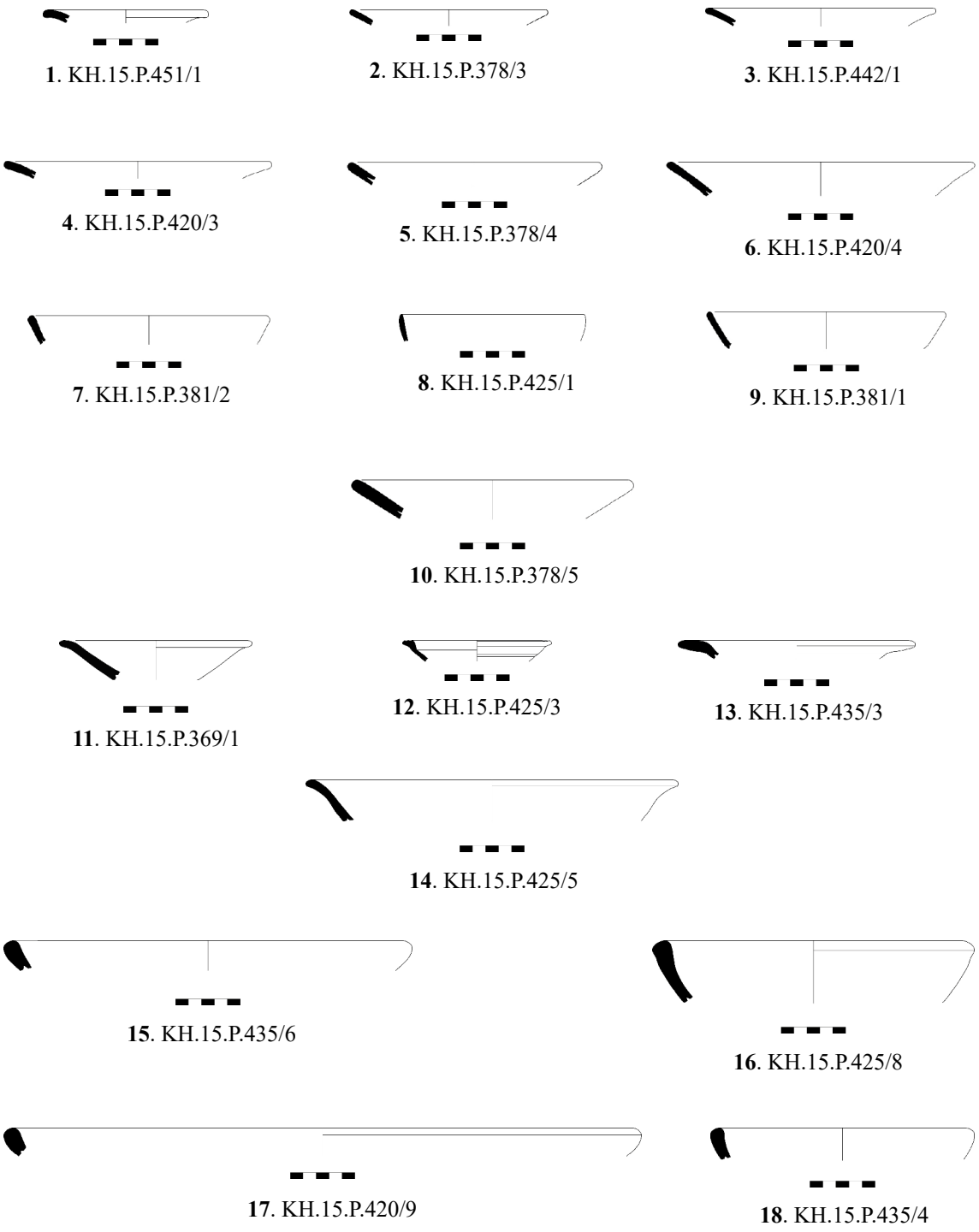


Fig. 4.14. Pottery sherds from F.5882.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.435/5	2	F.5882	W	H	Ma2	5Y8/4 (C-I/O)	Burnish
2	KH.15.P.451/2	2	F.5882	W	H	Yb2	7.5YR 7/4 (C-I/O)	Slip Whitish
3	KH.15.P.451/3	2	F.5882	W	H	Ya1	10YR 7/3 (C-I/O)	Slip Whitish
4	KH.15.P.407/5	2	F.5882	W	H	Ya1	10YR 6/4 (C-I/O)	-
5	KH.15.P.420/5	2	F.5882	W	H	Ma1	5Y 7/2 (C-I/O)	-
6	KH.15.P.407/6	2	F.5882	W	H	Ya1	10YR 7/4 (C-I/O)	Slip Whitish
7	KH.15.P.420/1	2	F.5882	W	H	Ma3	10YR 5/1 (C-I/O)	Burnish
8	KH.15.P.378/1	2	F.5882	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
9	KH.15.P.407/1	2	F.5882	W	H	Ya1	10YR 8/2 (C-I/O)	Slip Whitish
10	KH.15.P.407/2	2	F.5882	W	H	Ya1	7.5YR 6/4 (C-I/O)	Slip Whitish
11	KH.15.P.407/4	2	F.5882	W	H	Ya1	10YR 7/3 (C-I/O)	Slip Whitish
12	KH.15.P.442/2	2	F.5882	W	M	Ma1	5Y 8/3 (C-I/O)	-
13	KH.15.P.425/7	2	F.5882	W	M	Ma3	5Y 6/3 (C-I/O)	-
14	KH.15.P.420/2	2	F.5882	W	H	Ma2	2.5Y 8/3 (C-I/O)	-
15	KH.15.P.378/6	2	F.5882	W	H	Ma1	10YR 8/3 (C-I/O)	-
16	KH.15.P.381/3	2	F.5882	W	M	Ma1	5Y 8/3 (C-I/O)	-

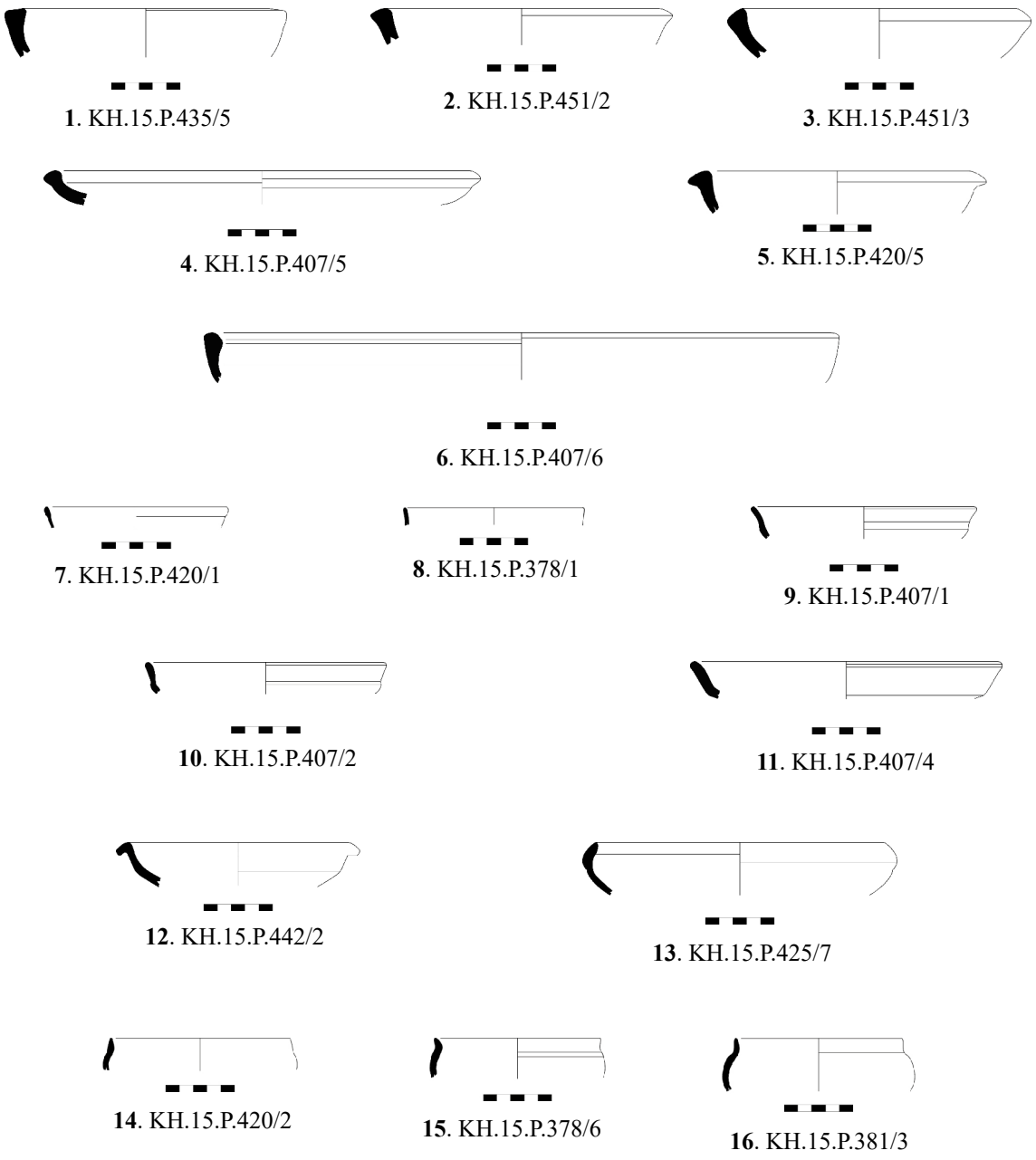


Fig. 4.15. Pottery sherds from F.5882.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.378/2	2	F.5882	W	H	Ma2	7.5YR 8/2 (C-I/O)	Burnish
2	KH.15.P.435/2	2	F.5882	W	H	Ma3	5Y 8/2 (C-I/O)	-
3	KH.15.P.407/3	2	F.5882	W	H	Yb1	10YR 6/3 (C-I/O)	Slip Whitish
4	KH.15.P.435/1	2	F.5882	W	H	Ma1	7.5YR 6/4 (C-I/O)	-
5	KH.15.P.370/1	2	F.5882	W	H	Ma1	2.5YR 7/2 (C-I/O)	-
6	KH.15.P.442/3	2	F.5882	W	H	Yb1	10YR 7/3 (C-I/O)	-
7	KH.15.P.451/6	2	F.5882	W	H	Ya3	5YR 6/4 (C-I/O)	-
8	KH.15.P.372/3	2	F.5882	W	H	Ya1	2.5Y 7/2 (C-I/O)	-
9	KH.15.P.378/8	2	F.5882	W	H	Ma2	5YR 8/4 (C-I/O)	Slip Whitish
10	KH.15.P.451/9	2	F.5882	W	H	Ya2	5YR 7/4 (C) 7.5YR 7/3 (I/O)	-
11	KH.15.P.372/1	2	F.5882	W	H	Yb1	10YR 7/4 (C-I/O)	Slip Whitish
12	KH.15.P.451/5	2	F.5882	W	H	Yb2	5YR 7/4 (C-I/O)	-
13	KH.15.P.378/ 10+11	2	F.5882	W	M	Mb3	10YR 6/2 (C-I/O)	-
14	KH.15.P.412/3	2	F.5882	W	H	Yc4	10YR 7/2 (C-I/O)	Slip Reddish
15	KH.15.P.369/2	2	F.5882	W	H	Mb2	7.5YR 7/3 (C-I/O)	-
16	KH.15.P.451/11	2	F.5882	W	H	Yc1	7.5YR 6/3 (C-I/O)	Slip Whitish
17	KH.15.P.378/7	2	F.5882	W	M	Ma3	5YR 7/5 (C-I/O)	Slip Whitish
18	KH.15.P.425/13	2	F.5882	W	H	Ma3	5Y 7/2 (C-I/O)	-
19	KH.15.P.451/8	2	F.5882	W	M	Ya1	2.5YR 7/4 (C-I/O)	Slip Whitish
20	KH.15.P.378/9	2	F.5882	W	H	Ma1	7.5YR 7/4 (C-I/O)	-

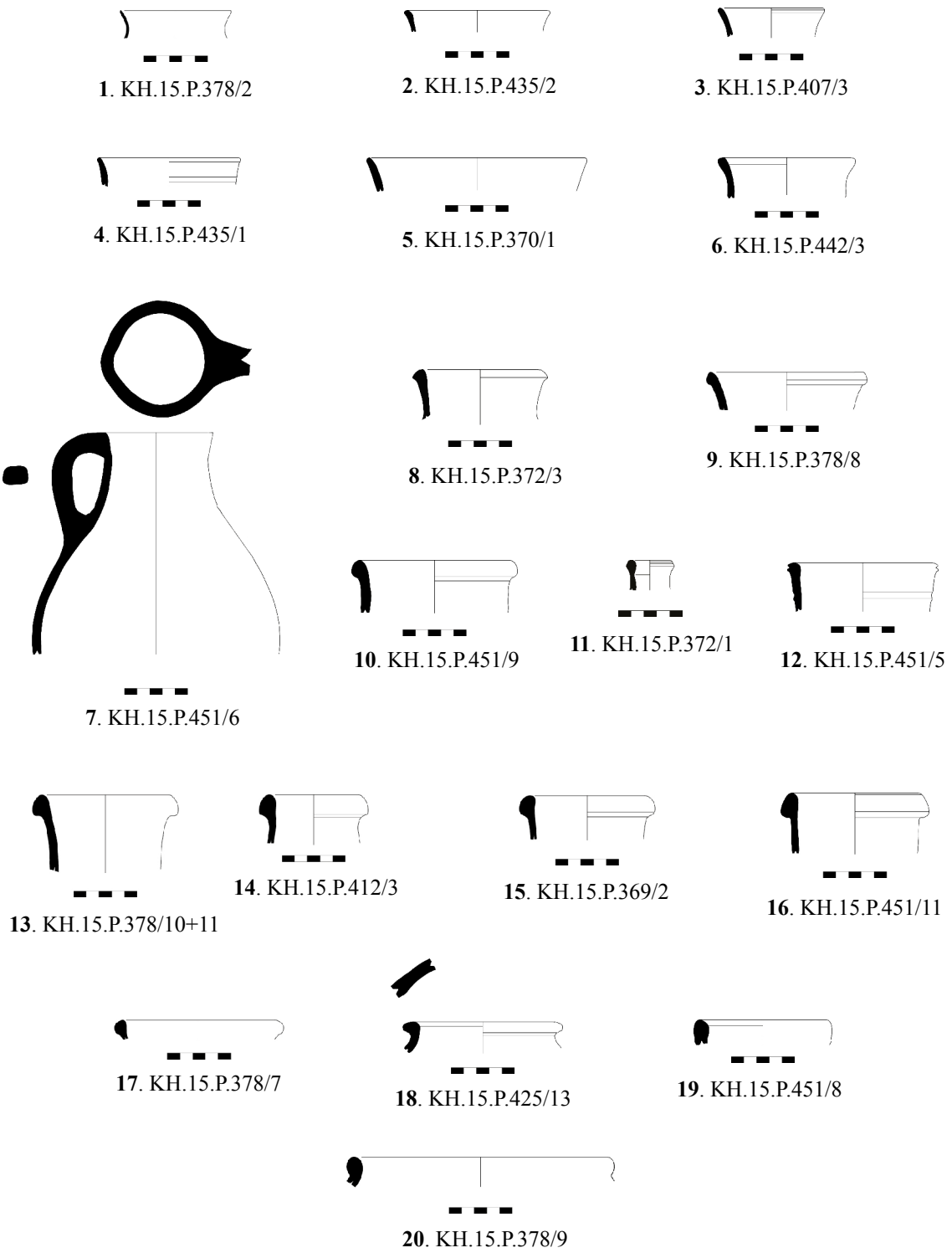


Fig. 4.16. Pottery sherds from F.5882.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.407/7	2	F.5882	W	H	Ma1	10YR 7/4 (C-I/O)	Slip Whitish
2	KH.15.P.451/7	2	F.5882	W	H	Ya1	2.5YR 6/4 (C-I/O)	Slip Whitish
3	KH.15.P.442/6	2	F.5882	W	H	Ya1	5YR 7/4 (C-I/O)	-
4	KH.15.P.425/11	2	F.5882	W	H	Ma1	10YR 7/3 (C-I/O)	Slip Whitish
5	KH.15.P.381/5	2	F.5882	W	H	Mb2	7.5YR 7/4 (C-I/O)	-
6	KH.15.P.360/1	2	F.5882	W	H	Ma1	10YR 7/2 (C-I/O)	Slip Whitish
7	KH.15.P.442/5	2	F.5882	W	H	Ma1	10YR 7/2 (C-I/O)	-
8	KH.15.P.425/2	2	F.5882	W	H	Ma1	5YR 7/4 (C) 5YR 7/6 (I/O)	-
9	KH.15.P.451/10	2	F.5882	W	H	Yb3	5YR 6/4 (C-I/O)	Slip Whitish
10	KH.15.P.425/10	2	F.5882	W	H	Ma1	10YR 7/4 (C-I/O)	Slip Whitish
11	KH.15.P.388/3	2	F.5882	W	H	Ma1	10YR 7/4 (C-I/O)	-
12	KH.15.P.425/9	2	F.5882	W	H	Ma2	10YR 7/4 (C-I/O)	-
13	KH.15.P.451/4	2	F.5882	W	H	Ma1	5Y 8/2 (C-I/O)	-
14	KH.15.P.425/6	2	F.5882	W	H	Ma2	10YR 8/4 (C-I/O)	-
15	KH.15.P.425/4	2	F.5882	W	H	Ma3	7.5YR 7/4 (C-I/O)	Slip Whitish
16	KH.15.P.442/4	2	F.5882	W	H	Ya1	5YR 6/6 (C-I/O)	Slip Whitish Burnish
17	KH.15.P.388/2	2	F.5882	W	H	Ma1	10YR 7/4 (C-I/O)	-
18	KH.15.P.360/2	2	F.5882	W	H	Mb2	7.5YR 6/4 (C-I/O)	Slip Whitish
19	KH.15.P.412/2	2	F.5882	W	H	Yc4	10YR 5/2 (C-I/O)	-
20	KH.15.P.360/3	2	F.5882	W	H	Mb2	7.5YR 5/2 (C-I/O)	-

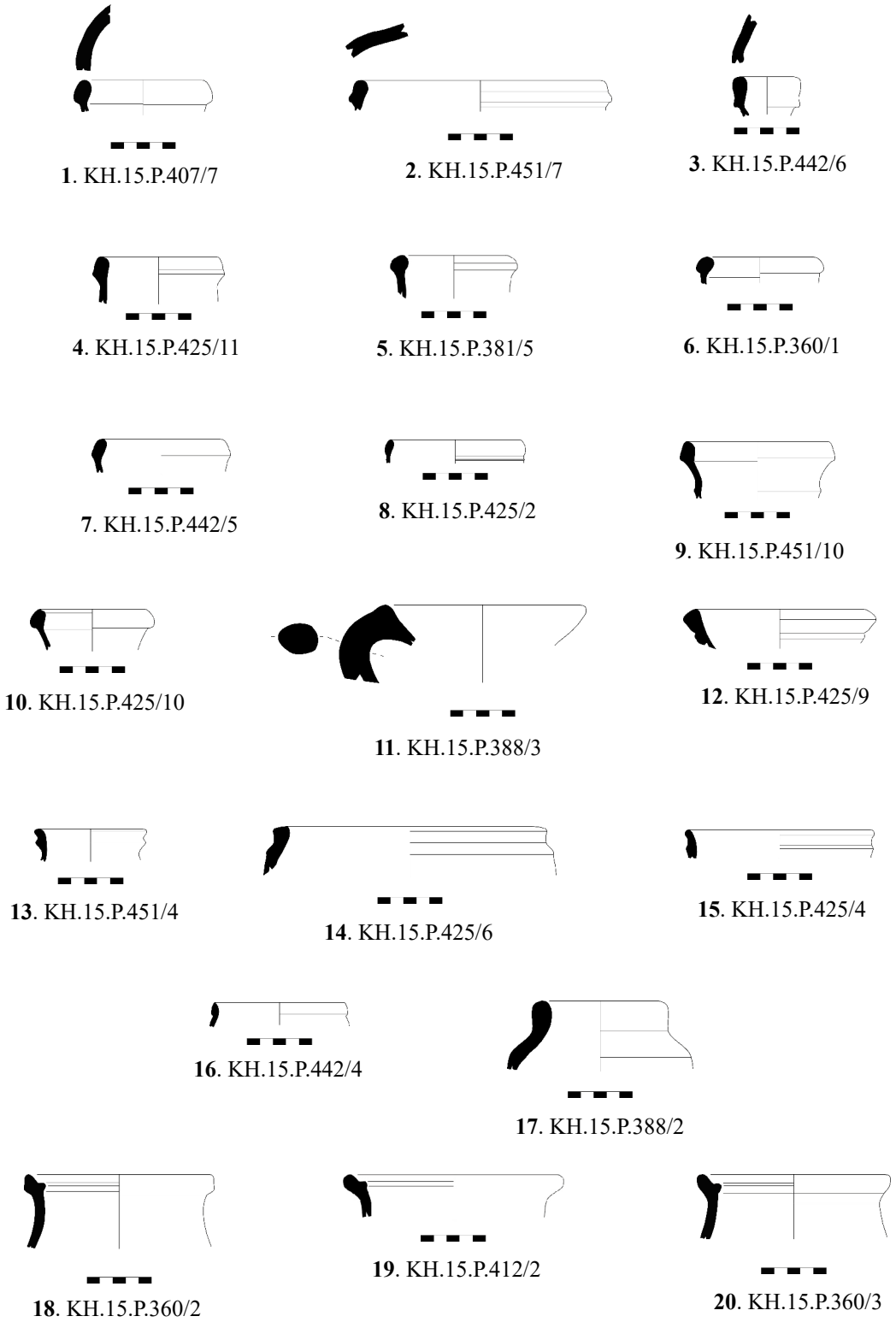


Fig. 4.17. Pottery sherds from F.5882.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.370/2	2	F.5882	W	H	Ma1	7.5YR 8/2 (C-I/O)	Slip Whitish
2	KH.15.P.442/7	2	F.5882	W	M	Yc4	7.5YR 5/2 (C-I/O)	-
3	KH.15.P.381/4	2	F.5882	W	H	Mb1	7.5YR 7/4 (C-I/O)	-
4	KH.15.P.412/1	2	F.5882	W	H	VMc4	10YR 5/2 (C-I/O)	-
5	KH.15.P.420/8	2	F.5882	W	L	Mb2	7.5YR 7/4 (C-I/O)	Slip Whitish
6	KH.15.P.451/12	2	F.5882	W	H	Yb4	5YR 6/4 (C-I/O)	Slip Whitish Burnish
7	KH.15.P.420/6	2	F.5882	W	H	Ma3	10YR 4/1 (C-I/O)	-
8	KH.15.P.369/3	2	F.5882	W	H	Ma2	5YR 6/1 (C) 5YR 5/4 (I/O)	-
9	KH.15.P.360/4	2	F.5882	W	H	Ma1	7.5YR 7/3 (C-I/O)	Slip Whitish
10	KH.15.P.451/13	2	F.5882	H	H	Mb2	5YR 6/2 (C-I/O)	-
11	KH.15.P.425/12	2	F.5882	W	H	Ma3	5Y 7/2 (C-I/O)	-
12	KH.15.P.420/7	2	F.5882	W	H	Ma1	5YR 7/8 (C-I/O)	Slip Whitish
13	KH.15.P.451/15	2	F.5882	W	H	Ya1	7.5YR 6/4 (C-I/O)	Slip Whitish
14	KH.15.P.451/14	2	F.5882	W	H	Ma1	5YR 5/6 (C-I/O)	-
15	KH.15.P.370/3	2	F.5882	W	H	Ma1	7.5YR 7/3 (C-I/O)	-
16	KH.15.P.369/4	2	F.5882	W	H	Ma2	5YR 7/4 (C-I/O)	-
17	KH.15.P.451/17	2	F.5882	W	M	Ya1	5YR 6/4 (C-I/O)	Slip Whitish
18	KH.15.P.451/16	2	F.5882	W	M	Yc1	7.5YR 6/4 (C) 5YR 7/4 (I/O)	-

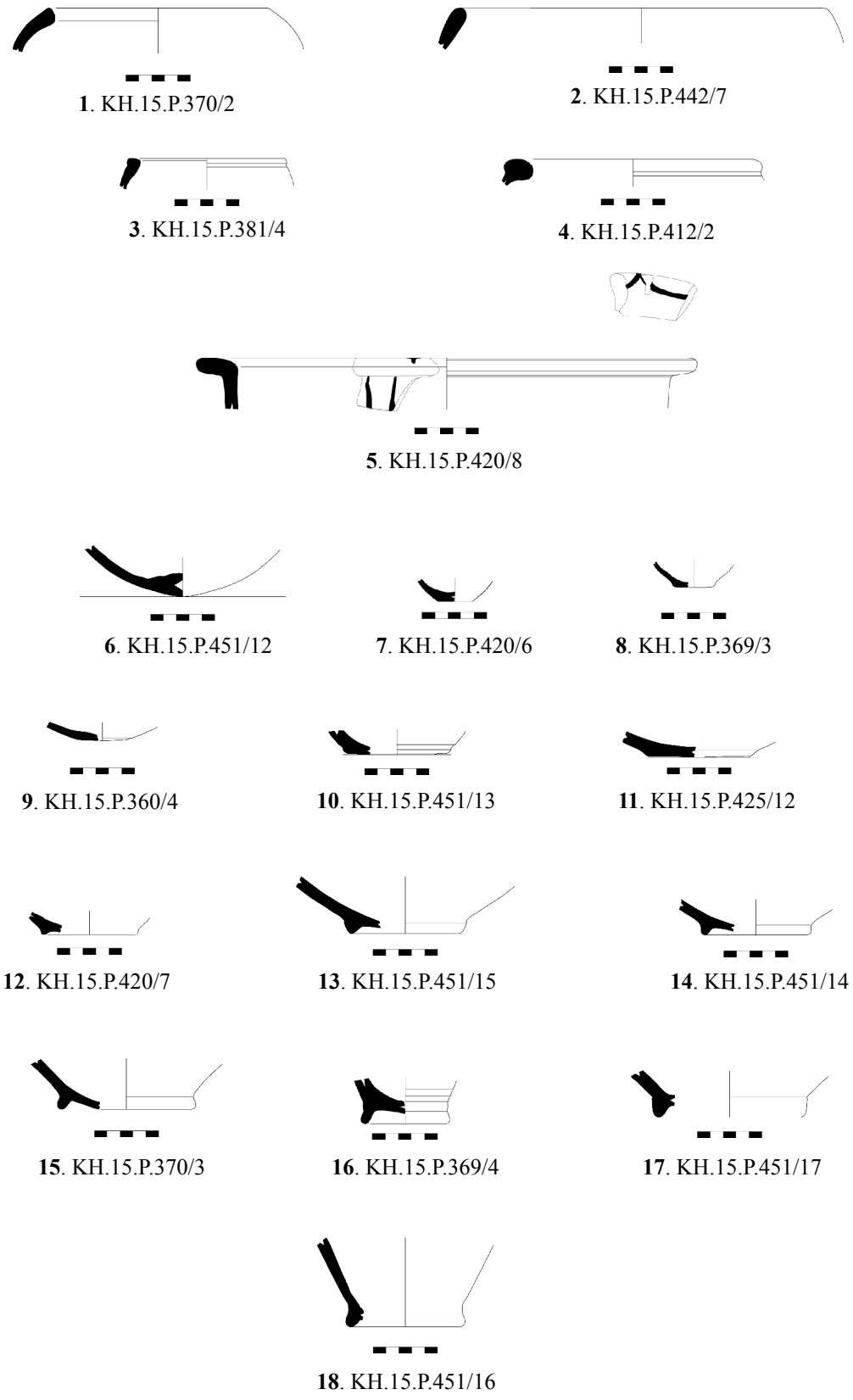
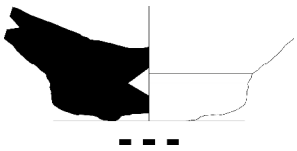


Fig. 4.18. Pottery sherds from F.5882.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.451/18	2	F.5882	H	M	Yc3	7.5YR 7/2 (C) 5YR 7/4 (I/O)	-
2	KH.15.P.451/19	2	F.5882	W	H	Yc3	2.5YR 6/4 (C-I/O)	-



1. KH.15.P.451/18



2. KH.15.P.451/19

Fig. 4.19. Pottery sherds from F.5882

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.351/2	2	F.5874	W	H	Ma1	7.5YR 6/4 (C-I/O)	-
2	KH.15.P.351/1	2	F.5874	W	H	Ma1	10YR 8/2 (C-I/O)	Burnish
3	KH.15.P.351/5	2	F.5874	W	H	Ma1	2.5YR 6/6 (C-I/O)	Slip Whitish Burnish
4	KH.15.P.351/4	2	F.5874	W	H	Mb2	7.5YR 7/3 (C-I/O)	Burnish
5	KH.15.P.351/6	2	F.5874	W	H	Mb2	5YR 6/4 (C-I/O)	Slip Whitish
6	KH.15.P.351/7	2	F.5874	W	H	Ma1	5YR 7/4 (C-I/O)	Slip Whitish
7	KH.15.P.351/3	2	F.5874	W	H	Ma2	7.5YR 6/3 (C-I/O)	Burnish
8	KH.15.P.351/9	2	F.5874	W	L	Mb3	5YR 7/3 (C-I/O)	-

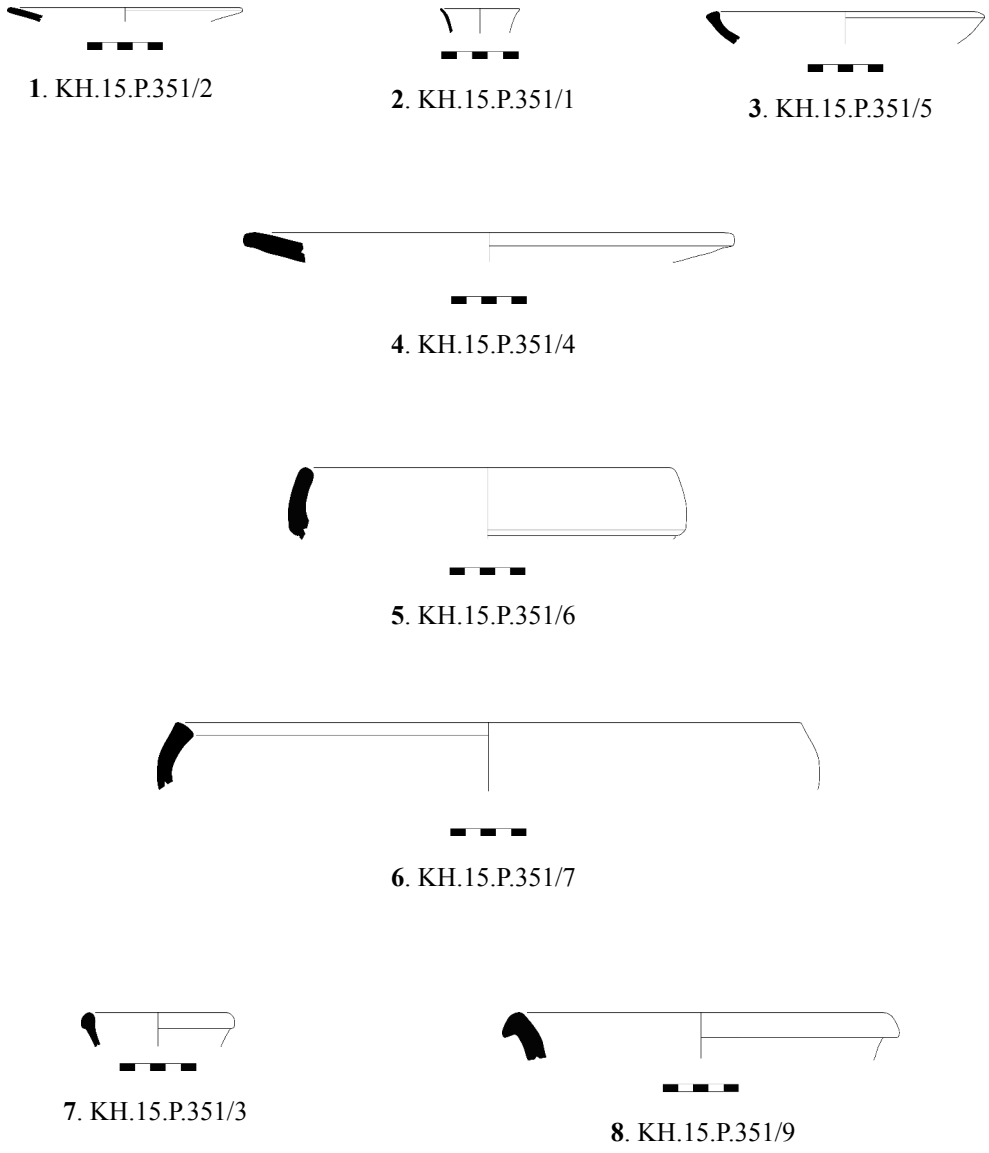


Fig. 4.20. Pottery sherds from F.5874.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.347/2	2	F.5859	W	H	Ma1	5YR 7/6 (C) 5YR 7/4 (I/O)	Slip Reddish Burnish
2	KH.15.P.346/2	2	F.5859	W	H	Ma1	5Y 8/3 (C-I/O)	-
3	KH.15.P.346/1	2	F.5859	W	H	Ma1	7.5YR 6/1 (C-I/O)	-
4	KH.15.P.347/3	2	F.5859	W	H	Ma2	7.5YR 7/4 (C) 7.5YR 6/4 (I/O)	Slip Whitish
5	KH.15.P.347/4	2	F.5859	W	H	Ma1	7.5YR 6/4 (C-I/O)	-
6	KH.15.P.347/5	2	F.5859	W	H	Ma2	7.5YR 7/4 (C) 2.5YR 5/4 (I/O)	Slip Whitish Burnish
7	KH.15.P.347/1	2	F.5859	W	H	Ma1	5YR 7/6 (C-I/O)	-
8	KH.15.P.346/3	2	F.5859	W	H	Ma3	2.5YR 8/3 (C-I/O)	-
9	KH.15.P.347/6	2	F.5859	W	H	Ma1	5YR 6/6 (C-I/O)	-
10	KH.15.P.347/7	2	F.5859	W	H	Ma1	2.5Y 8/4 (C-I/O)	-

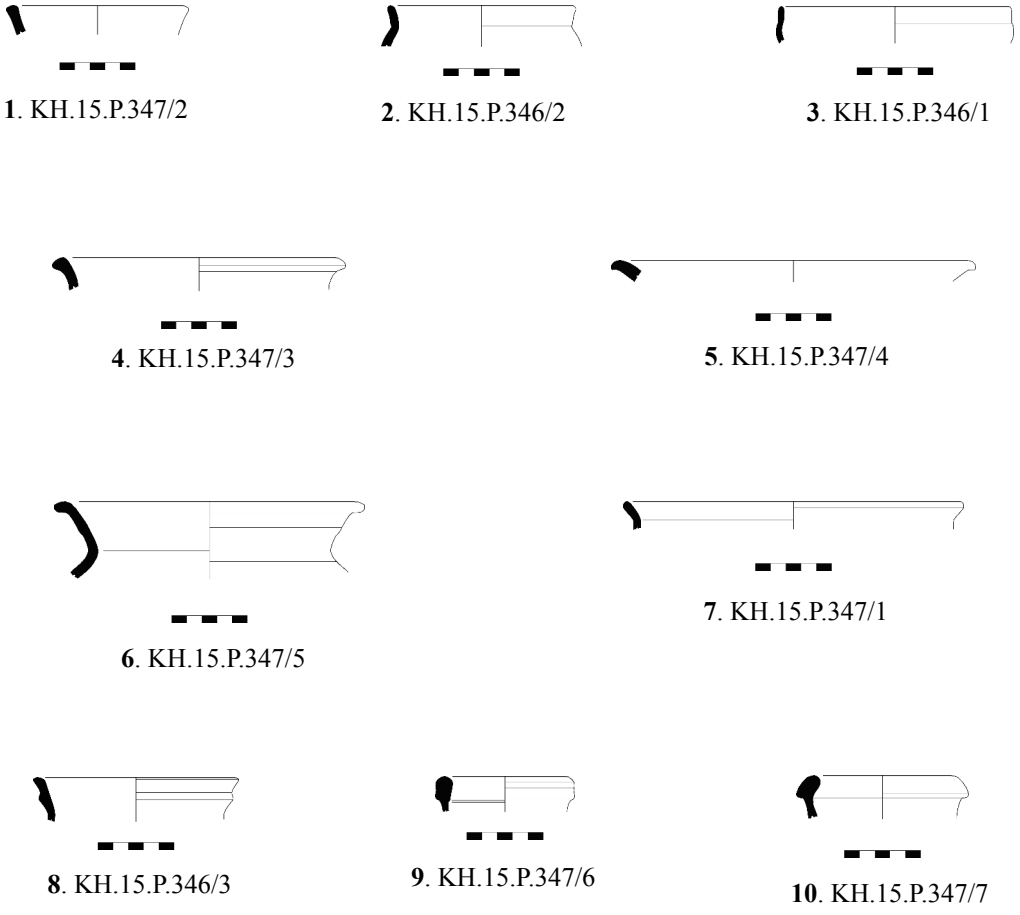


Fig. 4.21. Pottery sherds from F.5859.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.344/1	2	F.5858	W	H	Ma1	5YR 7/5 (C-I/O)	Slip Whitish
2	KH.15.P.344/2	2	F.5858	W	H	Ma1	5YR 7/2 (C-I/O)	-
3	KH.15.P.344/3	2	F.5858	W	H	Ma2	5YR 7/4 (C-I/O)	-
4	KH.15.P.344/4	2	F.5858	W	H	Mb3	5YR 3/1 (C-I/O)	-
5	KH.15.P.344/5	2	F.5858	W	H	Ma1	7.5YR 5/1 (C-I/O)	-
6	KH.15.P.344/6	2	F.5858	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
7	KH.15.P.344/7	2	F.5858	W	H	Ma1	7.5YR 7/5 (C-I/O	Slip Whitish

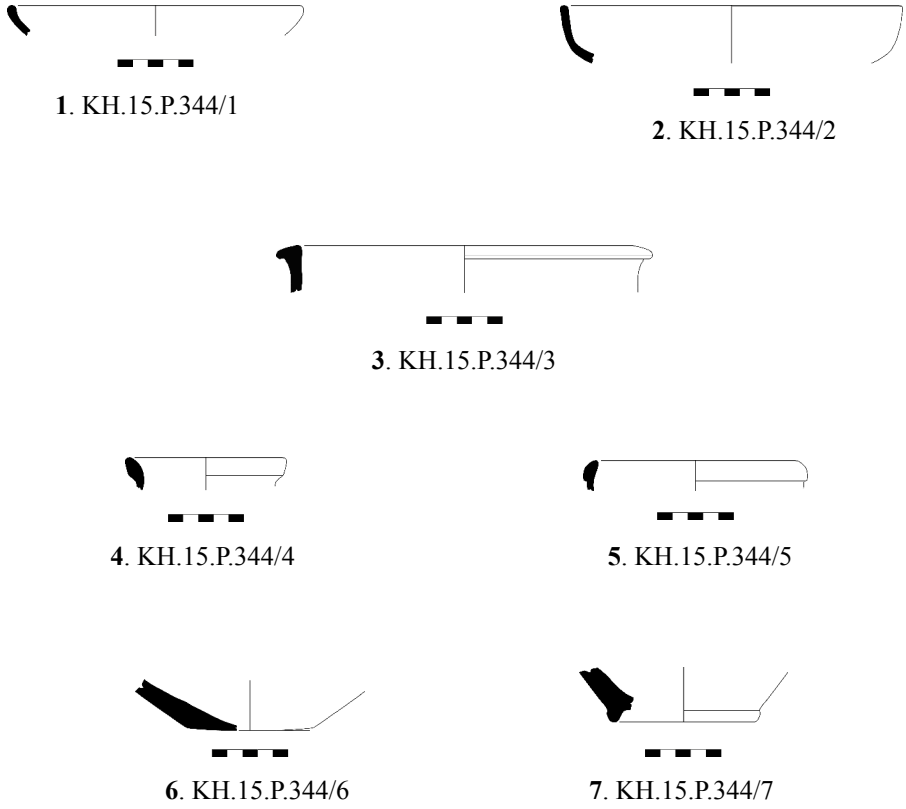
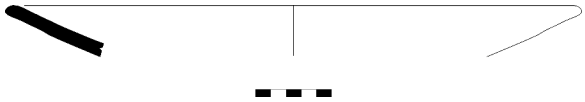
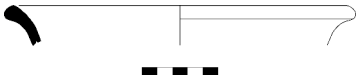


Fig. 4.22. Pottery sherds from F.5858.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.343/2	2	F.5857	W	H	Mb2	7.5YR 7/2 (C-I/O)	-
2	KH.15.P.343/3	2	F.5857	W	H	Ma1	5YR 7/3 (C-I/O)	Slip Whitish
3	KH.15.P.343/1	2	F.5857	W	H	Ma1	7.5YR 7/2 (C-I/O)	Burnish
4	KH.15.P.343/5	2	F.5857	W	H	Mb3	5YR 7/3 (C-I/O)	-
5	KH.15.P.343/7	2	F.5857	W	H	Mb3	5YR 7/3 (C-I/O)	-
6	KH.15.P.343/4	2	F.5857	W	H	Ma2	5YR 8/4 (C-I/O)	Slip Whitish
7	KH.15.P.343/6	2	F.5857	W	H	Mb2	7.5YR 7/3 (C-I/O)	-



1. KH.15.P.343/2



2. KH.15.P.343/3



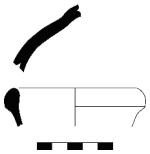
3. KH.15.P.343/1



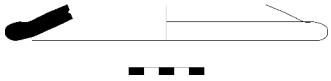
4. KH.15.P.343/5



5. KH.15.P.343/7



6. KH.15.P.343/4



7. KH.15.P.343/6

Fig. 4.23. Pottery sherds from F.5857.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.321/1	2	F.5801	W	H	Ma1	5Y 6/2 (C-I/O)	Burnish
2	KH.15.P.331/3	2	F.5801	W	H	Ma1	10YR 7/3 (C-I/O)	Burnish
3	KH.15.P.326/4	2	F.5801	W	H	Ma1	7.5YR 8/4 (C-I/O)	Slip Whitish
4	KH.15.P.333/2	2	F.5801	W	H	Ma1	7.5YR 7/2 (C)	Slip Brownish Burnish
5	KH.15.P.321/2	2	F.5801	W	H	Ma1	5YR 7/4 (C-I/O)	-
6	KH.15.P.331/1	2	F.5801	W	H	Ma1	2.5Y 7/3 (C-I/O)	-
7	KH.15.P.326/3	2	F.5801	W	H	Ma1	7.5YR 7/6 (C-I/O)	-
8	KH.15.P.329/2	2	F.5801	W	H	Ma1	5Y 8/3 (C-I/O)	-
9	KH.15.P.307/1	2	F.5801	W	H	Ma1	5YR 7/8 (C-I/O)	Slip Whitish
10	KH.15.P.329/3	2	F.5801	W	H	Ma3	2.5Y 7/3 (C-I/O)	-
11	KH.15.P.329/1	2	F.5801	W	H	Ma1	7.5YR 7/6 (C-I/O)	-
12	KH.15.P.301/5	2	F.5801	W	H	Mb1	5YR 7/5 (C-I/O)	Burnish
13	KH.15.P.301/4	2	F.5801	W	H	Ma1	5YR 7/5 (C-I/O)	Burnish
14	KH.15.P.333/8	2	F.5801	W	H	Ma1	2.5YR 7/4 (C-I/O)	-
15	KH.15.P.314/3	2	F.5801	W	H	Ma1	10YR 7/3 (C-I/O)	Burnish
16	KH.15.P.314/2	2	F.5801	W	H	Ma2	10YR 8/3 (C-I/O)	-
17	KH.15.P.333/6	2	F.5801	W	H	Ma1	2.5YR 7/5 (C) 10YR 8/2 (I/O)	Slip Whitish
18	KH.15.P.333/7	2	F.5801	W	H	Mb2	2.5YR 7/5 (C)	Slip Whitish
19	KH.15.P.326/5	2	F.5801	W	H	Ma1	5YR 7/6 (C-I/O)	-
20	KH.15.P.333/5	2	F.5801	W	H	Ma1	7.5YR 8/4 (C-I/O)	-

