

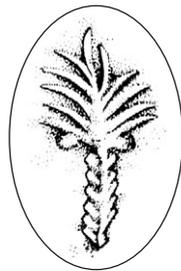
UNIVERSITÀ DI TORINO

MESOPOTAMIA

RIVISTA DI ARCHEOLOGIA, EPIGRAFIA E
STORIA ORIENTALE ANTICA

LIII

2018



apice libri

Rivista fondata da Giorgio Gullini.

Direttore: CARLO LIPPOLIS

Comitato scientifico: GIORGIO BUCCELLATI
STEFANO DE MARTINO
ANTONIO INVERNIZZI
CHRISTINE KEPINSKI
STEFANIA MAZZONI
ANDREAS SCHACHNER
ST JOHN SIMPSON
ROBERTA VENCO RICCIARDI

Redazione scientifica: CARLO LIPPOLIS
ROBERTA MENEGAZZI

«Mesopotamia» is an International Peer Reviewed Journal.

Proprietà letteraria riservata

Iscritta al Tribunale di Torino n. 1886 del 20/6/67.

Si prega di indirizzare la corrispondenza diretta alla Redazione e i manoscritti a: Carlo Lippolis, Redazione di Mesopotamia, Dipartimento di Studi Storici - Università degli Studi di Torino, Via Sant'Ottavio 20, 10124 Torino.

ISSN: 0076-6615

SOMMARIO

FEDERICO ZAINA, <i>Delving into Archaeological Archives, a Single-researcher Approach. The Case Study of Ancient Kish (Central Iraq)</i>	p.	1
MAURIZIO VIANO, <i>Some Business Documents from Emar</i>	»	15
STEFANO DE MARTINO, <i>The Fall of the Hittite Kingdom</i>	»	23
ABBAS AL-HUSSAINY, <i>Inscriptions of Nebuchadnezzar II from the Iraqi Excavations at Marad</i>	»	49
WATHIQ AL-SALIHI, <i>The Architecture and Decorative Elements of Temple of Allat at Hatra</i>	»	59
DANIELE MORANDI BONACOSSÌ - HASAN AHMAD QASIM - COSTANZA COPPINI - KATIA GAVAGNIN - ELISA GIROTTI - MARCO IAMONI - CRISTINA TONGHINI, <i>The Italian-Kurdish Excavations at Gir-e Gomel in the Kurdistan Region of Iraq. Preliminary Report on the 2017 and 2018 Field Seasons</i>	»	67

DANIELE MORANDI BONACOSSI* - HASAN AHMAD QASIM⁺ - COSTANZA COPPINI*
KATIA GAVAGNIN* - ELISA GIROTTO* - MARCO IAMONI* - CRISTINA TONGHINI*

THE ITALIAN-KURDISH EXCAVATIONS AT GIR-E GOMEL IN THE KURDISTAN REGION OF IRAQ

PRELIMINARY REPORT ON THE 2017 AND 2018 FIELD SEASONS¹

ABSTRACT

The article presents the preliminary results of the Italian-Kurdish excavation project carried out by the University of Udine and the Directorate of Antiquities of Duhok at the site of Gir-e Gomel (Kurdistan Region of Iraq). From at least the mid-3rd millennium BC onwards, Gomel was the central site of the entire Navkur Plain, a very fertile and well-watered region on the route linking Arbail and the Greater Zab Valley with the Upper Tigris region to the north of Nineveh. The Eastern Tigris plains between the modern city of Duhok and the Greater Zab have never been the object of a target-oriented archaeological excavation aimed at establishing a stratigraphic reference sequence for this still under-explored archaeological landscape and investigating diachronically the development of the region's material culture. With this purpose – and the aim of exploring the character and function of this important site on a local and regional scale, investigating the role it played in the region's cultural and socio-economic processes – Gir-e Gomel has become the subject of extensive archaeological excavations as from 2017 and 2018. The main results of the first excavation seasons are discussed in the following article.

KEYWORDS

Gir-e Gomel; Iraqi Kurdistan; Chalcolithic; Bronze and Iron Age; Classical and Islamic periods.

1. Introduction and project goals

The Transtigradian plains located between the modern city of Duhok and the Greater Zab have never been the object of a target-oriented archaeological excavation designed to establish a stratigraphic reference sequence for this still under-explored archaeological landscape and investigate diachronically the development of the region's material culture (Fig. 1). The region comprised between the Tigris Valley, the Zagros foothills dominating the modern city of Duhok, and the Navkur Plain, crossed by the Gomel and Al-Khazir rivers, was investigated from 2012 to 2018 by the University of Udine. The exploration of this region covering almost 3,000 sq. km was carried out in the framework of a multidisciplinary landscape archaeology project with the goal of investigating the formation and transformation of the cultural and natu-

ral landscape of one of the hitherto most uncharted regions of Upper Mesopotamia.² The project is based on a twofold strategy: on one hand, the analysis of settlement and land use through extensive and intensive survey and the geoarchaeological study of the region's environment and climate and their evolution as a result of anthropogenic impact and climatic fluctuations and, on the other, the excavation of a reference archaeological site with a long and continuous settlement sequence. The evidence gathered during the survey indicates that the prominent site of Gir-e Gomel would be an appropriate choice for archaeological investigation.

The excavation of Gir-e Gomel, located in the heart of the Navkur Plain, 4 km west as the crow flies of the modern town of Kelekchi, in the northern region of Iraqi Kurdistan, is an Italian-Kurdish cooperation undertaking entitled “The Kurdish-Italian Gir-e Gomel Archaeological Project” (KIGAP). The project, which is co-directed by Daniele Morandi Bonacossi of Udine University and Hasan Ahmad Qasim of the Duhok Directorate of Antiquities, fills the gap that exists in our knowledge of the region's archaeological landscape and material culture. The site, which today's Kurdish inhabitants of the village call Tell Jomel and in 20th century cartography is recorded as Tell Gomel or Tell Jomel,³ was first

¹ * University of Udine, ⁺ Directorate of Antiquities of Duhok, • Ca' Foscari University of Venice. Sections 1-4 and 9 were co-authored by Daniele Morandi Bonacossi and Hasan A. Qasim, section 5 by Katia Gavagnin (with an analysis of the Early Islamic pottery from Gir-e Gomel by Cristina Tonghini), section 6 by Costanza Coppini, section 7 by Marco Iamoni, and section 8 by Elisa Girotto.