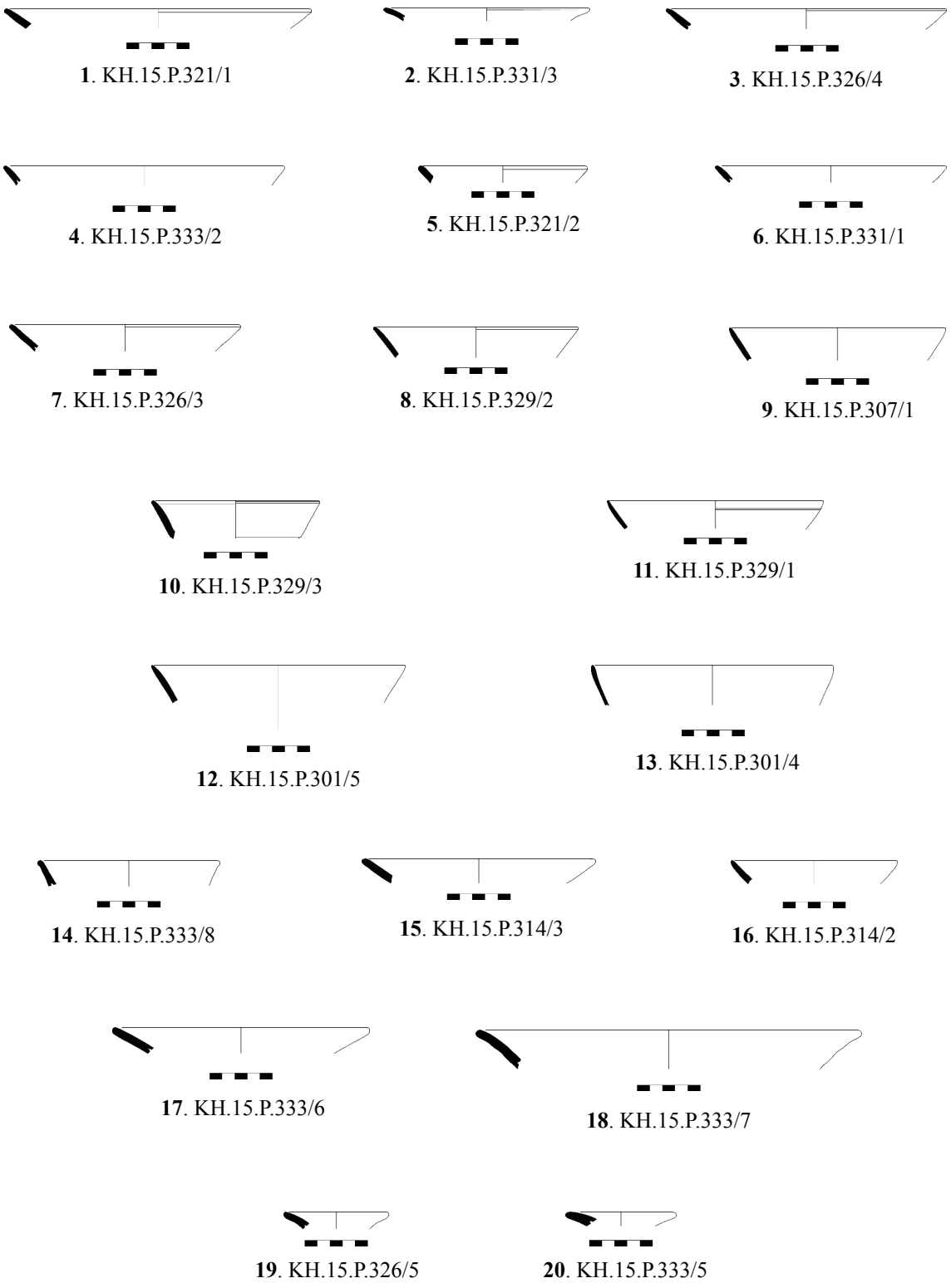


Fig. 4.24. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.340/2	2	F.5801	W	H	Ma1	7.5YR 7/3 (C-I/O)	-
2	KH.15.P.307/10	2	F.5801	W	H	Ma1	5YR 7/6 (C) 10YR 7/6 (I/O)	Slip Whitish
3	KH.15.P.307/12	2	F.5801	W	H	Ma1	7.5YR 7/6 (C-I/O)	Slip Whitish
4	KH.15.P.301/6	2	F.5801	W	H	Ma1	2.5YR 7/5 (C) 5YR 7/5 (I/O)	-
5	KH.15.P.329/4	2	F.5801	W	H	Ma1	7.5YR 7/6 (C) 10YR 7/6 (I/O)	Slip Whitish
6	KH.15.P.326/6	2	F.5801	W	H	Ma1	5YR 7/6 (C) 10YR 7/4 (I/O)	-
7	KH.15.P.321/3	2	F.5801	W	H	Ma3	10YR 8/6 (C-I/O)	-
8	KH.15.P.329/5	2	F.5801	W	H	Ma1	7.5YR 7/6 (C-I/O)	Burnish
9	KH.15.P.321/12	2	F.5801	W	L	Ma2	5YR 5/6 (C-I/O)	-
10	KH.15.P.314/1	2	F.5801	W	H	Ma2	5YR 7/4 (C-I/O)	-
11	KH.15.P.326/2	2	F.5801	W	H	Ma1	7.5YR 6/2 (C-I/O)	-
12	KH.15.P.326/1	2	F.5801	W	H	Ma1	5YR 7/8 (C) 10YR 7/6 (I/O)	-
13	KH.15.P.340/1	2	F.5801	W	H	Ma1	5YR 7/6 (C-I/O)	-
14	KH.15.P.318/1	2	F.5801	W	H	Ma1	5YR 7/6 (C-I/O)	Slip Whitish Burnish
15	KH.15.P.336/1	2	F.5801	W	H	Ma1	7.5YR 8/4 (C-I/O)	Burnish
16	KH.15.P.333/3	2	F.5801	W	H	Ma1	5YR 7/1 (C) 5YR 7/3 (I/O)	-

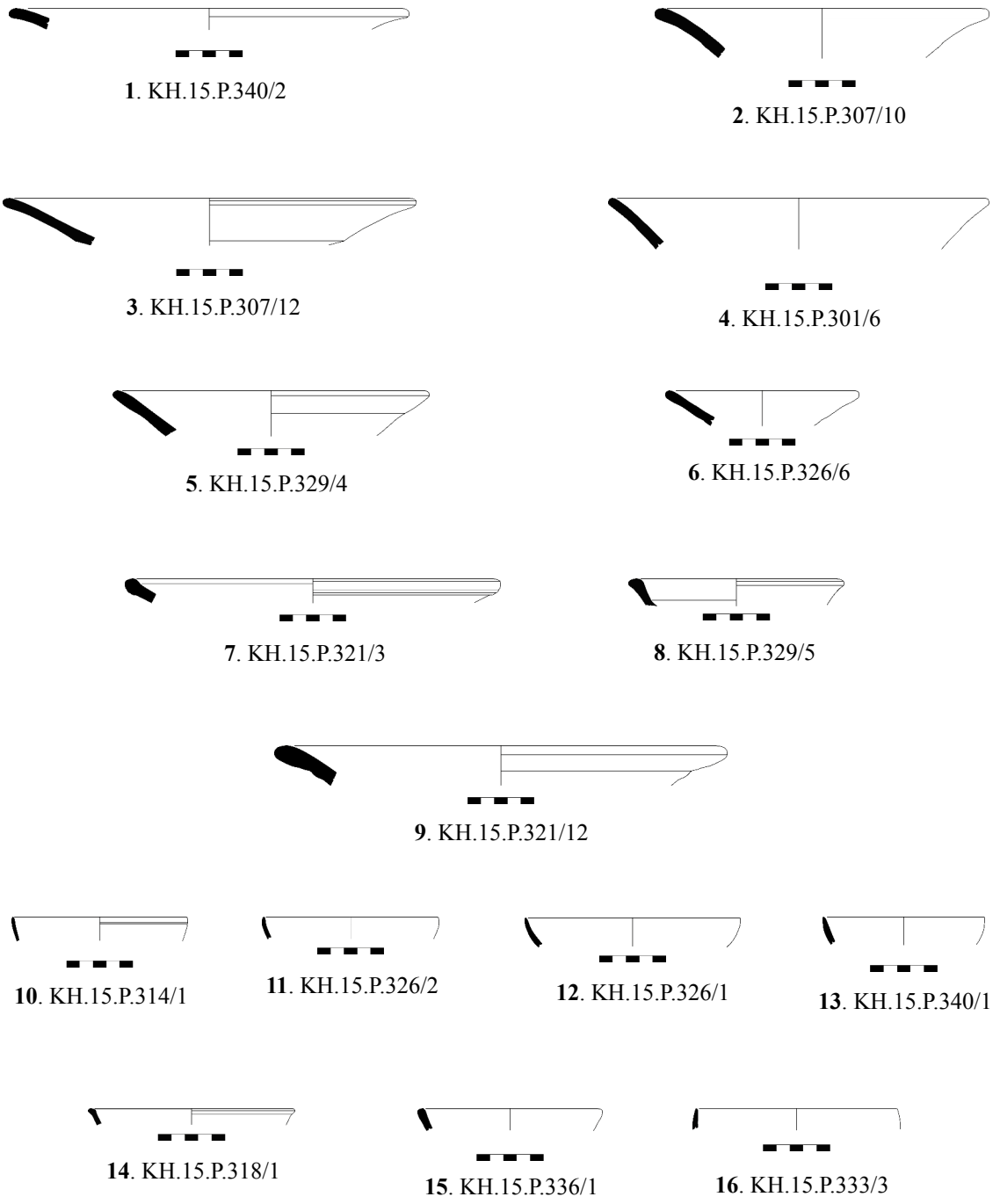


Fig. 4.25. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.337/3	2	F.5801	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish
2	KH.15.P.301/2	2	F.5801	W	H	Ma1	2.5YR 7/2 (C) 2.5YR 7/4 (I/O)	-
3	KH.15.P.331/5	2	F.5801	W	H	Ma1	7.5YR 7/3 (C)	Slip Whitish Burnish
4	KH.15.P.316/2	2	F.5801	W	H	Ma1	5YR 5/1 (C-I/O)	-
5	KH.15.P.326/7	2	F.5801	W	H	Yb4	7.5YR 7/4 (C-I/O)	-
6	KH.15.P.326/8	2	F.5801	W	H	Mb4	7.5YR 7/3 (C-I/O)	Slip Whitish Burnish
7	KH.15.P.307/4	2	F.5801	W	H	Ma1	7.5YR 7/6 (C) 10YR 7/6 (I/O)	Slip Whitish
8	KH.15.P.307/5	2	F.5801	W	H	Ma1	7.5YR 7/6 (C-I/O)	-
9	KH.15.P.307/6	2	F.5801	W	H	Ma1	7.5YR 7/6 (C) 2.5Y 7/4 (I/O)	Slip Whitish
10	KH.15.P.318/7	2	F.5801	W	H	Ma1	7.5YR 8/2 (C-I/O)	Burnish
11	KH.15.P.307/7	2	F.5801	W	H	Ma1	5YR 7/6 (C-I/O)	-
12	KH.15.P.316/3	2	F.5801	W	H	Ma1	5YR 7/6 (C) 10YR 7/4 (I/O)	-
13	KH.15.P.331/7	2	F.5801	W	H	Ma1	5YR 7/3 (C-I/O)	-
14	KH.15.P.331/6	2	F.5801	W	H	Ma1	5YR 7/4 (C-I/O)	-
15	KH.15.P.307/3	2	F.5801	W	H	Ma1	7.5YR 7/6 (C-I/O)	Slip Whitish
16	KH.15.P.313/2	2	F.5801	W	H	Ma2	10YR 8/3 (C-I/O)	Burnish



Fig. 4.26. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.340/3	2	F.5801	W	H	Ma2	7.5YR 7/3 (C-I/O)	Slip Reddish
2	KH.15.P.331/9	2	F.5801	W	H	Ma1	5YR 7/4 (C-I/O)	Slip Whitish
3	KH.15.P.331/8	2	F.5801	W	H	Ma1	5YR 7/4 (C-I/O)	Slip Whitish Burnish
4	KH.15.P.301/7	2	F.5801	W	H	Ma1	2.5YR 7/5 (C-I/O)	-
5	KH.15.P.340/4	2	F.5801	W	H	Mb2	2.5YR 6/4 (C-I/O)	Slip Whitish
6	KH.15.P.307/9	2	F.5801	W	H	Ma2	10YR 6/3 (C-I/O)	Slip Whitish
7	KH.15.P.301/8	2	F.5801	W	H	Ma1	7.5YR 8/4 (C-I/O)	-
8	KH.15.P.337/4	2	F.5801	W	H	Ma2	5YR 7/4 (C-I/O)	-
9	KH.15.P.331/10	2	F.5801	W	H	Ma1	5YR 7/3 (C-I/O)	Slip Whitish
10	KH.15.P.314/4	2	F.5801	W	H	Ma1	5YR 6/5 (C-I/O)	Burnish
11	KH.15.P.316/4	2	F.5801	W	H	Ma2	2.5Y 8/4 (C-I/O)	Slip Whitish
12	KH.15.P.318/ 5+6	2	F.5801	W	H	Ma1	5YR 7/4 (C) 10YR 8/3 (I/O)	Burnish
13	KH.15.P.307/2	2	F.5801	W	H	Ma1	2.5Y 8/3 (C-I/O)	-
14	KH.15.P.307/8	2	F.5801	W	H	Ma1	5YR 7/6 (C-I/O)	-

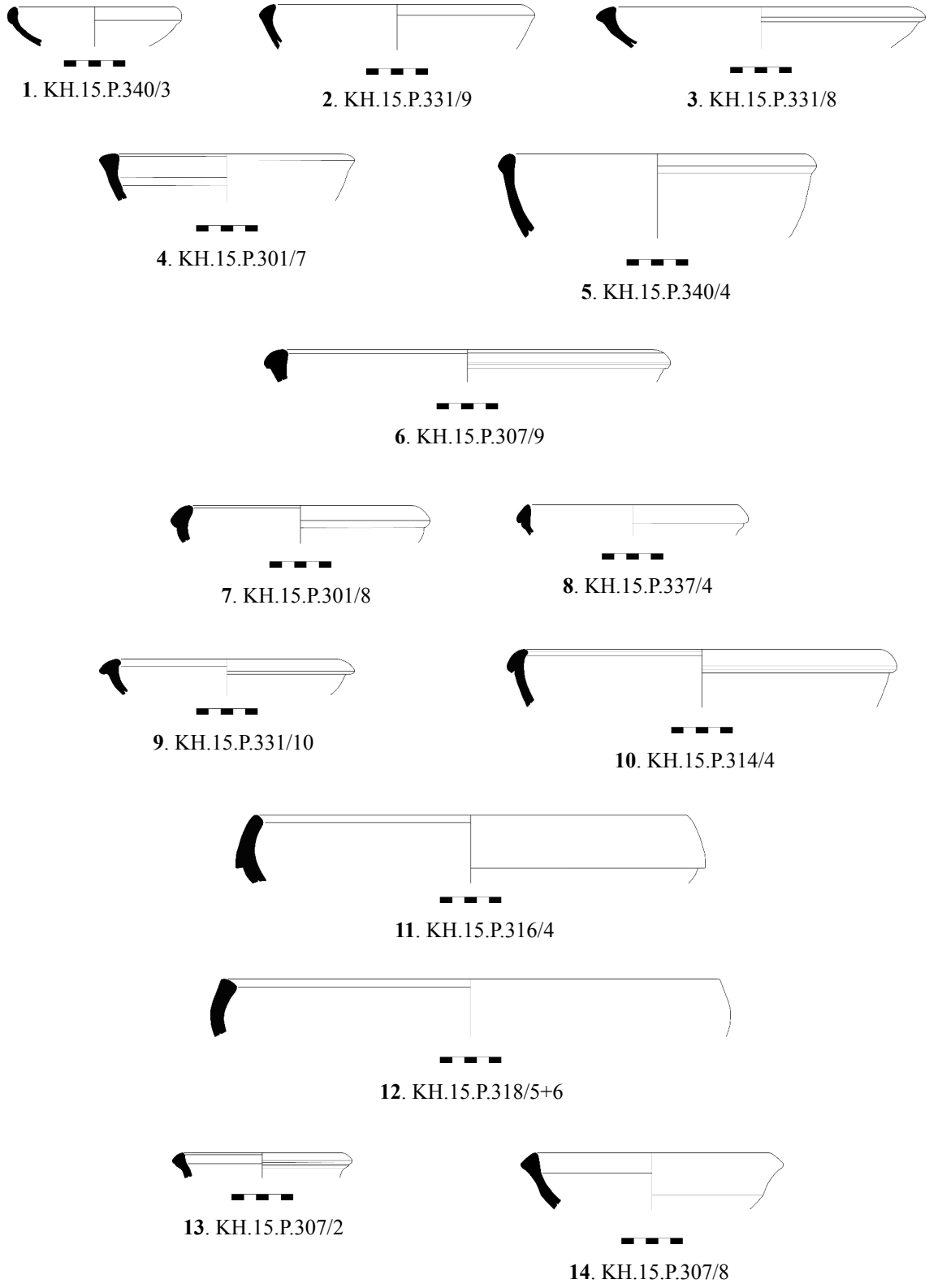


Fig. 4.27. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.331/4	2	F.5801	W	H	Ma1	7.5YR 7/3 (C-I/O)	Slip Whitish Burnish
2	KH.15.P.337/2	2	F.5801	W	H	Ma1	5YR 6/6 (C-I/O)	-
3	KH.15.P.333/9	2	F.5801	W	H	Ma1	2.5Y 7/1 (C-I/O)	-
4	KH.15.P.316/1	2	F.5801	W	H	Ma1	7.5YR 4/2 (C-I/O)	-
5	KH.15.P.337/1	2	F.5801	W	H	Ma1	7.5YR 7/4 (C-I/O)	Slip Whitish Burnish
6	KH.15.P.336/2	2	F.5801	W	H	Ma1	7.5YR 8/2 (C-I/O)	Burnish
7	KH.15.P.331/1	2	F.5801	W	H	Ma1	2.5Y 7/3 (C-I/O)	-
8	KH.15.P.331/2	2	F.5801	W	H	Ma1	7.5YR 7/4 (C-I/O)	Burnish
9	KH.15.P.318/3	2	F.5801	W	H	Ma2	7.5YR 7/4 (C-I/O)	Slip Whitish Burnish
10	KH.15.P.318/4	2	F.5801	W	H	Ma1	7.5YR 8/3 (C) 5YR 7/4 (I/O)	Burnish
11	KH.15.P.313/3	2	F.5801	W	H	Mb1	5YR 7/4 (C-I/O)	-
12	KH.15.P.316/5	2	F.5801	W	H	Ma1	5YR 7/4 (C) 5YR 7/6 (I/O)	Slip Whitish
13	KH.15.P.313/4	2	F.5801	W	H	Mc4	5YR 7/3 (C-I/O)	-

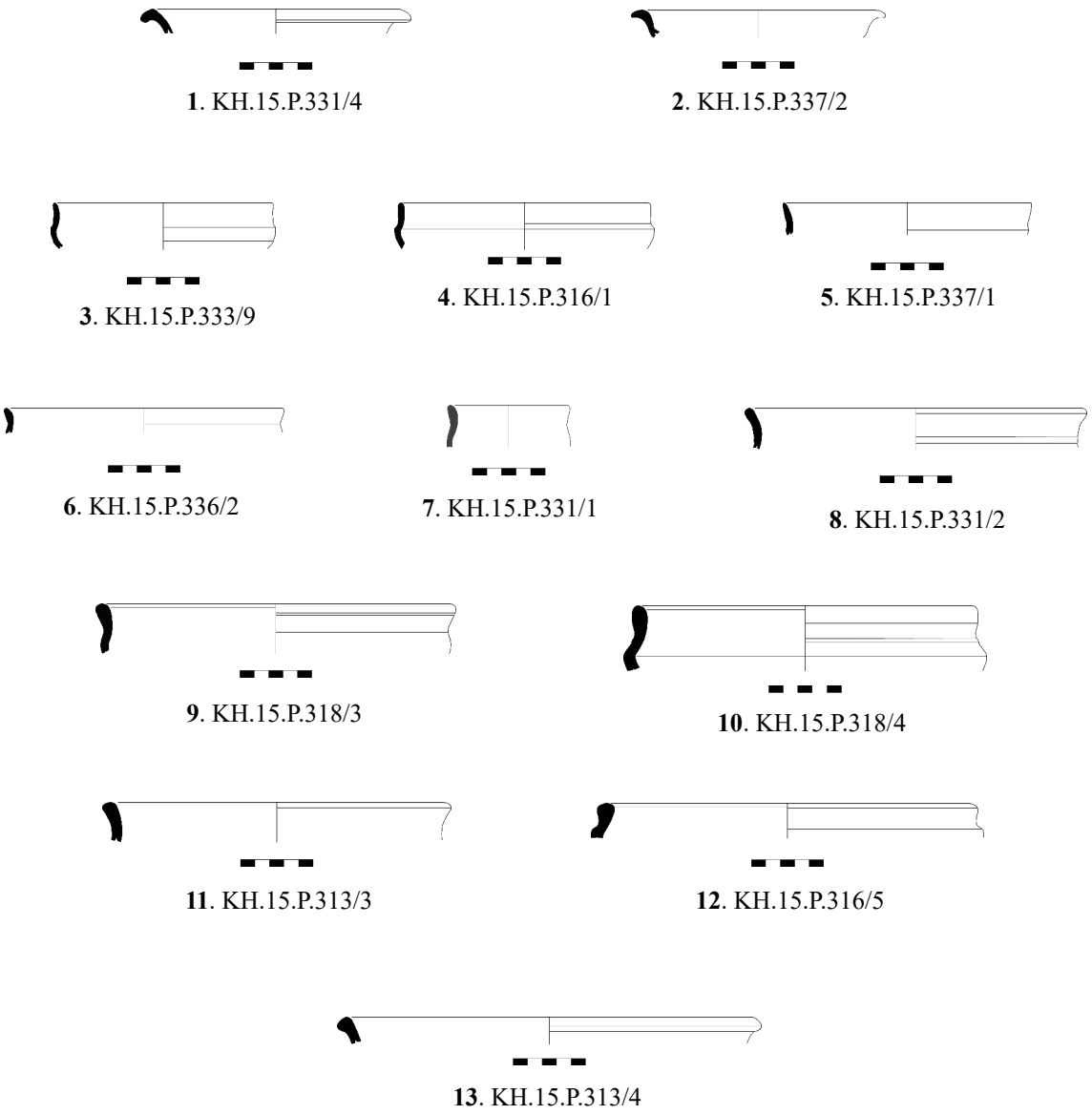


Fig. 4.28. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.313/8	2	F.5801	W	H	Mb1	10YR 8/2 (C-I/O)	-
2	KH.15.P.307/14	2	F.5801	W	H	Ma3	7.5YR 7/4 (C) 10YR 7/4 (I/O)	Slip Whitish
3	KH.15.P.313/10	2	F.5801	W	H	Mb2	2.5Y 7/1 (C-I/O)	-
4	KH.15.P.331/15	2	F.5801	W	H	Mb1	2.5Y 7/2 (C-I/O)	-
5	KH.15.P.301/12	2	F.5801	W	H	Mb1	10YR 8/2 (C-I/O)	-
6	KH.15.P.333/12	2	F.5801	W	H	Ma2	10YR 8/3 (C-I/O)	-
7	KH.15.P.313/7	2	F.5801	W	H	Mb2	10YR 8/2 (C-I/O)	-
8	KH.15.P.337/7	2	F.5801	W	H	Ma1	10YR 8/3 (C-I/O)	-
9	KH.15.P.333/20	2	F.5801	W	L	Mb3	2.5YR 4/5 (C) 2.5YR 4/3 (I/O)	-
10	KH.15.P.321/5	2	F.5801	W	H	Ma1	10YR 8/4 (C-I/O)	-
11	KH.15.P.333/14	2	F.5801	W	H	Mb2	2.5YR 7/5 (C) 10YR 7/3 (I/O)	-
12	KH.15.P.313/5	2	F.5801	W	H	Mc4	5YR 7/3 (C-I/O)	-
13	KH.15.P.340/6	2	F.5801	W	H	Mb2	5YR 7/3 (C-I/O)	-
14	KH.15.P.337/8	2	F.5801	W	H	Mc3	7.5YR 5/1 (C-I/O)	Slip Whitish
15	KH.15.P.321/4	2	F.5801	W	H	Mb2	10YR 8/6 (C-I/O)	-
16	KH.15.P.336/3	2	F.5801	W	H	Ma2	7.5YR 8/3 (C-I/O)	Burnish
17	KH.15.P.336/4	2	F.5801	W	H	Ma2	7.5YR 7/4 (C-I/O)	Slip Brownish Burnish

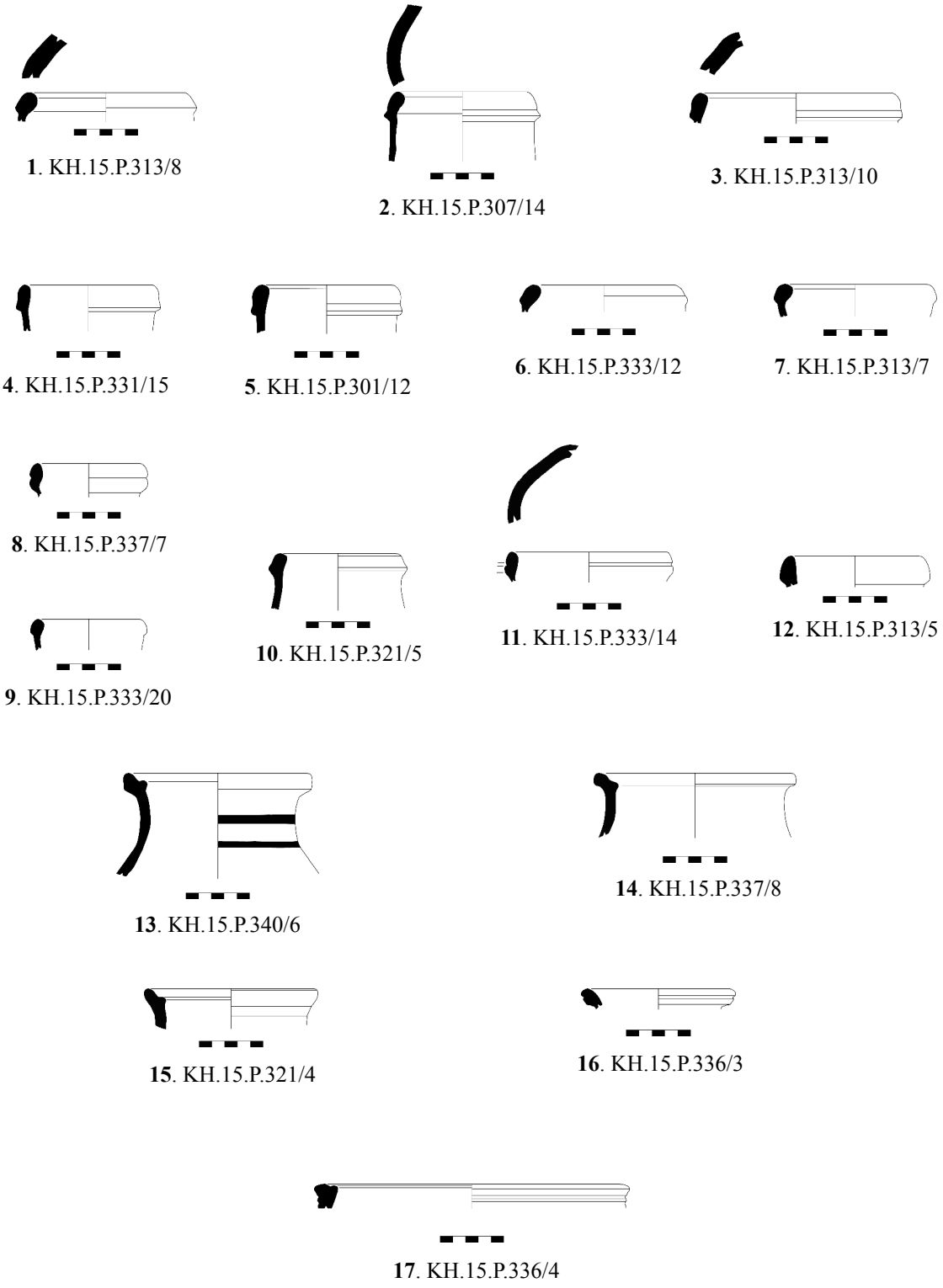


Fig. 4.29. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.316/8	2	F.5801	W	L	Mb3	10YR 7/4 (C-I/O)	Slip Whitish
2	KH.15.P.314/8	2	F.5801	W	H	Mb3	7.5YR 7/4 (C)	Slip Whitish
3	KH.15.P.301/1	2	F.5801	W	H	Ma1	7.5YR 7/4 (C-I/O)	-
4	KH.15.P.301/14	2	F.5801	W	H	Ma1	5YR 7/4 (C)	Slip Whitish
5	KH.15.P.321/6	2	F.5801	W	H	Ma1	7.5YR 7/4 (C-I/O)	-
6	KH.15.P.301/10	2	F.5801	W	H	Ma1	7.5YR 8/4 (C-I/O)	-
7	KH.15.P.318/10	2	F.5801	W	H	Mb1	7.5YR 8/3 (C-I/O)	-
8	KH.15.P.301/11	2	F.5801	W	H	Ma1	10YR 8/2 (C-I/O)	-
9	KH.15.P.316/9	2	F.5801	W	L	Mb3	10YR 6/2 (C)	Slip Brownish
10	KH.15.P.318/8	2	F.5801	W	H	Ma1	5YR 8/3 (C)	Slip Whitish
11	KH.15.P.333/15	2	F.5801	W	H	Ma1	5YR 7/5 (C-I/O)	-
12	KH.15.P.313/9	2	F.5801	W	H	Mb3	2.5Y 7/1 (C-I/O)	-
13	KH.15.P.326/9	2	F.5801	W	H	Ma1	10YR 7/4 (C-I/O)	Slip Whitish Burnish
14	KH.15.P.301/9	2	F.5801	W	H	Ma1	7.5YR 8/4 (C-I/O)	-
15	KH.15.P.318/9	2	F.5801	W	H	Mc2	5YR 6/1 (C-I/O)	-
16	KH.15.P.313/6	2	F.5801	W	H	Mb2	5YR 7/4 (C-I/O)	-
17	KH.15.P.329/10	2	F.5801	W	H	Mb3	5Y 8/3 (C-I/O)	Slip Whitish
18	KH.15.P.301/13	2	F.5801	HW	H	Ma1	10YR 7/4 (C-I/O)	-
19	KH.15.P.316/7	2	F.5801	W	H	Ma2	10YR 7/3 (C-I/O)	Slip Whitish
20	KH.15.P.307/15	2	F.5801	W	H	Mb2	10YR 7/4 (C-I/O)	-

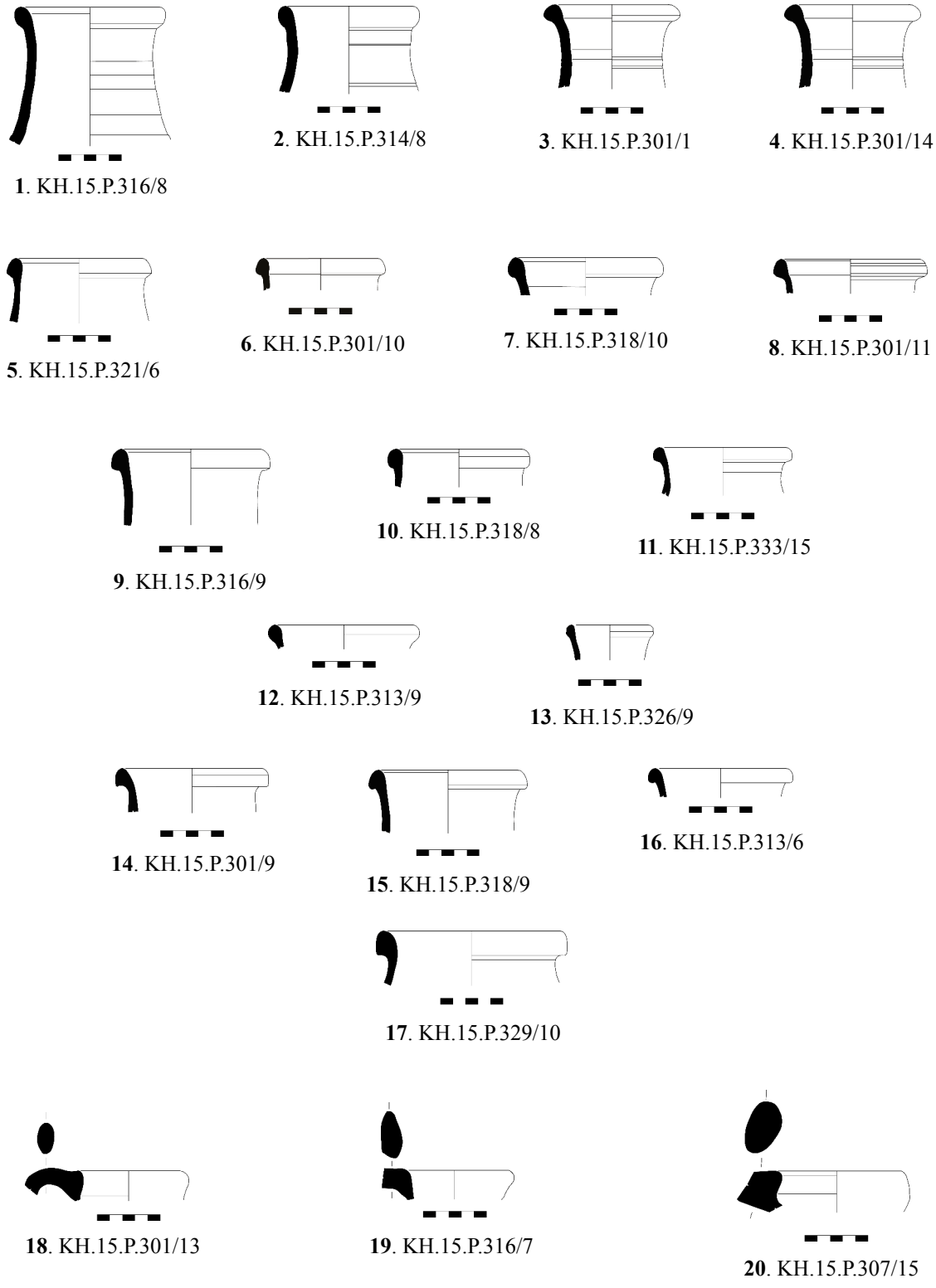


Fig. 4.30. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.307/11	2	F.5801	W	H	Ma3	7.5YR 6/4 (C) 7.5YR 8/4 (I/O)	-
2	KH.15.P.340/5	2	F.5801	W	H	Ma2	2.5YR 7/4 (C-I/O)	-
3	KH.15.P.336/5	2	F.5801	W	H	Ma2	7.5YR 8/3 (C-I/O)	Burnish
4	KH.15.P.336/6+7	2	F.5801	W	H	Mb1	5YR 7/6 (C-I/O)	Slip Whitish Burnish
5	KH.15.P.333/21	2	F.5801	W	H	Mb2	2.5YR 7/4 (C-I/O)	-
6	KH.15.P.314/7	2	F.5801	W	H	Ma2	5YR 7/4 (C) 7.5YR 8/2 (I/O)	Slip Whitish
7	KH.15.P.321/11	2	F.5801	W	M	Ma3	10YR 5/1 (C)	Slip Whitish
8	KH.15.P.331/14	2	F.5801	W	H	Ma1	5YR 7/6 (C-I/O)	-
9	KH.15.P.314/6	2	F.5801	W	H	Ma1	5YR 8/3 (C) 10YR 8/3 (I/O)	Slip Whitish
10	KH.15.P.316/6	2	F.5801	W	H	Ma1	10YR 8/4 (C-I/O)	Slip Whitish
11	KH.15.P.318/11	2	F.5801	W	H	Mb3	7.5YR 6/1 (C-I/O)	
12	KH.15.P.326/10	2	F.5801	W	H	Ma1	10YR 6/3 (C-I/O)	-
13	KH.15.P.331/16	2	F.5801	W	H	Ma2	5YR 6/4 (C-I/O)	Slip Whitish

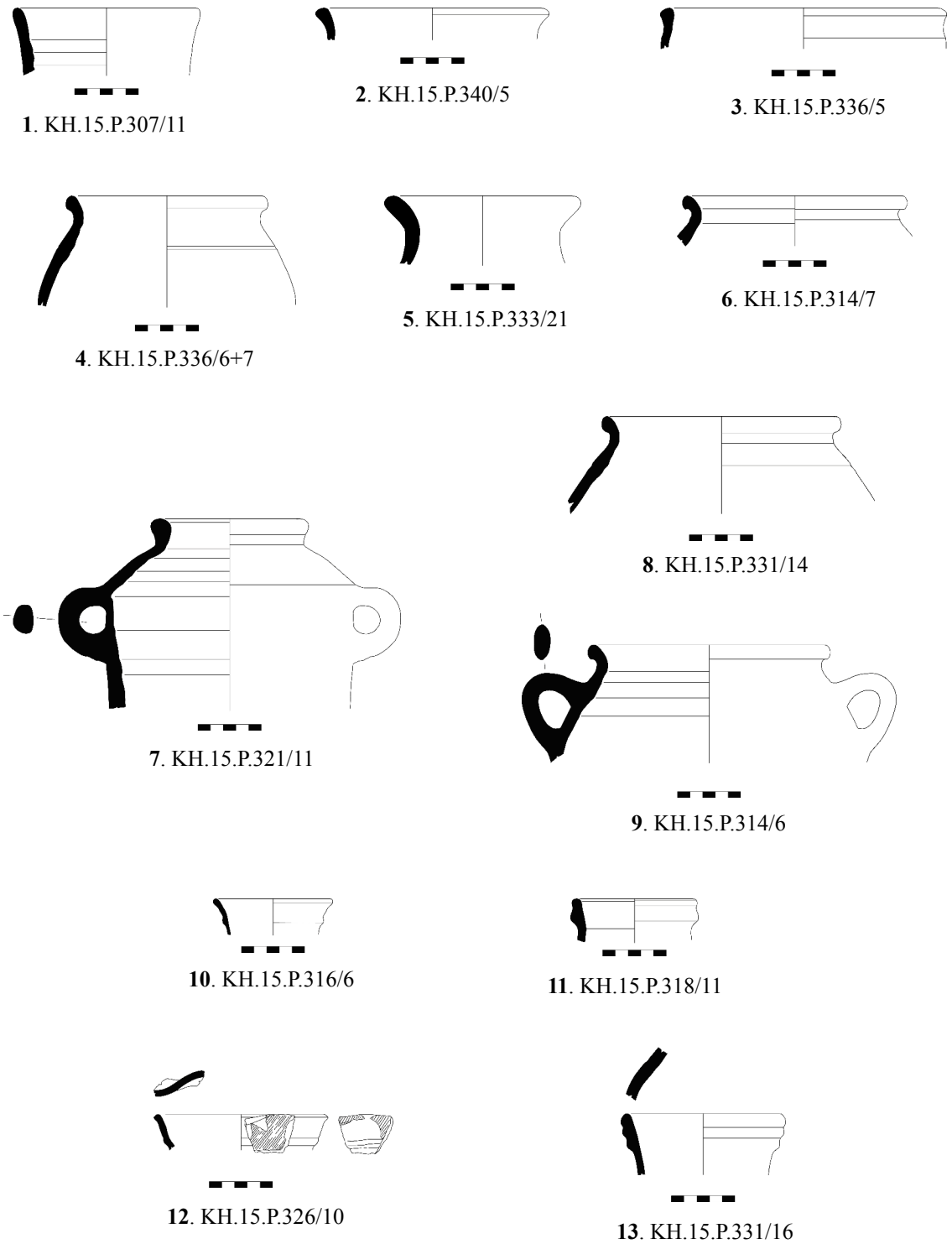


Fig. 4.31. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.314/5	2	F.5801	W	H	Ma1	10YR 8/4 (C) 10YR 8/2 (I(O)	Slip Whitish
2	KH.15.P.316/11	2	F.5801	W	M	Yb4	7.5YR 4/1 (C-I/O)	-
3	KH.15.P.301/19	2	F.5801	W	M	Yb2	5YR 2.5/1 (C-I/O)	-
4	KH.15.P.313/11	2	F.5801	W	M	Mb2	10YR 5/1 (C-I/O)	-
5	KH.15.P.329/11	2	F.5801	W	M	Yb3	7.5YR 6/4 (C-I/O)	Burnish
6	KH.15.P.314/10	2	F.5801	W	H	Ma1	5YR 7/5 (C-I/O)	-
7	KH.15.P.314/9	2	F.5801	W	H	Ma1	5YR 8/4 (C-I/O)	-
8	KH.15.P.321/7	2	F.5801	W	H	Ma1	5Y 8/4 (C-I/O)	-
9	KH.15.P.337/10	2	F.5801	W	H	Ma1	10YR 8/3 (C-I/O)	Burnish
10	KH.15.P.301/15	2	F.5801	W	H	Ma1	7.5YR 8/4 (C) 7.5YR 8/2 (I/O)	Slip Whitish
11	KH.15.P.337/9	2	F.5801	W	H	Ma1	7.5YR 8/3 (C-I/O)	-
12	KH.15.P.326/13	2	F.5801	W	H	Ma4	5Y 8/3 (C-I/O)	Slip Whitish
13	KH.15.P.301/16	2	F.5801	W	H	Ma1	10YR 8/2 (C-I/O)	-
14	KH.15.P.321/10	2	F.5801	W	H	Ma1	10YR 8/3 (C-I/O)	Burnish

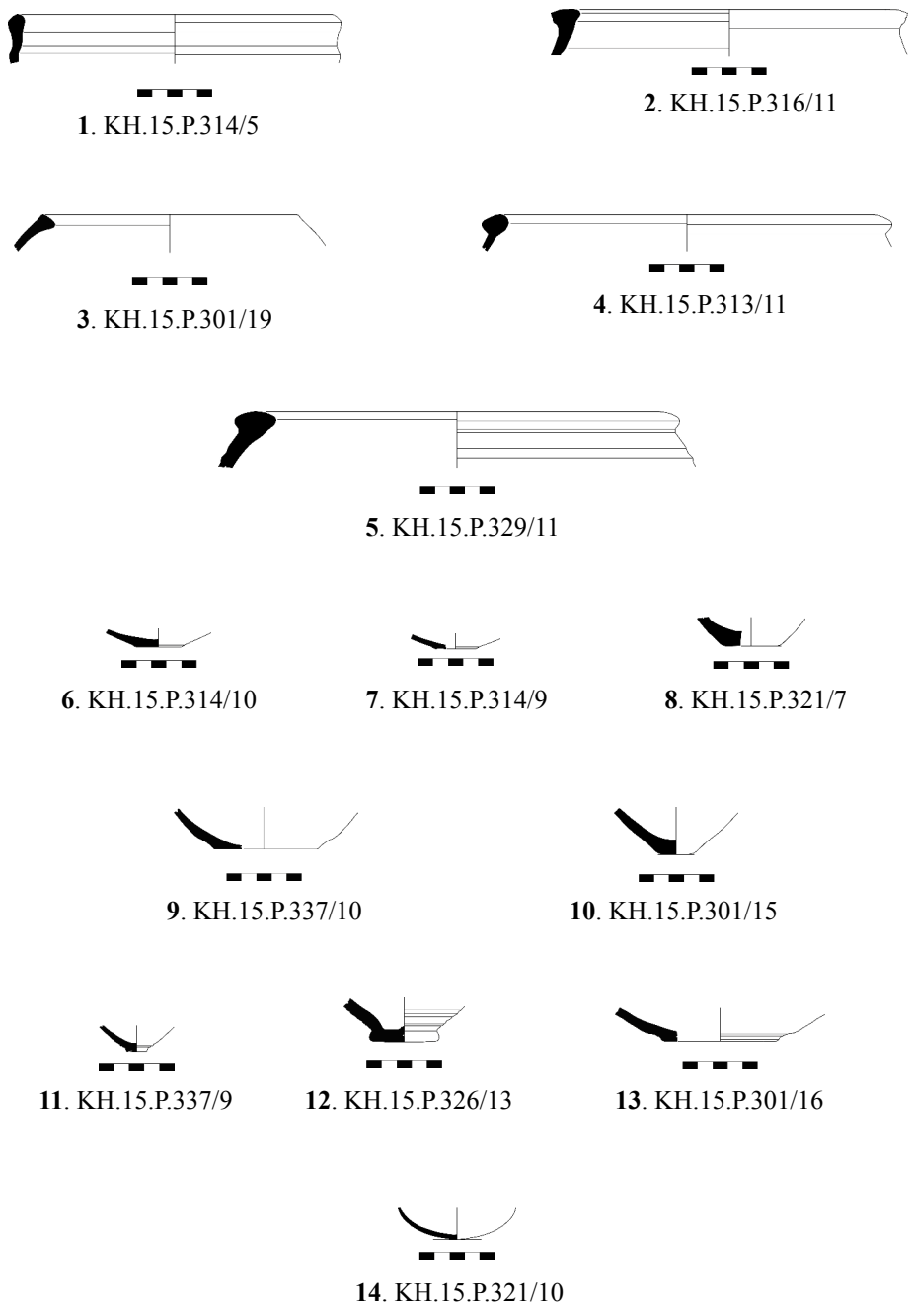
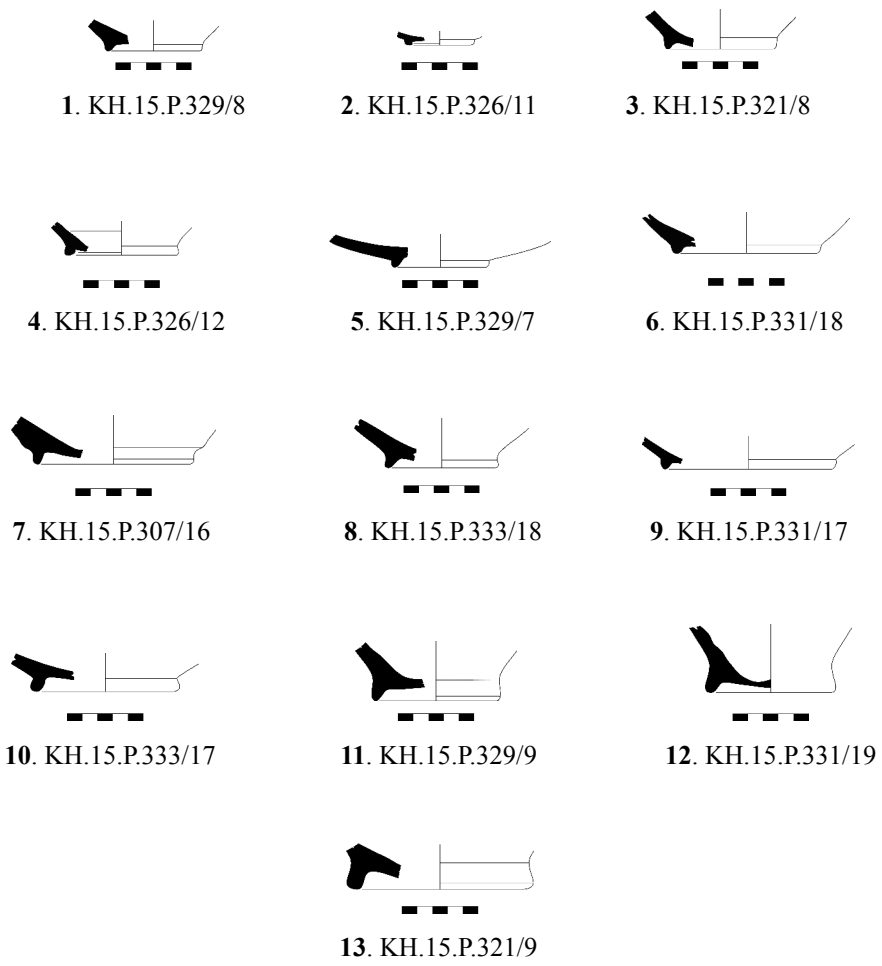


Fig. 4.32. Pottery sherds from F.5801.

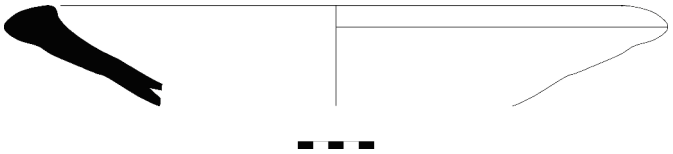
No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.329/8	2	F.5801	W	H	Ma1	7.5YR 7/6 (C-I/O)	Slip Brownish
2	KH.15.P.326/11	2	F.5801	W	H	Ma1	5YR 7/6 (C-I/O)	-
3	KH.15.P.321/8	2	F.5801	W	H	Ma2	10YR 6/3 (C-I/O)	Burnish
4	KH.15.P.326/12	2	F.5801	W	H	Mb2	2.5Y 6/2 (C-I/O)	Slip Whitish Burnish
5	KH.15.P.329/7	2	F.5801	W	H	Ma2	2.5Y 8/4 (C-I/O)	-
6	KH.15.P.331/18	2	F.5801	W	H	Ma2	5YR 6/4 (C-I/O)	-
7	KH.15.P.307/16	2	F.5801	W	H	Ma1	10YR 7/3 (C-I/O)	Slip Whitish
8	KH.15.P.333/18	2	F.5801	W	H	Ma2	7.5YR 7/4 (C-I/O)	-
9	KH.15.P.331/17	2	F.5801	W	H	Ma2	5YR 6/4 (C-I/O)	Slip Whitish
10	KH.15.P.333/17	2	F.5801	W	H	Ma2	7.5YR 4/2 (C) 10YR 7/3 (I/O)	-
11	KH.15.P.329/9	2	F.5801	W	H	Ya2	2.5Y 8/4 (C-I/O)	Slip Whitish
12	KH.15.P.331/19	2	F.5801	W	H	Ma2	10YR 7/2 (C-I/O)	-
13	KH.15.P.321/9	2	F.5801	W	H	Ma2	7.5YR 7/4 (C-I/O)	Slip Whitish



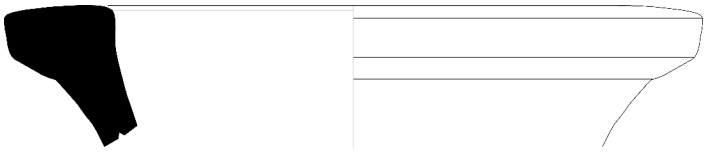
1. KH.15.P.329/8
2. KH.15.P.326/11
3. KH.15.P.321/8
4. KH.15.P.326/12
5. KH.15.P.329/7
6. KH.15.P.331/18
7. KH.15.P.307/16
8. KH.15.P.333/18
9. KH.15.P.331/17
10. KH.15.P.333/17
11. KH.15.P.329/9
12. KH.15.P.331/19
13. KH.15.P.321/9

Fig. 4.33. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.331/20	2	F.5801	W	M	Yc4	2.5Y 6/3 (C-I/O)	-
2	KH.15.P.316/10	2	F.5801	W	L	Vc4	5YR 7/6 (C-I/O)	Slip Whitish
3	KH.15.P.326/14	2	F.5801	W	L	Vc4	7.5YR 7/4 (C-I/O)	Slip Whitish



1. KH.15.P.331/20



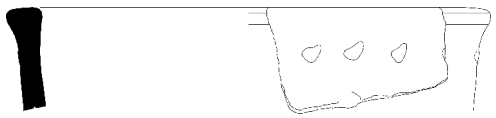
2. KH.15.P.316/10



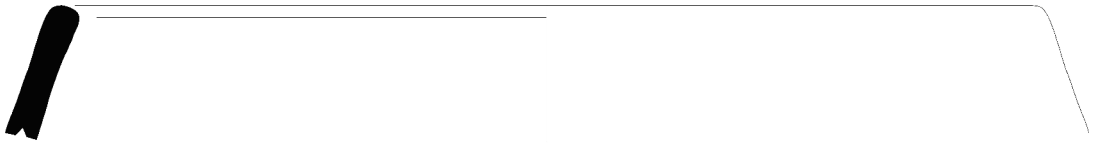
3. KH.15.P.326/14

Fig. 4.34. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.329/12	2	F.5801	W	L	Yc4	5YR 7/6 (C-I/O)	Slip Whitish
2	KH.15.P.336/8	2	F.5801	W	H	Mc4	7.5YR 7/3 (C-I/O)	Slip Whitish Burnish
3	KH.15.P.318/12	2	F.5801	W	M	Mc2	7.5YR 8/1 (C-I/O)	Burnish
4	KH.15.P.329/13	2	F.5801	W	L	Yc4	10YR 6/1 (C) 5YR 6/6 (I/O)	-
5	KH.15.P.301/18	2	F.5801	W	M	Yc4	5YR 7/4 (C) 10YR 8/2 (I/O)	-



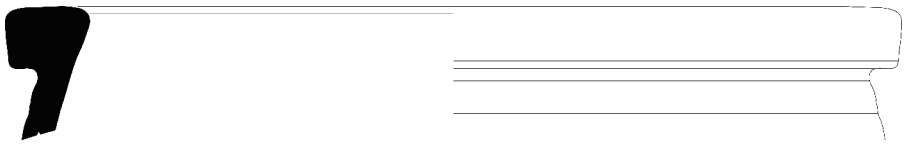
1. KH.15.P.329/12



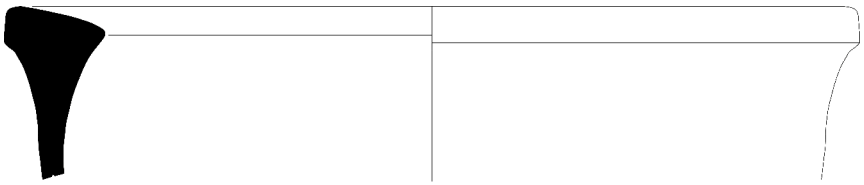
2. KH.15.P.336/8



3. KH.15.P.318/12



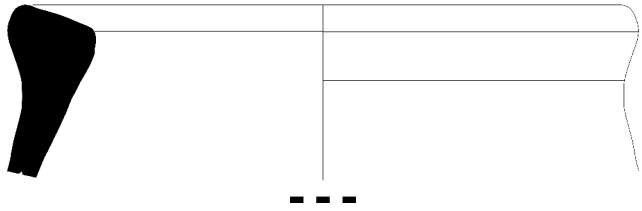
4. KH.15.P.329/13



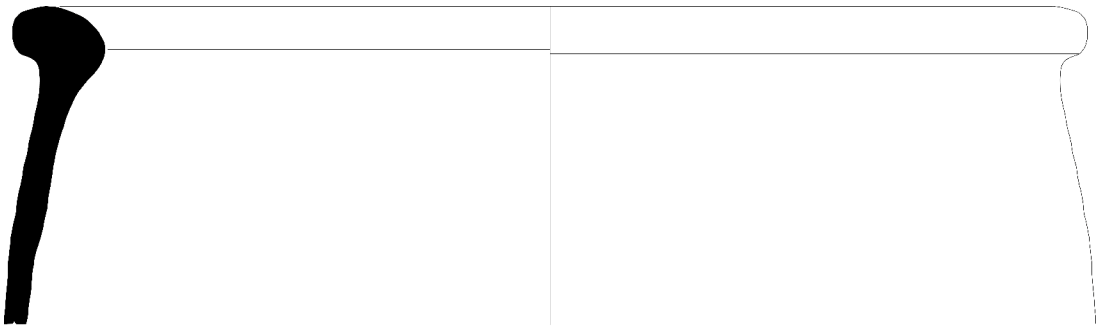
5. KH.15.P.301/18

Fig. 4.35. Pottery sherds from F.5801.

No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.318/13	2	F.5801	W	M	Yc3	7.5YR 8/1 (C-I/O)	-
2	KH.15.P.307/18	2	F.5801	W	L	Yc4	7.5YR 8/4 (C) 7.5YR 7/4 (I/O)	Slip Whitish
3	KH.15.P.326/15	2	F.5801	W	L	Yc4	7.5YR 6/1 (C) 7.5YR 7/4 (I/O)	-
4	KH.15.P.301/17	2	F.5801	W	M	Yc3	10YR 8/3 (C-I/O)	-



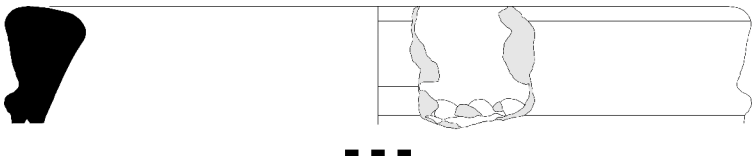
1. KH.15.P.318/13



2. KH.15.P.307/18



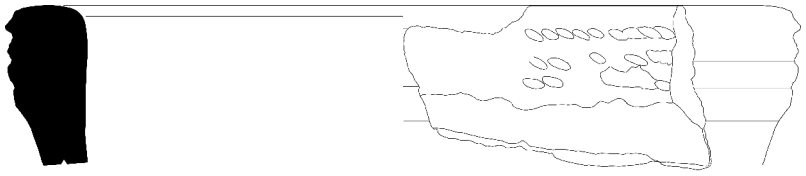
3. KH.15.P.326/15



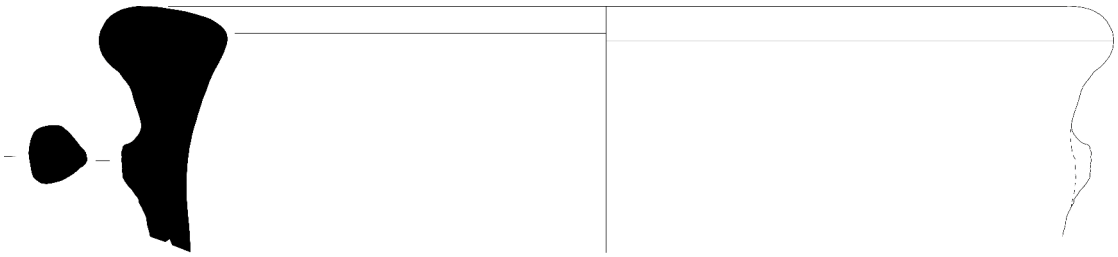
4. KH.15.P.301/17

Fig. 4.36. Pottery sherds from F.5801.

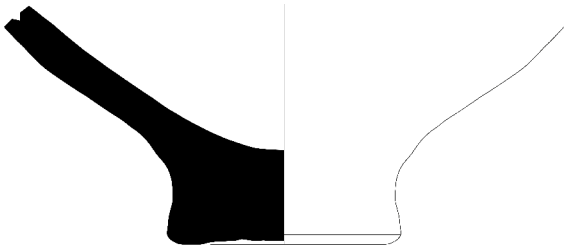
No.	Pottery No.	Sub-phase	Context	Techn.	Firing	Inclusions	Fabric color	Surf treat.
1	KH.15.P.307/17	2	F.5801	W	L	Yc4	7.5YR 5/6 (C) 5YR 7/6 (I/O)	Slip Whitish
2	KH.15.P.307/19	2	F.5801	W	L	Yc4	5YR 6/6 (C)	-
3	KH.15.P.333/23	2	F.5801	W	M	Yc4	7.5YR 7/4 (C-I/O)	-



1. KH.15.P.307/17



2. KH.15.P.307/19



3. KH.15.P.333/23

Fig. 4.37. Pottery sherds from F.5801.

Chapter 5
THE MATERIAL CULTURE FROM WELL P.5347

From well P.5347 there actually came a wealth of material culture, in addition to that presented in the two preceding chapters. It has been here subdivided into various, broad classes and presented below accordingly.

5.1 STONE VESSELS

Fifteen fragmentary stone vessels have been retrieved in the filling layers of well P.5347 (F.5801, F.5857, F.5858, F.5859, F.5882, F.5919, F.5945, F.6309; for a group photo see Cavriani et al. 2019-2020: fig. 9.11).[1] Among them, there are four bar-handled bowls (Pl. IX.3), a handled dish, two pedestal dishes and two mortar bowls, while the remains are fragmentary rims and bases belonging to everted bowls.[2] Following a macroscopic observation of the pieces, different kind of fine stones can be recognize in the corpus, such as serpentine, gabbro and basalt, although a proper petrographic analysis is lacking. Overall, the corpus of stone vessels from the Neo-Assyrian well may be compared with stone vessels from North Syrian and Upper Mesopotamian contexts dating mainly to Iron III period, described in more details.

Concerning the bar-handled bowls, three out of four fragmentary specimens (KH.15.O.351, KH.15.O.385, KH.15.O.386; Fig. 5.2.1-3, Pls. XXIII.2, XXIV.1-2) display a stepped body

1 Thanks are due to G. M. Bargossi (University of Bologna) for his precious help on the petrographic identification of the stones employed, albeit he had to limit himself to the observation of photographs, lacking any further direct scientific analysis. Hence, only a tentative identification can be presented here. L. Guerri filed the stone vessels during the 2015 campaign at Karkemish and V. Gallerani did the drawing and inking of the pieces illustrated in the figures of this chapter.

2 The terminology adopted here for the vessel shapes follows the classification of Iron Age stone vessels by Squitieri (2017).

and flat base (Searight, Reade and Finkel 2008: 51-53; Squitieri 2014; Squitieri 2017: 61; Bombardieri 2017).[3] Similar vessels, dating to the 7th century BCE, are known, for instance, from Neo-Assyrian contexts at Nineveh (Searight, Reade and Finkel 2008: 58, no. 413, fig. 29), Assur (Miglus 1996: 26, no. Ass 7663, pl. 58) and Zincirli (von Luschan 1943: 21, no. S 57 b, pl. 6/d). The fourth piece (KH.15.O.99; Fig. 5.1.2, Pl. XXII.2), possibly belongs to a bar-handled bowl with convex body, albeit the missing parts prevent a more precise identification.

A bar-handled dish (KH.15.O.103; Fig. 5.1.5, Pl. XXIII.1), was found broken in seventeen pieces and has been partially restored. It presents an oval shape and ring base. The handles are in couples, in the so-called *duck-heads* shape, each displaying two circular holes, not entirely pierced, above and below the handle itself. These were possibly filled with inlaid elements. Few, not safely provenanced comparisons are known from northern Iraq and possibly dating between the 8th and the 7th century BCE (Searight, Reade and Finkel 2008: 59-60, nos. 428-430, fig. 31, perhaps from Nimrud or Nineveh).

Two other fragmentary pieces can be identified as round shaped pedestal dishes without handles, though no direct parallels have been found so far. The first dish (KH.15.O.407; Fig. 5.3.2, Pl. XXV.1) is characterized by a narrow rim, convex body and small foot, while the second vessel (KH.15.O.408; Fig. 5.3.3, Pl. XXV.2), made of fine-grained basalt, presents a narrow rim, convex body and high foot.

Six more fragments (KH.15.O.100, KH.15.O.102, KH.15.O.387, KH.15.O.405, KH.15.O.406, KH.15.O.427) belong to different types of shallows open shapes (Squitieri 2017: 70-72). Among them, there is a fragmentary narrow and flat rim (KH.15.O.100; Fig. 5.1.3, Pl. XXII.3) bearing a cuneiform inscription (see also § 6.2 below and Pl. XLIX).. It can be compared to a fragmentary bowl from the acropolis of Nineveh, Tell Kuyunjiq, bearing a royal inscription of the 7th century BCE (Searight, Reade and Finkel 2008: no. 421, fig. 30). Two more pieces (KH.15.O.405, KH.15.O.427; Figs. 5.2.5, 5.3.5, Pls. XXIV.4, XXV.4) are characterized by flat and narrow rims and convex bodies, although they are too fragmentary for any more precise attribution. A small fragment (KH.15.O.102; Fig. 5.1.4, Pl. XXII.4) possibly belongs to the body of an everted bowl. A small fragment of a ring base (KH.15.O.387; Fig. 5.2.4, Pl. XXIV.3) displays a wavy decoration on the inner side, poorly preserved. A fragmentary disk base (KH.15.O.406; Fig. 5.3.1, Pl. XXIV.5) may be compared

3 For an in-depth study of the distribution and chronology of this class of stone vessels see Squitieri (2014). Bar-handle bowls and plates with stepped body, also known as double-rim bowls or mixing bowls, are common throughout the Levant, usually made of basalt, while specimens made of finer stones appear from the 7th century BCE in North Mesopotamia and Syria (ibid. 129-130, fig. 2; a serpentine bar-handled plate was retrieved at Persepolis, most probably as booty from an Assyrian city, see Schmidt 1957: pl. 61.3). These vessels were used as luxury items during receptions and banquets of the Neo-Assyrian court (Squitieri 2014: 132-134).

with several bowls from Nineveh (Searight, Reade and Finkel 2008: 56, nos. 391, 394, 398, pl. 28) and from the Neo-Assyrian houses at Assur (Miglus 1996: 26, nos. Ass 10540, Ass 10525 a, Ass 10533 I-II, pl. 58).

Lastly, two mortar bowls can be identified in the corpus (KH.15.O.58, KH.15.O.412; Figs. 5.1.1, 5.3.5, Pls. XXII.1, XXV.3), made of medium-grained basalt.[4] The former presents a rounded shape with grooved rim, while the latter fragment is either part of a mortar bowl or a tripod. Comparisons can be found, for instance, at Chatal Höyük (Pucci 2019: 34, no. 251) and Hama (Riis and Buhl 1990: 72-73, no. 84, fig. 35).

To conclude, the assemblage of stone vessels from well P.5347 appears coherent with the Iron III production from North Syria and Mesopotamia. In particular, luxury stone vessels, as object of high prestige objects, appears to be widespread among the Neo-Assyrian elites, during the 8th and 7th centuries BCE (Searight, Reade and Finkel 2008: 6; Squitieri 2017: 157-164),[5] reaching also the Western provinces as documented by the Karkemish evidence.

KH.15.O.58, Mortar bowl (Fig. 5.2.1, Pl. XXII.1)
Material: Basalt
Dimensions: diam. 10; wall w. 2.2; h. 5 cm
SU: F.5801
Bucket: KH.15.P.307
Preservation: fragmentary

KH.15.O.99, Bar-handled bowl (Fig. 5.1.2, Pl. XXII.2)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 17; rim w. 1.7; wall w. 0.7; h. 2.5 cm
SU: F.5801
Bucket: KH.15.P.318
Preservation: fragmentary

KH.15.O.100, Everted bowl, inscribed (Fig. 5.1.3, Pl. XXII.3)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 12.4; rim w. 0.5; wall w. 0.6; h. 1 cm
SU: F.5801
Bucket: KH.15.P.318
Preservation: fragmentary

KH.15.O.102, Everted bowl (Fig. 5.1.4, Pl. XXII.4)
Material: serpentine or gabbro serpentinite
Dimensions: wall w. 1.9; h. 9.2 cm
SU: F.5801; F.5859
Buckets: KH.15.P.318; 347
Preservation: fragmentary

KH.15.O.103, Plate with high foot (Fig. 5.1.5, Pl. XXIII.1)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 30; rim w. 1.2; wall w. 0.8;bottom w. 1.6; h. 5.6 cm
SU: F.5801; F.5919; F.5859; F.5882; F.5945
Buckets: KH.15.P.318; 386; 346; 420; 404; 360; 378
Preservation: fragmentary

4 Mortar bowls are a class, usually made of basalt, which is common in North Syria and the Levant throughout the Iron Age (see also Searight, Reade and Finkel 2008: 64; Squitieri 2017: 74-75).

5 It is worth mentioning that, in addition to the already published materials from Neo-Assyrian contexts (Searight, Reade and Finkel 2008; Miglus 1996), over 40 fragmentary vessels made of serpentine stone have been retrieved in the eastern lower town of Nineveh during the 2019-2023 excavations and survey by the Iraqi-Italian Archaeological Expedition to Nineveh by the University of Bologna and the Iraqi State Board of Antiquities and Heritage.

KH.15.O.351, Bar-handled bowl (Fig. 5.2.1, Pl. XXIII.2)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 15.2; rim w. 1.6; wall w. 1.2; bottom w. 1.3; h. 3.9 cm
SU: F.5882; F.5858; F.5859
Buckets: KH.15.P.378; 344; 347
Preservation: nearly complete

KH.15.O.385, Bar-handled bowl (Fig. 5.2.2, Pl. XXIV.1)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 14; rim w. 1.5; wall w. 0.9; bottom w. 0.6; h. 3.1 cm
SU: F.5801; F.5857
Buckets: KH.15.P.318; 343
Preservation: fragmentary

KH.15.O.386, Bar-handled bowl (Fig. 5.2.3, Pl. XXIV.2)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 17; rim w. 1.6; wall w. 1.1; h. 3 cm
SU: F.5919
Bucket: KH.15.P.393
Preservation: fragmentary

KH.15.O.387, Everted bowl (Fig. 5.2.4, Pl. XXIV.3)
Material: micro aplitic leucogranite
Dimensions: bottom diam. 11.5; bottom w. 1.7; h. 6.7 cm
SU: F.5801
Bucket: KH.15.P.340
Preservation: fragmentary

KH.15.O.405, Everted bowl (Fig. 5.2.5, Pl. XXIV.4)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 30; rim w. 0.7; wall w. 1; h. 3.7 cm
SU: F.5882
Bucket: KH.17.P.384
Preservation: fragmentary

KH.15.O.406, Everted bowl (Fig. 5.3.1, Pl. XXIV.5)
Material: serpentine or gabbro serpentinite
Dimensions: bottom diam. 16; bottom w. 0.6; wall w. 0.8; h. 2 cm
SU: F.5801; F.5882
Buckets: KH.17.P.333; 425
Preservation: fragmentary

KH.15.O.407, Pedestal bowl (Fig. 5.3.2, Pl. XXV.1)
Material: serpentine or gabbro serpentinite, oxidized
Dimensions: rim diam. 37; bottom diam. 15; rim w. 2.2; wall w. 0.9; h. 6.4 cm
SU: F.5919; F.5801; F.5882
Buckets: KH.15.P.388; 333; 384; 400
Preservation: fragmentary

KH.15.O.408, Pedestal bowl (Fig. 5.3.3, Pl. XXV.2)
Material: aphyric basalt
Dimensions: diam. 40; rim w. 1.1; wall. w. 1.3; bottom w. 0.7; h. 9.6 cm
SU: F.5801; F.5858
Buckets: KH.15.P.340; 344
Preservation: fragmentary

KH.15.O.412, Mortar bowl (Fig. 5.3.4, Pl. XXV.3)
Material: basalt
Dimensions: diam. 25; rim w. 0.8; wall w. 1.4; h. 5.9 cm
SU: F.6309
Bucket: KH.15.P.479
Preservation: fragmentary

KH.15.O.427, Everted bowl (Fig. 5.3.5, Pl. XXV.4)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 20; rim w. 0.7; wall w. 1.3; h. 3 cm
SU: F.5882
Bucket: KH.17.P.451
Preservation: fragmentary

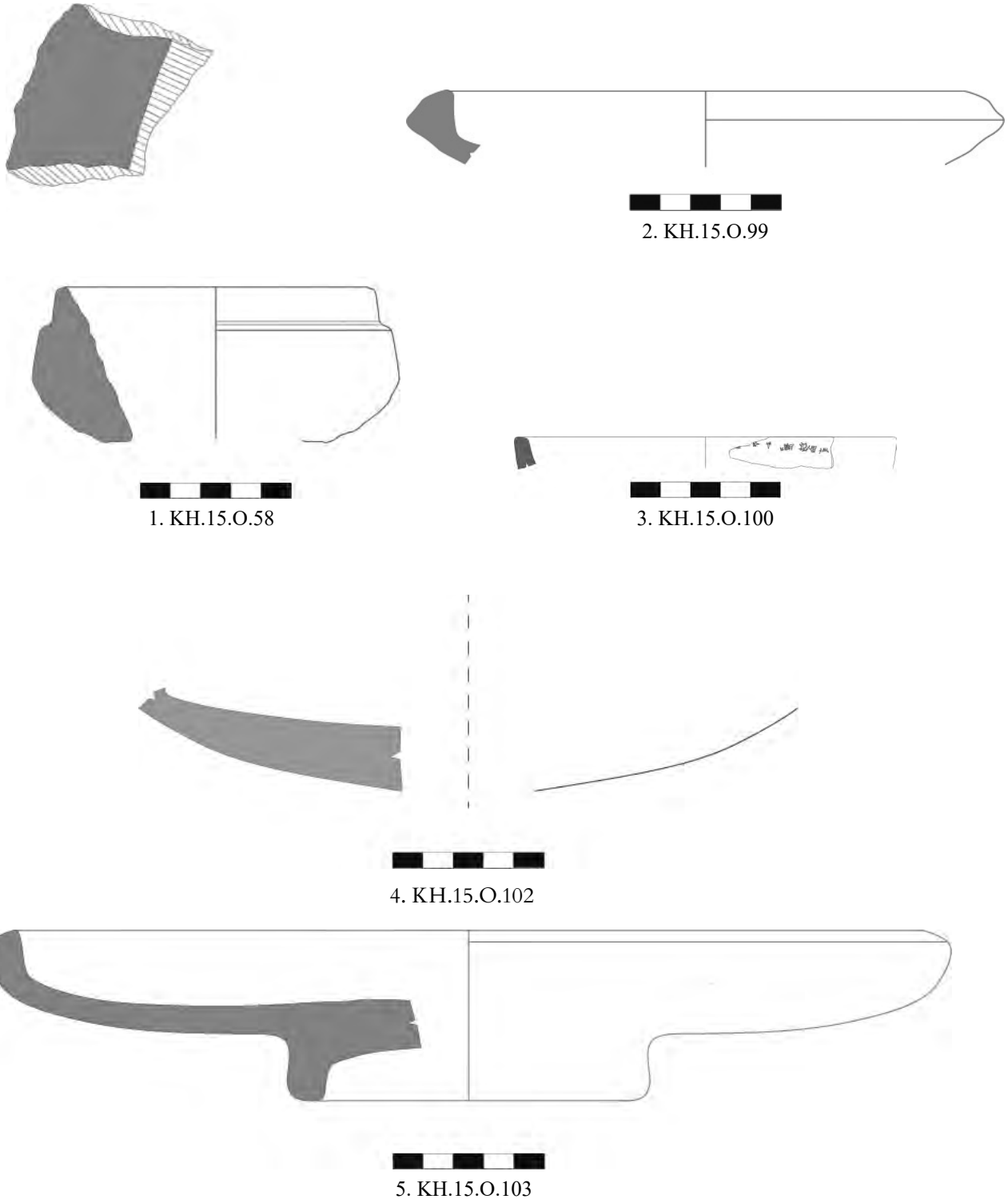


Fig. 5.1. Stone vessels from well P.5347.

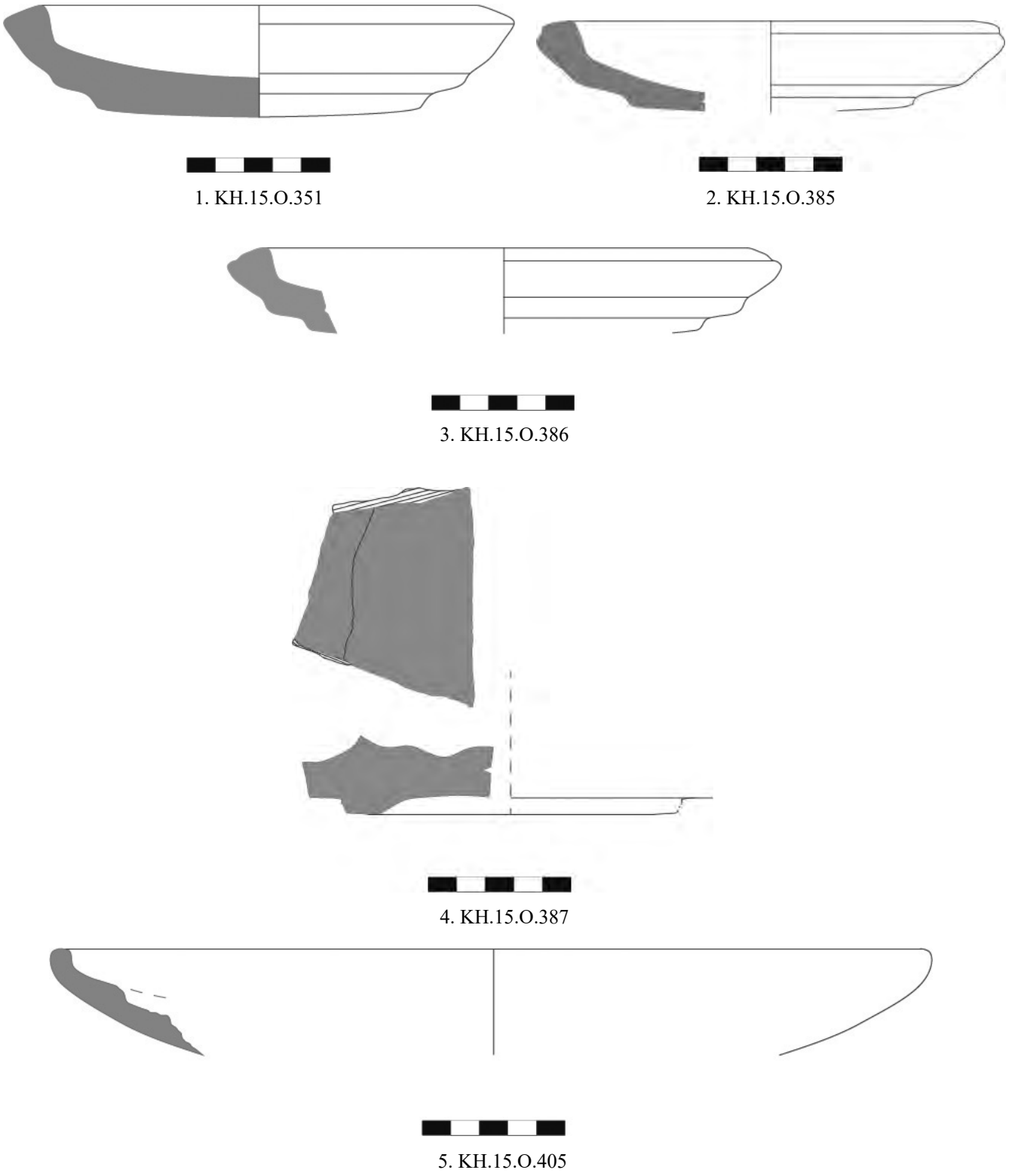


Fig. 5.2. Stone vessels from well P.5347.

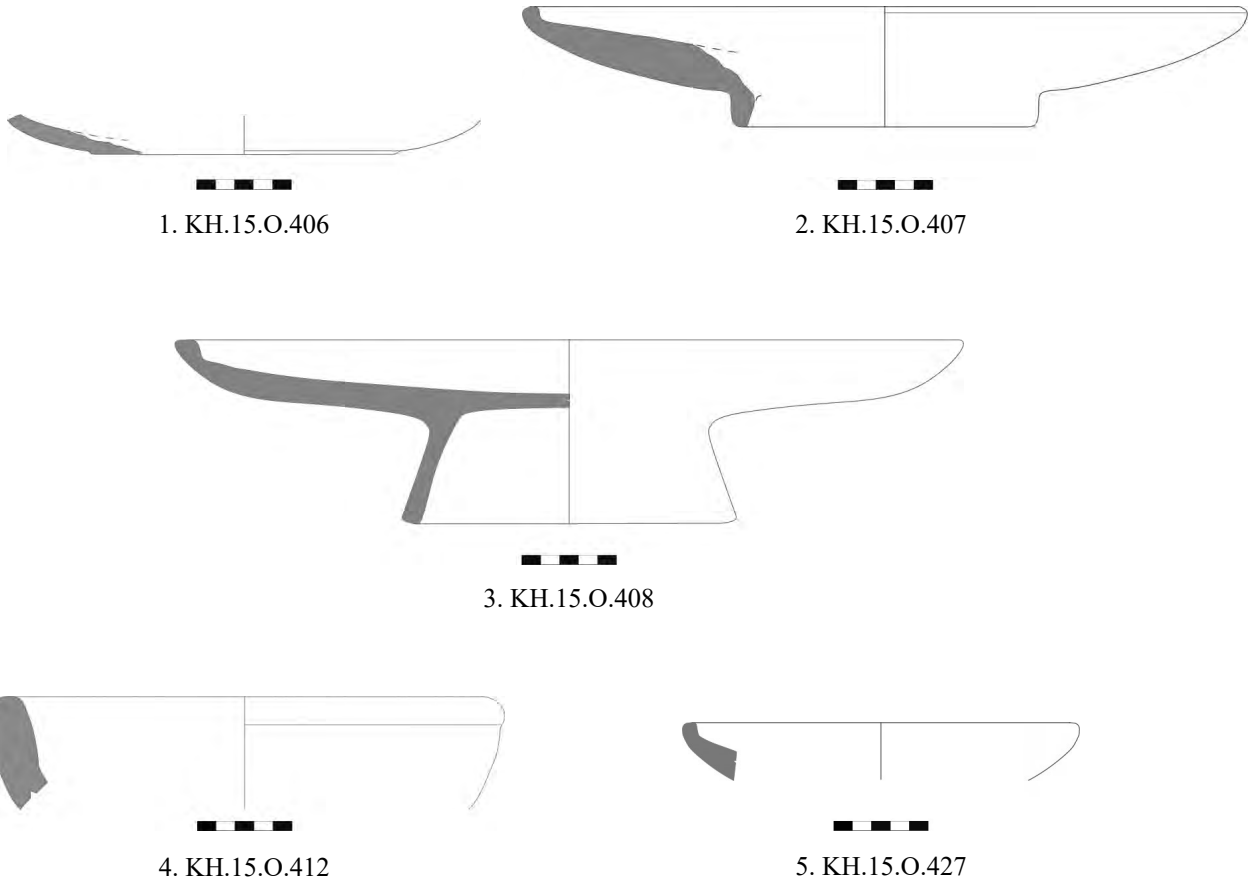


Fig. 5.3. Stone vessels from well P.5347.

5.2 METAL OBJECTS

The damp situation of the fills in well P.5347 was far from optimal for the preservation of metal finds and this affected a high percentage of them. Most of the objects are incomplete and badly preserved and we thus cannot attribute to them a clear function: when coming from the same layer and even if it was unclear if some of them, though similar, actually belonged to the same object, those items were often recorded under a single inventory. Among these undefined objects, the bronze ones are the most common: they usually are of small to medium dimensions and some of them show linear and engraved decorations.

From the stratigraphic unit F.6372 (subphase 1) at the bottom of well P.5347 came three metallic items. The first one, KH.15.O.513 (Pl. XXVII.1), is made of iron, has a spherical shape and was probably used as a projectile. KH.15.O.626 (Pl. XXVII.2) is a group of 9 bronze fragments, that do not all seem to belong to the same object and their exact purpose is unknown. Finally, KH.15.O.664 (Pl. XXVI.1) includes 6 iron fragments, of various shapes and dimensions, most likely not part of a same object as well.

In the stratigraphic units F.5801, F.5859, F.5874, F.5882, F.5919 and F.6309 (subphase 2) we have found items made of bronze or iron of different types (cf. Pl. IX. 4). KH.15.O.622 (Pl. XXVI.2) includes many fragments of different shapes and dimensions and their use remains uncertain: however, some may belong to a bronze vessel. KH.15.O.623 (Pl. XXVI.3) is made of many fragments with different shapes and dimensions. The largest fragment was attributed to an elongated vessel, although it was found folded and in a very bad shape, while its other fragments include 2 slags, 4 thin sheets bigger than all the others and 3 elements engraved with linear decorations, probably related to another vessel. Finally, KH.15.O.660 (Pl. XXVI.4) is made of many fragments of different shapes and dimensions: the larger items are 18, mostly thin sheets, some of which show linear and engraved decorations. A folded fragment belongs instead to another vessel's rim. These were probably parts of more than one bronze vessel.[6]

Some metal objects (KH.15.O.81 KH.15.O.83, KH.15.O.94, KH.15.O.131, KH.15.O.136, KH.15.O.140, KH.15.O.170, KH.15.O.177, KH.15.O.290, KH.15.O.445, KH.15.O.448, KH.15.O.581, KH.15.O.582, KH.15.O.583, KH.15.O.596, KH.15.O.608, KH.15.O.619, KH.15.O.621, KH.15.O.642; Pls. XXXI.6-11, XXXII) are made of bronze and iron but are very damaged and oxidated: their numerous fragments probably belong to different items and it is not pos-

6 A single sheet (KH.15.O.291) is just a small bronze fragment bent on itself, for which we cannot define nor the function, neither the shape.

sible to identify or understand their function. A fragmentary iron tool (KH.15.O.444; Pl. XXVIII.2) is almost rectangular in shape: functionally speaking, we may hypothesize that it belongs to a hoe.

There are both nails made of bronze (KH.15.O.96; Pl. XXVII.3) and of iron (KH.15.O.517, KH.15.O.601, KH.15.O.631, KH.15.O.637; Pl. XXVII.4-7). The bronze nail is well preserved; it has a folded shape with a circular head. The iron nails are fragmentary and very oxidized, so is not possible to define their exact shape.

The single arrowhead (KH.15.O.216; Pl. XXVII.8) is made of iron, has a rhomboidal shape and is almost intact, although very oxidized. It compares with type 1 of Nimrud (Curtis 2013: 39-43): type 1 iron arrowheads are the most commonly found ones, with approximately 426 specimens which came to light at Nimrud. The majority of them came from Fort Shalmaneser, a location probably used as an armory. These arrowheads have thin points in the shape of a leaf and fine tines. It is often difficult to determine which one is the head and which is the tine. Type 1 arrowheads range in length from 3.5 cm to 8.2 cm, measuring about 5 cm in average (Curtis 2013: 39-43).

A bronze object (KH.15.O.409; Pl. XXVIII.4) has an elongated shape, almost a cylinder with a spherical portion in the center and a flat base. It does not seem to have been decorated. This item has been restored by assembling many fragmentary pieces. It has been hypothesized a function for it as a bronze furniture sleeve: possible comparisons are four specimens found at Nimrud by Layard and Mallowan (Curtis 2013: 84-85) in the throne-rooms of the North-West Palace and of Fort Shalmaneser. In the Neo-Assyrian period it was a common practice to cover the wooden parts of furniture with bronze laminae. Sometimes these were decorated with embossed and chased decorations, or sometimes they were plain. This is evident especially from the reliefs and from the number of preserved sleeves.