² MORANDI BONACOSSI 2012-2013, IDEM 2016, IDEM 2018a-b; MORANDI BONACOSSI, IAMONI 2015; GAVAGNIN, IAMONI, PALERMO 2016; IAMONI 2016; PALERMO 2016; COPPINI 2018.

³ See for example the “Operationskarte” published in 1917 by the kartographischen Abteilung der Königlichen Preußischen Landesaufnahme (Mosul Sheet: Tell Gomel), the map of Mesopotamia published in 1919 by the Great Britain War Office (Survey Party M.E.F. Baghdad, TC Anglo-Indian series of Mesopotamia, Dohuk Sheet 137 O/SW: Tell Jomel), the map published in June 1942 by the U.S. Army Map Service (Sheet J-38 T: Tell Jomel), and the GDP Survey Map published in 2009 by the Kurdish Regional Government where the site is recorded as Tal Jumar (Shekhan Sheet 38n.). In his *Mu'jam al-buldān* (Dictionary of Countries), 1977, vol. II, 189, written between 1224 and 1228, the Arab geographer Yakut al-Hamawi (1179-1229) refers to the site as Jawmal.

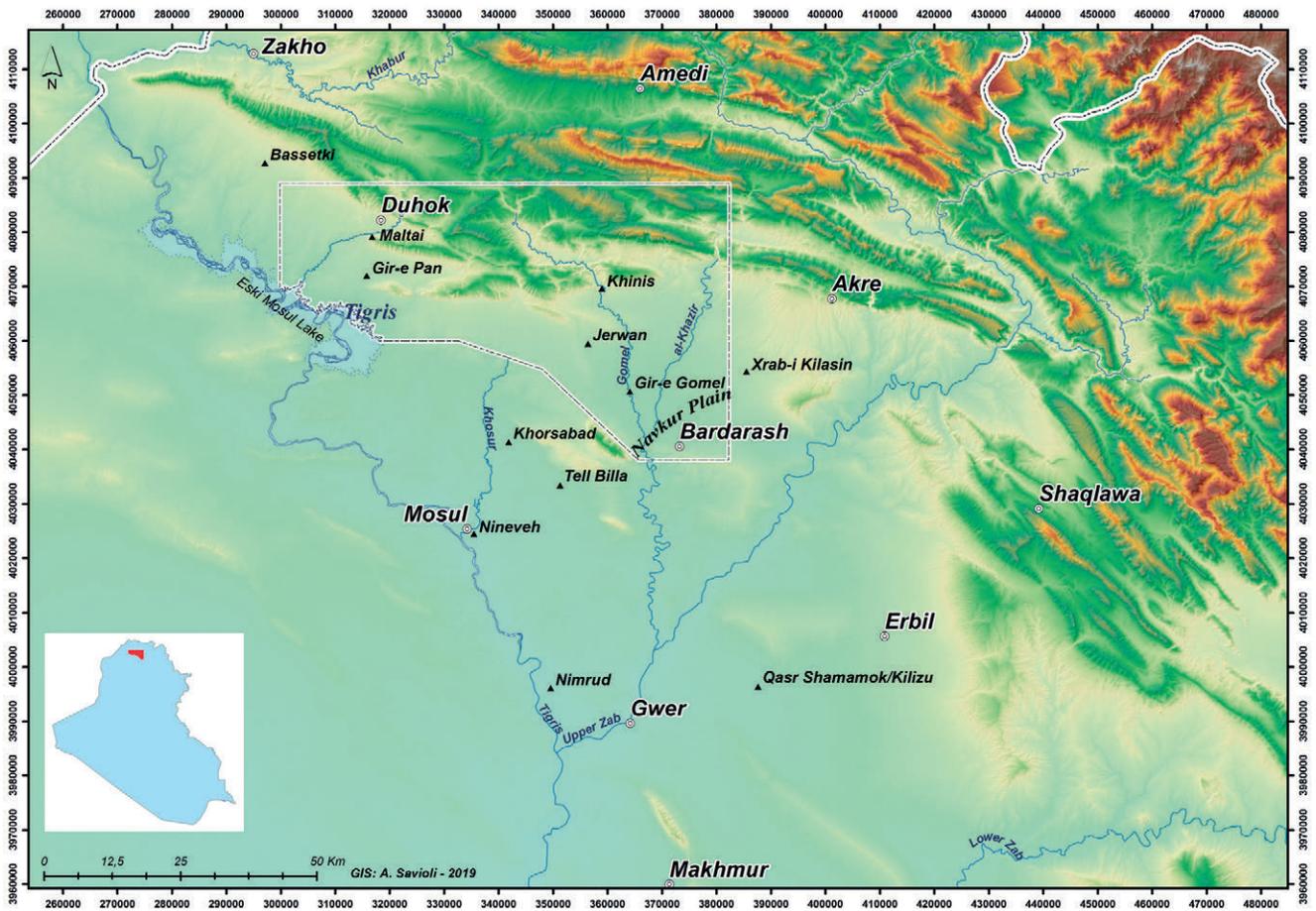


Fig. 1 - Location of Gir-e Gomei and the Udine University survey area in the northern Region of Iraqi Kurdistan.

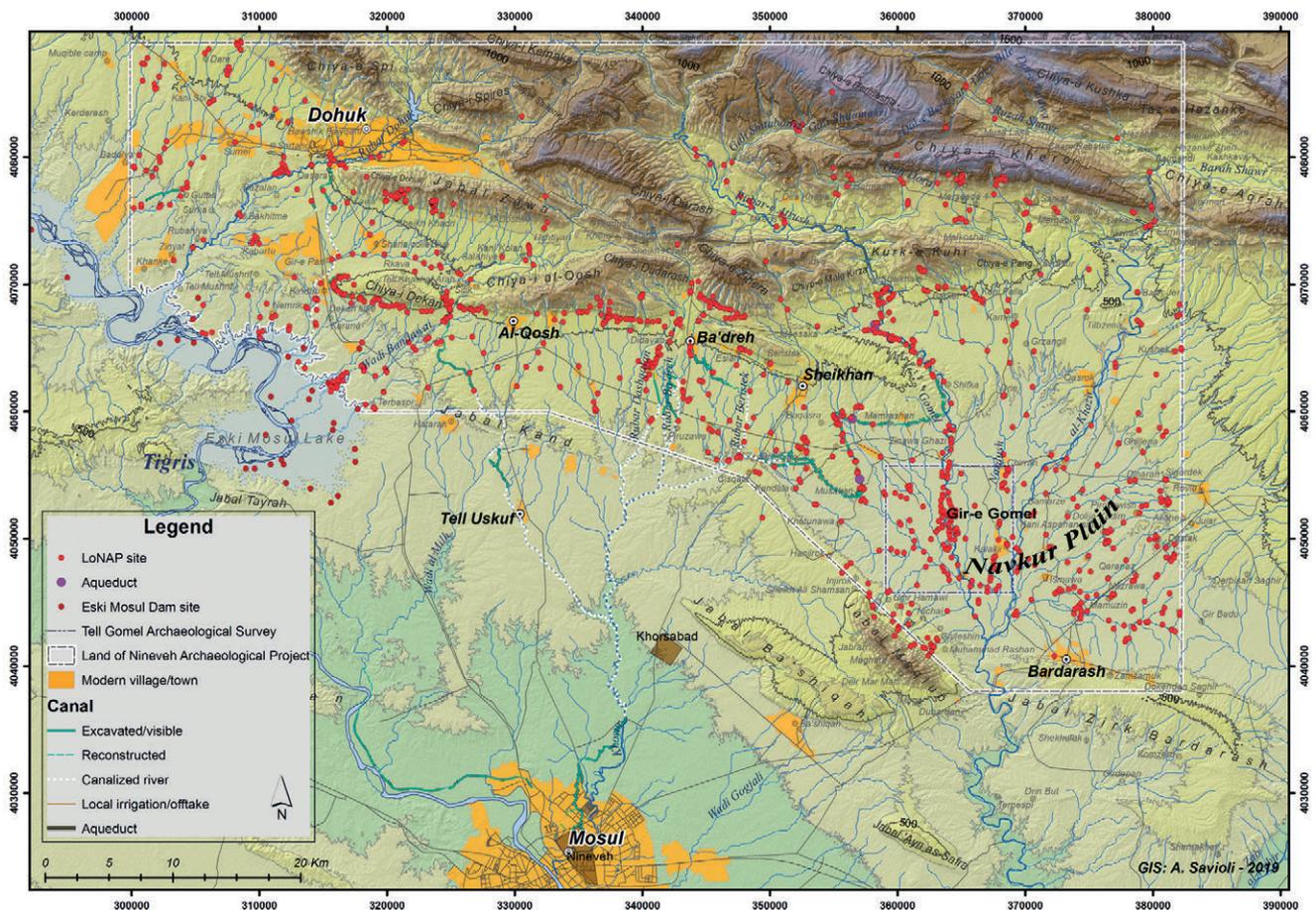


Fig. 2 - Preliminary distribution of archaeological sites discovered in the 2012-2018 survey seasons.

archaeologically investigated in 2012 during the extensive survey conducted in the region by the University of Udine. A small trial trench was dug along the site's south-western edge in 2012 and 2013 in order to get a first insight into the mound's stratigraphy.⁴ This first trench was then enlarged as from 2017 to become Operation 1 (see below). In 2016, an intensive survey programme was carried out at Gir-e Gomel with the aim of investigating more in depth its overall occupation history.⁵ Extensive excavation started in 2017 in Operation 1 and was extended to Operations 2 and 3 in 2018.

The main goals of the Gir-e Gomel excavation consist of establishing a stratigraphic reference sequence at the site and well-stratified and relatively and absolutely dated seriations of ceramics and other archaeological artefacts. The accomplishment of these objectives will make available the first reference series of material culture in the region and enable comparisons to be made with neighbouring areas, thus shedding light on cross-cultural relationships and exchange patterns in Upper Mesopotamia. At the same time, the excavation in Gomel will explore the character and function of this important site through the millennia on a local and regional scale, investigating the role it played in the production dynamics and socio-economic processes in the region.

2. The environmental setting of Gir-e Gomel

The site of Gomel, which entered the scientific literature thanks to the work of the first scholars who studied the region from the early 18th century onwards,⁶ lies in the middle of the Navkur Plain ("mud plain" in *Badîni/Kurmanji*), a 30 km wide roughly triangular plain in the eastern part of our survey area delimited to the north and east by the first Zagros foothills, to the south by the low hill range of the Jebel Zirkh Bardarash, and to the west by the Jebel Maqloub (Figs. 1-2).

Mean annual rainfall in the Navkur Plain rises from south to north from 400 to 600 mm per year (500-550 mm in the Gir-e Gomel area), dropping in dry years to 300 mm in the southern part (Gir-e Gomel about 350 mm) and 500 mm in the north.⁷ Today the entire plain is located well to the north of the "zone of uncertainty", i.e. the belt of marginal cultivation characterised by an increasing frequency of crop failure,⁸ and is part of the stable dry-farming zone of Upper Mesopotamia (Wilkinson's Zone 1b).⁹ Here, at between 350 and 600 mm and not less than 300 mm in two out of every three years, rainfall is reliable and cereals can be predictably and extensively cultivated using a rain-fed system even in years with lower rainfall figures. Gir-e Gomel and the Navkur Plain enjoy not only adequate rainfall but also from an extreme abundance of surface and ground water. The plain is crossed by the River Al-Khazir, a major tributary of

the Greater Zab, and the minor Nardush and Gomel rivers that join the Al-Khazir at the southern end of Navkur. Numerous *wadis* and ephemeral streams feed the main watercourses. The plain is thus potentially much richer in soil moisture than any other region to the north of the Greater Zab's confluence with the Tigris and offers ideal conditions for highly productive agriculture.¹⁰ Ground water is also extremely abundant and many springs, supplied by the aquifers located in the Zagros foothills, contribute to making Navkur an intensively cultivated area, sustained also by irrigation from wells. Today, cereals (mainly wheat, but to a lesser extent also rice and barley) and vegetables are grown there.