The most significant find is an armour piece composed of 58+4 iron scales (KH.15.O.435 + KH.15.O.597; Pls. IX.2, XXIX.1-2), all of them of a flat and rectangular shape and with two or three holes on the short ends (Pl. IX. 2). 11 scales are whole but the others are incomplete. These scales are probably part of a cuirass or a brigandine, as we can deduce from the Assyrian reliefs. Thanks to these representations we know that infantrymen, archers and even the king himself wore armours made of scales during battles: the standard equipment consisted of a tight cuirass which protected the chest and arms and a wide skirt which protected most of the legs (Stronach 1958: 169-181). Armours were made of bronze or iron (Curtis 2013: 46-49): the shape and dimensions of the scales changed depending on the body area needed to be protected and they could have a square, a circular and a simple rectangular shape or even a rectangular shape with a rounded head. Usually, the older types were made of scales with rounded ends, while the later ones were characterized by square ends. However, this does not imply that the early types and the new ones were not adopted simultaneously, and one must not

exclude the possibility that other local variations in scales-making existed as well (De Backer 2011-2012: 175-202). Scale-armours developed throughout the Neo-Assyrian period: they started in the second half of the 8th century BCE and then became common among Assyrian troops (Moorey 1999: 292), undergoing a process of standardization. Most armours during Sennacherib's time seem to have been of the kind with rectangular scales (De Backer 2011-2012: 175-202). Reliefs remain even today an important source for the study of armours because very few have been found in excavations: most of bronze and iron Assyrian armours' scales come from Nimrud and date to the second half of the 7th century BCE (Curtis 2013: 46-49). Iron scales are the most numerous ones: Layard says to have gathered two or three baskets with rounded iron scales on the floor of Room I in the North-West palace (Curtis 2013: 46) and about 600 iron scales were found in excavations between 1949 and 1963 at Nimrud. It was not possible to divide the iron scales into types (like it was instead the case for the bronze ones) because of their bad state of preservation. It is possible, however, to assume that they also have a wide range of types (Curtis 2013: 46-49). The scales found in Fort Shalmaneser (Stronach 1958: 169-181) are single scales with variable dimensions ranging from 2.1 cm to 8.4 cm in length. This suggests that they were too small to be used as protection for horses and carriages but were used for standard armours worn by Assyrian soldiers (Stronach 1958: 169-181). Holes are clearly linked to a fixing system between scales and we may surmise that they were sewn on fabric or leather clothes. At several sites in the Near East scales of bronze and iron armours dating back to the 1st millennium BCE have been found (Stronach 1958: 169-181). In Iran, bronze armour scales were found at Ziwiyeh and Hasanlu period IV (ca. 1000-800 BCE) (Dyson 1963: 37). A series of 84 bronze scales was found in Ardebil (Barnett and Curtis 1973: 124). At least nine different types of bronze scales were found in Karmir Blur in Urartu, all, except two iron scales, dating back to Argishti I's kingdom (8th century BCE) (Piotrovsky 1955: 9, 30, 33-34; Barnett 1959: 15-16, note that one type included 159 pieces, ibid., 18-19). At Altin Tepe, four iron scales and 54 bronze scales were found (Barnett and Gökçe 1953: 125-126). In Syria-Palestine there is one iron scale from Megiddo (Lamon and Shipton 1939: pl. 85.6) stratum II (650-600 BCE), some iron scales from Zincirli (von Luschan and Andrae 1943: 79) from the destruction level of late Iron III and bronze scales from Tell Rifa'at, dating back to the 8th-7th centuries BCE (Seton Williams 1961: 79).

Some bronze (KH.15.O.437; Pl. XXIX.3) and iron objects (KH.15.O.640, KH.15.O.641; Pl. XXX.1-2) may perhaps be interpreted as projectiles, rather than weights. The bronze specimen has a circular shape with a slightly flat base (but the surface is not well preserved). The iron specimens have a spherical shape.

Hooks (KH.15.O.438, KH.15.O.439, KH.15.O.440, KH.15.O.442, KH.15.O.443; Pls. XXX.3-4, XXXI.1-3) are all made with iron and present a very marked oxidation. They were probably used as

hinges, holdfasts or crampers for the activity of fastening in carpentry and therefore as a reinforcement and a support inserted into the walls (Curtis 2013: 89). Among possible comparisons, 7 hooks were found at Nimrud, 5 of which in Fort Shalmaneser, while 2 in the North-West Palace. 4 hooks were found at Niniveh and another 6 at Khorsabad in Residence K (Curtis 2013: 89). Comparisons can be found even from Byblos (Montet 1928: pl. CX, nos. 740-741) to Persepolis (Schmidt 1957: 81, nos. 29-31).

Of an iron fibula (KH.15.O.447; Pl. XXXI.4), only its arch remains while the pin is lost (but cf. Pl. XI.1). The bad state of conservation with marked corrosion makes it hard to identify its type. It is possible to hypothesize a comparison with type 2 of arched fibulae from Nimrud (Curtis 2013: 114-115; Stronach 1959: 181-206). As for ornaments, there is one almost intact bronze earring of a circular shape (KH.15.O.515; Pl. XXVIII.3).

KH.15.O.81, Indeterminate object (Pl. XXXI.11)
Material: bronze
Dimensions: l. 1.3+; w. 1+; th. 0.2 cm
SU: F.5801
Bucket: KH.15.P.316
Preservation: fragmentary

KH.15.O.83, Indeterminate object (Pl. XXXI.7)
Material: bronze
Dimensions: l. 2.3+; w. 0.9+; th. 0.2 cm
SU: F.5801
Bucket: KH.15.P.318
Preservation: fragmentary

KH.15.O.94, Indeterminate object (Pl. XXXI.6)
Material: iron
Dimensions: l. 4+; w. 1.1+ cm
SU: F.5801
Bucket: KH.15.P.321
Preservation: fragmentary

KH.15.O.96, Nail (Pl. XXVII.3)
Material: bronze
Dimensions: l. 2.2; th. 0.4 cm
SU: F.5801
Bucket: KH.15.P.307
Preservation: complete

KH.15.O.131, Indeterminate object (Pl. XXXI.8)
Material: bronze
Dimensions: l. 1.5+; w. 0.8+; th. 0.1 cm
SU: F.5801
Bucket: KH.15.P.337
Preservation: fragmentary

KH.15.O.136, Indeterminate object (Pl. XXXI.9)
Material: bronze
Dimensions: l. 2.2+; w. 1.4+; th. 0.2 cm
SU: F.5801
Bucket: KH.15.P.326
Preservation: fragmentary

KH.15.O.140, Indeterminate object (Pl. XXXI.10)
Material: bronze
Dimensions: l. 2.1+; w. 1.6+; th. 0.3+ cm
SU: F.5801
Bucket: KH.15.P.329
Preservation: fragmentary

KH.15.O.170, Indeterminate object (Pl. XXXII.1)
Material: bronze
Dimensions: l. 3+; w. 1.2+; th. 0.3 cm
SU: F.5801
Bucket: KH.15.P.314
Preservation: fragmentary

KH.15.O.177, Indeterminate object (Pl. XXXII.2)
Material: iron
Dimensions: l. 5.5+; w. 1.5 cm
SU: F.5801
Bucket: KH.15.P.326
Preservation: fragmentary

KH.15.O.216, Arrowhead (Pl. XXVII.8)
Material: iron
Dimensions: l. 5+; w. 1.9; th. 0.8 cm
SU: F.5859
Bucket: KH.15.P.346
Preservation: nearly complete

KH.15.O.290, Indeterminate object (Pl. XXXI.3)
Material: bronze
Dimensions: l. 2.1+; w. 1.4+; th. 0.7+ cm
SU: F.5882
Bucket: KH.15.P.381
Preservation: fragmentary

KH.15.O.291, Lamina (Pl. XXVIII.1)
Material: bronze
Dimensions: l. 2.4+; w. 2.2+; th. 0.7 cm
SU: F.5801
Bucket: KH.15.P.340
Preservation: fragmentary

KH.15.O.409, Furniture sleeve (Pl. XXVIII.4)
Material: bronze
Dimensions: h. 27.5+; w. 10.3; th. 0.3 cm
SU: F.6309
Bucket: KH.15.P.461
Preservation: fragmentary

KH.15.O.435 + KH.15.O.597, Armour (Pl. XXIX.1-2)
Material: iron
Dimensions: l. 7.8; w. 2.7+; th. 0.4 cm
SU: F.5801
Buckets: KH.15.P.313; 316; 317
Preservation: fragmentary

KH.15.O.437, Projectile (Pl. XXIX.3)
Material: bronze
Dimensions: d. 3 cm
SU: F.6309
Bucket: KH.15.P.803
Preservation: complete

KH.15.O.438, Hook (Pl. XXX.3)
Material: iron
Dimensions: l. 13.5; w. 5.8; th. 2.2 cm
SU: F.6309
Bucket: KH.15.P.476
Preservation: nearly complete

KH.15.O.439, Hook (Pl. XXXI.1)
Material: iron
Dimensions: l. 12.1+; w. 5; th. 3 cm
SU: F.6309
Bucket: KH.15.P.467
Preservation: nearly complete

KH.15.O.440, Hook (Pl. XXXI.2)
Material: iron
Dimensions: l. 10; w. 5.8; th. 2.7 cm
SU: F.6309
Bucket: KH.15.P.476
Preservation: nearly complete

KH.15.O.442, Hook (Pl. XXXI.3)
Material: iron
Dimensions: l. 6.3+; w. 5+; th. 2 cm
SU: F.6309
Bucket: KH.15.P.467
Preservation: fragmentary

KH.15.O.443, Hook (Pl. XXX.4)
Material: iron
Dimensions: l. 13.1; w. 5.1; th. 1.9 cm
SU: F.6309
Bucket: KH.15.P.461
Preservation: nearly complete

KH.15.O.444, Hoe (Pl. XXVIII.2)
Material: iron
Dimensions: l. 12.3+; w. 6.2+; th. 3.7 cm
SU: F.6309
Bucket: KH.15.P.498
Preservation: fragmentary

KH.15.O.445, Indeterminate object (Pl. XXXII.4)
Material: iron
Dimensions: l. 10.3; w. 1.9; th. 0.8 cm
SU: F.6309
Bucket: KH.15.P.486
Preservation: complete

KH.15.O.447, Fibula (Pl. XXXI.4)
Material: iron
Dimensions: l. 5.6+; w. 5.2; th. 1.7 cm
SU: F.6309
Bucket: KH.15.P.478
Preservation: fragmentary

KH.15.O.448, Indeterminate object (Pl. XXXII.5)
Material: iron
Dimensions: l. 9.9+; w. 2.8+; th. 2.3 cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: fragmentary

KH.15.O.513, Projectile (Pl. XXVII.1)
Material: iron
Dimensions: d. 2.3 cm
SU: F.6372
Bucket: KH.15.P.809
Preservation: nearly complete

KH.15.O.515, Earring (Pl. XXVIII.3)
Material: bronze
Dimensions: th. 0.4; d. 1.3 cm
SU: F.5882
Bucket: KH.15.P.425
Preservation: nearly complete

KH.15.O.517, Nail (Pl. XXVII.4)
Material: iron
Dimensions: l. 5.1+; th. 0.9 cm
SU: F.5859
Bucket: KH.15.P.413
Preservation: fragmentary

KH.15.O.581, Indeterminate object (Pl. XXXII.6)
Material: bronze
Dimensions: l. 2.7+; w. 2.3+; th. 0.8+ cm
SU: F.5874
Bucket: KH.15.P.351
Preservation: fragmentary

KH.15.O.582, Indeterminate object (Pl. XXXII.7)
Material: bronze
Dimensions: l. 3.1+; w. 1.8+; th. 0.4 cm
SU: F.5882
Bucket: KH.15.P.378
Preservation: fragmentary

KH.15.O.583, Indeterminate object (Pl. XXXII.8)
Material: bronze
Dimensions: l. 5.1+; w. 4.2+; th. 0.2 cm
SU: F.5919
Bucket: KH.15.P.400
Preservation: fragmentary

KH.15.O.596, Indeterminate object (Pl. XXXII.9)
Material: bronze
Dimensions: l. 2.9+; w. 1.9+; th. 0.9+ cm
SU: F.6309
Bucket: KH.15.P.474
Preservation: fragmentary

KH.15.O.601, Nail (Pl. XXVII.5)
Material: iron
Dimensions: l. 6+; w. 1+ cm
SU: F.5859
Bucket: KH.15.P.413
Preservation: fragmentary

KH.15.O.608, Indeterminate object (Pl. XXXII.10)
Material: bronze
Dimensions: l. 2.4+; w. 2+; th. 0.2 cm
SU: F.5882
Bucket: KH.15.P.369
Preservation: fragmentary

KH.15.O.619, Indeterminate object (Pl. XXXII.11)
Material: bronze
Dimensions: l. 3.4+; w. 2.7+; th. 1.7+ cm
SU: F.6309
Bucket: KH.15.P.461
Preservation: fragmentary

KH.15.O.621, Indeterminate object (Pl. XXXII.12)
Material: iron
Dimensions: l. 6.8+; w. 5.4+; th. 0.8 cm
SU: F.5882
Bucket: KH.15.P.412
Preservation: fragmentary

KH.15.O.622, Indeterminate object (Pl. XXVI.2)
Material: bronze
Dimensions: l. 5.9+; w. 5.2+; th. 0.3 cm
SU: F.6309
Bucket: KH.15.P.478
Preservation: fragmentary

KH.15.O.623, Indeterminate object (Pl. XXVI.3)
Material: bronze
Dimensions: l. 16.2+; w. 4.7+; th. 0.3 cm
SU: F.6309
Bucket: KH.15.P.467
Preservation: fragmentary

KH.15.O.626, Indeterminate object (Pl. XXVII.2)
Material: bronze
Dimensions: l. 2.9+; w. 1.7+; th. 0.2 cm
SU: F.6372
Bucket: KH.15.P.808
Preservation: fragmentary

KH.15.O.631, Nail (Pl. XXVII.6)
Material: iron
Dimensions: l. 4.4+; w. 1.5+; th. 1+ cm
SU: F.6309
Bucket: KH.15.P.803
Preservation: fragmentary

KH.15.O.637, Nail (Pl. XXVII.7)
Material: iron
Dimensions: l. 5.4+; w. 1.3 cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: fragmentary

KH.15.O.640, Projectile (Pl. XXX.1)
Material: iron
Dimensions: d. 2.4 cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: complete

KH.15.O.641, Projectile (Pl. XXX.2)
Material: iron
Dimensions: d. 2.4 cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: nearly complete

KH.15.O.642, Indeterminate object (Pl. XXXI.5)
Material: iron
Dimensions: l. 10.2+; w. 5+; th. 1.4+ cm
SU: F.6309
Bucket: KH.15.P.647
Preservation: fragmentar y

KH.15.O.660, Indeterminate object (Pl. XXVI.4)
Material: bronze
Dimensions: l. 11.9+; w. 5.1+; th. 0.2 cm
SU: F.6309
Bucket: KH.15.P.474
Preservation: fragmentary

KH.15.O.664, Indeterminate object (Pl. XXVI.1)
Material: iron
Dimensions: l. 7.4+; w. 3.9+; th. 0.9 cm
SU: F.6372
Bucket: KH.15.P.809
Preservation: fragmentary

5.3 CLAY FIGURINES

Among the objects recovered from well P.5347, there are 14 clay figurines. These are 1 chariot wheel, 1 anthropomorphic female figurine, and 12 zoomorphic horse figurines.

The single chariot wheel (KH.15.O.75; Pl. XXXIII.1) is a nearly complete specimen, which is attested at Karkemish in low percentages and it has been classified under the Miscellanea class, subtype Chariot Element (CH), Wheels (W) by Bolognani (2017: 46, 133-134, fig. 15). Similar examples were found by the Turco-Italian Expedition in the Storm God Temple (area A) and in a deep sounding in the Inner Town (area G) (Bolognani 2017: 46-47, 90, fig. 16, cat. nos. 681-689). Nevertheless, this is a particular chariot wheel, as it is the only specimen

featuring a single protruding wheel hub, whereas the others usually have a specular one. We do not have examples of preserved chariots at Karkemish, but we know that these wheels were anchored to chariot coaches, which were sometimes decorated with applied blobs, or, in rare cases, with a base for a double-headed horse (Bolognani 2017: 178, cat. nos. 690-694).

The anthropomorphic specimen (KH.15.O.186; Pl. XXXIII.2) is a female figurine preserved just in its upper part. Anatomical features and decorations are applied, while the arms are positioned on the chest with both claw-shaped hands cupping the breasts. This specimen pertains to the Euphrates, Syrian Pillar Figurines (EU_SPF's) class (Bolognani 2017: 13). In particular, this features a round tall headdress of subtype H1a and the torso falls under the T2d subtypes (Bolognani 2017: 141, 143, 146, 154, cat. no. 17). Figurines of this class at Karkemish are generally attested in a low percentage – about 10% - though in some excavated areas this percentage rises to 20% (Bolognani 2017: 45-46, fig. 15). With respect to the entire corpus, this pillar figurine presents a distinctive feature which is rarely attested in female specimens. The breast is visible and pronounced, while the hands are indeed claw-shaped. We know other examples with these peculiar characteristics among other contemporary productions of pillar figurines, i.e. from the Islahiye and 'Amuq valleys (von Luschan and Andrae 1943: 62, 156, pl. 33f,i; Pruss 2010: 223-224, pl. 34.290-292; Bolognani 2017: 257-258, 277, 280, 285, fig. 117).

The last class attested in the Neo-Assyrian well is composed by specimens of Euphrates, Handmade Syrian Horses and Riders (EU_HSHR's) (Bolognani 2017: 177-178). In particular these are three horse heads (KH.15.O.391, KH.15.O.465, KH.15.O.473; Pl. XXXIII.3-5) of subtypes H1a, H1b, and H4; two horse foreparts (KH.15.O.557, KH.15.O.588; Pl. XXXIV.4-5) of subtype F10a; three horse buttocks (KH.15.O.128, KH.15.O.402, KH.15.O.550; Pls. XXXIII.6-7, XXXIV.1) of subtypes B3b and B6a; two horse legs fragments (KH.15.O.340, KH.15.O.393; Pl. XXXIV.6-7) of subtypes LU4 and L1; and three headless horses, each preserving both the forepart and the buttock (KH.15.O.552, KH.15.O.553; Pl. XXXIV.2-3) (Bolognani 2017: cat. nos. 119, 115, 149, 191, 197, 376, 412, 428, 545, 577, 631, 667). The specimens in question, as said, belong to different subtypes. This production in fact, in the same manner as the pillar figurines, is characterized by a great heterogeneity in shapes and decorations. Nevertheless, the style and the manufacturing technique are consistent across all subtypes.

Horse and human pillar specimens of similar types are especially attested in the Middle Euphrates Valley (Bolognani 2017: 227, 241, figs. 112-114). Good comparanda can be found at Tell Ahmar (Thureau-Dangin and Dunand 1936: pl. XVI.5-6; Bunnens 1992: 12, fig. 14;

Roobaert and Bunnens 1999: 176, fig. 9; Clayton 2013: 22, 74, 214, pls. 5, 10, table 1; Bolognani 2017: cat. nos. 814–817); Tell Amarna (Horlait-Lecocq 1992: 32–34, pls. VII.1–3,5–8, VIII.3–4; Simeone and Vanschoonwinkel 1993: 36, pls. IIIb,c, IVb,d.; Bolognani 2017: cat. nos. 818–828); Deve Höyük (Woolley 1914: pl. XXVIb.1–3,5; Moorey 1980: 100, nos. 426–429, fig. 17; 2003: pls. 12–13; 2005: 229, fig. 358; Bolognani 2017: cat. nos. 829, 837); Tell Shiuk Fawqani (Makinson 2005: 557, 565, pl. 44; Luciani 2005: 941–942, 956–959, pls. 64–67.2–3,5–12; Bolognani 2017: cat. nos. 841–851); Saraga Höyük (Sertok and Kulakoğlu 2001: fig. 15; Bolognani 2017: cat. nos. 852–860); and Zeytinli Bahçe Höyük (Frangipane and Bucak 2001: 97, fig. 14; Bolognani 2017: cat. nos. 861–866).[7]

Regarding the stratigraphic distribution of these figurines (Fig. 2.1), we can observe that they cluster after the phase of use of the well. Specifically, 10 out of 14 figurines were excavated from the second-lowermost layer (F.6309), which also contained different important small finds, including many tokens, the inscribed cylinder by Sargon II (KH.15.O.355) and a scarab (KH.15.O.354).[8] The other specimens come 1 from F.5859 and 3 from the uppermost fill (F.5801). Thus, in line with other finds from the site of Karkemish and the aforementioned sites, we can assign a full 7th century BCE dating to these figurines.[9]

As for the interpretation of the corpus, these figurines were likely thrown into the well after its use in the Neo-Assyrian period for reasons that remain unknown, probably as a way of disposal. It is worth noting the exclusive attestation of horse figurines within the layer sealing the phase of use of the well. However, since nearly 85% of the Iron Age figurines from Karkemish pertains to this class (Bolognani 2017: 46, fig. 15), we cannot draw any definitive conclusions from this data.

KH.15.O.75, Chariot wheel figurine
(Pl. XXXIII.1)
Material: clay
Dimensions: h. 2.1; th. 0.9; diam. 4.7 cm
SU: F.5801
Bucket: KH.15.P.318
Preservation: nearly complete

KH.15.O.128, Zoomorphic figurine
(Pl. XXXIII.7)
Material: clay
Dimensions: h. 3.5+; l. 5.7+; w. 4.4+ cm
SU: F.5801
Bucket: KH.15.P.326
Preservation: fragmentary

7 For more comparanda within the Euphrates band and outside of it, see also Bolognani 2017: 241–242, cat. nos. 836–840, 867–881; Bolognani 2020a; 2020b.

8 See §§ 3.1, 3.2, 6.1 for a detailed description of these findings.

9 For a detailed discussion regarding chronological matters, see Bolognani 2017: 45, 243–245, fig. 14d; Bolognani 2020a; 2020b.

KH.15.O.186, Anthropomorphic figurine (Pl. XXXIII.2)
Material: clay
Dimensions: h. 8.6+; w. 5.9+; th. 2.9+ cm
SU: F.5801
Bucket: KH.15.P.333
Preservation: fragmentary

KH.15.O.340, Zoomorphic figurine (Pl. XXXIV.6)
Material: clay
Dimensions: h. 6+; w. 2.7+ cm
SU: F.5859
Bucket: KH.15.P.413
Preservation: fragmentary

KH.15.O.391, Zoomorphic figurine (Pl. XXXIII.3)
Material: clay
Dimensions: h. 5.7+; w. 2.4+; th. 2.4+ cm
SU: F.6309
Bucket: KH.15.P.498
Preservation: fragmentary

KH.15.O.393, Zoomorphic figurine (Pl. XXXIV.7)
Material: clay
Dimensions: h. 6.2+; w. 3.1+; th. 2.1+ cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: fragmentary

KH.15.O.402, Zoomorphic figurine (Pl. XXXIII.6)
Material: clay
Dimensions: h. 3+; l. 5.7+; w. 2.8+ cm
SU: F.6309
Bucket: KH.15.P.478
Preservation: fragmentary

KH.15.O.465, Zoomorphic figurine (Pl. XXXIII.4)
Material: clay
Dimensions: h. 3.1+; l. 2.6; w. 2 cm
SU: F.6309
Bucket: KH.15.P.498
Preservation: fragmentary

KH.15.O.473, Zoomorphic figurine (Pl. XXXIII.5)
Material: clay
Dimensions: h. 4+; l. 2.6+; w. 2.3+ cm
SU: F.6309
Bucket: KH.15.P.455
Preservation: fragmentary

KH.15.O.550, Zoomorphic figurine (Pl. XXXIV.1)
Material: clay
Dimensions: h. 4.1+ ; l. 5.9+; w. 4.3+ cm
SU: F.6309
Bucket: KH.15.P.465
Preservation: fragmentary

KH.15.O.552, Zoomorphic figurine (Pl. XXXIV.2)
Material: clay
Dimensions: h. 4+; l. 7.3+; w. 4.5+ cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: fragmentary

KH.15.O.553, Zoomorphic figurine (Pl. XXXIV.3)
Material: clay
Dimensions: h. 4.8+; l. 6.6+; w. 4 + cm
SU: F.6309
Bucket: KH.15.P.479
Preservation: fragmentary

KH.15.O.557, Zoomorphic figurine (Pl. XXXIV.4)
Material: clay
Dimensions: h. 7.6+; l. 4.9+; w. 5.5 + cm
SU: F.6309
Bucket: KH.15.P.479
Elevation: 334.95 m asl
Preservation: fragmentary

KH.15.O.588, Zoomorphic figurine (Pl. XXXIV.5)
Material: clay
Dimensions: h. 6.5+; l. 6.2+; w. 2.4 + cm
SU: F.6309
Bucket: KH.15.P.479
Preservation: fragmentary

5.4 ASTRAGALUS BONES

A significant number of knucklebones (astragali), both worked and unworked, have been found across various archaeological sites with diverse social-cultural functions in the ancient Near East from prehistory to the Roman period and beyond.[10] Most of these belong to small ruminants, but the use of bones from different species is also attested. Knucklebones were used for different purposes in contexts with diverse social-cultural functions, such as cultic or funerary rituals and domestic or public activities. However, two of the most diffused uses relate to divination practices and games[11].

This study discusses the modified knucklebones recovered at Karkemish in layers dating from the Late Bronze age and the Iron age, the majority of which belonged to sheep and goats. A small room in area A, dated to Late Bronze I, yielded a sheep astragalus with smoothed dorsal, lateral and medial surfaces. In the Iron age necropolis of Yunus, a group of at least seven calcined knucklebones came to light from a cinerary urn. Two perforated goat knucklebones, from an Iron IV workshop in area C East, were associated with numerous faunal remains and iron and bronze slags. Both present polishing traces, and the sheep's one is also crossed by a through hole. Belonging to the same chronological period, one heavily polished astragalus was found in area S. As for Iron III, the well P.5347 yielded an extraordinary number of sheep or goat knucklebones, 41 specimens in total, 10 of which with traces of intentional modifications (Table 5.1). Astragali were found in different stratigraphic units, often grouped in a small cluster composed of worked and unworked elements. Some were perforated with one or more holes, up to four, and presented smoothed surfaces on one or both lateral and medial faces. Sometimes the whole surface shows abrasion traces (a selection of the most significant pieces is displayed in Pl. XXXV).

10 For modern and curious uses of astragali, see Choyke 2010.

11 Several publications concerning astragali are available due to the enormous distribution of anthropogenically modified astragalus bones from archaeological sites worldwide: Affanni 2008; De Grossi Mazzorin and Minniti 2013; Gilmour 1997; Minniti and Peyronel 2005 and the references therein. For references about the use of animal knucklebones as game dices or game pieces, see Finkel 2007: 22-38. An interesting alternative interpretative hypothesis is offered by Meier 2013.

Subphase 1

Within layer F.6372, representing subphase 1, 20 astragali were found (18 of them were grouped together under the number KH.15.O.691, see those marked with * in Table 5.1): 13 of them belong to sheep, four to goats, while three were not identifiable at the species level, and were then classified as sheep/goat. The state of preservation is uneven within the group, ranging from well-preserved to fragmented. Bone surfaces are, in some cases, eroded by taphonomical effects. Seven astragali (five of sheep and two of sheep/goat) show evidence of anthropogenic modification such as pierced holes or polished edges (Pl. XXXV:3453,3460,3461,3462), while only one specimen shows traces of ocher (Pl. XXXV:3714).

Subphase 2

From the various layers of subphase 2, came 21 astragali, some of which have been grouped together. Among the sample of astragali referable to small ungulates, seven belong to sheep, six to goats, and three were undetermined at the species level due to high fragmentation or heavy anthropogenic modification and reported only as sheep/goats (Pls. XXXV:3464, XXXVI.1). Three of the sheep astragali are polished, while none of the goats was modified (Pl. XXXV.1:3659,3856). The surface abrasion involves all the faces in the sheep or goat astragalus (Pl. XXXVI.1). It can be interpreted as the result of intense rubbing, a reiterated movement in contact with a surface, while using the astragalus as a game piece.

Unlike subphase 1, in subphase 2, pig and cow knucklebones were discovered, sometimes associated with anthropogenic modification. A cow astragalus found in layer F.6309 shows a through-hole probably for suspension (Pl. XXXV:3415). The other two cow astragali present cut marks and evidence of the disarticulation of the ankle (Pl. XXXV:3637). Finally, another large ungulate astragalus was found burned in layer F.5857.

A pig astragalus is associated with the rest of the animal remains assemblage from the different layers related to filling of well P.5347. It is not related to the accumulation/deposition of gaming or divination objects (see also § 7.2).

Discussion

Several examples of deliberate bone modification for cultural purposes have been recorded in strata of different chronology in the city of Karkemish, both in funerary and public contexts. The discovery of a large number of astragali in the fillings of well P.5347, together with the latest discovery of other specimens currently under study, confirms their use in both the sacred and playful spheres. The special use of these tarsal bones as ritual objects, amulets or

divining tools does not exclude, according to the iconography, their involvement as game pieces.

Many of the abrasion marks on the astragali, documented in both subphases 1 and 2, appear to be due to the use of knucklebones as playing pieces. Interestingly, this evidence can only be seen on the sheep astragali, while the few goat astragali identified appear to have retained the original intact surface.

Among the most notable examples of anthropogenic modification are two items (Pl. XXXVI.1-2) retrieved from the latest sediment deposit of the well (F.5801). It is possible that this specific sheep or goat astragalus bone was used as a game piece, potentially similar to the scene depicted in the Royal Buttress relief discovered during the British excavations (Pl. XXXVI.3).

While several knucklebones documented throughout the Levant and eastern Mediterranean (Gilmour 1997) were often associated with metal or suspension inserts, at Karkemish, none of them was identified. The presence of numerous astragalus bones in well P.5347 is not entirely clear; however : some of the bones were clearly found clustered together, suggesting that they were kept in a perishable container (bag) when they were thrown in the well with other discarded materials during the defunctionalization and consequent filling up of the structure and related compound.

Progressive ID No.	SU F.	Species	Side	Preservation	Anthropogenic modification			Measures according to the method by von den Driesch (1976)
					polished	pierced	other	
KH-15 2743 = KH.15.O.674	5801	sheep/ goat	left	complete	yes	yes	none	n.a.
KH-15 2855 = KH.15.O.673	5801	sheep	right	complete	yes	no	none	n.a.
KH-15 3059	5801	cow	right	complete	no	no	cut marks	GLl: 71.2; GLm: 64.8; Dl: 41.2; Dm: 39.7; Bd: 47.0
KH-15 3448*	6372	goat	right	complete	no	no	none	GLl: 28.3; GLm: 27.0; Dl: 15.3; Dm: 16.0; Bd: 18.0
KH-15 3449*	6372	goat	right	complete	no	no	none	GLl: 30.0; GLm: 28.6; Dl: 15.2; Dm: 15.6; Bd: 17.8
KH-15 3450*	6372	goat	right	complete	no	no	none	GLl: 30.7; GLm: 30.0; Dl: 16.8; Dm: 17.9; Bd: 20.6
KH-15 3451*	6372	sheep	left	complete	no	no	none	GLl: 29.7; GLm: 28.8; Dl: 16.2; Dm: 16.4; Bd: 19.0
KH-15 3452*	6372	sheep	left	complete	no	no	none	GLl: 26.9; GLm: 25.5; Dl: 15.2; Dm: 15.9; Bd: 18.1
KH-15 3453*	6372	sheep	right	complete	yes	yes	none	GLl: 27.7; GLm: 26.4; Dl: 15.6; Dm: 15.3; Bd: 17.9
KH-15 3454*	6372	sheep/ goat	left	fragmented	no	no	none	GLl: 26.8; GLm: 25.4; Dl: 14.6; Dm: 15.8; Bd: 17.8
KH-15 3455*	6372	sheep	left	complete	no	no	none	GLl: 28.1; GLm: 26.6; Dl: 16.0; Dm: 16.1; Bd: 17.8
KH-15 3456*	6372	sheep	left	complete	no	no	none	GLl: 26.7; GLm: 25.6; Dl: 15.1; Dm: 15.8; Bd: 18.6
KH-15 3461*	6372	sheep	left	complete	yes	yes	none	Dl: 17.9; Dm: 17.4

Progressive ID No.	SU F.	Species	Side	Preservation	Anthropogenic modification			Measures according to the method by von den Driesch (1976)
					polished	pierced	other	
KH-15 3462*	6372	sheep	left	complete	no	yes	none	GLl: 30.4; GLm: 30.2; Dl: 17.1; Dm: 17.9; Bd: 20.2
KH-15 3463*	6372	sheep	left	complete	no	no	none	GLl: 31.0; GLm: 29.5; Dl: 16.6; Dm: 17.8; Bd: 19.7
KH-15 3464*	6372	medium ungulate	left	complete	yes	no	none	GLl: 30.3; GLm: 28.9; Dl: 17.1; Dm: 16.6; Bd: 19.9
KH-15 3465*	6372	sheep/ goat	left	complete	yes	no	none	GLl: 32.1
KH-15 3514	6309	cow	left	complete	no	yes?	none?	GLl: 62.5; GLm: 57.8; Dl: 35.0; Dm: 36.0; Bd: 39.4
KH-15 3637	6309	cow	left	complete	no	no	cut marks	n.a.
KH-15 3655	6309	goat	left	complete	no	no	none	GLl: 28.4; GLm: 27.0; Dl: 14.6; Dm; 15.8; Bd: 17.9
KH-15 3677°	6309	goat	right	complete	no	no	none	GLl: 27.8; GLm: 26.0; Dl: 14.6; Dm: 15.9; Bd: 17.9
KH-15 3678°	6309	goat	left	complete	no	no	none	GLl: 29.0; GLm: 27.4; Dl: 16.6; Dm: 16.7; Bd: 18.7
KH-15 3679°	6309	sheep	left	complete	yes	no	none	GLl: 29.8; GLm: 29.0; Dl: 16.8; Dm: 17.0; Bd: 18.7
KH-15 3680°	6309	sheep	right	complete	no	no	none	GLl: 30.2; GLm: 28.9; Dl: 16.2; Dm: 16.1; Bd: 18.9
KH-15 3713	6372	goat	left	complete	no	no	none	n.a.
KH-15 3714	6372	sheep	right	complete	yes	no	red color	n.a.
KH-15 3732	6309	pig	left	complete	no	no	none	GLl: 36.6; GLm: 32.6; Bd: 23.2

Progressive ID No.	SU F.	Species	Side	Preservation	Anthropogenic modification			Measures according to the method by von den Driesch (1976)
					polished	pierced	other	
KH-15 3856^	6309	sheep	left	complete	yes	no	none	GLl: 31.6; GLm: 30.4; Bd: 20.3
KH-15 3857^	6309	goat	left	complete	no	no	none	GLl: 29.7; GLm: 28.4; Dl: 16.3; Dm: 16.4; Bd: 17.1
KH-15 3858^	6309	goat	right	complete	no	no	none	GLl: 28.8; GLm: 27.4; Dl: 16.2; Dm: 16.9; Bd: 19.2
KH-15 3914	5801	sheep	left	complete	no	no	none	GLl: 30.2; GLm: 29.3; Dl: 16.6; Dm: 16.7; Bd: 18.5
KH-15 4042	5801	sheep/ goat	left	complete	no	no	none	n.a.
KH-15 4043	5801	sheep/ goat	left	complete	no	no	none	n.a.
KH-15 4095	5857	large ungulate	undeter.	fragmented	no	no	burned	n.a.
KH-15 4100	5857	sheep	right	complete	no	no	none	GLl: 29.8; GLm: 28.6; Dl: 16.7; Dm: 18.0; Bd: 19.7
KH-15 4201	6309	sheep	left	complete	no	no	none	GLl: 30.1; GLm: 28.2; Dl: 16.5; Dm: 16.1; Bd: 19.2
KH-15 4202	6309	goat	right	complete	no	no	none	GLl: 27.2; GLm: 26.2; Dl: 15.0; Dm: 15.5; Bd: 16.0

Table 5.1. Knucklebones collected in well P.5347. Symbols (*, °, ^) mark clusters of knucklebones that were recovered as coherent groups; the group of 18 marked with * has been inventoried under the number KH.15.O.691.

5.5 MISCELLANEOUS SMALL FINDS

From some of the filling layers of well P.5347, namely F.5801, F.5882, F.6309 and F.6372, come 24 small finds belonging to different classes and made of different materials, which include ornaments, clay and stone tools. These objects reflect a variety of activities, from weaving to food processing, that must have been carried out in the quarters of the palace.

To begin with, there are one spindle whorl and four loom weights. The spindle whorl (KH.15.O.401; Pl. XXXVII.1) incised circles and dots, while some incised lines can be seen on the upper part. Similar decorative patterns, made of dots and circles, are frequent among textile tools, as it can be seen on a spindle whorl made of serpentine from Zincirli (von Luschan and Andrae 1943: 17-18, pl. 4a). Among the loom weights there is a chipped pottery sherd (KH.15.O.430; Pl. XXXVII.2), pierced in the middle. Analogous re-used pottery sherds have been recorded from various contexts, such as from Tille Höyük where more than two-hundred discs were retrieved from Iron Age levels (Blaylock 2016: 228-229, fig. 13.5). A second loom weight (KH.15.O.592; Pl. XXXVII.3), nearly complete, presents a truncated pyramidal shape with a horizontal perforation. Comparisons can be found for instance at Tarsus (Goldman 1963: 390, fig. 179, no. 4) and Tell Afis (Cecchini 1992: 19, fig. 4.3). Another specimen can be likely interpreted as a loom weight (KH.15.O.432; Pl. XXXVII.4), made of unfired clay and of ovoidal shaped with a horizontal perforation; with another fragmentary piece of unfired clay (KH.15.O.434; Pl. XXXVII.5), they can be most probably part of globular shaped loom weights (see Cecchini 2000: 222-223, fig. 2).[12] A fifth clay object is a small cylindrical piece of baked clay (KH.15.O.467; Pl. XXXVII.6), with a rounded tip and a slightly flared base: it might be part of a figurine or in fact another different object of unclear function.[13]

As for the stone objects, there is one semi-worked tool (KH.15.O.429; Pl. XXXVIII.2), made of limestone, with unfinished drilled holes on both sides: perhaps it was intended as a loom weight. Similar semi-worked pieces have been recorded at Tille Höyük, from both the Iron Age levels and the earlier phases (Blaylock 2016: fig. 13.26, nos. 419-421). Another specimen is a flint blade (KH.15.O.343; Pl. XXXVIII.1), characterized by a lozenge-shaped cross section, retouched on both its long edges. Blades and other kinds of flint tools are com-

12 The diffusion in the Levant of these pierced weights of various shapes from globular to pyramidal and of rounded chipped sherds seems to be related to the use of warp-weighted looms (for a more in-depth discussion, see Cecchini 1992: 16-19, figs. 5-6; Shamir 1996; Cecchini 2000).

13 A "bell-shaped" lump of clay from a Late Assyrian period context at Tarsus has been interpreted as a possible animal head (Goldman 1963: 390-391, fig. 179, no. 10).

monly found in Iron Age Levantine context, as in the case of an area of manufacture of flint tools identified at Tell Shiukh Fawqani, area G, dating to the Iron II-III (Luciani 2005: 932-933, pl. 74; for a general assessment on the use of lithics during the Iron Age period in the Levant, see Rosen 1997). Other stone tools include a small spherical stone (KH.15.O.482; Pl. XXXVIII.3), that was possibly used as a weight or rather a tool[14] and a fragmentary grinding stone (KH.15.O.563; Pl. XXXVIII.4), made of rough-grained basalt, with a sub-rectangular shape, flat base and rounded upper surface. Parallels can be seen for instance at Tille Höyük, where several specimens have been recorded in the Iron Age levels (Blaylock 2016: 254-256, figs. 13.37-39; for a general discussion on this type of grinding stone during the Iron Age period, see Bombardieri 2010: 33-36, 70-77; Bombardieri 2019). The last stone tool (KH.15.O.665; Pl. XXXVIII.5), is a small axe, made of polished black stone, perhaps hematite, presenting traces of wear on its surface. This type of tool, probably affixed on a wooden handle with a string, is quite common during the early Iron Age: examples can be found for instance at Zincirli (von Luschan and Andrae 1943: 11-12, pl.1), Chatal Höyük (Pucci 2019: 261, cat. nos. 298-728), and Tell Mastuma (Nishiyama 2009: 496-497, fig. 8.38:8-13).

Eight fragmentary objects made of bones were retrieved from the filling layers of the well. The best-preserved piece is a fragmentary bone pin (KH.15.O.672; Pl. XXXIX.3), decorated on one end with incised parallel lines and crosshatched pattern (for a discussion on the possible function of bone pins, see Cecchini 1992: 7-12; Peyronel 2016: 842-848). Similar ivory and bone pins have been retrieved, among others, from the Syro-Hittite royal sector at Hama (Riis and Buhl 1990: 207-208, fig. 96, nos. 737-738, fig. 97, no. 740), from the necropolis of the same site (Riis 1948: 173-174, fig. 217) and from the Iron Age levels at Tell Afis (Cecchini 1992: figs. 1.1-2). Three other fragmentary specimens belong to bone spatulas made from thin laminas with one pointed end and rounded opposite end, one polished surface and rough other side, without decorations (KH.15.O.695, KH.15.O.693, KH.15.O.694; Pls. XXXIX.6, XL.1-2). One of them is partially burnt, due to fire exposure (KH.15.O.695; Pl. XXXIX.6). Analogous bone spatulas have been retrieved in high numbers from several Iron II-III levels in Northern Levant, such as at Chatal Höyük, where 179 bone spatulas were collected from household contexts (Pucci 2019: 264-265), at Tell Mastuma (Nishiyama 2009: 474-477, figs. 8.27-28, colour pl. 10.14-16), at Tille Höyük (71 spatulas, see Blaylock 2016: 229-231, figs. 12.6; 13.7), at Zincirli (von Luschan and Andrae 1943: pls. 59.a-f, 60.a-ar), at Tell Afis from the Iron II levels of the lower city and acropolis (Cecchini 2000: 226-228, 233, fig. 6) and at

14 It is worth mentioning that 40 spherical stones were documented as part of the funerary assemblage in grave G.456b, excavated in area F West in the Outer Town of Karkemish and dating to Iron III (Bonomo and Zaina 2016: 5-8, pls. III, VI.3-4).

Ebla (Peyronel 2016: fig. 5).[15] These objects were probably used as weaving tools for beating threads or as pattern-sticks, though their function is still debated (for a more in-depth discussion, see Doyen 1986: 47-50; Cecchini 2000: 223-230; Blaylock 2016: 229-232; Peyronel 2004: 355-378; Peyronel 2016: 851-853).[16]

Among other fragmentary pieces, there are two possible bone handles: a first cylindrical piece (KH.15.O.352; Pl. XXXIX.1) presents a small hole on one side into which a metal tool could be affixed. On the surface, several marks are visible, maybe traces of manufacturing or usage. Similar hollow handles were retrieved from various Iron Age contexts, as at Tille Höyük (Blaylock 2016: 231, fig. 13.8, no. 110) and at Megiddo, strata III-II (Lamon and Shipton 1939: pls. 96 and 100; see also Moorey 1999: 113-114). The second specimen (KH.15.O.353; Pl. XXXIX.2) presents part of an incised line. Another fragmentary piece of worked bone (KH.15.O.672; Pl. XXXIX.4) shows traces of an incised line on the top. Of difficult interpretation is also another small bone fragment with one polished surface, partially burnt (KH.15.O.692; Pl. XXXIX.5).