In the Navkur Plain, the presence of abundant water is combined with fertile soils. The region is characterised by deep and productive agricultural soils, mainly "Brown Soils (Deep Phase)" developed on alluvial sediments, which occur at average depths varying between 2 and 4 m and are non-saline.¹¹ In the presence of the high rainfall characterising the Gomel area and the entire Navkur Plain, these soils can produce high yields. These overall very favourable conditions for extensive and intensive agriculture account for the fact that the greatest density of the 1081 archaeological sites hitherto identified in the region by the Udine University's survey project, of which 608 can be classified as habitation sites,¹² is situated in this plain (Fig. 2).

3. The site: topography and occupation history

The ancient settlement of Gir-e Gomel is located on the eastern bank of the River Gomel approximately in the centre of the Navkur Plain. The town was located at a strategic crossing point¹³ on the route con-

⁴ Excavation work was conducted by Marco Iamoni, assisted in 2013 by Francesca Simi.

⁵ This project was conducted by Francesca Simi in her PhD research programme (SIMI in press).

⁶ BACHMANN 1927, Taf. I; JACOBSEN, LLOYD 1935, 32; STEIN 1942, 163-164; FIEY 1965, 230.

⁷ BURINGH 1960; WIRTH 1962, Abb. 9-10; GUEST 1966, figs. 5-6; TAVO maps AIV.4-5.

⁸ WILKINSON, HRTZ 2013, 14-18, fig. 2.1.

⁹ WILKINSON 2004, 42-43.

¹⁰ MORANDI BONACOSSO 2018a, 84-87, figs. 5-6.

¹¹ *Ibidem*, fig. 3; BURINGH 1960, 78 and folding chart.

¹² The 473 sites which did not yield archaeological material include many different non-settlement features, such as aqueducts, primary and secondary canal sections, weirs, stone water-mills and other productive installations, rock-reliefs, rock-graves, cairn fields and isolated cairns, karst springs etc.

¹³ YAQUT AL-HAMAWI 1977, 189, referring generally to earlier historians, mentions the existence in the area of a Qantarat Jawmal, thus indicating that at Gomel there was a bridge crossing the river that at the time he wrote was no longer present (HONIGMANN 1954, 97; FIEY 1965, 230).

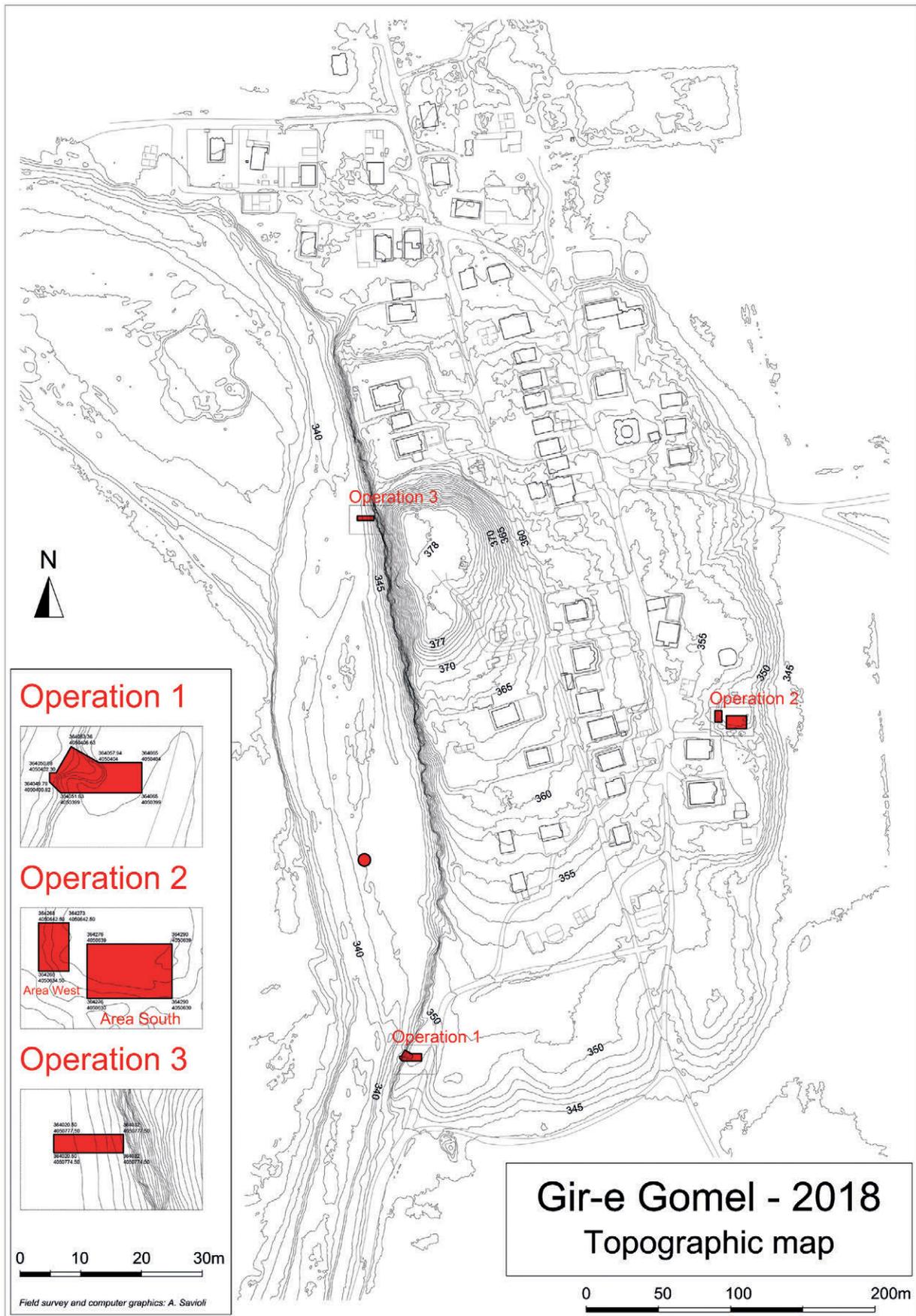


Fig. 3 - Topographic map of Gir-e Gomal.



Fig. 4 - UAV oblique view of Gir-e Gomel from the south (September 2018).

necting the Erbil/Arbela Plain with the Greater Zab Valley, the Navkur and Duhok plains and the Tigris Valley. Over the millennia, the river has modelled the shape of the site, which consists of a small mound measuring 155 x 86 m with a surface area of 1.4 ha that, with its height of 38 m, today towers over the riverbed¹⁴ and a large surrounding lower town to the north, east and south (Figs. 3-4). The high mound slopes gently to the south, more steeply to the east and north, while its western side was eroded by the River Gomel, the course of which undermined the mound's margin determining the formation of an imposing, nearly vertical section. The latter gives an impressive insight into the upper town's stratigraphic sequence (Figs. 4 and 50). Mud-brick walls on massive stone foundations and baked brick paving belonging to different settlement phases can be clearly recognised in the section.

Today the lower town overlooks the surrounding landscape from an average height of 10-15 m and covers a surface area of approximately 30 ha. A U2 aerial photograph, taken on January 29th 1960 (Fig. 5), shows the presence of anthrosols around the eastern Gomel lower town.¹⁵ The anthrosols extend into

the surrounding plain further eastward than the edge of the lower town, indicating that the site was larger than suggested by its present-day morphology. The intensive survey carried out by Francesca Simi in 2016 has provided the necessary field confirmation of this interpretation of the U2 image.¹⁶ Especially in its central and western parts, Gomel's lower town is now occupied by the scattered houses and gardens of the modern village. The construction of these buildings, which have been erected in the last two decades,¹⁷ required the levelling of the ground in the lower town, thus damaging the latest archaeological deposits. The steep eastern slopes of the lower town and a deep erosion gully located in the area of Operation 2 (see

¹⁴ The top of the mound is 33 m above the adjacent plain.

¹⁵ On anthrosols and the interpretation of their signature on remotely sensed imagery, see MENZE, UR 2012.

¹⁶ SIMI in press.

¹⁷ The above-mentioned U2 aerial photograph of Gomel shows only a cluster of abandoned collapsed dwellings in the northern lower town immediately to the north of the high mound, the remains of a small pre-1960s village.

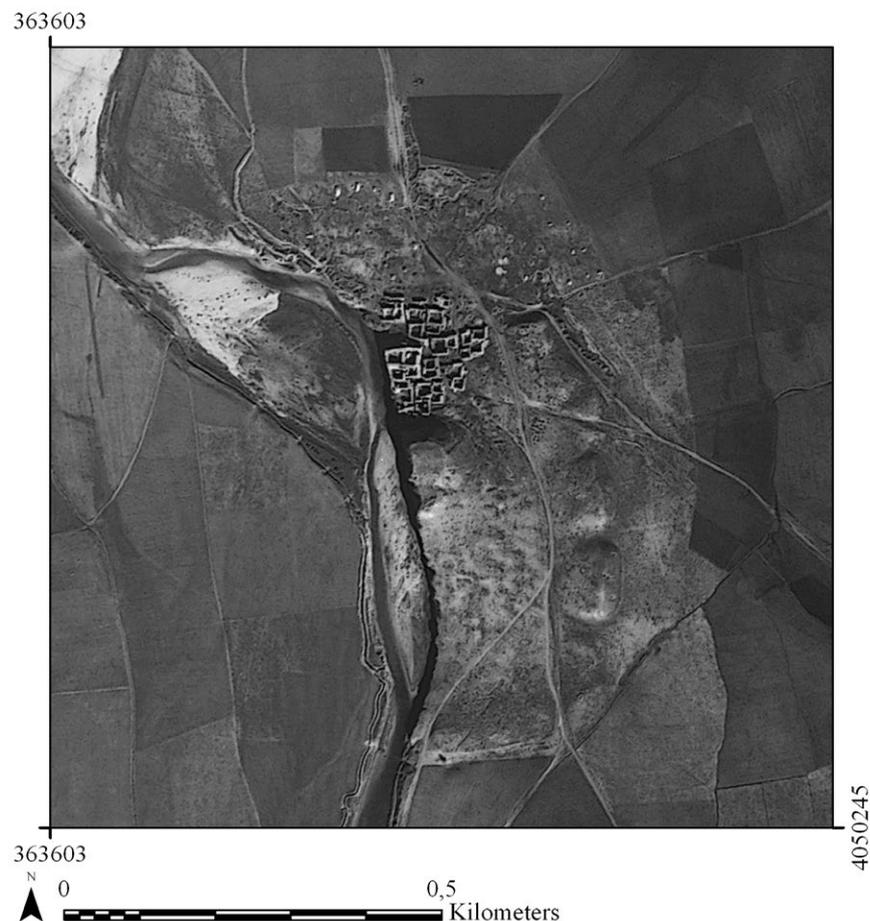


Fig. 5 - U2 mission 1554 (29 January 1960) aerial photograph. Courtesy of Jason Ur, Harvard University.

below) might suggest the existence of a fortification system protecting the ancient settlement, and a city gate. These features are particularly visible in the U2 image. The original topography of the northern lower town can no longer be reconstructed since this part of the site has undergone levelling and terracing operations to create flat surfaces on which the houses of the modern village could be constructed. The southern edges of the lower town slope quite gently down to the surrounding plain.