The ornaments include four beads made from different materials and in various shapes. Among them there is a complete bead, ovoidal and with a horizontal perforation, made of carnelian (KH.15.O.483; Pl. XL.1) (for the use of carnelian in the Ancient Near East, see Moorey 1999: 96-98). A second find (KH.15.O.658; Pl. KH.15.O.533; Pl. XL.5) is a spherical glass paste bead of a light green colour, decorated with three applications of blue circles. Eye beads are widespread in the Levant, especially between the Late Bronze and Iron Age. Similar examples can be seen for instance at Deve Höyük (Moorey 1980: 121-124, figs. 21-22) and at Chatal Höyük, where 55 eye beads were retrieved from household contexts (Pucci 2019: 240). Another ovoid, half preserved bead is fashioned from a glass paste of yellow colour, poorly preserved (KH.15.O.658; Pl. XL.4). The fourth specimen (KH.15.O.670; Pl. XL.5) is a nearly complete cowrie shell used as a bead or pendant (Golani 2014; Reese 1991). Cowrie shells are attested from various Iron Age contexts, such as at Tille Höyük (Blaylock 2016: 264-265) and from the graves at Deve Höyük (Moorey 1980: fig. 21, nos. 512-513). Furthermore, six small fragments of rock crystal were retrieved in the filling layer of the well (KH.15.O.568; Pl. XL.7). These may be waste materials of a nearby workshop producing valuable ornaments, such as glyptic or jewellery (for the use of rock crystal in in the ancient Near East, see Moorey 1999: 95).

15 A complete bone spatula was retrieved at Karkemish from level 7 in area G, dating to the Iron III period (Zaina 2018: 140-141, pl. LVII.4).

16 Pucci (2019: 265), argues that spatulas might have been used as multipurpose objects from textile production to food consumption, and cosmetic equipment.

KH.15.O.343, Tool (Pl. XXXVIII.1)
Material: flint
Dimensions: l. 4.2; w. 3+; th. 0.7 cm
SU: F.5882
Bucket: KH.15.P.425
Preservation: nearly complete

KH.15.O.352, Tool (Pl. XXXIX.1)
Material: bone
Dimensions: l. 4.6+; w. 2.4; th. 2 cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: fragmentary

KH.15.O.353, Tool (Pl. XXXIX.2)
Material: bone
Dimensions: l. 5.6+; w. 2.6+; th. 1.7+ cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: fragmentary

KH.15.O.401, Spindle whorl (Pl. XXXVII.1)
Material: clay
Dimensions: h. 2.3; diam. 3.8; perf. diam. 0.5 cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: nearly complete

KH.15.O.429, Spindle whorl (Pl. XXXVIII.2)
Material: limestone
Dimensions: th. 2.3; diam. 6.8; perf. diam. 0.4 cm
SU: F.6309
Bucket: KH.15.P.479
Preservation: complete

KH.15.O.430, Loom weight (Pl. XXXVII.2)
Material: clay
Dimensions: th. 1.1; diam. 4.9; perf. diam. 0.4 cm
SU: F.6309
Bucket: KH.15.P.498
Preservation: nearly complete

KH.15.O.432, Tool (Pl. XXXVII.4)
Material: clay
Dimensions: l. 3.8; h. 5.3; w. 3.9 cm
SU: F.6309
Bucket: KH.15.P.498
Preservation: complete

KH.15.O.434, Spindle whorl (Pl. XXXVII.5)
Material: clay
Dimensions: w. 2.8+; perf. diam. 0.6 cm
SU: F.5882
Bucket: KH.15.P.435
Preservation: fragmentary

KH.15.O.467, Indeterminate (Pl. XXXVII.6)
Material: clay
Dimensions: h. 3.6+; w. 2.4+; th. 2.2 cm
SU: F.5882
Bucket: KH.15.P.420
Preservation: fragmentary

KH.15.O.482, Small spherical stone (Pl. XXXVIII.3)
Material: stone
Dimensions: diam. 2 cm
SU: F.6309
Bucket: KH.15.P.479
Preservation: complete

KH.15.O.483, Bead (Pl. XL.3)
Material: carnelian
Dimensions: l. 4.2; w. 3.4; th. 2.1 cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: complete

KH.15.O.533, Bead (Pl. XL.5)
Material: glass paste
Dimensions: diam. 0.8; perf. diam. 0.3 cm
SU: F.6309
Bucket: KH.15.P.803
Preservation: nearly complete

KH.15.O.568, Rock crystal fragments (Pl. XL.7)
Material: rock crystal
Dimensions: l. 2.1+; w. 1.5+; th. 1.3+ cm
SU: F.6309
Bucket: KH.17.P.492
Preservation: fragmentary

KH.15.O.563, Grinder (Pl. XXXVIII.4)
Material: basalt
Dimensions: l. 12.2+; w. 10.3+ ; th. 4.5 cm
SU: F.5882
Bucket: KH.17.P.451
Preservation: fragmentary

KH.15.O.592, Loom weight (Pl. XXXVII.3)
Material: clay
Dimensions: h. 7.2+; w 5.2+; th. 4.4+ cm
SU: F.6309
Bucket: KH.15.P.478
Preservation: nearly complete

KH.15.O.649, Pin (Pl. XXXIX.3)
Material: bone
Dimensions: l. 7.4+; diam. 0.8 cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: fragmentary

KH.15.O.658, Bead (Pl. XL.4)
Material: frit
Dimensions: l. 7.4+; w. 1.3+; th. 0.5 cm
SU: F.6309
Bucket: KH.15.P.492
Preservation: fragmentary

KH.15.O.665, Axe (Pl. XXXVIII.5)
Material: black stone
Dimensions: l. 6.8; w. 3.3; th. 1.3 cm
SU: F.6372
Bucket: KH.17.P.808
Preservation: fragmentary

KH.15.O.670, Bead (Pl. XL.6)
Material: cowrie shell
Dimensions: l. 1.7; w. 1.2; th. 0.8 cm
SU: F.5801
Bucket: KH.15.P.315
Preservation: nearly complete

KH.15.O.672, Tool (Pl. XXXIX.4)
Material: bone
Dimensions: l 2.7+; w 3.2; th. 0.6 cm
SU: F.5801
Bucket: KH.15.P.331
Preservation: fragmentary

KH.15.O.692, Tool (Pl. XXXIX.5)
Material: bone
Dimensions: l. 4.9+; w. 3.7+; th. 0.9 cm
SU: F.5801
Bucket: KH.15.P.326
Preservation: fragmentary

KH.15.O.693, Spatula (Pl. XL.1)
Material: bone
Dimensions: l. 4.9+; w. 2.6+; th. 0.1 cm
SU: F.6309
Bucket: KH.15.P.498
Preservation: fragmentary

KH.15.O.694, Spatula (Pl. XL.2)
Material: bone
Dimensions: l. 4.9+; w. 2.1+; th. 0.1 cm
SU: F.6309
Bucket: KH.15.P.326
Preservation: fragmentary

KH.15.O.695, Spatula (Pl. XXXIX.6)
Material: bone
Dimensions: l. 3.1+; w. 1.6+; th. 0.1 cm
SU: F.5801
Bucket: KH.15.P.326
Preservation: fragmentary

Chapter 6
INSCRIBED OBJECTS FROM WELL P.5347

Some very significant inscribed items were found in well P.5347; their editions follow.

6.1 SARGON II'S KARKEMISH CYLINDER INSCRIPTION

Two large terracotta cylinder fragments inscribed in cuneiform — KH.15.O.221 and KH.15.O.355 — were found in the well in the F.5859 and F.6309 fill layers. In addition, two other smaller cylinder fragments with cuneiform inscriptions — KH.15.O.300 and KH.24.O.262 — were discovered elsewhere in the immediate vicinities: the former was found near the well, embedded in a floor of beaten earth (L.5896) that covered it, dating to the Neo-Babylonian phase of the palatial complex (see § 2.1); the latter was retrieved during the 2024 excavation campaign from an Early Islamic pit (P.6515) at the southeastern edge of area C. The four pieces were part of at least three different cylinders, all inscribed with the same inscription of Sargon II (henceforth *Karkemish Cylinder Inscription* or *KaCI*), whose Akkadian text and translation have been revised here compared to the first edition of the text (Marchesi 2019; see also Frame 2021: 421–424):

KH.15.O.221 = *KaCI* 5′–38′ (source A).

KH.15.O.300 = *KaCI* 1′–13′ (source B).

KH.15.O.355 = *KaCI* 14′–20′ and 29′–44′ (source C).

KH.24.O.262 = *KaCI* 1–5 and 1″ –5″ (source D).[1]

Geometrically, such objects are not true cylinders, but rather prisms approximating the form of a cylinder; moreover, they look barrel-shaped, their diameter (or rather, the diameter of the virtual cylinders that circumscribe them) being narrower at the bases than in the cent-

1 Despite the different contexts of retrieval, fragments KH.15.O.355 and KH.24.O.262 may have originally belonged to the same cylinder (C).

er. Assyrian cylinders were usually placed inside the walls of palaces (Ellis 1968: 110–111).[2] KH.15.O.221 has a colophon indicating that the object belonged to the "palace of Sargon".[3]

The best preserved of the four cylinder fragments — KH.15.O.221 — originally had a diameter of ~8.5 cm at the base, and twelve faces, while the size and number of faces of the other three specimens cannot be determined. The twelve faces make KH.15.O.221 a *unicum* among the Sargon cylinders (which generally have from eight to ten faces; see Taylor 2018: 38). A central hole with a diameter of ~2 cm pierced the cylinder longitudinally from base to base.[4] Since each preserved face contains six lines of text, we can calculate that the entire cylinder originally had 72 lines, of which only 54 are partially preserved. As far as the length of the cylinder (and, consequently, of the lines of the inscription) is concerned, we may compare the Louvre cylinder Nap. III 3156, from Khorsabad (André-Leicknam and Ziegler 1982: 234, no. 180), which has an identical diameter at the base (~8.5 cm) and is 20 cm long. We can estimate that KH.15.O.221 was just as long, if not longer.[5] This means that the longest lines of text are only preserved for about two-thirds of their original length, the maximum length of KH.15.O.221 in its present state being 13.2 cm.

KH.15.O.221 (Fig. 6.1.1, Pls. XLI–XLIII)
Material: clay
Dimensions: l. 13.2 cm, w. 8.8 cm, th. 3.9 cm
SU: F.5859
Bucket: KH.15.P.346
Preservation: fragmentary

Text (Source A):

1′	[…] ⌜… (traces of broken signs)⌝ […]	*KaCI* 5′
2′	[…] a-na qé-reb KUR aš-⌜šur^{ki} ú⌝-[ra-a]	*KaCI* 6′
3′	[… LUGAL(-u)]-ti-ia ú-ra[d-di]	*KaCI* 7′

2 However, see Place 1867: 111–112, for a possible finding of cylinders on display.

3 KH.24.O.262 probably had a similar colophon (see below).

4 Note that not all cylinders are pierced (Taylor 2018: 38–40 and 44–46). The function of such perforations probably has more to do with the manufacturing process of the cylinders than with their installation (ibid., 41, 45–46, and 49–50).

5 In this connection, note that lines 1′–2′ of the *Karkemish Cylinder Inscription* appear to be identical to lines 30–31 of the *Khorsabad Cylinder Inscription* (Frame 2021: no. 43), which further supports the assumption that the cylinders from Karkemish and those from Khorsabad were of comparable dimensions. Other complete Sargon cylinders from Khorsabad with known measurements are 22 to 23.5 cm long and 11 to 12.5 cm in diameter (presumably measured not at the base but in the middle, in the point of the maximum circumference; data courtesy of Grant Frame).

4′	[…-t]i ú-šar-ḫi-su-nu-ti li[b-bu]	*KaCI* 8′
5′	[…ú]-šab-ni-ma UGU šá maḫ-re ú-za-[qer]	*KaCI* 9′
6′	[…MU]RUB$_4$ URU ú-še-rid-ma ku-tal-la-šú ú-šá-⌜aṣ⌝-bit	*KaCI* 10′
7′	[…su$^{?}$-u]n-na-bu a-na dun-nun EN.NUN ina ŠAG$_4$-bé ú-še-rib	*KaCI* 11′
8′	[…me/mé-e]ḫ-ret ÍD.ZIMBIR.KI ap-te-ma ú-ṭib ṣur-ra-šú-un	*KaCI* 12′
9′	[…r]u-uq-te mi-ṣir ^{kur}kam-a-né ú-še-šib	*KaCI* 13′
10′	[…ni]-ir ^{d}a-šur EN-ia ú-šar-ma-a li-me-e-su	*KaCI* 14′
11′	[…^{lú}a]-⌜re⌝-me KUR ṣur-re ^{kur}mu-uṣ-re ^{kur}ta-ba-le u ^{kur}mus-ke	*KaCI* 15′
12′	[…^{na_4}pi]-⌜i⌝-lu dan-nu ki-ma ši-pik KUR-i ú-šar-šid	*KaCI* 16′
13′	[…^{iti}SI]G$_4$.GA ITI mit-ga-re ú-kin uš-še-šá	*KaCI* 17′
14′	[…É.GA]L ^{kur}ḫat-ti mé-eḫ-rat KÁ.MEŠ-šá ad-di	*KaCI* 18′
15′	[…me/mé]-ser ZABAR ú-rak-kis-ma ina KÁ.MEŠ-ši-na ú-rat-ti	*KaCI* 19′
16′	[…] ⌜A⌝.MEŠ a-tap-pe ḫi-bi-ib ÍD la-a i-ma-ak-ke-er ta-mer-tuš	*KaCI* 20′
17′	[…la]-⌜a⌝ šum-ku-re na-mu-ù'-eš šu-ud-du-u e-mu-u mad-ba-reš	*KaCI* 21′
18′	[…ki-šub-b]é-e za-qáp ṣip-pa-te iš-ru-ku ši-rik-ti	*KaCI* 22′
19′	[…] gi-it-pu-šú ina A.GÀR.MEŠ-šú na-⌜di-u⌝-te ú-šaḫ-bi-ba A.M[EŠ …]	*KaCI* 23′
20′	[…] ⌜x⌝ ú-kin a-ke-e ina ṣu-um-me-e la na-ḫar-šu-še ú-šaḫ-li-la a-tap-peš	*KaCI* 24′
21′	[…] ina ⌜ta-mer-ti⌝ ^{uru}gar-ga-mis am-šú-ḫa ši-qi-i-tú ina ta-mer-ti-šú la-la-ni-te ú-šaḫ-ni-ba ni-sa-a-ba	*KaCI* 25′
22′	[…] ⌜x⌝-ru-ú-te ŠE.IM ina la mì-in-de ina qer-bé-ti-šú áš-pu-ka qi-ra-a-te	*KaCI* 26′
23′	[…] ad-na-a-te ^{ĝeš}ĜEŠTIN si-mat LUGAL-u-ti ^{ĝeš}EREN ^{ĝeš}ŠUR.MÌN ^{ĝeš}LI si-ḫer-tuš az-qup-ma UGU i-riš ^{ĝeš}TIR ^{ĝeš}EREN i-riš URU ú-ṭib	*KaCI* 27′
24′	[…^{ĝe}]^{š}ĜEŠTIN u ŠIM.ḪI.A iš-qu-ma ba-'u-lat ŠAG$_4$-bi-šú qur-ru bu-luṭ ŠAG$_4$-bé in-da-na-ḫa-ra nu-um-mu-ru zi-mu-šun	*KaCI* 28′
25′	[…] ⌜u⌝ ru-up-pu-uš ta-lit-ti su-gul-lat GUD.MEŠ u ṣe-e-né saḫ-ḫu ap-te-ma ú-šam-ki-ra A.MEŠ DÙG.GA.MEŠ	*KaCI* 29′
26′	[…b]a-'u-lat ŠAG$_4$-šú a-bur-reš ú-šar-bi-ṣu-ma ^{ĝeš}KIRI$_6$.MEŠ-šú-nu in-ba iz-za-a'-na-ma ⌜iḫ-nu-ba ta-mer-tuš⌝	*KaCI* 30′
27′	[…GAL.ME]Š EN.MEŠ-ia ^{d}kar-ḫu-ḫu ^{d}gu-KÁ a-ši-bu-ut ^{uru}gar-ga-mis ina qé-reb É.GAL-ia aq-ri	*KaCI* 31′

28′ […bit-ru-t]i UDU.NÍTA.<MEŠ> ú-re-e mi-it-ru-te KUR.GI.MEŠ UZ.TUR.MUŠEN.MEŠ MUŠEN.MEŠ AN-e mut-tap-ri-šú-te ma-ḫar-šú-nu aq-⌜qí⌝ *KaCI* 32′

29′ […] ⌜u⌝ šap-liš ina tukul-ti ^{d}a-šur EN-ia ina qé-reb ⌜^{uru}gar-ga⌝-mis am-ḫur *KaCI* 33′

30′ […É.GA]L ^{m}pi-si-ri áš-lu-la ina nu-um-⌜mur⌝ [pa-né] ⌜a-qis⌝-su-nu-ti *KaCI* 34′

31′ […] ⌜ki⌝-šit-ti ŠU.II ra-⌜biš⌝ [uš-zi]-⌜za⌝-ni *KaCI* 35′

32′ […] ⌜(x) x⌝ na-ki-ru [… e-ris-su]-⌜nu-ti⌝ *KaCI* 36′

33′ […] ⌜ú⌝-še-ri[b-ma …] *KaCI* 37′

34′ […] ⌜x⌝ […] *KaCI* 38′

(rest broken)

Colophon:

1 É.GAL

2 ^{m}LUGAL-GI.[NA]

(rest broken)

KH.15.O.300 (Fig. 6.1.2, Pl. XLIV)
Material: clay
Dimensions: l. 5 cm, w. 4 cm, th. 2.4 cm
SU: L.5896 (outside of well P.5347)
Bucket: KH.15.P.371
Preservation: fragmentary

Text (Source B):

1′ […] ⌜mi-ṣir⌝ KUR aš-⌜šur^{ki}⌝ *KaCI* 1′

2′ […ú-šar]-ri-ḫu zi-kir-šú *KaCI* 2′

3′ […] ib-ši-m[a] *KaCI* 3′

4′ […in]a DÙG.GA iš-tap-par-ma *KaCI* 4′

5′ […] ^{d}a-šur ú-šab-ri *KaCI* 5′

6′ […qé-re]b KUR aš-šur^{ki} ú-ra-a *KaCI* 6′

7′ […] ú-rad-di *KaCI* 7′

8′ […ú-šar-ḫi]-su-nu-ti lib-bu *KaCI* 8′

9′ […m]aḫ-re ú-zaq-qer *KaCI* 9′

10′ […ku-t]al-la-šú ú-šá-aṣ-bit *KaCI* 10′

11′ […dun-n]un EN.NUN ina ŠAG$_4$-bé ú-še-rib *KaCI* 11′

12′ […a]p-te-ma ú-ṭib ṣur-ra-⌜šú⌝-u[n] *KaCI* 12′

13′ [… kurkam]-⌜a⌝-né ⌜ú⌝-[še-šib] *KaCI* 13′
(rest broken)

KH.15.O.355 (Fig. 6.1.3, Pls. XLV-XLVII)
Material: clay
Dimensions: l. 5.3 cm, w. 3.8 cm, th. 2.7 cm
SU: F.6309
Bucket: KH.15.P.478
Preservation: fragmentary

Text (Source C):

1′ […] ⌜x⌝ […] *KaCI* 14′
2′ […] kur⌜x-x⌝(-)[…] *KaCI* 15′
3′ […] KUR-i ú-[šar-šid] *KaCI* 16′
4′ [… mit-ga-r]e ú-kin ⌜x⌝ […] *KaCI* 17′
5′ [… me/mé-eḫ̮]-rat KÁ.MEŠ-šá […] *KaCI* 18′
6′ [… ú-ra]k-⌜kis-ma⌝ i[na] ⌜KÁ.MEŠ-ši-na⌝ ú-[rat-ti] *KaCI* 19′
7′ [… ta]-⌜mer⌝-[tuš] *KaCI* 20′
(lacuna of 8 lines)
16′ [… ap-te]-⌜ma ú⌝-[šam-ki-ra …] *KaCI* 29′
17′ [… iz-za-a]’-na-ma [iḫ̮-nu]-⌜ba⌝ t[a-mer-tuš] *KaCI* 30′
18′ [… urugar-ga-m]is$_x$(MEŠ) ana qé-reb É.⌜GAL⌝-ia […] *KaCI* 31′
19′ [… AN]-e mut-tap-ri-šú-te IGI-šú-nu […] *KaCI* 32′
20′ [… i]na qé-reb urugar-ga-mis$_x$(MEŠ) am-[ḫ̮ur] *KaCI* 33′
21′ [… i]na nu-um-mur pa-né a-qis-su-nu-[ti] *KaCI* 34′
22′ […] ⌜ŠU.II⌝ ra-biš uš-zi-[za-ni] *KaCI* 35′
23′ [… maḫ̮]-⌜ri⌝ aš-šur e-ris-su-n[u-ti] *KaCI* 36′
24′ [… ú-še-rib-m]a ik-ru-bu LU[GAL(-u)-ti] *KaCI* 37′
25′ […] ⌜mu⌝-ḫ̮ad-du-u ka-bat-ti DINGIR-ti-šú-n[u] *KaCI* 38′
26′ […](-)PA-ti ina BUR-⌜x⌝(-)[…] *KaCI* 39′
27′ […] ú-[…] *KaCI* 40′
28′ […]-⌜x⌝-ma ina GÚ šá ⌜x⌝ […] *KaCI* 41′
29′ […]-⌜ŠID⌝ bit-re-e ⌜x x⌝ […] *KaCI* 42′
30′ [… mki$^{?}$-a]k$^{?}$-ki LUGAL-šu-nu ⌜ú$^{?}$⌝-[la$^{?}$-i$^{?}$-ṭu$^{?}$] *KaCI* 43′
31′ […] ⌜… (traces of broken signs)⌝ […] *KaCI* 44′
(rest broken)

KH.24.O.262 (Fig. 6.1.4, Pl. XLVIII)
Material: clay
Dimensions: l. 3.5 cm, w. 3.3 cm, th. 1.4 cm
SU: F.11504 (outside of well P.5347)
Bucket: KH.24.P.3
Preservation: fragmentary

Text (Source D):

1	[…] ⌜^{d}⌝A.NUN.NA[(-ki) …]	*KaCI* 1
2	[… R]AD E ⌜X⌝ […]	*KaCI* 2
3	[…] ⌜X⌝ TAR$^{?}$ NA ⌜X⌝ […]	*KaCI* 3
4	[…] ⌜PI⌝ NA ⌜X⌝ […]	*KaCI* 4
5	[…] ⌜X ḪAL X⌝ […]	*KaCI* 5
	(lacuna)	
1′	[…] ⌜X⌝ […]	*KaCI* 1″
2′	[…-t]i u ⌜X⌝ […]	*KaCI* 2″
3′	[…] ⌜X⌝ IGI DU Ú ⌜X⌝ […]	*KaCI* 3″
4′	[… m]u-saḫ-ḫu-ú si-ma-[te-ia …]	*KaCI* 4″
5′	[…] NUMUN-šú ina KUR [z]ÁḪ […]	*KaCI* 5″

Colophon:

[…] šá qé-re[b …]

***

Putting together the preserved parts of the inscription from the four cylinder fragments, we obtain a text of 54 lines, none of which is complete. In the best cases we have two-thirds of the original lines still preserved, but for most lines even less (sometimes much less). Even so, we can grasp much of the original text. Unlike most of the other cylinder inscriptions of Sargon, which generally consist of relatively standard annalistic accounts of the events of Sargon's reign (see Sargon II 43,[6] 64, 76, 84-88, 111-114, and 129),[7] the *Karkemish Cylinder Inscription* provides us with a completely new text, dealing almost exclusively with the newly-conquered city on the Euphrates in a highly-elaborated, literary style. The following thematic sections can be observed in the progress of the text:

6 The royal inscriptions of Sargon II are cited according to the recent edition by Frame (2021).

7 With the exception of Sargon II 125 (describing the restoration of the Eana temple at Uruk), which, however, is modeled upon an inscription of Marduk-apla-iddina II (Frame 2021: 463).

1. Invocation of Assur [and the great Mesopotamian deities (?)] (1ff.).

[2. Introduction of Sargon with his royal titles] (missing part).

3. Sargon's epithets referring to his military achievements (1′–4′).

4. *Casus belli*: the betrayal of Pisiri, king of Karkemish (4′).

5. Sargon's reaction and the punishment of the rebels: Pisiri was deported to Assyria together with his clan and supporters; his palace was plundered and his riches were seized as booty; his soldiers were incorporated into the royal contingent of Sargon (5′–7′).[8]

6. Settlement of Assyrians in Karkemish and reorganization of the city (8′–12′).

7. Deportation of the people of Karkemish to Bit-Purutash, in the region of Tabal, and their replacement with "people who pull the yoke of Assur" (i.e., subjects obedient to Assur) (13′–14′).

8. Tribute (?) from foreign kingdoms (15′).

9. Construction works (16′).

10. Building of a royal palace in Karkemish (17′–19′).

11. Retrospect: Sargon (?) had blocked the water supply sources for Karkemish so that Pisiri might no longer irrigate its arable land (20′).

12. Consequence: aridity and desertification (21′).

13. Reactivation of the water supply and the irrigation system (22′–24′).

14. Agricultural works, growth of grain, and abundant crops (25′–26′).

15. Planting of trees imported from abroad and creation of a "botanical garden" (27′–28′).

16. Development of cattle breeding and husbandry (29′).

17. Abundance and general well-being for the citizens of Karkemish (30′).[9]

18. Inauguration ceremony of Sargon's palace in Karkemish: the king welcomed the principal deities of Assyria, Babylonia (?), and Karkemish into his new abode and made sacrifices to them. He then received the tributes of the vassal rulers and provincial governors (31′–33′).

19. Offerings to the great deities of Assyria from the booty of Karkemish (34′).

20. Celebration of Sargon; laudatory epithets (35′–43′).

[21. …] (missing part).

22. Curse formulae (4″–5″).

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8 According to Frahm (2023: 134), Sargon's victory over Karkemish was "one of his greatest victories".

9 As Ponchia and Lanfranchi (2024: 198) rightly note, "with a statement indeed very rare in the royal inscriptions, he [i.e., Sargon] claims that his aim was to re-establish and enhance the wealth destroyed during the invasion, and to gladden the population".

The episode of the deportation of the Karkemishites to Bit-Purutash provides a *terminus post quem* for dating this inscription, as the conquest and repopulation of Bit-Purutash is known to have occurred in 713 BCE, i.e., four years after the annexation of Karkemish (Marchesi 2019: 18, comm. to line 13′). However, the *Karkemish Cylinder Inscription* is probably even later: in fact, the narrative of the war with Karkemish (*casus belli* and Sargon's reaction) is narrated in a very similar manner in the *Khorsabad Annals* (Sargon II 1: 72–76a and 4: 13′–18′a; cf. Marchesi 2019: 22–23, *sub* 4 and 5), which date to 707 BCE, while the narration of the same event in the 711 version of the *Annals* deviates significantly (Sargon II 102: 1′–14′; cf. Marchesi 2019: 21–22, *sub* 3). This suggests that the *Karkemish Cylinder Inscription* was composed later than 711 BCE.

The detailed description of what Sargon did and accomplished in Karkemish recalls the account of the construction of his new capital, Dur-Sharrukenu, in the *Khorsabad Cylinder Inscription* (Sargon II 43). In Karkemish, Sargon built not just a dwelling for his provincial governor, but a true royal palace where he stayed for a time and received tribute (*Karkemish Cylinder Inscription* 31′–33′).[10] In this connection, note the reference to the planting of what appears to be a botanical garden (ibid., lines 27′–28′), an essential component of any Assyrian royal palace (Liverani 2017: 67–70). Finally, the inauguration ceremony of his palace at Karkemish (*Karkemish Cylinder Inscription* 31′–33′) recalls the inauguration ceremonies of Sargon's palaces in the great Assyrian capitals of Kalhu and Dur-Sharrukenu (Marchesi 2019: 20–21, comm. to lines 31′–32′ and comm. to line 33′).

All this is quite telling of the great importance that Sargon attributed to Karkemish, putting the city on the Euphrates in a very special position. Apparently, Sargon intended to make Karkemish more than just a provincial capital, i.e., the seat of an Assyrian governor. Rather, because of its glorious past and strategic position, Karkemish was fully entitled to become a sort of western capital of the Assyrian Empire: a perfect place in which to display the grandeur of Assyria, and from which to control the western and northwestern territories of the Empire. The unthinkable, ominous death of Sargon on the battlefield in Tabal probably prevented this project from being accomplished. This event also negatively marked the destiny of Karkemish itself, which no longer attracted the interest of the Assyrian kings who followed after him.

10 Sargon's palace at Karkemish is also known from a number of inscribed bricks, all of them bearing the same inscription: "Palace of Sargon, king of the world, king of Assyria" (Sargon II 110; see also Marchetti 2015a: 24).

Composite text:[11]

1 [*Aššūr bēlu rabû šar kiššat Igigē u*] *Anūnakkē* […][12]
[Assur, great lord, king of all the Igigi and] **Anunakki,** […]

2 […] R]AD E ⌜X⌝ […]
(too broken to translate)

3 […] ⌜X⌝ TAR NA ⌜X⌝ […]
(ditto)

4 […] ⌜PI⌝ NA ⌜X⌝ […]
(ditto)

5 […] ⌜X ḪAL X⌝ […]
(ditto)
(lacuna)

1′ [*mā'u gamer dunne u abāre* ‖ *mušekniš Madāyē lā kanšūte* ‖ *šāgiš nišē* (*māt*) *Ḫarḫar* ‖ *mušarbû*] ⌜*miṣir*⌝ *māt Aššūr*[13]
[the victorious one, perfect in power and strength, subduer of the insubmissive Medes, exterminator of the people of (the Land of) Harhar, extender of] **the ⌜territory⌝ of Assyria,**

2′ [*mupaḫḫer Mannāye sapḫe* ‖ *mutaqqin Ellipi dalḫe* ‖ *ša šarrūt mātāte kilallān ukinnūma* ‖ *ušar*]*riḫu zikiršu*[14]
[assembler of dismembered Mannea, orderer of chaotic Ellipi, he who established (his) kingship over both (these) countries mak]**ing his name glorious,**

3′ […] *ina ūm bēlūtīya malku gabrâya ul*] *ibšīm*[*a*][15]

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11 I would like to thank Martin Worthington for discussing with me some technicalities of the transcription and for his valuable feedback. The transcription attempts to represent the Assyrianizing Standard Babylonian of the text. Uncertain translations are in italics. Finally, note that the graphic symbol ‖ (double vertical bar) is used in transcription as a dividing mark to separate discrete portions of text — either phrases or clauses — which correspond to the text segmentation in the translation, so as to help the non-specialist reader to catch the correspondences between the Akkadian text and its rendering into English. As such, ‖ has no correspondence in the original cuneiform text.

12 Restored after Sargon II 103 i 1; 116: 1; and 117 i 1.

13 Restored after Sargon II 43: 30.

14 Restored after Sargon II 43: 31.

15 Restored after Sargon II 7: 13b.

[… During my reign] **there was** [no ruler (who could be) my opponent][16] **an**[d,]

4′ [*ina* (*epēš*) *qable u tāḫāze ul āmura muneḫḫu* ‖ (…) *Pīsīri Gargamisāyu ina adê ilānē rabûte iḫṭīma* ‖ *ana Mitā šar Muske in*]*a ṭābte ištapparma*[17]

[in (doing) battle and combat, I have never met someone who overpowers (me). (…) Pisiri, the Karkemishite, sinned against the loyalty oath (sworn) by the great gods and] **repeatedly wrote** [to Mita (= Midas), king of Musku (= Phrygia), i]**n friendship**,

5′ [*ilqâ šēṭūtu* ‖ *ana Aššūr bēlīya qātī aššīma* ‖ *šâšu gadu qinnīšu kamûssunu ušēṣâššunūtīma* (or *birētu parzille addīšunūtīma*)] ‖ *Aššūr ušabrî*[18]

[showing contempt. I raised my hand (in prayer) to Assur, my lord, and then him (= Pisiri) together with (the members of) his clan — I brought them out (of the city) in bondage (or: I threw them into iron fetters) and] **showed** (them) **to Assur.**

6′ [*ḫurāṣu kaspu itti bušê ēkallīšu u Gargamisāyē bēl-ḫiṭṭē ša ittīšu itti makkūrēšunu ašlulam(ma)*] ‖ *ana qereb māt Aššūr ūrâ*[19]

[Gold, silver, along with the possessions of his palace, and the guilty Karkemishites who had stood by him, along with their goods, I took as booty (and)] **brought** (them) **to Assyria.**

7′ [50 *narkabtu* 2 *mē pēṯallu* 3 *līm zūk-šēpē ina libbīšunu akṣurma* ‖ *eli* (or *ina muḫḫi*) *kiṣir-šarrū*]*tīya uraddi*[20]

[Fifty (elements of) chariotry, two hundred (elements of) cavalry, (and) three thousand (elements of) infantry from among them I gathered and] **added to my** [roya]**l** [contingent.]

8′ […*nišē māt Aššūr ina qereb Gargamis ušēšibma*[21] ‖ *ana …t*]*i ušarḫissunūti libbu*

[… People of Assyria I settled in Karkemish and] **encouraged them** [to …][22]

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16 Frame (2021: 422) translates differently: "[… Since the (first) day of my reign], there has been [no ruler who could equal me]".

17 The restorations are based on Sargon II 7: 13b; 1: 72–73; and 4: 13′–14′.

18 The restorations are based on Sargon II 1: 73; and 4: 14′–15′.

19 Restored after Sargon II 1: 74. Cf. Sargon II 4: 15′–17′.

20 Restored after Sargon II 1: 75; and 4: 17′.

21 Restored after Sargon II 1: 76.

22 Frame (2021: 422) translates differently: "[(…) I settled people of Assyria in the city Carchemish and …] made them confident". Cf. Esarhaddon 104 v 25–28 (Leichty 2011: 199), *ana ašābi āli epēš bīti zaqāp ṣippāti ḫerê pattāti ušarḫissunūti libbu*, "I encouraged them to (re)settle the city, build houses, plant orchards, (and) dig canals".

9′ [… *dūršu eššiš u*]*šabnīma* ‖ *eli ša maḫre uzaqqer*
[… I] **had** [its wall] **built** [anew] **and I raised** (it) **higher than the previous one.**

10′ [… *ultu qa*]*bal āle ušēridma* ‖ *kutallašu ušaṣbit*
[… (people of Karkemish)] **I brought down** [from the cen]**ter of the city and made** (them) **occupy its rear part.**[23]

11′ [… *su*]*nnābu ana dunnun maṣṣarte ina libbe ušērib*
[…] **I brought a (**military) [*co*]***ntingent* into it to reinforce the garrison**.

12′ [… *me*]*ḫret Puratte aptēma* ‖ *uṭīb ṣurrašun*
[… The … in fr]**ont of the Euphrates I opened, making their hearts happy**.

13′ [… *assuḫamma* (?) *ina* (…) *ašar r*]*ūqte miṣir Kam'ane ušēšib*
[… (people of Karkemish) *I deported and*] **I settled** (them) [in (…,) a d]**istant** [place] **on the border of Kammanu.**[24]

14′ [… *nišē šādidūt* (?) *n*]*īr Aššūr bēlīya ušarmâ limēssu*
[… *people who pull* the yo]**ke of Assur,**[25] **my lord, I made dwell in its** (= Karkemish's) **region.**

15′ [… *mandattu ša* (?) *A*]*reme māt Ṣurre Muṣre Tabāle u Muske*
[… *the tribute of* the A]**rameans, the Land of Tyre, Egypt, Tabal, and Musku** (= Phrygia)

16′ [*amhur* (?) ‖ … *ašpukma p*]*īlu dannu* ‖ *kīma šipik šadî*[26] *ušaršid*
[*I received.*[27] … I piled up] mighty [li]**mestone** (blocks) **and made** (them; = the

23 Frame (2021: 422) translates differently: "... and *settled* (*them*) *behind it* (*the city wall*)". Be that as it may, this passage seems to allude to a forced relocation of some of Karkemish's citizens to the Outer Town (Marchesi 2019: 17–18, comm. to line 10′). Cf. line 13′ below.

24 Cf. Sargon II 1: 22–23a, […]+7 *nišē adi maršītīšunu assuḫamma* [… (*ina*) *qereb*] *Ḫatti ušēšib*, "[x]+7 people along with their possessions I deported and (…) I settled (them) [in] Hatti". See also Sargon II 111: 18–23. For the phrase *ašar rūqte*, see Sargon II 65: 65.

25 I.e., people subjected to the authority of the god Assur from other provinces of the Assyrian Empire.

26 Babylonian *šadî*, instead of Assyrian *šadê*, is to be regarded as a Babylonianism. Additional examples of the use of Babylonian forms are found in lines 25′ (*tamerti*), 27′ (*šarrūti*), and 32′ (*bitrûti*).

27 This passage (lines 15′–16′a) could refer to peoples and countries sending tribute to Sargon as a sign of submission. Cf. Sargon II 1: 123b–125a.

foundations?) **as solid as the bulk of a mountain.**[28]

17′ […*ina Sim*]*āne arḫe mitgāre ukīn uššēša*

[… In (the month of) Sim]**anu, a favorable month, I established its** (= the palace's) **foundations.**

18′ […*bēt-ḫilanne tam/nšīl ēka*]*l Ḫatti meḫrat bābēša addi*

[…] **In front of its gates, I erected** [a *bīt-ḫilāni*, a replica of a palac]**e of Hatti.**[29]

19′ […*dalāt … me*]*ser siparre urakkisma* ‖ *ina bābēšina uratti*

[… The doors of …-wood] **I fastened** [with ba]**nds of bronze and I installed** (them) **in their gates.**[30]

20′ […] *mê atappē ḫibīb*[31] *nāre* ‖ *lā imakker tamertuš*

[… *I/*(*the god*) …[32] *caused*] **the water of the irrigation ditches** (and) **the murmur of the *current*** [*to stop*,] (saying) **"Let him** (= Pisiri) **not irrigate its** (= the city's[33]) **farmland".**

21′ […*ugārēšu ḫabṣūte* (?) *l*]*ā šumkure namū'eš šuddû* ‖ *emû madbareš*

[… *Its luxuriant fields* with]**out irrigation were allowed to go fallow like pastureland, they turned into steppe.**[34]

22′ [(…) *ina zikrīšu rabê ša Aššūr bēlīya ša šūšub namê nadûte u petê kišubb*]*ê zaqāp ṣippāte*

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28 Frame (2021: 423) translates differently: "[… I heaped up and] made the heavy [li]mestone (blocks) as secure as the base of a mountain". Cf. Tiglath-Pileser III 47 rev. 21′ (Tadmor and Yamada 2011: 123), … *pīlu dannu kīma šipik šadî ašpukma* …, "… I piled up mighty limestone (blocks) as if it were the bulk of a mountain and …"; and Shalmaneser IV 2: 13 (Grayson 1996: 242), *temmēnšu kīma šapik šadî ušaršid* …, "I made its foundations as solid as the bulk of a mountain …". See also *CAD* R 188–189 s.v. *rašādu* 2. Based on the various attestations of *šuršudu* in royal inscriptions, we can assume that the object of *ušaršid* in our inscription is almost certainly a term for "foundations". For the hypothesis that this passage refers to the building of the Quay Wall of the Outer Town at Karkemish, see Marchesi 2019: 19, comm. to line 16′.

29 Cf. Sargon II 41: 20–21, … *bēt-ḫilanne tamšīl ēkal Ḫatti meḫret bābēšin aptiqma* …, "… in front of their gates, I fashioned a *bīt-ḫilāni*, a replica of a palace of Hatti, and …" (also Sargon II 43: 64 [with the variant *tanšīl*]; 46: 27–30; etc.).

30 Cf. Sargon II 9: 65–66, *dalāt šurmēne musukkanne meser erê namre urakkisma urattâ nērebšin*, "the doors of cypress and *musukkannu*-wood I fastened with bands of shining copper and installed (them) in their entrances" (also Sargon II 13: 102–105; etc.).

31 For *ḫibību* as an Assyrian variant of *ḫabību* (W. Mayer *apud* Marchesi 2019: 19, comm. to line 20′), see now de Ridder and Zomer 2021 (especially, pp. 6 and 10).

32 It is not completely certain that the subject of this sentence is Sargon; it could also be a deity (Assur? Adad?).

33 Cf. line 25 below.

34 Cf. Sargon 74 vii 66, *ugārīšun ḫabṣūti emû kišubbîš*, "their luxuriant fields turned into wasteland".

išruku širiktī[35]

[(…) By the august command of Assur, my lord, who] **granted me as a gift** [the (re-) settling of abandoned pastureland and the opening (to cultivation) of wastelan]**d,** (and) **the planting of orchards,**

23′ […] *gitpušu* ‖ *ina ugārēšu nadi'ūte ušaḫbiba m*[*ê nuḫše*][36]

[…] **very huge** […;] **I made** [abundant] **wate**[r] **murmur through its abandoned fields.**[37]

24′ […] ⌜x⌝ *ukīn* ‖ *akê ina ṣummê lā naḫaršuše ušaḫlila atappeš*

[…] **I set up** [… (= some water supply)]. **So that the destitute would not collapse from thirst, I made** (it) **gurgle like an irrigation ditch.**[38]

25′ […] *ina* ⌜*tamerti*⌝ *Gargamis amšuḫa šiqītu* ‖ *ina tamertīšu lalânīte ušaḫniba nisaba*

[…] **In Karkemish's** ⌜**farmland**⌝**, I measured the irrigation system;**[39] **in its luxuriant farmland, I made grain grow abundantly.**

26′ […] *…rū/ûte û ina lā minde ina qerbetīšu ašpuka qirâte*

[…] **…; in its environs, I piled up grain in the granaries in measureless quantities.**

27′ […] *gimir inib*] *adnāte karānu simat šarrūti erēnu šurmēnu burāšu siḫertuš azqupma* ‖ *eli irīš qišti erēne irīš āle uṭīb*

[… every type of fruit tree] **from all over the world, grapevines worthy of a king,**[40] **the cedar, the cypress,** (and) **the juniper I planted in its surroundings, and I made the scent of the city sweeter than the scent of a cedar forest.**[41]

28′ […] *karānu u riqqē išqûma* ‖ *ba'ūlāt libbīšu qurru buluṭ libbe indanaḫḫarā* ‖ *nummurū zīmūšun*

[…] **grapevines and aromatic plants grew high, and the people living there**[42]

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35 The restorations are based on Sargon II 65: 68 and 43: 34. Frame (2021: 423) also restores the preposition *ana* before *šūšub*, but cf. Sargon II 65: 68.

36 The restoration is based on Tiglath-pileser III 5: 5 (Tadmor and Yamada 2011: 27) and Ashurbanipal 7 viii′ 53 (Novotny and Jeffers 2018: 158).

37 For the verb *ḫabābu*, see now Mayer 2023.

38 Cf. Mayer 2017: 13, s.v. *naḫaršušu*.

39 Frame (2021: 423) translates *šiqītu* as "irrigation canal". Cf. *CAD* Š/3 95–96 s.v.

40 Lit. "fit for royalty".

41 Restored after Sennacherib 17 viii 20 (Grayson and Novotny 2012: 144).

42 Lit. "the people of its interior".

are (now) **repeatedly invited to have a good time;**[43] **their faces are radiant** (with joy).