As for the original form and size of the ancient site, fluvial erosion has removed part of the high mound and the western lower town. The contour lines in the topographic map of Gir-e Gomel, the U2 aerial photograph and the oblique image of the site emphasise the persistence at the foot of its western section of a semi-circular portion of the ancient site with a surface area of 4 ha where the archaeological deposit has been partly removed by the river (Figs. 3-5). What remains of this eroded part of the site are the lowest archaeological deposits, partially removed by water erosion and now covered by thick gravel

deposits laid down by the river. This interpretation of the topographic and archaeological evidence is supported by the discovery made in 2013 of three poorly preserved baked-brick walls of a building located in what is today the Gomel riverbed in the southern part of the eroded site slice, about 140 m to the north/north-west of Operation 1 (Fig. 3, red dot). The building, part of which is still buried under the river gravel, was associated with Middle Bronze Age pottery.

The available evidence shows that the ancient site of Gomel must have reached an overall surface area of about 35 ha, which was entirely occupied during the mid-late 3rd millennium and the Middle Bronze Age (see below), thus undoubtedly serving as the central place of the Navkur Plain during these periods. At other periods during its occupation history, the site may have been significantly smaller. Gomel's size thus equalled the 34 ha of the mid-late 3rd millennium site of Xrab-i Kilaşin discovered about 20 km to the west of the Greater Zab and 22 km to the east of our site by the Upper Greater Zab Archaeological

Gir-e Gomel periodization	Operation	Relative chronology	Absolute chronology
1	1-3	Recent/modern	1922-today
2	1	Late Islamic	c. 1500-1922 AD
3	So far not attested in the excavation	Middle Islamic	c. 1000-1500 AD
4	1	Early Islamic	636- c. 1000 AD
5	So far not attested in the excavation	Sasanian	224-636 AD
6	1-2	Parthian	c. 100 BC-224 AD
7	1	Hellenistic	331-c. 100 BC
8	1	Post-Assyrian, Neo-Babylonian, Achaemenid	612-331 BC
9	1-2	Neo-Assyrian, Iron Age	c. 900-612 BC
10	1	Middle Assyrian, Late Bronze Age II	c. 1300-1100 BC
11	1	Mitanni, Late Bronze Age I	c. 1550-1300 BC
12	1-3	Middle Bronze Age	c. 2000-1550 BC
13	1, 3	Mid-late Early Bronze Age, EJZ 2-5	c. 2750-2000 BC
14	So far not attested in the excavation	Earlier Early Bronze Age, Early Ninevite 5, EJZ 0-1	c. 3100-2750 BC
15	3	Late Chalcolithic 3-5	c. 3850-3100 BC
16	3	Late Chalcolithic 1-2	c. 4500-3850 BC

Tab. 1 - Archaeological periods recorded in Gir-e Gomel during the excavation.

Reconnaissance.¹⁸ Gir-e Gomel and Xrab-i Kilaşin were thus the most extensive sites in the region to the west of the Greater Zab and east of the Tigris before Bassetki, a 50 ha mid-late 3rd millennium and Middle Bronze Age site in the Selevani Plain north-west of the city of Duhok.¹⁹

The result of the extensive and intensive surveys carried out in Gir-e Gomel show that the site was continuously occupied without significant interruptions from the beginning of the Late Chalcolithic²⁰ to the Middle and Late Islamic period.²¹ As mentioned above, the site's at least seven millennia long history is also witnessed by the remarkable height of the upper town, which rises almost 40 m from the level of the River Gomel. The first two excavation seasons at the site have made it possible to establish a stratigraphic sequence covering the Late Chalcolithic 1-5, the time span from the later Early Bronze Age (mid-late 3rd millennium) to the Iron Age, and the Hellenistic, Parthian, Early and Late Islamic periods. Hitherto not recorded in the excavation – even though attested at Gomel by the extensive and intensive surveys – are the earlier Ninevite 5, Sasanian and Middle Islamic periods (Tab. 1).

With its not able size that makes it the largest site in the Navkur Plain, its essentially continuous occupation for at least almost seven millennia, and its

strategic position on the left bank of the river nearly at the centre of the fertile and well-watered plain and on the main south-east-north-west route connecting

¹⁸ KOLIŃSKI 2018, 17-18 and https://www.academia.edu/5709687/UGZAR_The_site_catalogue_2013_part_2_Sectors_D1-F5_site_074.

¹⁹ According to Rafał Koliński, the size of Xrab-i Kilaşin shrank to approximately 14 ha during the following Middle Bronze Age, thus marking a change in the function of the settlement that became a rural centre of local importance (Rafał Koliński, personal communication, March 05, 2019).

²⁰ PFÄLZNER *et alii* 2017, 14. A smaller area of the site was also settled during the following Late Bronze and Iron Age.

²¹ The discovery of an Ubaid period white stone stamp seal found on the site's surface in 1933-1934 and now in the Oriental Institute Museum of Chicago (A12466; FRANKFORT 1935, 29-31, fig. 31) suggests that Gomel was already occupied during the Northern Ubaid/Early Chalcolithic period. The recovery of a so far very limited amount of unstratified ceramic material possibly dating to this and the Halaf periods in Operations 1 and 3 may suggest the existence under the later occupation levels of a Late Neolithic and Early Chalcolithic prehistoric site.

²² The Late Islamic period, i.e. the Ottoman period, is attested too at Gomel. However, the density of the diagnostic pottery and its distribution on the site's surface suggest the existence of a very small hamlet in the northern part of the site, which was possibly settled only during the very late Ottoman period or even after the fall of the Ottoman Empire. A sub-recent cemetery was brought to light in Operation 1 (see below). However, the still limited understanding of the Ottoman period pottery may influence our conclusions.

the Erbil Plain with the Tigris Valley, Gir-e Gomel was the most important site in the area and commanded the entire Navkur Plain, in particular in the periods of its maximum extension during the mid-late 3rd millennium BC and the Middle Bronze Age. The UGZAR Project located the site of Xrab-i Kilaşin about 22 km to the east of Gir-e Gomel, in the environs of the modern town and the archaeological site of Rovia.²² With its 34 ha surface area the site equals the extension of Gomel. However, its peripheral location on the eastern margin of the Navkur Plain and non-continuous occupation – starting only in the mid-late 3rd millennium, when the site reached its maximum extension, and continuing in the Middle Bronze Age (though with a significant reduction of its original size), the Middle Assyrian period and then in the Islamic era – suggest that Xrab-i Kilaşin was not the central site of the fertile Navkur Plain.