29′ [… *ana* …] ⌜*u*⌝ *ruppuš tālitti sugullāt alpē u ṣēnē saḫḫu aptēma* ‖ *ušamkira mê ṭābūte*
[… In order to …] ⌜**and**⌝ **increase the offspring of cattle herds and flocks, I opened up the meadowland and provided irrigation with fresh water.**

30′ [… *b*]*a'ūlāt libbīšu aburreš ušarbiṣūma* ‖ *kirâtēšunu inba izza'nāma* ‖ ⌜*iḫnuba tamertuš*⌝
[… The …] **allowed the people living there to lie in safe pastures and their orchards became adorned with fruit, and** ⌜**its farmland flourished**⌝**.**

31′ [… *ilānē rabût*]*e bēlēya Karḫuḫu Gubābu āšibūt Gargamis ina qereb ēkallīya aqri*[44]
[…, the grea]**t** [gods,] **my lords,** (and) **Karhuha** (and) **Kubaba, who dwell in Karkemish, I invited** (to come) **into my palace.**[45]

32′ [… *gumāḫē bitrût*]*i šu'ē urê mitrūte kurkê paspasē iṣṣūrē šamê muttaprišūte maḫaršunu aqqi*
[… Outstandi]**ng** [prize bulls,] **strong stable-rams, geese, ducks, and flying birds of the sky I offered before them.**[46]

33′ [… *mandattu ša mātāte kišitti qātīya* (?) *eliš*] ⌜*u*⌝ *šapliš ina tukulti Aššūr bēlīya ina qereb Gargamis amḫur*
[… *The tribute from the lands conquered by my hand* — above] ⌜**and**⌝ **below — with the support of Assur, my lord, I received in Karkemish.**[47]

34′ [… *šallatu kabittu* (?) *ša ultu qereb ēka*]*l Pīsīri ašlula ina nummur pāne aqīssunūti*
[… The *substantial booty* that] **I had carried off** [from the palac]**e of Pisiri I presented to them** (= the gods) **with a radiant visage.**[48]

35′ [… *ina līte u*] *kišitti qāte rabîš ušzīzanni*
[… he (= Assur?)] **allowed me to stand solemnly in triumph and conquest.**

36′ […] ⌜x⌝ *nakiru* [… *maḫ*]*ri Aššūr ērissunūti*

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43 Cf. Mayer 2017: 32, s.v. *qerûm*.

44 Text after A; C has *ana qereb ēkallīya*.

45 The invitation to the deities to visit the king's palace was part of the inauguration ceremony of Assyrian royal palaces; see Marchesi 2019: 20, comm. to lines 31′–32′.

46 Restored after Sargon II 2: 485 and 7: 168.

47 The restorations are conjectural. See Marchesi 2019: 21, comm. to line 33′.

48 The restorations are conjectural. The phrase *šallatu kabittu* occurs as the object of *ašlula* in Sargon II 82 v 6. Also cf. Sargon II 117: 22, *ḫurāṣu kaspu ša Kargamis* <*ša*> *qātī ikšudu ana Aššūr* ⌜*Marduk* (?)⌝ … […*uqa'iš* (?)], "the gold (and) the silver of Karkemish <that> I had personally conquered [I *presented*] to Assur, ⌜*Marduk*,⌝ …"

[…] **enemy** […] **I asked them to** [… bef]**ore Assur.**

37′ […] *ušēribma ikrubū ša*[*rrūtī*]

[…] **I caused to enter and they blessed** [my] **ki**[ngship.][49]

38′ [… *m*]*uḫaddû kabatti ilūtīšun*[*u* …]

[…] **who makes thei**[r] **divine majesty rejoice** […]

39′ […](-)PA-ti *ina* BUR-⌜x⌝(-)[…]

[…] … **in** … […]

40′ […] ú-[…]

(too broken to translate)

41′ […]-⌜x⌝-ma *ina kišāde ša* ⌜x⌝ […]

[…] **and on the bank of** […]

42′ […]-⌜ŠID⌝ *bitrê* ⌜lu²⌝-x⌝-[…]

(too broken to translate)

43′ [*šarru dāpinu muparri' armaḫḫē Šinuḫte* ‖ *munammi dadmēša* ‖ *ša Kia*]*kki* (?)
šarrušunu ⌜*u*⌝[*la"iṭu gišginêš* (?)]

[*the overpowering king who cut through the thick woods of Šinuḫtu, who laid waste its settlements, who kept Kia*]***kki*, their king,** [*in check as if with a clamp.*][50]

44′ […] ⌜…⌝ […]

(too broken to translate)

(lacuna)

1″ […] ⌜x⌝ […]

(ditto)

2″ […-t]i u ⌜x⌝ […]

(ditto)

3″ […] ⌜x⌝ IGI DU Ú ⌜x⌝ […]

(ditto)

4″ [… *m*]*usaḫḫû simā*[*tēya* …]

[… he who] **disturbs** [my] **embl**[ems …]

5″ [… *šumšu*] *zērūšu ina māte* [*li*]*ḫalliq(ū)* […]

[… may Assur / (the gods) …] **make** [his name] (and) **his offspring disappear from the land,** […]

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49 Cf. Sargon II 65: 63.

50 Tentatively restored after Sargon II 43: 22. Kiakki, king of the city of Shinuhtu in the region of Tabal, was defeated and deported in the fourth year of Sargon's reign (Frayne 2021: 27).

Colophon of A:

ēkal	**Palace**
Šarru-kē[*nu*]	**of Sargo**[**n**]
(rest broken)	[…]

Colophon of D:

[*ēkal Šarru-kēnu šar kiššati šar māt Aššūr*] *ša qereb* [*Gargamis*]
[Palace of Sargon, king of the world, king of Assyria,[51]] **which is in**
[Karkemish.]

6.2 A STONE BOWL WITH CUNEIFORM INSCRIPTION

From the well also comes a stone vessel rim fragment (see also § 5.1 above with Fig. 5.1.3 and Pl. XXII.3) with a fragmentary inscription in cuneiform; it reads:

[…] ⌜x⌝ IGI? šá ṣe-eḫ-ri-[šu/šú? …] […] … **of** [*his*] ***child*** […]

KH.15.O.100, Everted bowl, inscribed (Pl. XLIX)
Material: serpentine or gabbro serpentinite
Dimensions: diam. 12.4 cm; rim w. 0.5 cm; wall w. 0.6 cm; h. 1 cm
SU: F.5801
Bucket: KH.15.P.318
Preservation: fragmentary

6.3 A HIEROGLYPHIC LUWIAN ORTHOSTAT FRAGMENT

In the well's upper fill layer (F.5801), we found a fragment from the top corner of a well-known door-jamb orthostat (Pl. IX.1).[52] This piece represents a new join to the previously excavated and lost fragments of KARKAMIŠ A11*a* (Hawkins 2000: 94), an orthostat from the reign of Katuwa (late 10th century BCE), which was found partially *in situ* as the west jamb

51 Restored after the colophon of A and Sargon II 110.

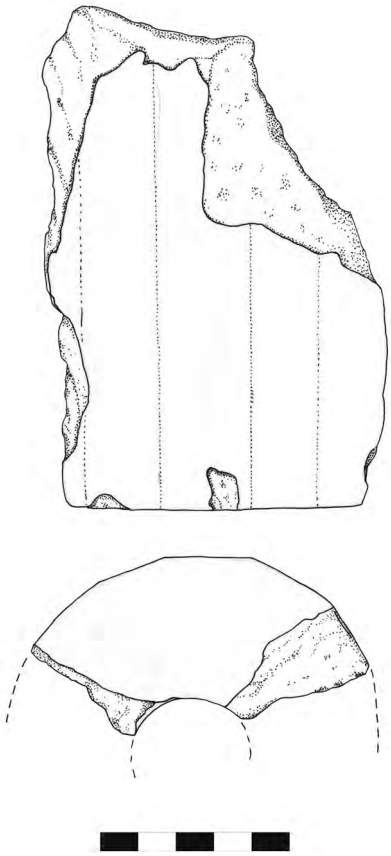
52 This piece was first published in the edition of the hieroglyphic Luwian inscriptions; see Peker 2016: 25-26, fig. 10, pl. XV.1-2; Peker 2022: 25-28 (drawing of the piece with whole inscription). The find indicates that the orthostat had been smashed already during the Neo-Assyrian period.

of the 'King's Gate' during the 1911-1914 seasons of excavations by the British Museum.[53] In light of this newly excavated fragment, the translation of the first section of KARKAMIŠ A11*a* is as follows (the text of the new fragment is in bold):

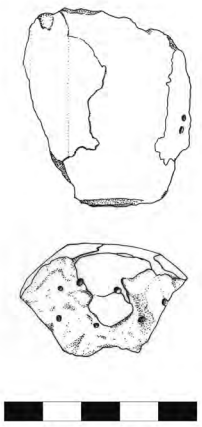
§ 1. I (am) Katuwa, the just one, Karkemishean **country-lord, country-lord Suhi's son**, country-lord Astuwalamanza's grandson, …

KH.15.O.40, Orthostat corner with hieroglyphic Luwian inscription (Fig. 6.2, Pl. L)
Material: basalt
Dimensions: h. 19.4 cm; l. 1.1 cm; th. 1.5 cm
SU: F.5801
Bucket: KH.15.P.307
Elevation: 342.87 m asl
Preservation: fragmentary

53 The scattered fragments of the upper part were restored and joined together *in situ* by the British team, but the monument was subsequently destroyed and many pieces went lost after 1920. In addition to the fragments kept at Ankara and in the British Museum, eight of these lost fragments have been found again at Karkemish in 2011 (KH.11.O.43, KH.11.O.102 and KH.11.O.290) and 2013 (KH.13.O.253, KH.13.O.543, KH.13.O.665, KH.13.O.954 and KH.13.O.1072); see Peker and Weeden 2014: 132-133, fig. 1; Peker 2016: pl. XVI.



1. KH.15.O.221



2. KH.15.O.300



3. KH.15.O.355



4. KH.24.O.262

Fig. 6.1. Drawings of the four cylinder fragments.

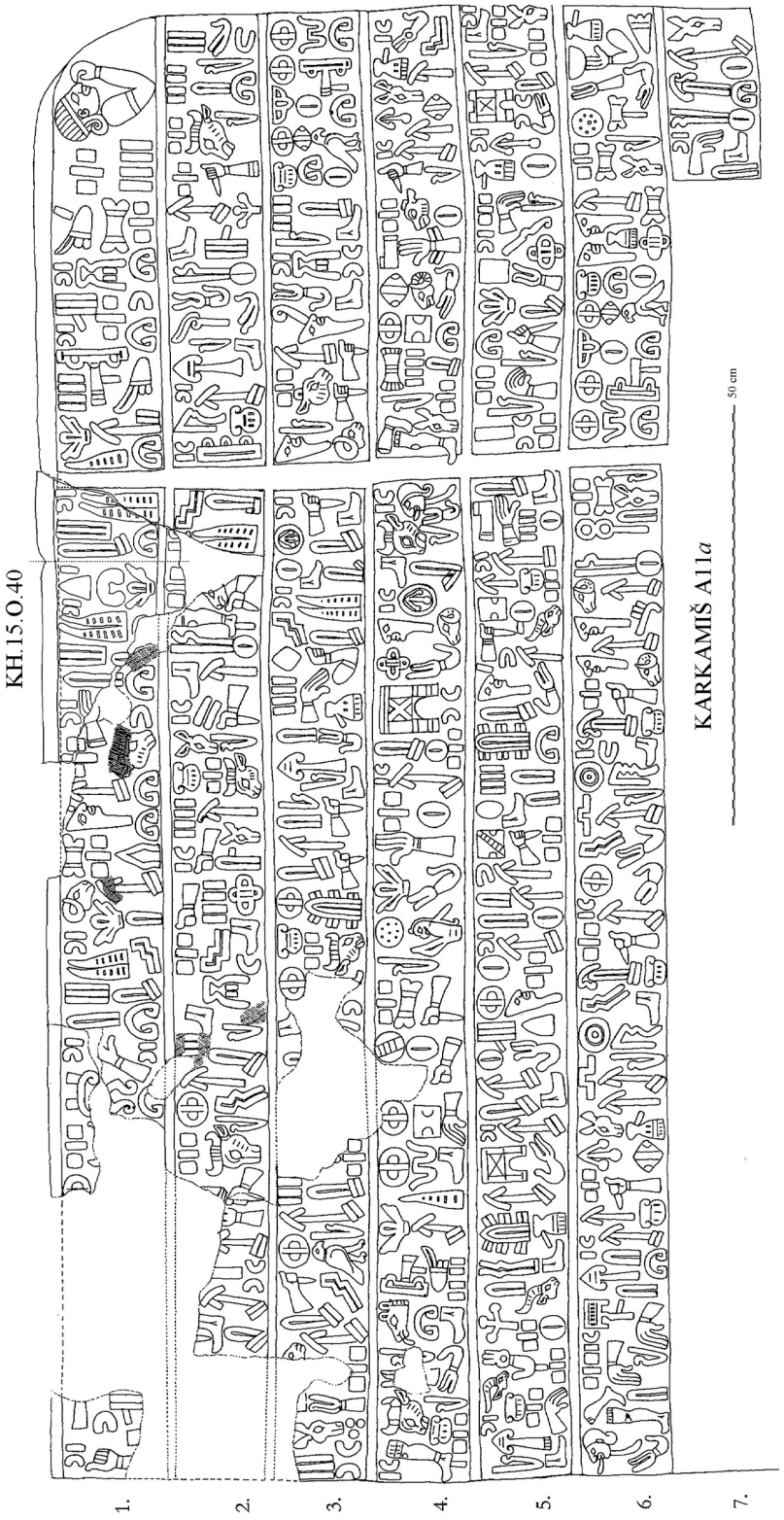


Fig. 6.2. Drawing of the inscribed orthostat KARKAMIŠ A11*a* with positioning of the new fragment from well P.5347.

Chapter 7
BIOARCHAEOLOGY OF WELL P.5347

7.1 CARPOLOGICAL REMAINS

Carpological analysis aims at studying the remains of cultivated and wild plants within archaeological sites, in order to reconstruct ancient human diet and connected activities. The reconstruction of the paleoenvironment surrounding the site is another aim of paleocarpological research. Capillary and homogeneous sampling has characterized the research strategy at Karkemish since the first excavation campaign in 2011. This allows a reliable reconstruction of the site's environment and subsistence economy. This contribution specifically is a carpological study of vegetal remains from well P.5347.

Material and method

The carpological analysis concerns 11 samples coming from different layers within the Iron III well (all from subphase 2; Table 7.1). By taking multiple samples within the same context we aimed at highlighting differences between the filling layers of the well.

Manual flotation and subsequent sieving of the residue in running water are the techniques used for the recovery of plant macroremains. The sieves used were equipped with fine mesh (0.4-1 mm). Once dry, the residues were screened using a Dino-Lite USB microscope. The determination of the finds took place mainly through comparison atlases (Anderberg 1994; Berggren 1969; Cappers et al. 2006; Jacquat 1988; Zohari and Hopf 1993). Only 4 samples contained few carpological remains and are located between the middle and the bottom of the well; all the finds are in a charred state. The scarcity of plant remains indicates that the well was not used as a waste disposal site for plant food when it went out of use.

STRATIGRAPHIC UNIT	POTTERY BUCKET/SAMPLE NO. (REG. NO.)
F.5857	KH.15.P.343/2 (sample 50)
F.5882	KH.15.P.435/1 (sample 320)
F.5919	KH.15.P.386/2 (sample 131)
F.5919	KH.15.P.386/3 (sample 132)
F.5919	KH.15.P.388/1 (sample 145)
F.5919	KH.15.P.400/2 (sample 168)
F.5919	KH.15.P.400/3 (sample 169)
F.6309	KH.15.P.455/1 (sample 226)
F.5882	KH.15.P.407/2 (sample 322)
F.5919	KH.15.P.442/1 (sample 319)
F.6309	KH.15.P.478/1 (sample 418)

Table 7.1. List of paleobotanical samples from well P.5347.

Results

Overall, only 44 carpological remains were identified, as per Table 7.2. Despite the paucity of remains, some observations are possible and concern the food resources and their frequency in the various levels of the well.

Furthermore, the creation of graphs based on the functional groupings for the analysis allows us to better understand the distribution and typology of plant species. The prevalence of remains of food and cultivated plants is the first evident observation (Figs. 7.1-2), in particular cereals, pulses and fruit. Spontaneous weed species are a marginal component and concern only one anthropogenic herbaceous weed (*Galium* sp.). Cereals are the main food resource and are most widespread in F.5857, while very few finds come from the lower levels.

While only lentil characterizes the pulses group, the study of cereals is more complex (Fig. 7.3) because it includes barley and wheat. Barley is the main cultivated plant. The production of soups, porridge, bread and perhaps beer are the main uses of this cereal. Wheat is less widespread and the distortion of the grains has prevented specific identification. The same reasons did not allow us to discriminate some fragments of barley from wheat (barley/wheat) or the type of cereal (cereals indet.).

Vine and olive make up the fruit group (Figs. 7.4-5), with a clear prevalence of the vine. The fragmentary nature of the olive stone did not make it possible to distinguish the cultivated type from the wild one. Instead, the discovery of whole seeds made it possible to identify

the domestic vine (Pl. LI.1). As with cereals, fruits are also mostly present in the intermediate levels inside the well, although a differentiation between the layers is visible: the olive tree was found only in the basal level of the well, while the vine characterizes the layers above.

			P.343/S.2 F.5857	P.407/S.2 F.5882	P.435/S.1 F.5882	P.478/S.1 F.6309	TOT.
FABACEAE	*Lens culinaris* Medicus	Seed	1	.	.	.	1
POACEAE	*Hordeum vulgare* L.	Grain	17	.	.	.	17
	Hordeum vulgare L.	Grain fragment	7	.	2	.	9
	Hordeum/ Triticum	Glume base	1	.	.	.	1
	Triticum sp. L.	Grain fragment	3	.	.	.	3
	Cerealia	Grain fragment	.	.	.	1	1
OLEACEAE	*Olea europaea* L.	Stone fragment	.	.	.	1	1
RUBIACEAE	*Galium* sp. L.	Seed	1	.	.	.	1
VITACEAE	*Vitis vinifera* L.	Stone	5	.	1	.	6
	Vitis vinifera L.	Stone fragment	1	3	.	.	4
		TOT.	36	3	3	2	44

Table 7.2. Carpological remains in the analyzed samples.

Conclusions

The interest of this analysis is mainly linked to the fact that the well is a closed context, affected by the possible fall of plant material during its "life" and used as a landfill during the obliteration phases of the structure. However, the scarcity of carpological remains suggests that the discharge of organic plant material did not occur. The discovery of food remains reflects the food resources linked to the probably intensive cultivation of cereals and fruit plants. In fact, barley and vine are also widely attested in other contexts of Karkemish and seem to be the basis of the city's subsistence economy since the Bronze Age (see Carra 2018). The use of the vine and its secondary product, wine, are widely attested even in ritual contexts at the site: in fact, sampling within the necropolis of Yunus allowed the discovery of

numerous stones, grapes and pedicels, testifying to the votive offerings of bunches and wine (Carra et al. 2019-2020).

Finally, by expanding the comparison with some contemporary sites investigated from a carpological point of view, it is possible to highlight the coherence of the plant remains of Karkemish with nearby and contemporary realities (Crawford 1999; Nesbit 2016). The major differences concern a small number of types of pulses at Karkemish, which may be filled with the continuation of the analysis, and the absence of traces of pistachio, an important food and commercial resource exploited up to the present.

In general, the carpological study conducted at Karkemish highlights the fundamental role of agriculture for the city's subsistence and trade. The choice of the types of plants most suited to the climatic conditions of the region (vine, olive tree, barley, wheat) highlights the profound knowledge of the territory and the intensive exploitation of resources for the subsistence of this capital city.

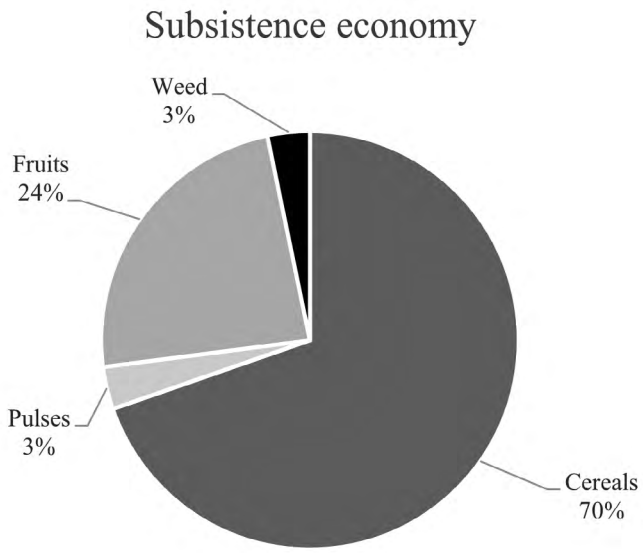


Fig. 7.1. Categories of plant species from well P.5347: percentages as an indication of the subsistence economy.

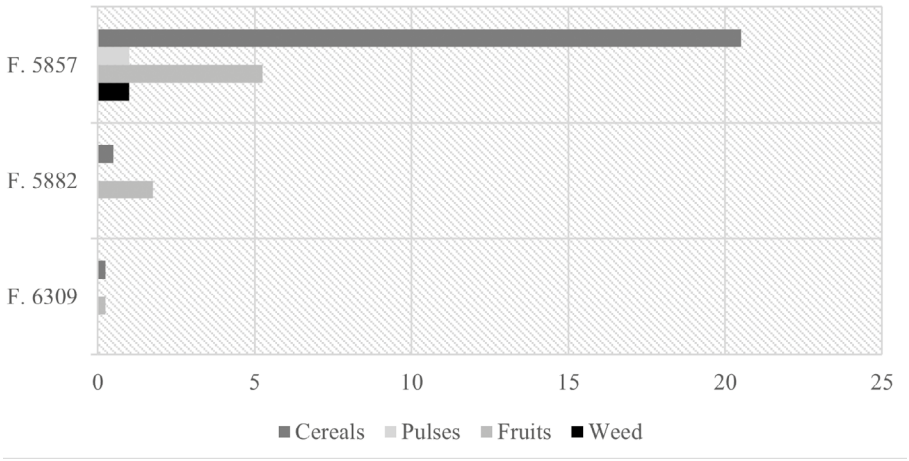


Fig. 7.2. Categories of plant species: breakdown per layer in well P.5347.

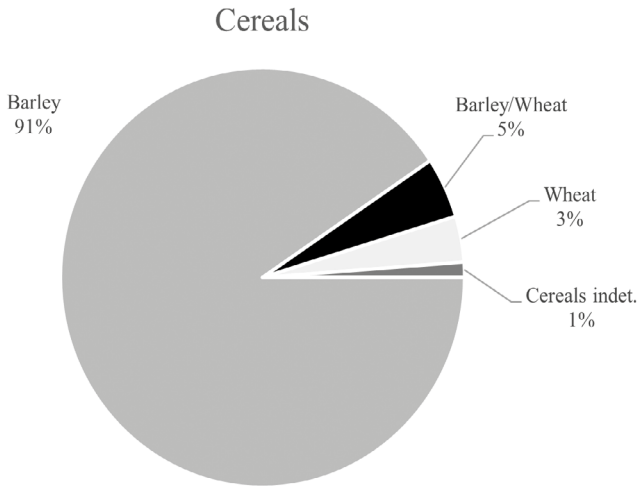


Fig. 7.3. Percentage analysis of cereals in well P.5347.

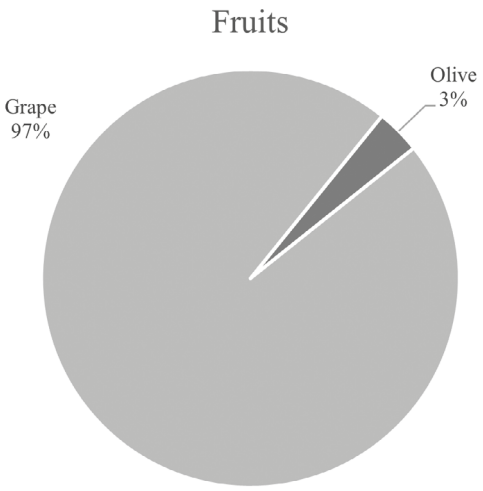


Fig. 7.4. Percentage analysis of fruits in well P.5347.



Fig. 7.5. Breakdown of fruits per layer in well P.5347.

7.2 ANIMAL REMAINS

Well P.5347 contained 2768 faunal remains, only 26.5% of which have been recognized to species level for a total of 734 osteological remains. Domestic animals are clearly predominant, but a great variety of wild animals is also attested.

The high degree of fragmentation of this sample is probably due to the particular nature of the deposit, which was composed of different layers filling the well in secondary deposition. Stratigraphically, more than half of the entire osteological sample comes from the highest filling layer (F.5801 – 55.9%), while the deeper layers contained less osteological material. It should be noted, however, that the degree of fragmentation in the single layers decreases moving towards the bottom of the well (Fig. 7.6). The part of the sample that cannot be determined to species level counts 2034 fragments. They include mainly diaphyseal portions, ribs and vertebrae from small and medium-small animals (61.8%), but also medium and medium-large animals (8.4%), and a degree of indeterminable fragments (29.7%) (Fig. 7.7).[1]

Among the domestic species, sheep/goats and indeterminate small ungulates are by far the most represented group, with 584 remains (almost 80% of the NISP) (Table 7.3). Large and medium-large ungulates (including bovids and equids) count 62 remains, 41 of which

1 The categories 'small and small-medium ungulates' (e.g. sheep or goat) and 'medium-large and large ungulates' (e.g. cattle or equids) usually derive from the thickness of not better identified bone fragments. The shape of bones admits also the presence of different wild animals (e.g. gazelle, roe deer, red deer, onager, etc.).

belonged to cattle and 11 to equids. Pigs are represented by 11 fragments. Wild species, most of all gazelles, are represented by few bones only, but they include the exceptional discovery of a first phalanx of *Pantera* sp., probably a lion.[2]

The recurrence of anatomical elements in the main animal groups shows the presence of all anatomical districts without any particular selection of specific body parts (Fig. 7.8). Given the small number of fragments, the presence of horncores is not significant, although they are abundant for cattle and gazelle, when compared to the different bones representing each species. Overall, the distribution of anatomical elements does not suggest the occurrence of any kind of meat portions selection, nor the sacrifice of entire animals into the well after it lost its original function as a water source.

Stratigraphic distribution of faunal remains

The entire bone sample is presented divided by the single filling layers of the well, starting from the deepest up to the higher (Table 7.4 and Fig. 7.9).

F.6372

The deepest layer F.6372 included 132 osteological animal remains, almost half of which have been determined to species level. The remaining were instead undeterminable fragments of ribs and vertebrae or splinters from diaphyses of long bones.

The most represented animal group is sheep/goats with 48 remains, followed by four bovid bones, one horse first phalanx, and three large size animal remains. One gazelle radius and one lagomorph mandible have also been identified. Three fragments of bird bones[3] and two remains of fish complete the sample (Pl. LI.2). This layer is characterized by the presence of 20 knucklebones (astragali) of both sheep and goat, eight of which with anthropogenic modifications. This evidence suggests their use as divination or gaming tools (see § 5.4). This discovery increases the minimum number of individuals (NMI) of sheep/goat group to at least 18 different individuals. However, since knucklebones cannot be used to determine the age at death, the evaluation has considered only six individuals: two lambs (one very young

2 For the anatomical determination of species, I used the reference collection of ArcheoLaBio – Research Center for Bioarchaeology, Department of History and Cultures, University of Bologna (Ravenna Campus), complemented by the comparison atlases by Schmidt (1972) and Barone (1976).

3 The zooarchaeological analysis of birds follows the criteria indicated by Cohen and Serjeantson (1996).

and another one between 4 and 6 months), one young-adult individual, and at least three adult animals (two goats and one sheep) of indeterminable age (Pl. LI.3).[4]

F.6309

The sample found in layer F.6309 consists of 315 osteological animal remains, 147 of which determined to species level. Sheep/goats and small ungulates in general were abundant with 104 remains, indicating at least ten different individuals. Ten knucklebones (astragali) were retrieved also in this layer, three of which with anthropogenic modifications (see § 5.4).

The evaluation of the age at death of sheep and goats shows the presence of at least one very young lamb of two months maximum, three young-adult individuals (including one goat and one sheep), and six adult animals (four goats and two sheep) (Pl. LI.4).

Regarding the other domestic animals, the layer included seven pig bones from at least four different individual (three young and one adult animals) (Pl. LI.5),[5] and 15 remains of large animals, most probably oxen, which attest the presence of at least four different individuals (one very young calf, another young animal, and two adults).[6] Two equid bones have also been identified.

Wild ungulates are quite differentiated with at least three different gazelles identified, one roe deer, one fallow deer, and one fragment of red deer antler (Pl. LI.6). Five fragments of bird bones,[7] one pelvis bone of lagomorph (Pl. LII.1), and four other undeterminable small mammal remains complete the sample.

F.5882

The sample found in layer F.5882, a thick fill occupying the lower part of the well, consists of 658 osteological animal remains, 199 of which determined to species level. Sheep/goat and small ungulates in general are the most represented group with 154 osteological remains from at least thirteen different individuals: five lambs, two young-adult, and six adult animals. Sheep are twice as present as goats.

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4 For the distinction between sheep and goat, see Boessneck 1969; Halstead et al. 2002; Zeder and Pilaar 2010. The age at death based on sheep/goat teeth wear was estimated following the method developed by Payne (1973), Silver (1969) and Grant (1982).

5 For the age at death of pigs, see Bull and Payne 1982.

6 Age at death of the oxen was estimated based on the degree of the long bones welding and on tooth eruption/wear following the methods developed by Barone (1976) and Grant (1982).

7 Cohen and Serjeantson 1996.

Only thirteen osteological remains belong to bovids, testifying to the presence of at least four different individuals, including two calves, one of which very young, and one adult of undeterminable age. Four osteological fragments testify to the presence of at least two different pigs: one young and one adult. Finally, two remains of equid complete the domestic faunal composition of this filling.

Quite interesting is the evaluation of wild animals, which included the exceptional discovery of a first anterior phalanx of a large feline, probably a lion (Pl. LII.2). Moreover, among the wild species recognized in this sample, ten bones scattered inside the layer belong to the same lagomorph, probably a hare. Finally, one fragment of the upper shell (*carapace*) of tortoise (Pl. LII.3), five bird bones, and a skull portion of fish completed the sample.

F.5874

This layer, located about halfway in the well's filling, contained 32 animal remains, most of which resulted underminable. Seven remains were attributed to sheep/goat or small ungulates in general, with the evaluation of NMI indicating the presence of one adult individual.

F.5859

This layer, located about halfway in the well's filling, contained 24 animal remains, 12 of which determined to species level. Sheep/goat constitute the almost totality of the sample. The evaluation of NMI indicates the presence of at least two different individuals, one 2-3 years old adult sheep and one young small ungulate. A remain of microfauna, determined as amphibian, was also found in this layer.

F.5858

This layer, located about halfway in the well's filling, contained 42 animal remains, nine of which determined to specie level. Sheep/goat or small ungulates in general are the most representative animal group, with six remains. The evaluation of NMI indicates the presence of at least two different individuals, one sheep, probably adult, and one young small ungulate. One donkey humerus was also identified. Finally, two bird bones show the presence of at least one small *Anatidae.*

F.5857

This layer, located about halfway in the well's filling, contained 17 animal remains, four of which attributed to sheep/goat or small ungulates in general, and two to medium-large ungulates. The evaluation of NMI indicates the presence of at least two different individuals, one sub-adult sheep and one large ungulate.

F.5801

The most abundant animal bones sample was found in F.5801, a thick layer located in the upper part of the well's filling. This sample included 1548 osteological animal remains, 292 of which have been positively determined to species level, while the remaining were undeterminable fragments of ribs and vertebrae or splinters from diaphyses of long bones.

The animal composition is quite differentiated and includes both domestic and wild species. Among domestic animals, the most represented group is sheep/goat (and small ungulates), followed by bovids and equids (and large ungulates), while pigs are absent. As for small and medium-small ungulates (253 anatomical elements), sheep and goats resulted in being the most represented animals in the sample with 22 bones from at least five goats, 37 bones from at least six sheep, and at least thirteen more different small ungulates according to the NMI.

For this animal group, age at death estimation shows the presence among young animals of one very young lamb, two young 6-12 months old individuals (one determined as sheep), and six young-adults (including one sheep and two goats) (Pl. LII.4); thirteen adult animals comprised eight 2-4 years old individuals (including one goat and two sheep), two goats and two sheep of an age not determinable, one 4-6 years old individual and one senile individual with more than eight years old.

Thirteen bovid remains can all be related to one single individual, while five equid remains show the presence of at least two different adult animals, one donkey and one horse (Pl. LII.5).[8] One fragmented metapodial of dog completes the sample related to domestic species.

Wild animals are represented by one phalanx of red deer and five bones of lagomorph, probably from the same individual. Moreover, ten fragments of birds testify to the presence of at least two different individuals, one *Anatidae* and one *Columbidae*.[9]

Taphonomic analysis

The observation of the bones surface shows that about 20% of the recovered faunal remains present charring traces. The spatial distribution analysis revealed similar ratios of burned and not-burned bones throughout all layers, highlighting the absence of any particular correlation between this phenomenon and the nature of specific fillings.

Slaughtering traces were found only on 21 skeletal portions, quite evenly distributed among the filling layers. Such traces were mostly related to disarticulation activities, as in-

8 For the distinction between horse, donkey and other wild equids, see Baxter 1998.

9 Identification based on Cohen and Serjeantson (1996).

dicated by the presence of repeated cut-marks often located in proximity of the epiphyses of long bones. Moreover, deep slashing blows have been observed at the base of sheep and goat horncores and, more rarely, saw marks running transversally on the diaphysis of long bones. Overall, all these traces are related to the slaughtering and dismemberment of carcasses (Pls. LI.4, LII.6, L.III.7).

Economic evaluation

In order to provide some considerations about the food economy, it is worth remembering that the filling levels of the well show the choices of the community in terms of protein acquisition. Goats and sheep, often exploited at a young age, are the most represented animal group throughout all layers, while cattle are scarce, and pigs are almost irrelevant. Although considerations on the NMI are not very informative for cattle, pigs and equids, which were present in minimal quantities in all layers, they further stressed the importance of goats and sheep in the examined sample.[10] The evaluation of the age at death revealed that sheep/goats were mainly killed as adults at the end of their growth, while juvenile subjects killed within one year life were scarce, and there was only one 6-8 years old individual (Figs. 7.10-11). Similar kill-off patterns have also been reconstructed for other areas of the site, allowing to affirm that sheep and goats were exploited throughout their entire life to obtain high returns in both the final and lifetime products, such as wool, milk, etc. (Maini 2018; Maini and Curci 2021).

Final remarks

Zooarchaeological analysis has been conducted on osteological materials retrieved in the different fillings of well P.5347, all dated to the Iron III period. The deepest levels (F.6372, F.6309 and F.5882) have returned an abundant faunal sample. The recovery of 30 goat and sheep knucklebones (astragali), half of which with evident traces of anthropogenic modification (see § 5.4), is of extreme interest. However, even more significant was the discovery in F.5882 of a lion phalanx. The middle levels (F.5874, F.5859, F.5858, F.5857) gave only a few determinable remains, which resulted in being statistically not significant. The highest filling (F.5801) returned the most abundant amount of animal bones, in which all the main species (both domestic and wild) are well represented.

10 In order to better investigate the consistency of the deposit, the NMI was independently calculated by layer and the separate results were then added together to obtain a more reliable pattern for the entire phase (Iron III).

Among domestic species, only one dog bone was found in the highest filling, while pigs are present only in the deepest fillings. Equids, both donkeys and horses, have been found in all levels. Even if domestic animals were clearly fundamental in the subsistence strategy at the site, wild animals were occasionally present. They included ungulates such as gazelles red deer, roe deer and fallow deer, and occasionally lagomorphs, birds, and fish.

Analyzing the filling of well P.5347 as a whole, interesting information about food choices at Karkemish during Iron III was obtained. The animal economy was mainly based on the exploitation of domestic species, especially goats and sheep raised to obtain both large quantities of meat and wool and, secondarily, also milk.

Such a faunal sample allows one to affirm that most animal osteological remains found inside the well laid in secondary deposition. They represent, therefore, the evidence for the final dumping of material discarded in the vicinities. It is thus likely that well P.5347 was filled with soil and unsorted debris deriving from the abandonment and reuse of the surrounding palatial areas and not with specifically selected materials. In fact, spatial analysis of the faunal remains, the identification of anatomical districts (see Fig, 7.8), and the study of the taphonomic traces do not highlight the selection of specific meat portions that may have derived from particular forms of sacrifice or intentional animal depositions into the well.

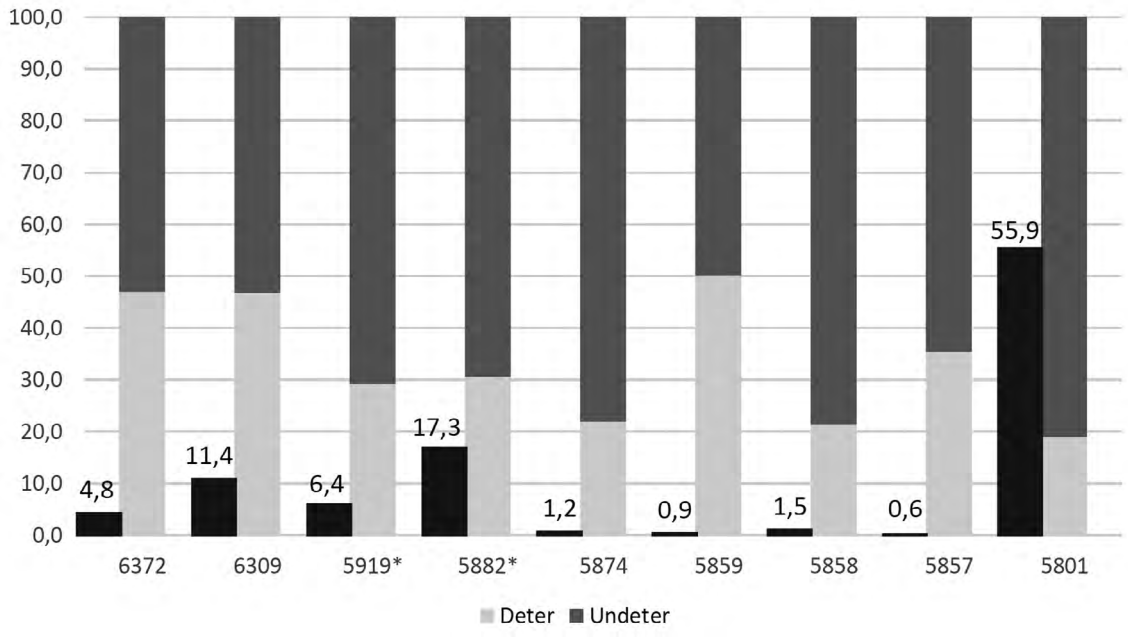


Fig. 7.6. Well P.5347: Fragmentation degree (black columns show the number of remains per layer; grey columns show the internal ratio between determined and undetermined remains).

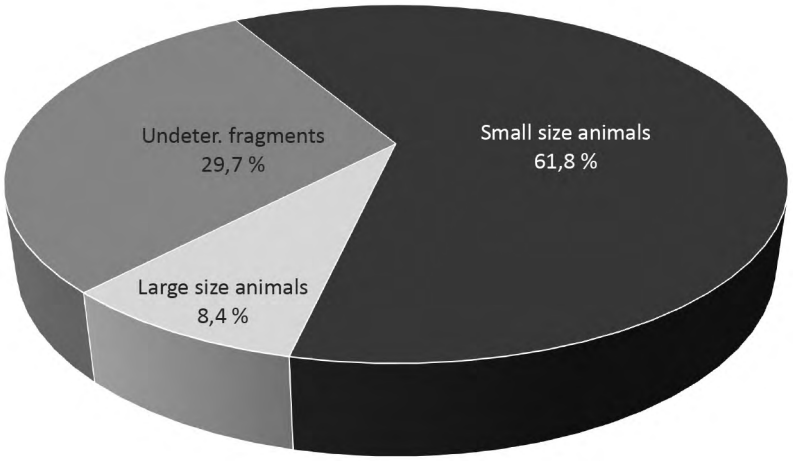


Fig. 7.7. Well P.5347: Composition of the undetermined bone sample.

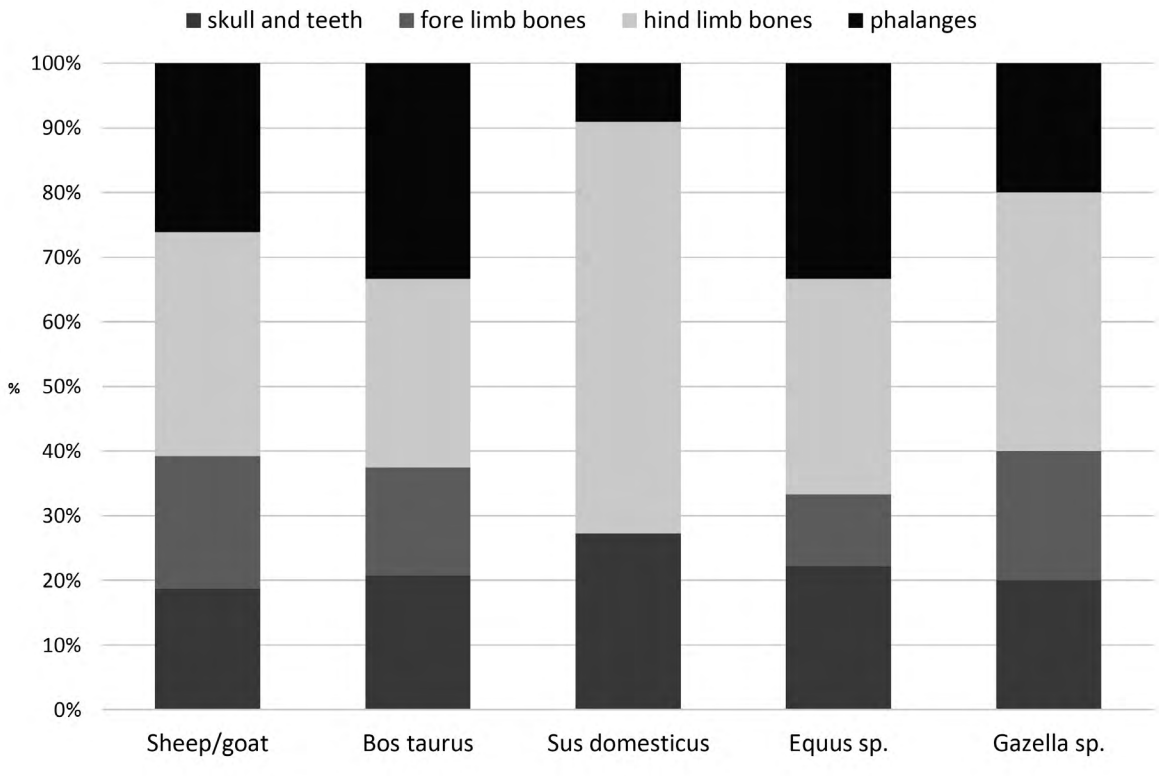


Fig. 7.8. Well P.5347: Distribution of anatomical elements per animal group (horncores not included).