4. Written sources on Gomel and its region

The history of the Navkur Plain is scarcely illuminated by ancient written evidence. The Old Babylonian texts from the Mari and Shemshara archives of the time of Samsi-Addu mention in the region to the east and west of the Upper Iraqi Tigris a poorly known Amorite tribe, the Ya'ilanum, ruled by a king called Mar-Addu whose neutrality Samsi-Addu tried unsuccessfully to negotiate.²³ This tribe lived in the lands of Nurrugum and Qabra and was defeated and eradicated through deportations by Ishme-Dagan immediately before the joint conquest of Qabra and Urbil (Erbil) by Dadusha, king of Eshnunna, and Samsi-Addu in 1781 BC.²⁴ According to the cuneiform sources, sites such as Talmush (probably Ger-e-pan), Ninet/Nineveh, Shibanum=Shibanibe/Tell Billa, and Kilizum/Qasr Shemamok belonged to the local kingdom of Nurrugum.²⁵ During the reign of Samsi-Addu, the Navkur Plain and the entire region explored by the University of Udine were certainly part of Nurrugum. The capital city of the Land of Nurrugum, which according to Eidem and Ziegler spanned both banks of the Tigris to the north of Ekallatum, had the same name and must have been located to the east of the Tigris, as an unpublished Mari letter suggests.²⁶ The city of Nurrugum resisted the siege by Samsi-Addu's army for almost a year (while Nineveh fell after a few weeks) and was thus certainly well fortified.²⁷ After the conquest of the capital city in 1780, the Land of Nurrugum was incorporated into the kingdom of Upper Mesopotamia and many of its inhabitants were enlisted in Samsi-Addu's army. After this period, the Ya'ilanum tribe that lived in the region disappears from the cuneiform sources.²⁸ Slightly later, during the 17th-early 16th century BC, the otherwise unknown Pizigarra, of probable Hurrian descent – either the ruler of Nineveh, or coming from

this city – is mentioned in a fragmentary context of the preamble to the “The Song of Release”, a literary composition written in Hurrian with Hittite translation discovered during the excavations in Hattusha that mentions the destruction of Ebla.²⁹ This textual evidence suggests that the region studied by the University of Udine had passed under the control of an emerging Hurrian polity.

A similar scenario, characterised by conquest by Samsi-Addu's army followed by the emergence of a local Hurrian political entity, can now also be outlined for Bassetki during the Old Babylonian/Middle Bronze Age period. This site, located slightly to the west of our study region (see above), is now providing important fresh evidence for the Late Bronze Age in particular, due to the discovery during the 2017 excavation campaign of 92 Middle Assyrian texts stored in a jar on the floor of a building destroyed by fire.³⁰ Thanks to the discovery of this Middle Assyrian archive, the site can be identified as the Assyrian city of Mardama, which was the administrative seat of a currently unknown mid-13th century BC Middle Assyrian governorate. The city is already mentioned under the name of Mardaman in an Akkadian period inscription of Naram-Sin, who celebrates its destruction, and again by sources from the Third Dynasty of Ur. The city was then conquered by Samsi-Addu in 1786³¹ and later became an independent kingdom under a Hurrian ruler called Tish-ulme,³² before being destroyed by the Turukkaeans. The Middle Assyrian archive from Bassetki will hopefully also shed new light on the historical geography of the region to the east of Mardama during the Late Bronze Age.

As for the 1st millennium cuneiform sources, not very much is known for the Navkur Plain. According to Radner, from the 8th century onwards the plain perhaps belonged to three different Neo-Assyrian

²² See footnote 18.

²³ ZIEGLER 2011, 149.

²⁴ CHARPIN, ZIEGLER 2003, 90-101; EIDEM, LAESSØE 2001, 23; ZIEGLER 2004, 24 and 2011, 149-150; VIDAL 2013.

²⁵ CHARPIN, ZIEGLER 2003, 77; ZIEGLER 2004, 2011 and Nele Ziegler, personal communication (February 26, 2014).

²⁶ CHARPIN, ZIEGLER 2003, 97-99; EIDEM 1985, 101 and no. 84; ZIEGLER 2004, 21.

²⁷ As for the possible identification of Nurrugum with Gir-e Gomel, see the discussion in the conclusions to this article (Section 9).

²⁸ VIDAL 2013.

²⁹ DE MARTINO 2012; NEU 1996; WILHELM 2001.

³⁰ PFÄLZNER *et alii* 2017 and <https://uni-tuebingen.de/en/newsfullview-landingpage/article/cuneiform-tablets-from-bassetki-reveal-location-of-ancient-royal-city-of-mardaman.html> (2018). To the Middle Assyrian tablets, a few other Neo-Assyrian tablet fragments can be added.

³¹ CHARPIN, ZIEGLER 2003, 145.

³² *Ibidem*, 183.



Fig. 6 - Examples of sub-recent graves (Phases 1-2): stone cist (from the east), baked-brick cist (from the east) and simple pit burial (from the west).

provinces: from west to east Barkhalzu, Shimu and Shibkhinish.³³ As admitted by Radner herself, however, this reconstruction is very tentative and is not based on firm documentary evidence. The only site in the Navkur Plain for which identification with an ancient toponym has been proposed to date is Gir-e Gomel. Reade³⁴ and Fales and Del Fabbro³⁵ have tentatively identified it as the ancient Assyrian town of ^{URU}*Gam-ma-ga-ra*, mentioned in the Inscription B of Sennacherib at Jerwan.³⁶ The archaeological evidence does not contradict such a proposal, since at Gomel Neo-Assyrian levels have been identified in Operations 1 and 2 (see below). If Gir-e Gomel can be identified with Gammagara, whose name involves a metathesis possibly as an erroneous outcome so that Gammagara should stand for *Gangamara,³⁷ a toponomastic formation with internal duplication, then the equivalence with the Greek toponym of Gaugamela already proposed by Reade³⁸ would not give rise to particular difficulties.³⁹