Taxa & animal groups	Area C South - Well P.5347 (Iron III)				
	NISP	% NISP	% NISP Group	MNI	% MNI
Equus caballus	2	0,3	**1,6**	2	**6,3**
Equus asinus	2	0,3		2	
Equus sp.	7	1		2	
Canis familiaris	1	0,1	**0,1**	1	**1,1**
Sus domesticus	11	1,5	**1,5**	6	**6,3**
Sheep/Goats	203	27,7	**52,2**	27	**61,1**
Ovis aries	123	16,8		18	
Capra hircus	57	7,8		13	
Small ungulates	184	25,1	**27,4**	-	-
Small-medium ungulates	17	2,3		-	
Bos taurus	41	5,6	**5,6**	11	**11,6**
Large-medium ungulates	5	0,7	**1,4**	-	-
Large ungulates	5	0,7		-	
Cervus elaphus	2	0,3	**0,3**	1	**1,1**
Capreolus capreolus	1	0,1	**0,1**	1	**1,1**
Gazella sp.	9	1,2	**1,2**	4	**4,2**
Dama sp.	1	0,1	**0,1**	1	**1,1**
Pantera sp.	1	0,1	**0,1**	1	**1,1**
Lagomorphs	17	2,3	**2,3**	5	**5,3**
Other mammals	16	2,2	**2,2**	-	**-**
Birds	25	3,4	**3,4**	-	**-**
Reptiles	1	0,1	**0,1**	-	**-**
Fish	3	0,4	**0,4**	-	**-**
Total determined	**734**	100%	**100%**	**95**	**100%**
Undetermined bones	2034				
Total	**2768**				

Table 7.3. Well P.5347: Faunal composition (updated to the 2018 study season).

	Lower levels						Middle levels		Upper level	
Filling	F.6372		F.6309		F. 5882 + F.5919 = F.5882		F. 5874 + F.5859 F.5858 + F.5857		F.5801	
Taxa/animal group	NR	MNI	NR	MNI	NR	MNI	NR	MNI	NR	MNI
Equus sp	1	1	2	1	2	1	1	1	5	2
Canis familiaris	0	0	0	0	0	0	0	0	1	1
Sus domesticus	0	0	7	4	4	2	0	0	0	0
Sheep/goat & small ungulates	48	6	104	10	154	13	28	6	253	23
Bos taurus & large ungulates	6	1	15	4	13	3	2	1	13	2
Wild ungulates	1	1	9	5	2	1	0	0	1	1
Other mammals	1	1	5	1	17	2	1	0	9	1
Birds	3	0	5	0	5	0	2	0	10	0
Reptiles	0	0	0	0	1	0	0	0	0	0
Fish	2	0	0	0	1	0	0	0	0	0
Total	**62**	**10**	**147**	**25**	**199**	**22**	**34**	**8**	**292**	**30**

Table 7.4. Well P.5347: Faunal composition per layer (updated to the 2018 study season).

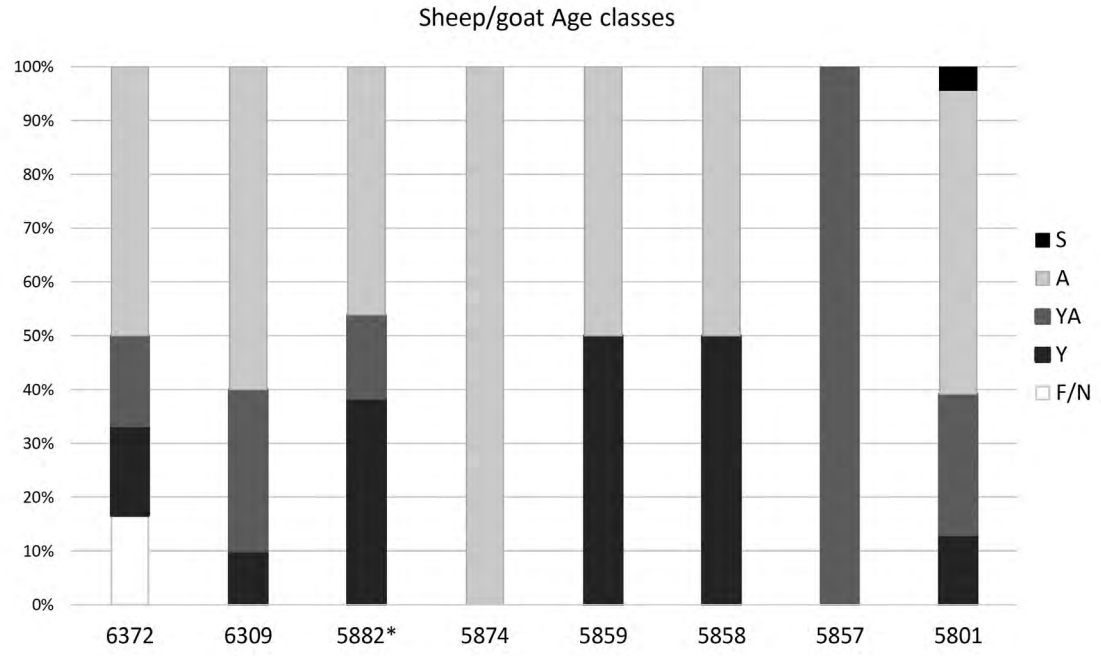


Fig. 7.9. Well P.5347: Sheep/goat age classes (NMI) in the different filling layers of the well (F/N = fetus/new born; Y = young; YA = young-adult; A = adult; S = senile).

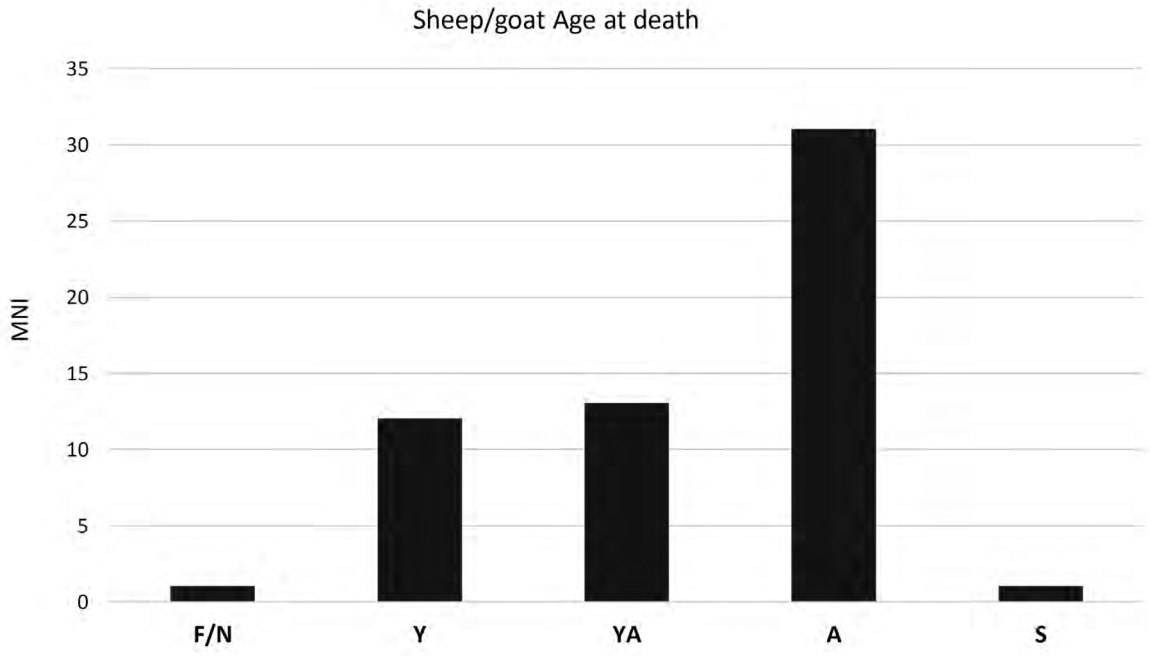


Fig. 7.10. Well P.5347: Sheep/goat age at death classes distribution (F/N = fetus/new born; Y = young; YA = young-adult; A = adult; S = senile).

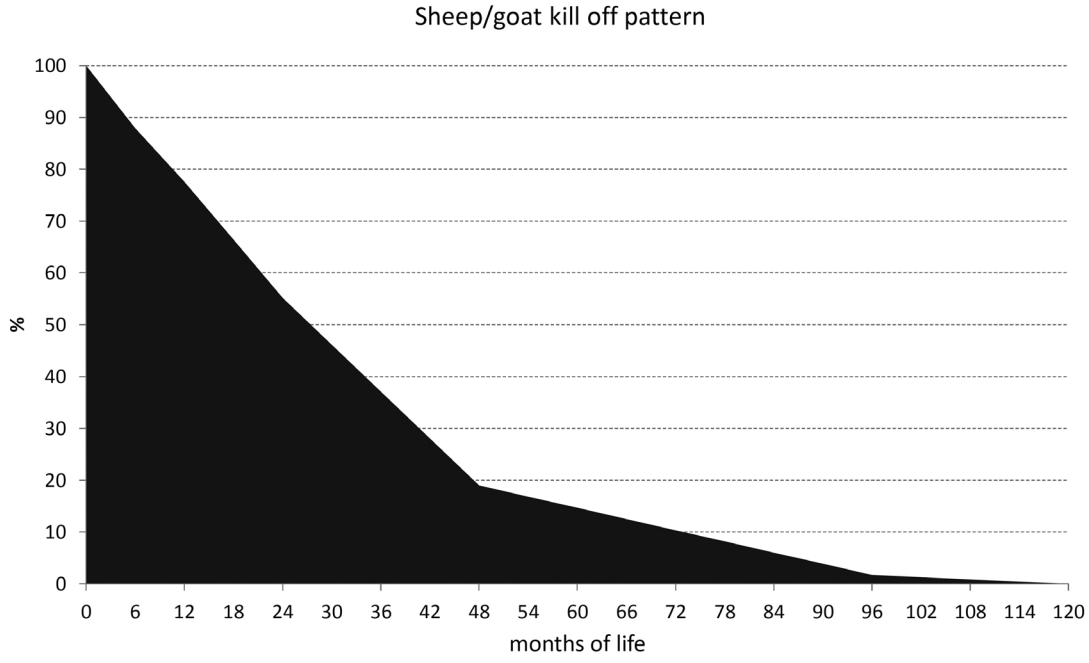


Fig. 7.11. Well P.5347: Sheep/goat kill off pattern.

7.3 HUMAN REMAINS

The human remains from well P.5347 are represented only by two bones from subphase 2, i.e. when the well became a rubbish container for the palace debris. The precise dating of the two bones is somewhat difficult, as it is not known from where in the site the human bones were removed before their placement in the well.[11]

Methodology and discussion

The human remains consist of a left femur and a left scapula, belonging to one individual. Sex determination is based here on metrical analysis of the maximum diameter of the femoral head, that is known to be sexually dimorphic and varies between the different populations. Several studies have reported on the differences in size between males and females for the femoral head, such as Bass (1987: 220) and Waldron (2001: 22). The former studies were based on American whites producing the standardized femur head size for females < 42.5 mm and males > 47.5 mm; whilst Waldron studies on British skeletal material reported that any size larger than 45mm should be considered as male. While this paper acknowledges that there are differences between these studies and the skeletal material at Karkemish dating to the Neo-Assyrian period, the femoral head size of 52 mm, however, falls within the higher male range for any published population. Thus, it can be safely stated that the bones found within the Neo-Assyrian well belong to a male.

Age estimation is based on the growth and developmental stages that the body had reached at the time of death. Being represented by two incomplete postcranial bones, age is estimated on the timing of the epiphyseal fusion for the scapula and femur bones, in particular, the femoral head (Scheuer and Black 2000: 6-14), giving an age range between 17-19 years old (Schaefer et al. 2009) for the adolescent male. Skeletal age, however, is not highly accurate, as bone growth is affected by the various levels of nutrition, disease and the surrounding environmental stresses.

Examination of the two bones revealed the presence of cut-marks located on several areas of the bone surfaces (Pl. LIII.2). The cut-marks are visible on the outer surface of the two bones and have the typical V-shaped outline. On the scapula, the cut-marks vary in length between 0.5 mm to 10.8 mm, with the majority of the marks around 3 mm; whilst the femur cut-marks are between 1 mm – 6 mm. The scapula exhibits cut-marks on the anterior surface along the lateral axillary border at the attachment areas for the subscapularis muscle, the pat-

11 The author would like to thank Christopher J. Knüsel, Université de Bordeaux, for his much valuable help and advice in writing this paper.

tern takes the shape of incision lines along with clustering shallow scraping marks, around 28 in total (Pl. LIV.1). Along the scapula spine, in the attachment area for the trapezius muscle, there are 6 cut-marks (Pl. LIV.2). On the lateral side of the coracoid process, the attachment area for the coraco-acromial ligament, there are 9 cut-marks (Pl. LIV.3). The medial vertebral border exhibits 6 cut-marks along the attachment area for serratus anterior and subscapularis muscles (Pl. LIV.4). There is no evidence of any cut-marks on the glenoid cavity or the infraspinous fossa areas. In total, the scapula exhibit around 49 cut-marks on the different observed areas in various sizes and depths. The proximal end of the femur, exhibits cut-marks concentrated around the femoral neck region, in the attachment area of the acetabula-femoral joint capsule ligaments. The femur cut-marks are located at two areas: on the anterior-distal and proximal-posterior surfaces of the neck, with 15 and 21 cut-marks respectively, giving a total of 36 (Pl. LIV.5-6).

The majority of the cut-marks are small and shallow, that several of them are only visible by the use of a hand lens, magnification of X30. Most of the cut-marks occur as striated transverse lines, mostly two at a time, adjacent to each other, giving the indication of a repeated movement across the bone surfaces, aiming at the muscles and ligaments attachment areas. The observed pattern indicates a steady process of muscles and ligaments removal, as being attested by the location of the cut-marks, thus indicating a process of dismemberment and or bone cleaning of the deceased. The cut-marks pattern, being smooth and shallow, indicates the lack of force being applied during the soft tissue removal. This hints to the possible timing of this activity, judging from the smooth cuts and the lack of cut-marks on the glenoid cavity, all of which indicate that the bone cleaning occurred sometime after the death of the individual during the decomposing process. Similar patterns of cut-marks have been reported by studies conducted by Robb (et al. 2015) and Erdal (2015) dating to the Neolithic period: from Scaloria cave in Italy and the Turkish site of Kortik Tepe respectively. Both sites' skeletal materials exhibited similar cut-marks patterns and have been interpreted by the authors to be directed at defleshing the dead, a reflection of burial practices.

Conclusion

What is presented here shows the remains of an adolescent male whose age is estimated between 17 to 19 years old. The observed cut-mark patterns located on the joint area of the femur and muscle insertions of the vertebrae region of the scapula are being interpreted here to represent a process of dismemberment and the cleaning of bone from soft tissue. This process is proposed to have occurred during decomposition, representing part of the burial practices. The small size and the shallow depth of the cut-marks indicate controlled and steady

activity that gives the impression of clam behavior, rather than being considered violence related cut-marks. The patterning of the cut-marks indicates the result of human activity and not postmortem damage to the bones, as seen on the femoral head (Pl. LIV.7). It is rather difficult to predict the type of instrument used in conducting the cut-marks, especially when the dating of these two bones is unknown. Unfortunately, the lack of a burial context as well as the remaining skeletal elements, limits any additional information that could provide more insight on the life and death for this adolescent male. Furthermore, it does not seem that this situation is in any way similar to that documented in Well 80 at the North-West Palace in Nimrud, where Iraqi excavators recovered 180 skeletons (presumably of executed Assyrians) thrown there at the time of the fall of that city in 612 BCE (Oates and Oates 2001: 103).

Abbreviations

AVO	Altertumskunde des Vorderen Orients
BAR	British Archaeological Reports
CAD	*The Assyrian Dictionary of the Oriental Institute of the University of Chicago*, The University of Chicago, Chicago 1956-2010
LAAA	Liverpool Annals of Archaeology and Anthropology
MSAE	Materiali e Studi Archeologici di Ebla
NABU	Nouvelles Assyriologiques Brèves et Utilitaires
SAAB	State Archives of Assyria Bulletin
OLSM	OrientLab Series Maior
OIP	Oriental Institute Publications
WVDOG	Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft

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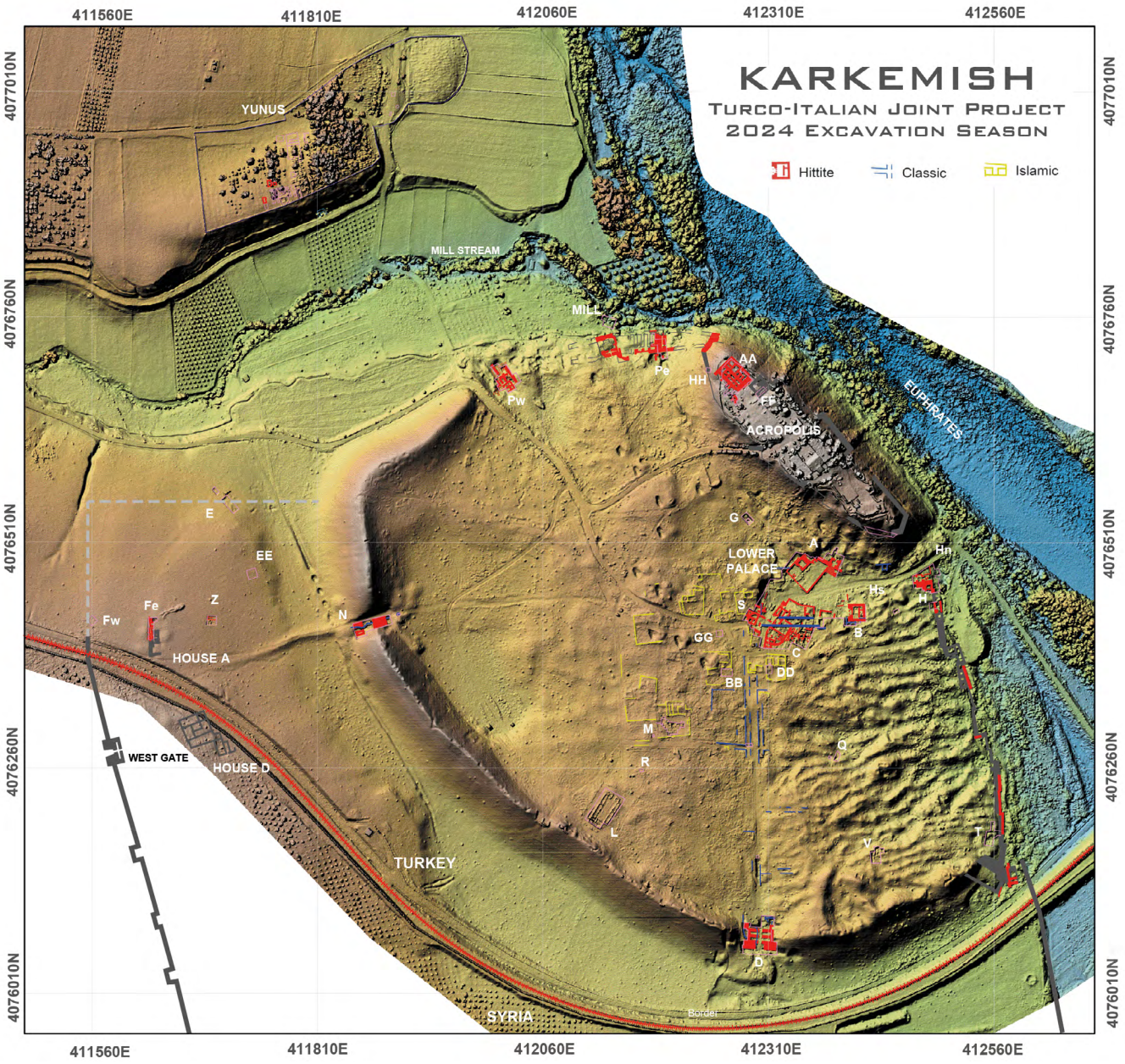
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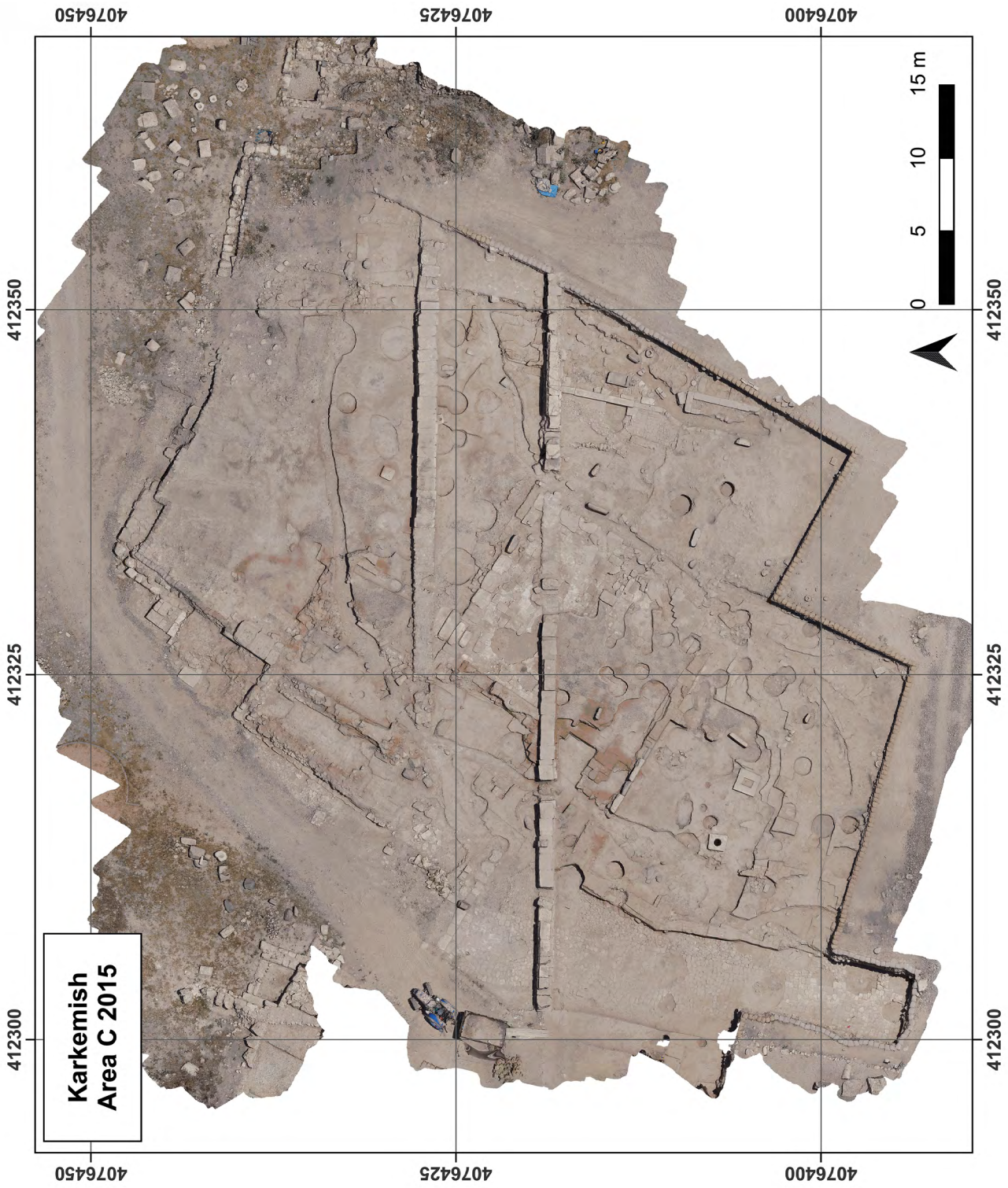
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PLATES



Topographic map of Karkemish (Turkish side) with the Yunus necropolis; by Marco Valeri.

Pl. II



Orthophoto of the palatial compound in area C (2015 campaign); by Giampaolo Luglio and Marco Valeri.

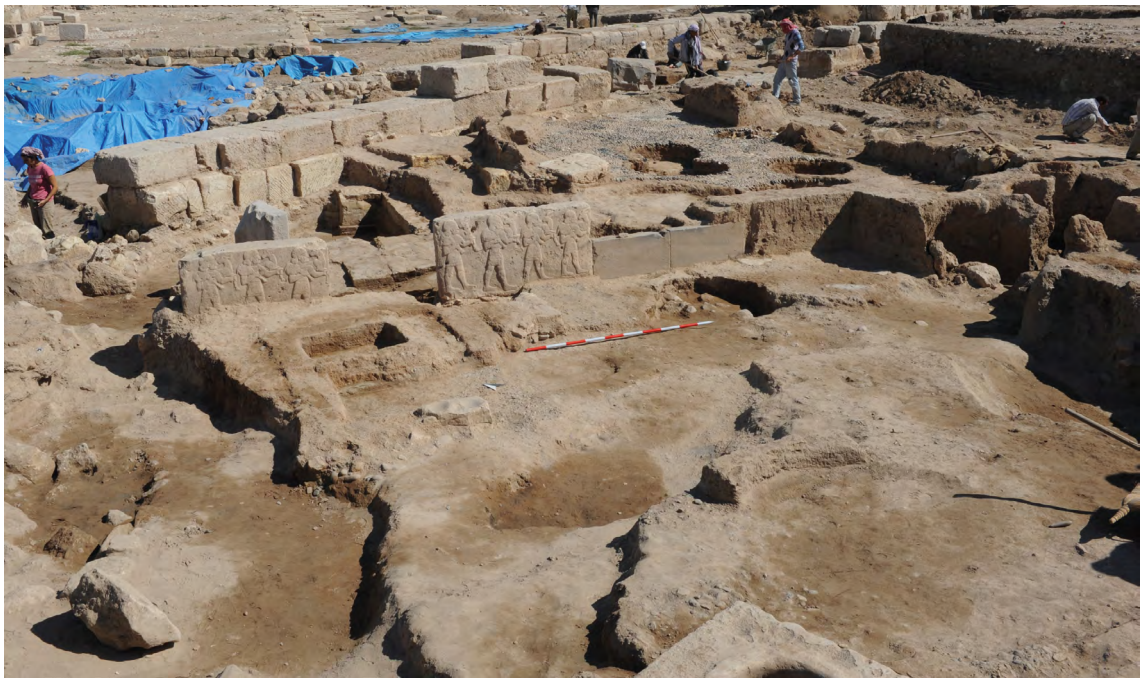


1. Aerial view of the palatial compound in area C at the beginning of the 2016 campaign.



2. Orthophoto of room L.5099 and well P.5347, area C South, phase 9a; by Giampaolo Luglio.

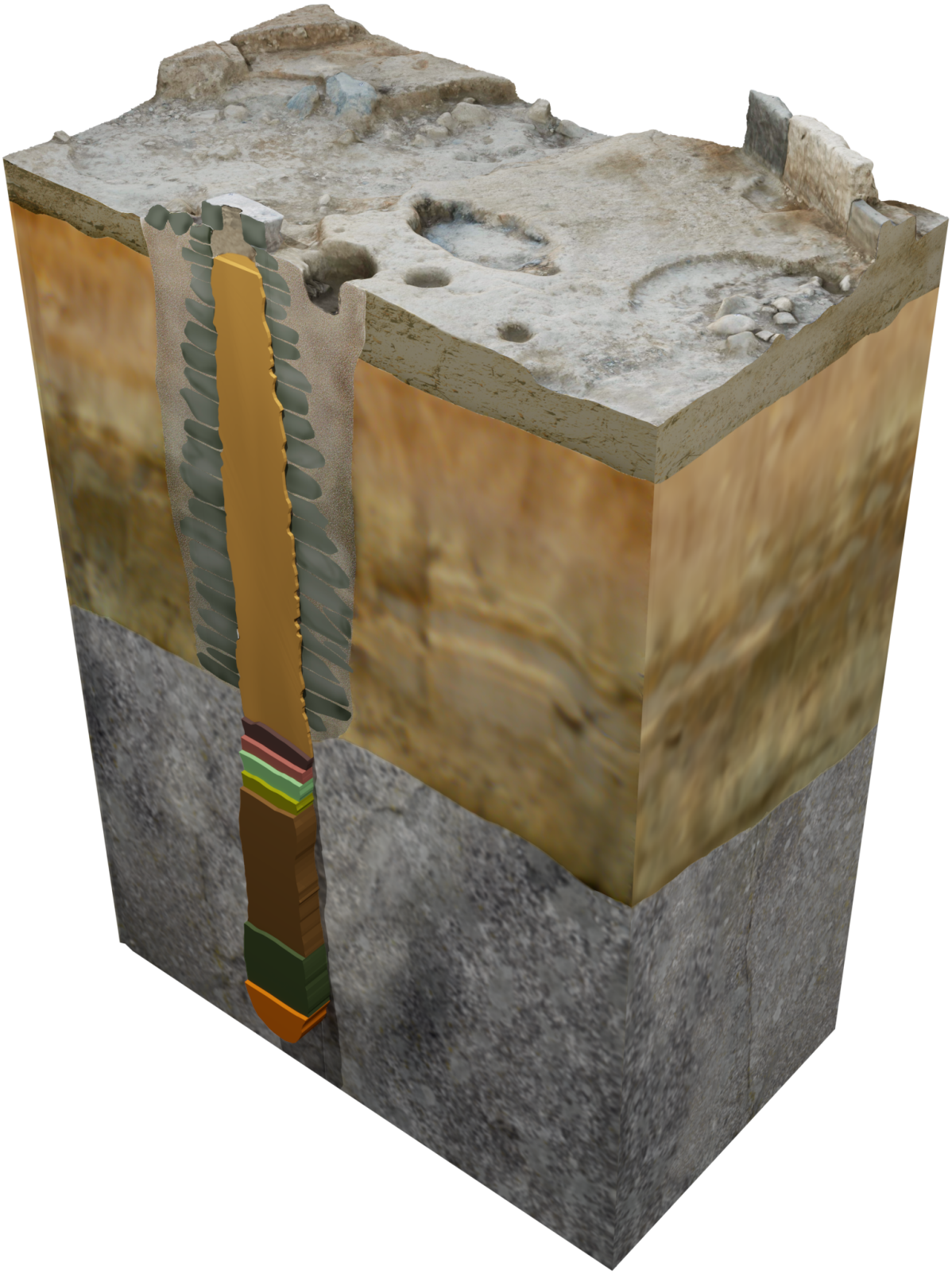
Pl. IV



1. Area C, palatial compound, general view of phase 9a from South-West (2014 campaign; a corner of the well's capstone is visible in foreground).



2. Area C, palatial compound, view of phase 9b from South-West (2014 campaign).



Perspective schematized section of well P.5347; by Giampaolo Luglio.

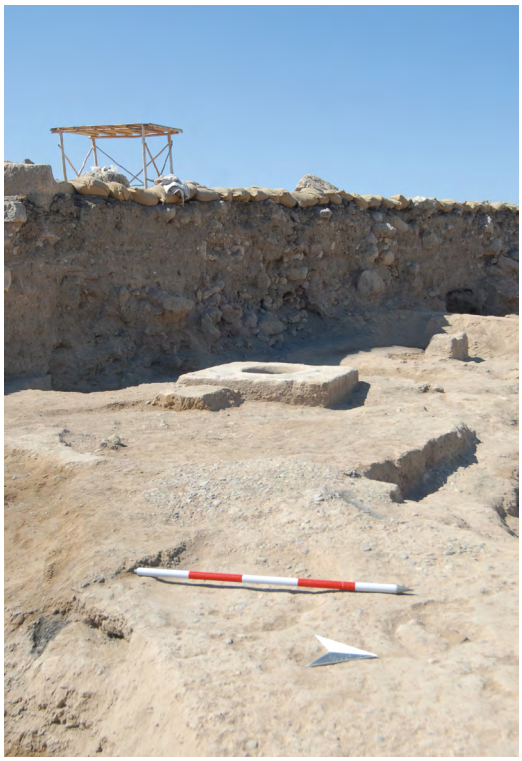
Pl. VI



1. Well P.5347, the limestone capstone (phase 9a).



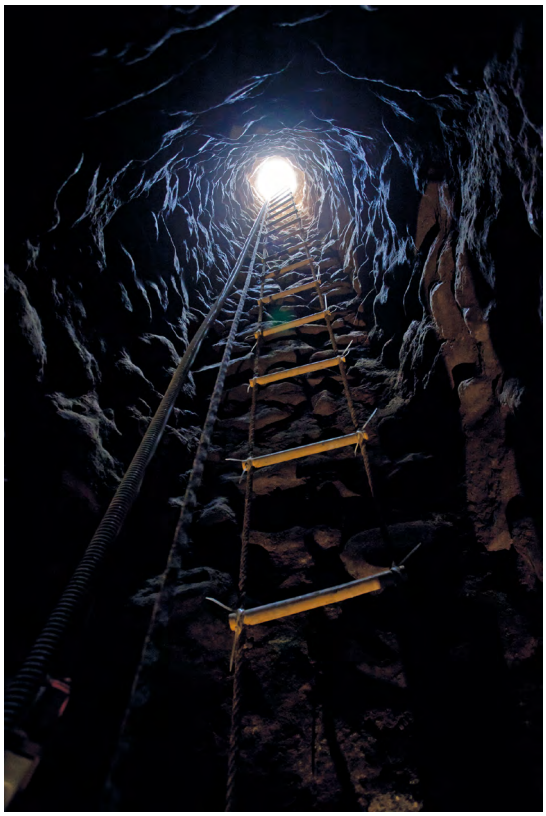
2. Well P.5347 and floor L.5099 (phase 9a).



3. Well P.5347 and floor L.5060 (phase 9b).



Area C, palatial compound, general view of the area from South-West, phases 10-9 (2016 campaign).



1. The stone-made liner in the upper half of well P.5347; one can note its slightly squarish section.



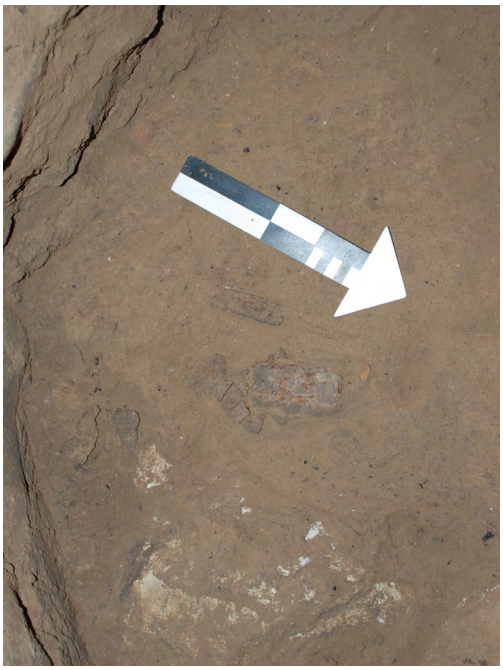
2. Well P.5347 seen from below; some of the carved holes are visible along the lower shaft, besides an electric wire and the pipe bringing fresh air.



3. The rounded bottom of the rock-hewn shaft of well P.5347.



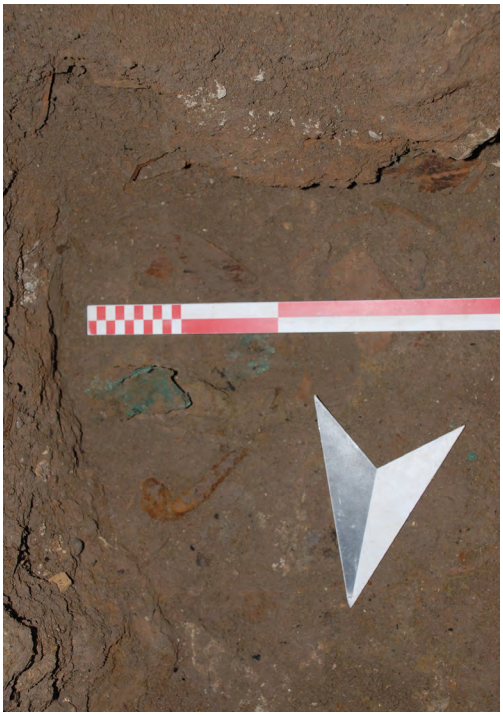
1. Orthostat with Luwian hieroglyphic inscription KH.15.O.40 in fill F.5801.



2. Scales of iron armour KH.15.O.435+ in fill F.5801.

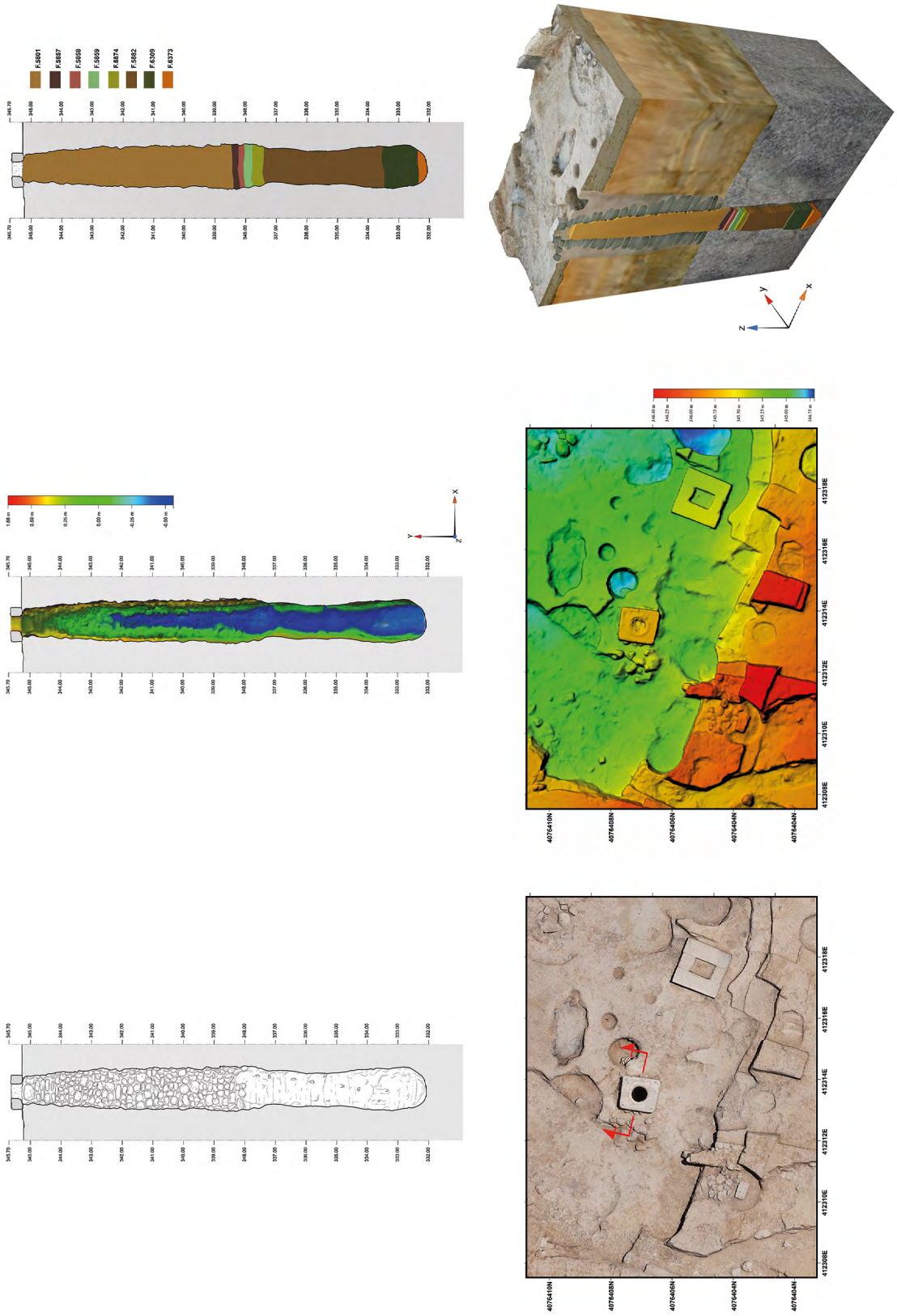


3. Fragment of stone bar-handled bowl KH.15.O.351 in fill F.5858.



4. Metal objects in situ in fill F.6309.

Pl. X



Well P.5347 in the Neo-Assyrian palatial compound of area C, phases 9a-b; by Giampaolo Luglio.



1. KH.15.O.354



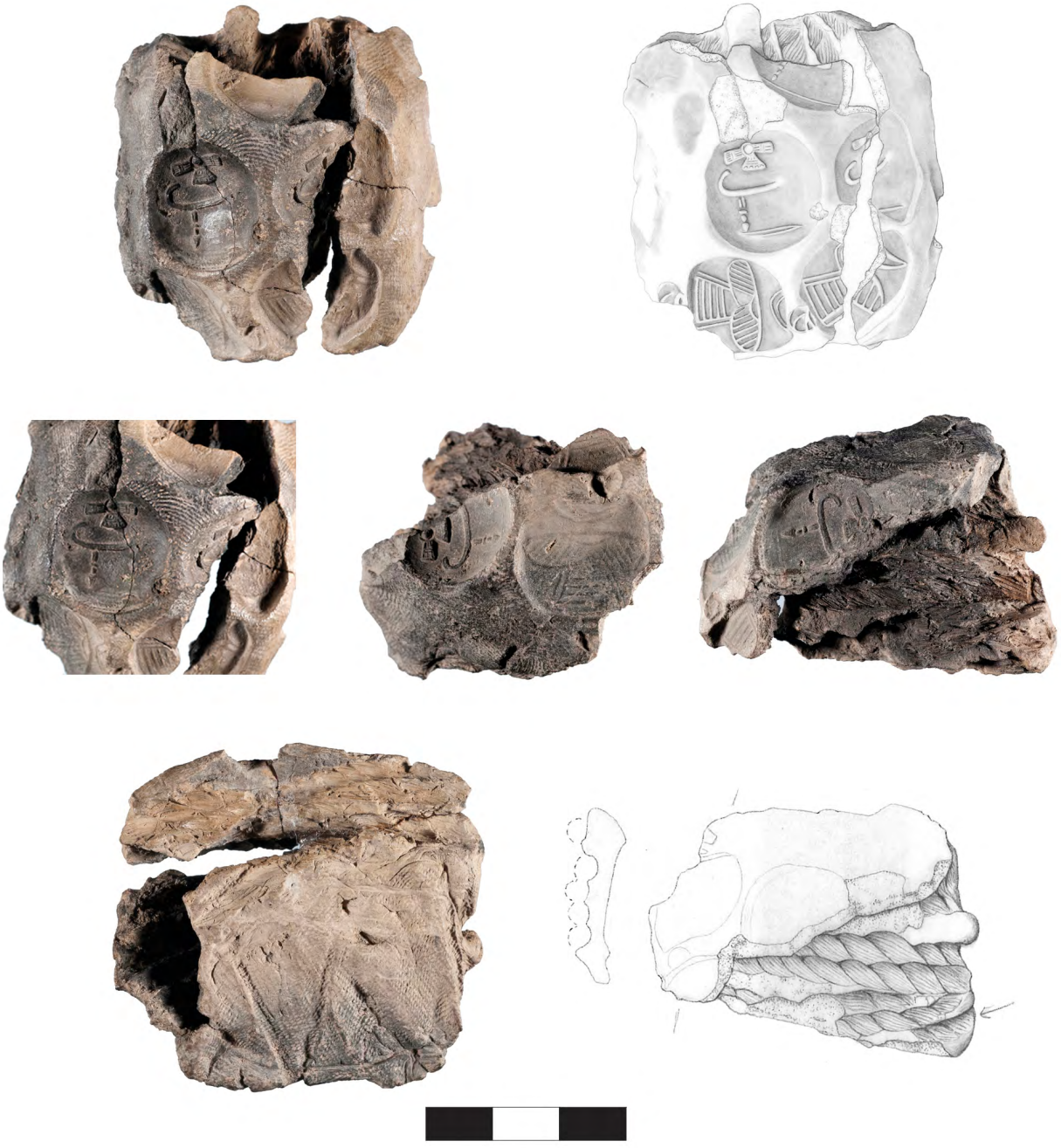
2. KH.15.O.368



3. KH.15.O.668

Seals from well P.5347.

Pl. XII



1. KH.15.O.310



2 . KH.15.O.318

Sealings from well P.5347.



1. KH.15.O.292



2. KH.15.O.449



3. KH.15.O.436

Sealings from well P.5347.

Pl. XIV



1-2. Clay tokens from well P.5347 (excavation numbers are intended to be preceded by KH.15.O.).



1. KH.15.O.481



2



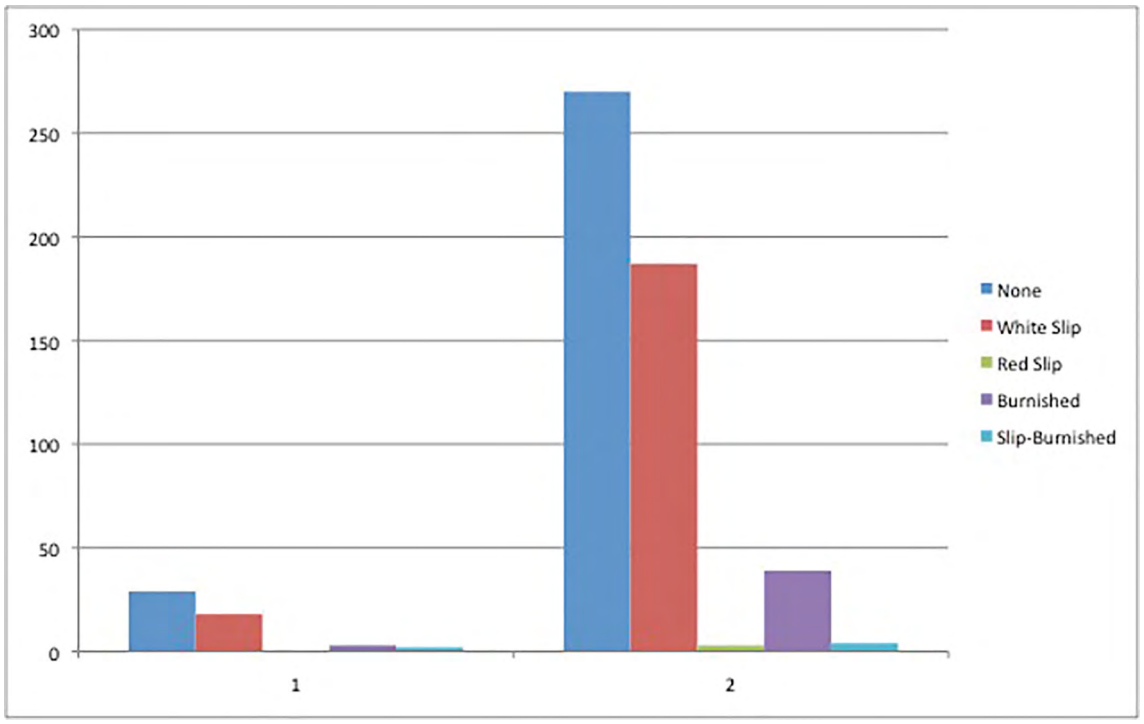
3



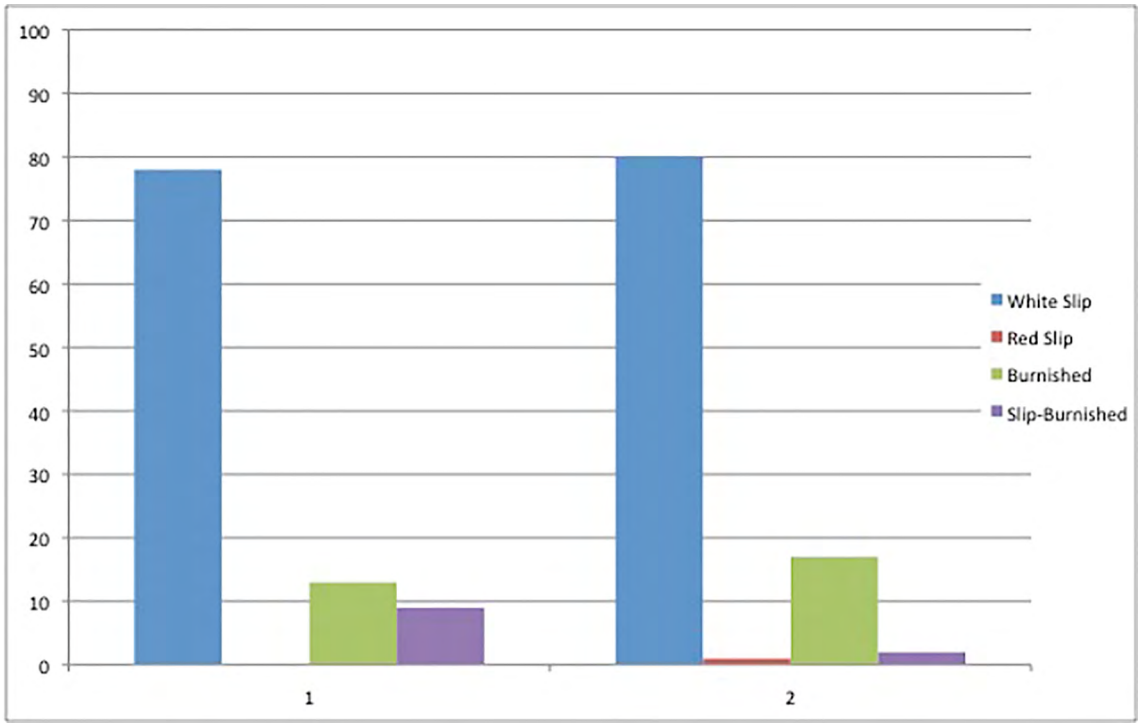
4

Stone weights from well P.5347 and from other contexts at Karkemish.

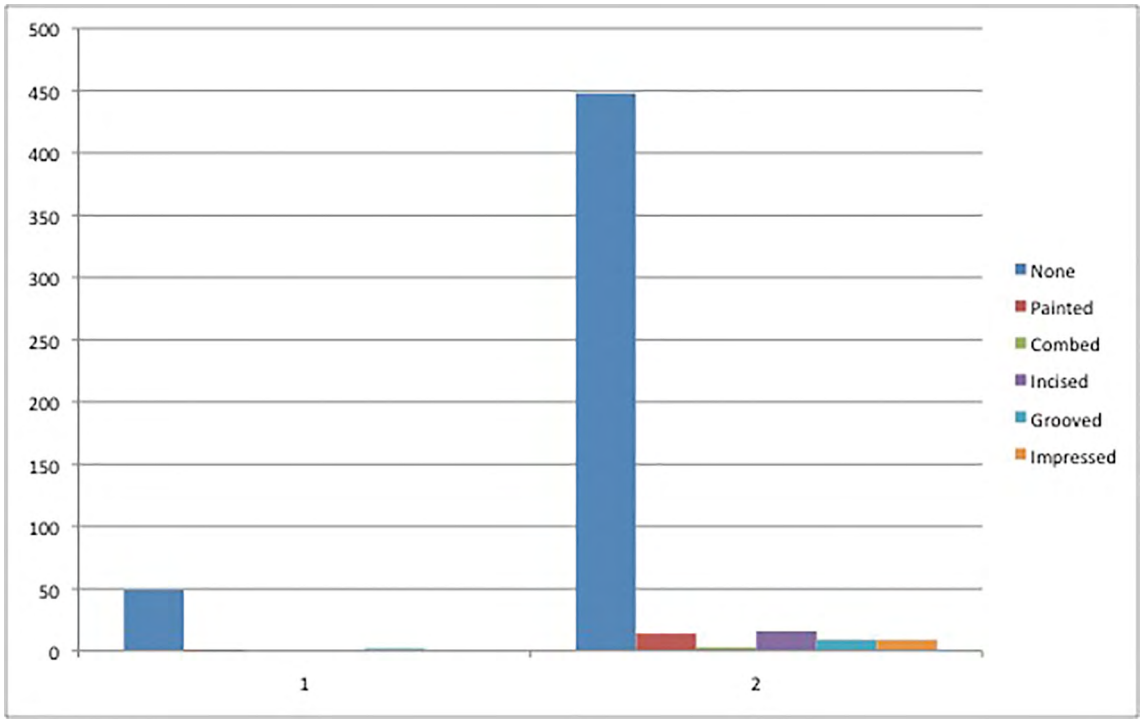
Pl. XVI



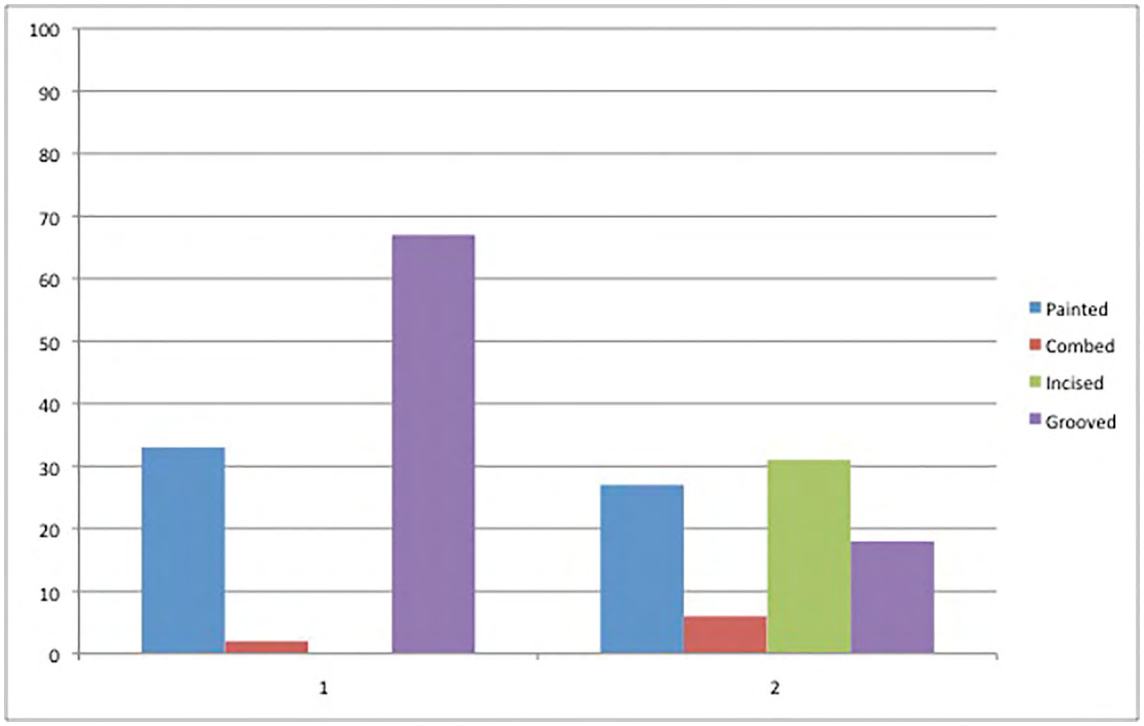
1. Pottery surface treatments per subphase.



2. Percentage of pottery surface treatments per subphase.



1. Pottery decoration types per subphase.



2. Percentage of pottery decoration types per subphase.

Pl. XVIII



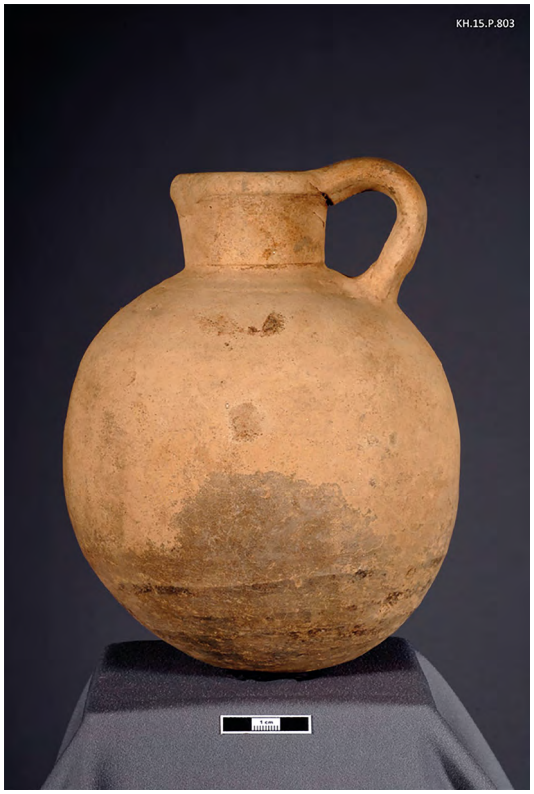
1. Pottery assemblage KH.15.P.808 from F.6372.



2. Pottery assemblage KH.15.P.492 from F.6309.



1. Pottery assemblage KH.15.P.490 from F.6309.



2. Jug (KH.15.P.803/18) from F.6309.

Pl. XX



1. Pottery assemblage KH.15.P.343 from F.5857.



2. Pottery assemblage KH.15.P.301 from F.5801.



1. Pottery assemblage KH.15.P.307 from F.5801.



1. Pottery assemblage KH.15.P.331 from F.5801.

Pl. XXII



1. KH.15.O.58



2. KH.15.O.99



3. KH.15.O.100



4. KH.15.O.102

Stone vessels from well P.5347.



1. KH.15.O.103



2. KH.15.O.351

Stone vessels from well P.5347.

Pl. XXIV



1. KH.15.O.385



2. KH.15.O.386



3. KH.15.O.387

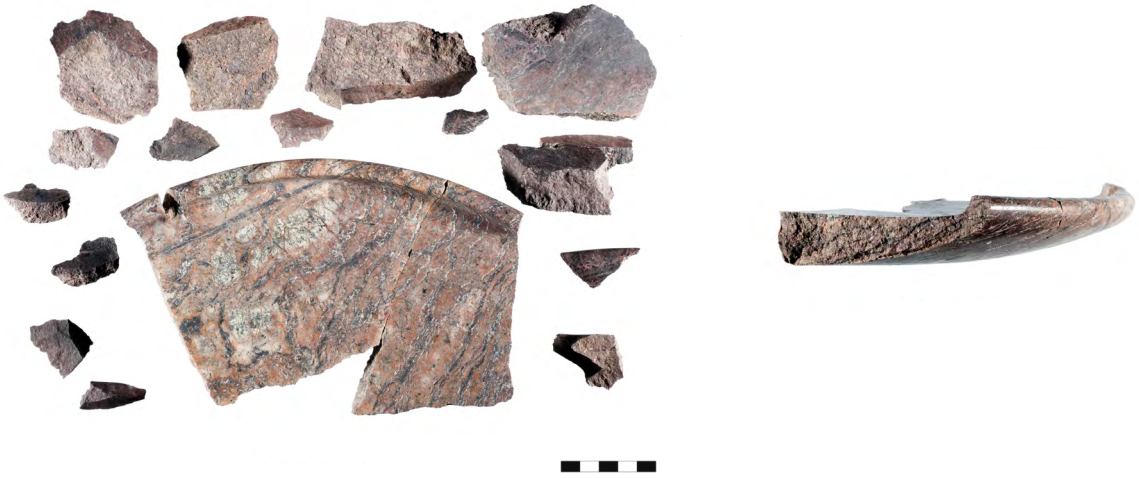


4. KH.15.O.405



5. KH.15.O.406

Stone vessels from well P.5347.



1. KH.15.O.407



2. KH.15.O.408



3. KH.15.O.412



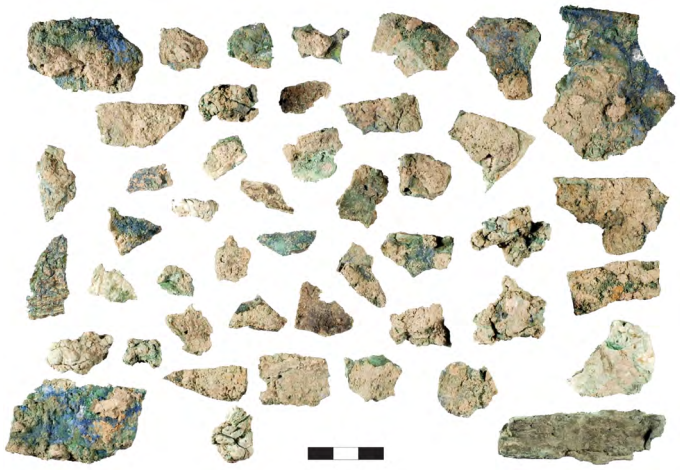
4. KH.15.O.427

Stone vessels from well P.5347.

Pl. XXVI



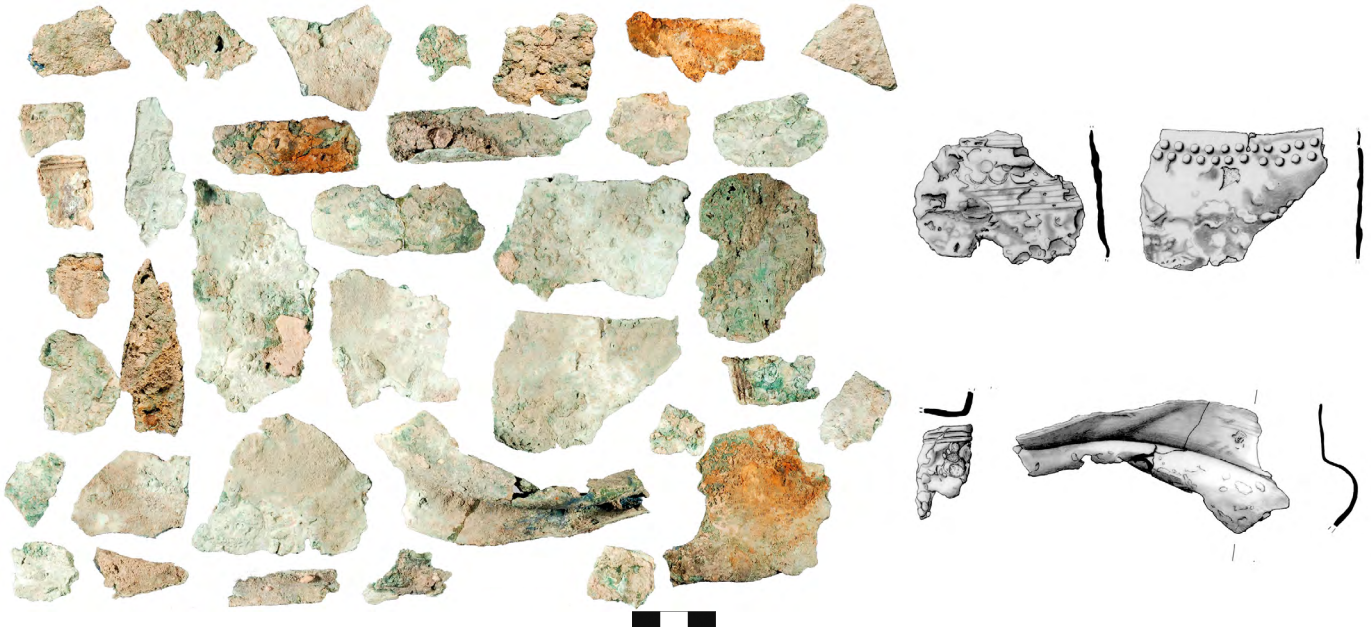
1. KH.15.O.664



2. KH.15.O.622



3. KH.15.O.623



4. KH.15.O.660

Metal objects from well P.5347.



1. KH.15.O.513



2. KH.15.O.626



3. KH.15.O.96



4. KH.15.O.517



5. KH.15.O.601



6. KH.15.O.631



7. KH.15.O.637



8. KH.15.O.216

Metal objects from well P.5347.

Pl. XXVIII



1. KH.15.O.291



2. KH.15.O.444



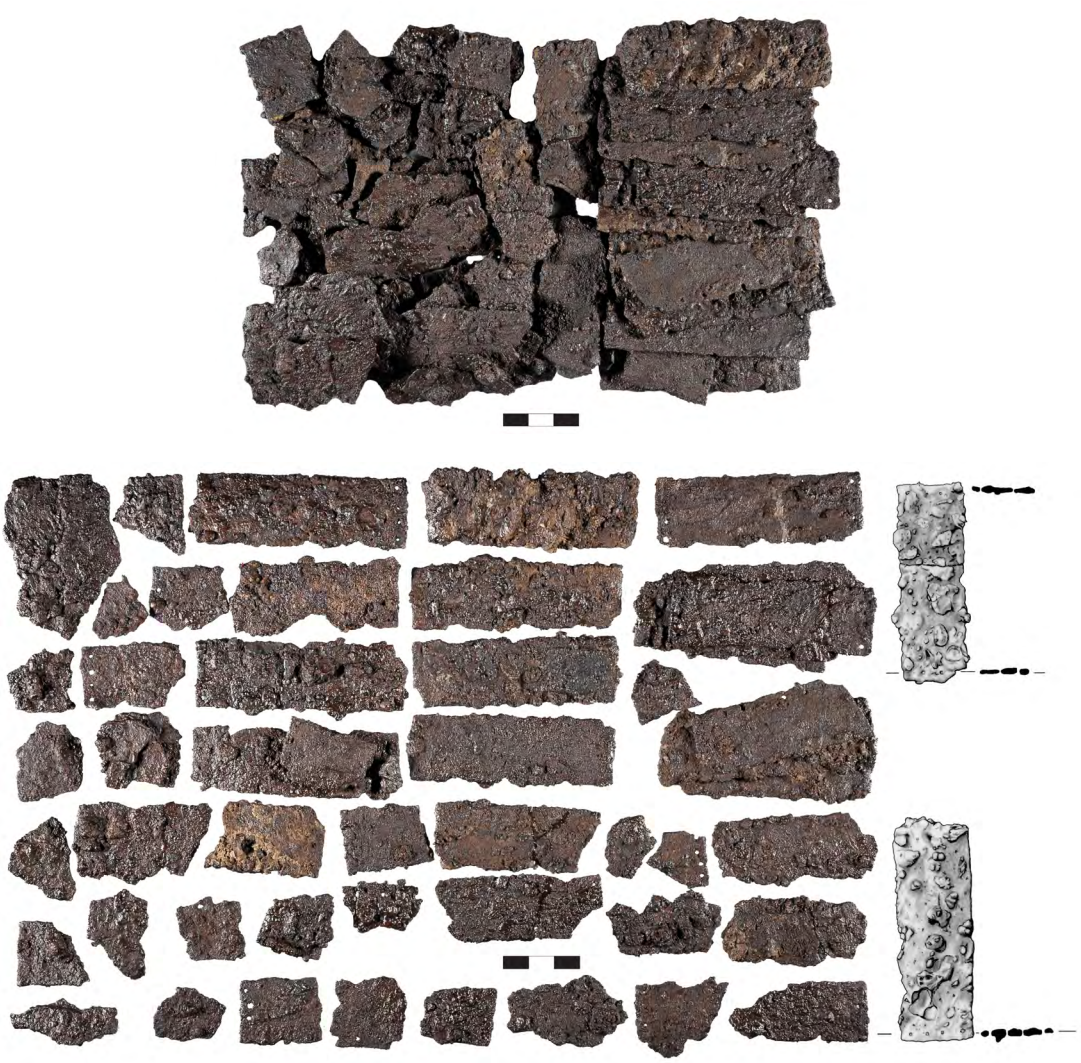
3. KH.15.O.515





4. KH.15.O.409

Metal objects from well P.5347.



1. KH.15.O.435



2. KH.15.O.597



3. KH.15.O.437

Metal objects from well P.5347.

Pl. XXX



1. KH.15.O.640



2. KH.15.O.641



3. KH.15.O.438



4. KH.15.O.443

Metal objects from well P.5347.



1. KH.15.O.439



2. KH.15.O.440



3. KH.15.O.442



4. KH.15.O.447



5. KH.15.O.642



6. KH.15.O.94



7. KH.15.O.83



8. KH.15.O.131



9. KH.15.O.136



10. KH.15.O.140



11. KH.15.O.81

Metal objects from well P.5347.

Pl. XXXII



1. KH.15.O.170



2. KH.15.O.177



3. KH.15.O.290



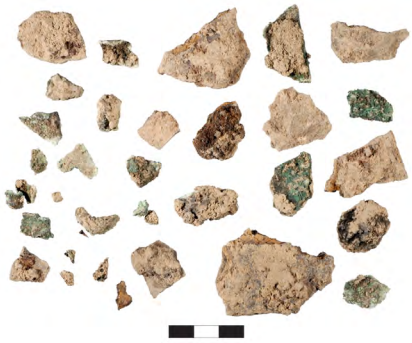
4. KH.15.O.445



5. KH.15.O.448



6. KH.15.O.581



7. KH.15.O.582



8. KH.15.O.583



9. KH.15.O.596



10. KH.15.O.608

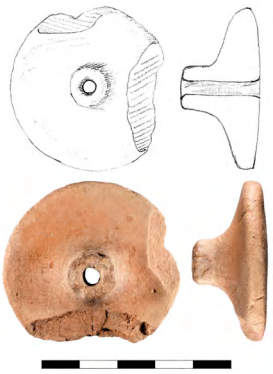


11. KH.15.O.619



12. KH.15.O.621

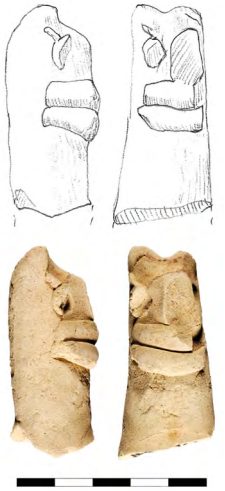
Metal objects from well P.5347.



1. KH.15.O.75



2. KH.15.O.186



3. KH.15.O.391



4. KH.15.O.465



5. KH.15.O.473



6. KH.15.O.402



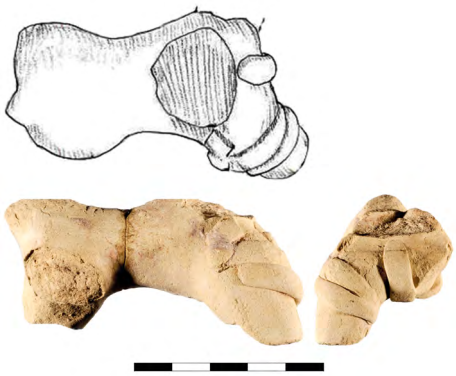
7. KH.15.O.128

Clay figurines from well P.5347.

Pl. XXXIV



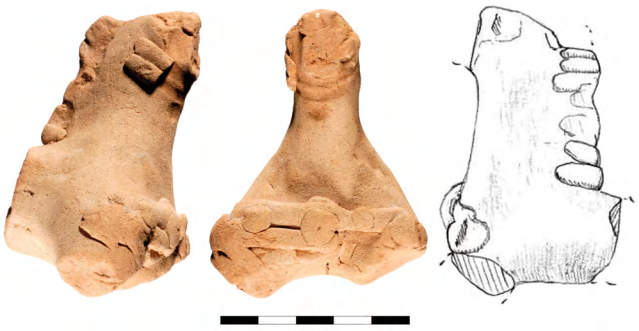
1. KH.15.O.550



2. KH.15.O.552



3. KH.15.O.553



4. KH.15.O.557



5. KH.15.O.588

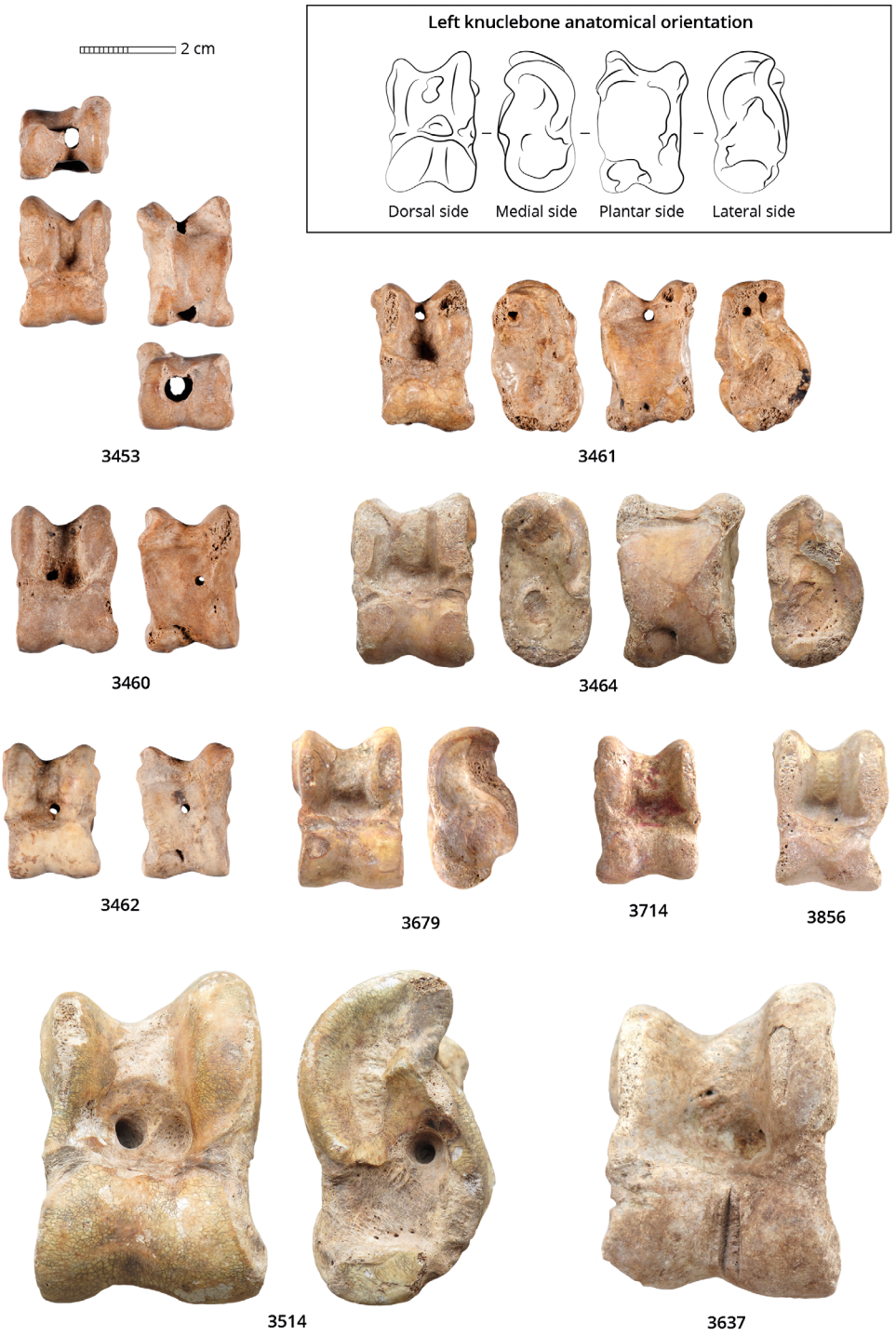


6. KH.15.O.340



7. KH.15.O.393

Clay figurines from well P.5347.



Selection of the main modified astragali collected from well P.5347. ID Nos. 3453, 3460, 3461, 3462, 3714 refer to pierced and abraded sheep astragali; ID No. 3464 is a medium ungulate astragalus with smooth edges. These samples were collected from F.6372 (subphase 1). ID Nos. 3679 and 3856 are pierced and abraded sheep astragali; ID No. 3514 refers to a cow astragalus pierced with a through hole, and ID No. 3637 refers to a cow astragalus with cut-marks. This second sample group was collected from F.6309 (subphase 2). Knucklebone anatomical orientation scheme modified after Amandry 1984.



1. ID no. 2743 = KH.15.O.674. Sheep/goat astragalus, in plantar, lateral, dorsal and medial view, with the clear evidence of surface modification probably related to the reiterated use of bone as a game piece.



2. ID no. 2855 = KH.15.O.673. Sheep astragalus in plantar, lateral, and dorsal view, showing faint evidence of surface abrasion.



3. Royal Buttress: the scene detail depicts four of Astiruwa's children depicted while playing. To the left, two of them play with knucklebones (photograph by M. Di Stasi, courtesy of The Museum of Anatolian Civilizations, Ankara).



1. KH.15.O.401



2. KH.15.O.430



3. KH.15.O.592



4. KH.15.O.432



5. KH.15.O.434



6. KH.15.O.467

Miscellaneous small finds from well P.5347: clay tools.

Pl. XXXVIII



1. KH.15.O.343



2. KH.15.O.429



3. KH.15.O.482



4. KH.15.O.563



5. KH.15.O.665

Miscellaneous small finds from well P.5347: stone tools.



1. KH.15.O.352



2. KH.15.O.353



3. KH.15.O.649



4. KH.15.O.672



5. KH.15.O.692

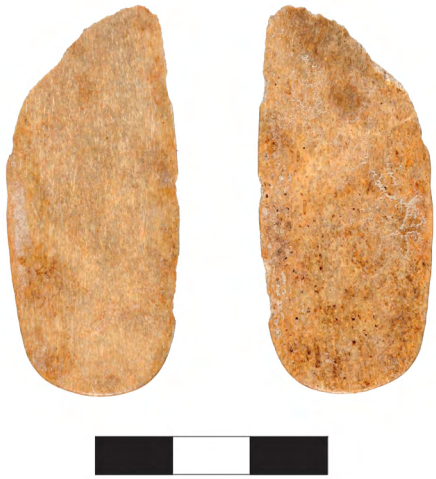
6. KH.15.O.695

Miscellaneous small finds from well P.5347: bone tools.

Pl. XL



1. KH.15.O.693



2. KH.15.O.694



3. KH.15.O.483



4. KH.15.O.658



5. KH.15.O.533



6. KH.15.O.670



7. KH.15.O.568

Miscellaneous small finds from well P.5347: bone tools and ornaments.



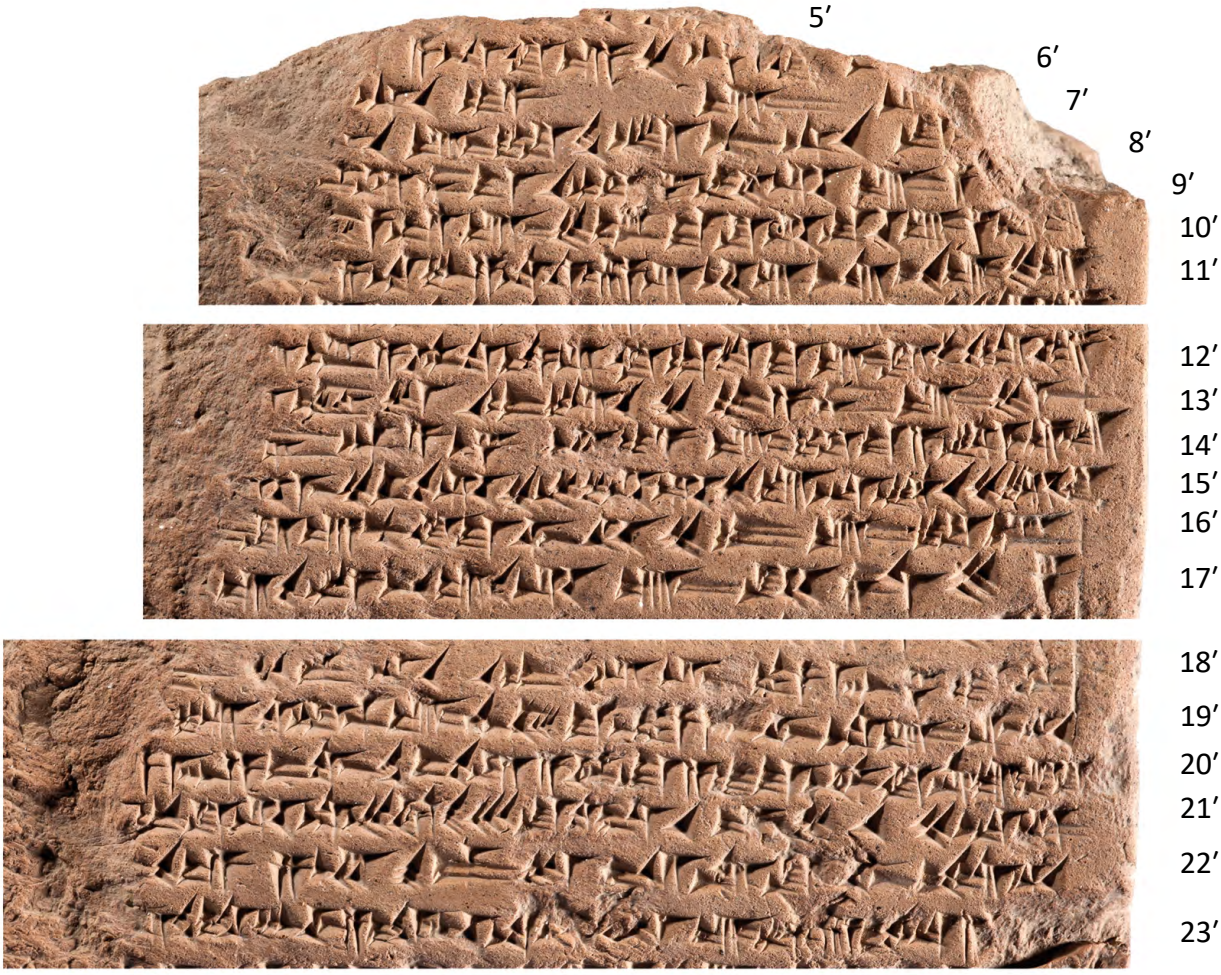
KH.15.O.221

Inscribed Cylinder A from well P.5347.

Pl. XLII



KH.15.O.221



Inscribed Cylinder A from well P.5347.



Inscribed Cylinder A from well P.5347.

Pl. XLIV





KH.15.O.300

Inscribed Cylinder B from a phase 9c floor in area C.





KH.15.O.355

Inscribed Cylinder C from well P.5347.

Pl. XLVI





Inscribed Cylinder C from well P.5347.



31′
32′
33′
34′
35′
36′
37′
38′
39′



35′
36′
37′
38′
39′
40′
41′
42′
43′
44′

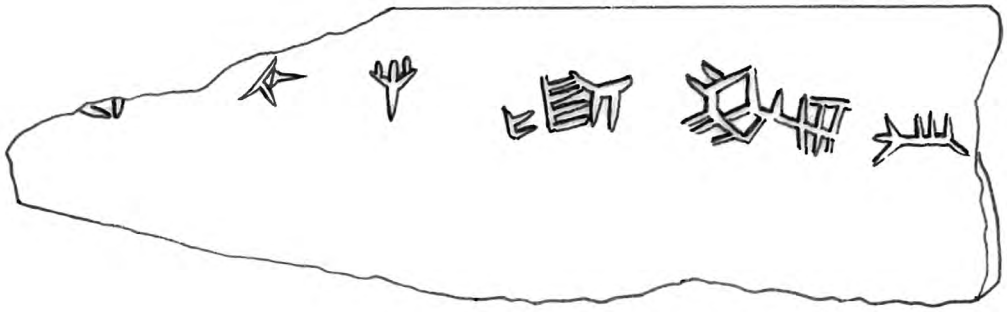
Inscribed Cylinder C from well P.5347.

Pl. XLVIII



KH.24.O.262

Inscribed cylinder fragment from a late pit in area C.









KH.15.O.100

Inscribed stone vessel from well P.5347.

Pl. L



KH.15.O.40

Inscribed basalt orthostat from well P.5347.



1. Cultivated vine pip stone (right) and pedicel (left) (*Vitis vinifera*).



2. F.6372: Fish remains.



3. F.6372: Sheep phalanges in anatomical connection.



4. F.6309: Three sheep (left) and one goat (right) horncores.



5. F.6309: Pig bones.



6. F.6309: Roe deer metacarpus (left) and distal epiphysis of gazelle tibia.

Pl. LII



1. F.6309: Lagomorph pelvis bone.



2. F.5882: Dorsal view of a Pantera sp. medial 1st anterior phalanx.



3. F.5882 Tortoise fragment.



4. F.5801: Left calcaneus of adult goat (left) and adult sheep (right).



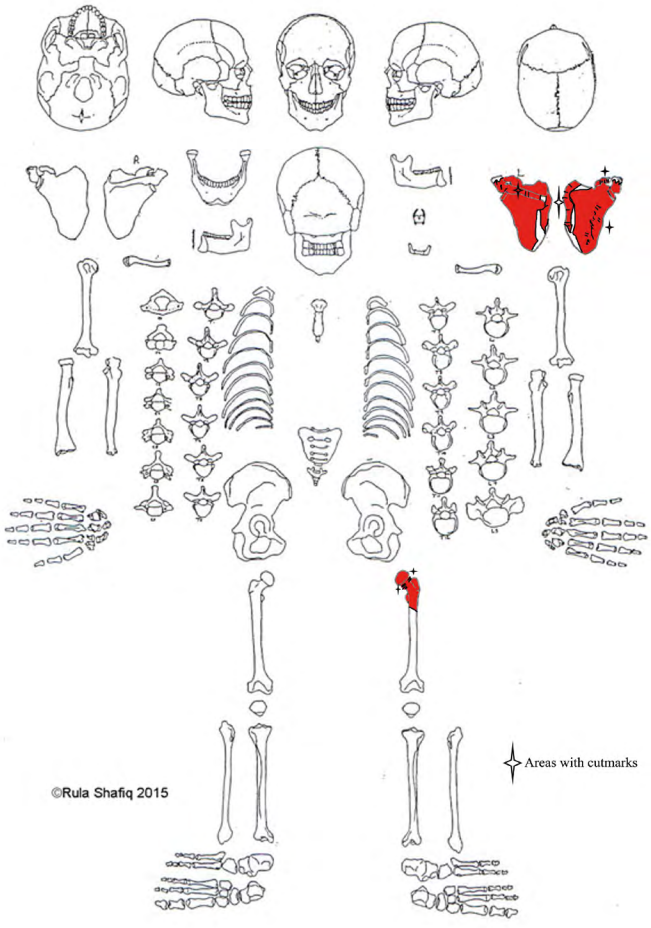
5. F.5801: P2 of Equus sp.



6. F.6309: Cow astragalus with cut-marks.



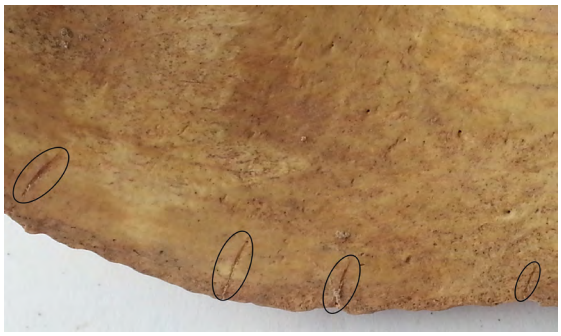
1. F.5882: Long bone diaphysis of large ungulate with saw marks.



2. Skeletal diagram exhibiting the retrieved two human bones and the areas with cutmarks.



1. The scapula's anterior surface exhibits cut-marks along the lateral axillary border at the attachment areas for the subscapularis muscle, within the boundaries of the black lines.



4. Scapula's medial vertebral border exhibits 4 out of 6 cut-marks, within the boundaries of the black lines.



6. Femoral neck with 21 cut-marks along the proximal-posterior surface, within the boundaries of the black lines.



2. Scapula spine exhibiting 6 cut-marks, within the boundaries of the black lines.



3. Scapula's coracoid process, exhibiting 8 out of 9 cut-marks, within the boundaries of the black lines.



5. Femoral neck with 15 cut-marks clustering on the anterior-distal side, within the boundaries of the black lines.



7. Patterning of postmortem damage to the femoral head, within the boundaries of the black lines.



1. The system, consisting of a generator and a vacuum cleaner, used for pumping fresh air into well P.5347 (cf. Pl. VIII.2).



2. Nicolò Marchetti, Bahtiyar Güzel and Ali Kelek standing by the pulley.



3. Photographer Francesco Prezioso emerging from well P.5347.



4. Nicolò Marchetti and Bahtiyar Güzel digging the lower fills of well P.5347.





1-2. Topographer Giampaolo Luglio surveying the inner part and documenting the structure of well P.5347.





3-4. Worker Bahtiyar Güzel descending into well P.5347 and digging F.6372.



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