9th century Syriac sources mention the site of Gomel as Gogemal, a clear distortion of the name of Gaugamela.⁴⁰ The *Chronography of Bar Hebraeus* (1226-1286) refers to the “town of Gomel” as one of the biggest centres of the diocese of Marga, spanning the region between the Upper Greater Zab Valley, the foothill region of ‘Aqra and the Atrush Valley and the Navkur Plain to the River Gomel.⁴¹ Gomel was the seat of two Monophysite bishops of Marga in the 7th and 9th centuries.⁴² This documentary evidence indicates that in the Byzantine/Early Islamic period the site of Gomel held a central socio-economic and religious position in the Marga diocese and was an important crossing point of the River Gomel on the Erbil-Tigris route.⁴³

Medieval Arabic sources, with the exception of Yaqut al-Hamawi⁴⁴ mentioned above, do not refer to the site of Gomel,⁴⁵ and neither do the 16th century Ottoman *defsters* pertaining to the regions of Mosul and Duhok.⁴⁶ The silence of the Arabic and Ottoman period sources with regard to the site suggests that during the Late Islamic period Gomel did not play an important role as an economic and religious centre or

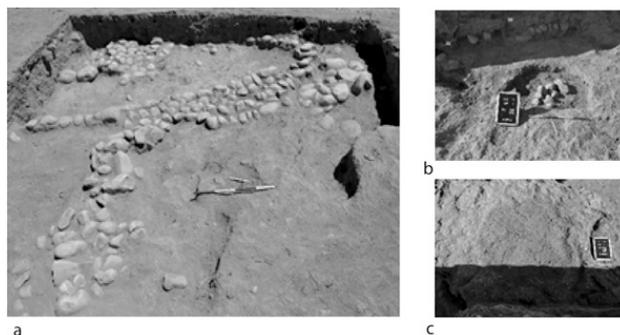


Fig. 7 - Early Islamic occupation (Phase 3), with walls 224, 232, 233, and floor 234 (a) and two of the pits (b, c).

as a strategic river crossing point, as it did during the Byzantine/Early Islamic and Middle Islamic periods, but rather was one among many rural villages and hamlets of the productive Navkur Plain.

5. Operation 1

Introduction

Operation 1 is located along the south-western edge of Gir-e Gomel’s southern lower town, in the area where the site was eroded by the River Gomel (Figs. 3-4). Excavations here were carried out in 2012, 2013, 2017 and 2018. In the first two years, a step trench was opened with the aim of investigating the archaeological sequence in this part of the site. The area was selected after a careful examination of the eroded section of Gomel’s south-western lower town. In this part of the mound, the river erosion and illicit digging had exposed baked-brick structures in a section through an extensive occupation sequence from the sub-recent period to the 3rd millennium BC. In 2017, excavations were resumed and extended through the opening of a new square (5 by 5 m) to the east of the 2012-2013 step trench. The overall

³³ RADNER 2006, Karte 1.

³⁴ READE 1978, 169. See also READE, ANDERSON 2013, 75-76.

³⁵ FALES, DEL FABBRO 2014, 80-81.

³⁶ GRAYSON, NOVOTNY 2014, no. 226: line 4.

³⁷ FALES, DEL FABBRO 2014, 80, footnote 61.

³⁸ READE 1978, 169.

³⁹ FALES, DEL FABBRO 2014, 80, footnote 61 for details.

⁴⁰ Gogemal is mentioned in the “Book of Governors” written by Thomas of Marga, bishop of the diocese of Marga in about the mid-9th century (HONIGMANN 1954, 97; FIEY 1965, 230).

⁴¹ FIEY 1965, 225-303 and map p. 224.

⁴² BUDGE 1932. See also FIEY 1965, 230-231.

⁴³ See footnote 13.

⁴⁴ See footnote 3.

⁴⁵ Miroslav Melčák, personal communication (February 11, 2019).

⁴⁶ Onur Usta, personal communication (February 12, 2019).

Early Islamic Pottery from stratigraphic unit 318.

N.	SU	PHASE	WARE	DESCRIPTION
1	318.35	3	w6	Pale-yellow ware, with medium occurrence fine inclusions
2	318.37	3	w5	Pink ware, reddish-yellow ceramic body, with abundant fine inclusions; pale-yellow surface
3	318.68	3	w14	Cooking ware, reddish-grey hard fire ware, with abundant inclusions, presence of quartz
4	318.33	3	w7	Eggshell ware, pale-yellow, well levigated body
5	318.30	3	w7	Eggshell ware, pale-yellow, well levigated body
6	318.31	3	w7	Eggshell ware, pale-yellow, well levigated body
7	318.32	3	w7	Eggshell ware, pale-yellow, well levigated body
8	318.27	3	w7	Eggshell ware, pale-yellow, well levigated body
9	318.28	3	w4	Gritty ware, light-grey/pale yellow ceramic body with abundant fine inclusions

area excavated in Operation 1 amounts to about 85 sq. m. Twenty-six different occupation phases have been identified so far in this part of the site, which was used as a burial ground in the sub-recent period, the Neo-Assyrian period, and in the Middle and Early Bronze Age, while it was an inhabited area during the Late Bronze Age, and the Post-Assyrian, Parthian and Hellenistic periods.

Sub-recent occupation (Phases 1-2)

The first two phases of occupation are dated to very recent times (probably the 20th century AD) and are represented by 21 graves of a cemetery located immediately below the topsoil. Three types of burials have been recorded (Fig. 6): one baked-brick cist grave and seven stone cist graves (or with stone covers), while the remaining burials are simple pit graves. 60% percent of the bones analysed belong to adults/juveniles, while 40% pertain to young individuals (from newborns to adolescents). The burials were mainly oriented west-east, but in some cases east-west orientation is found. All the skeletons faced south and lay directly on the grave bottom, mostly lying on one side or on the back, with slightly bent or outstretched legs. No grave goods were recovered from the burials.

Early Islamic occupation (Phase 3)

The third occupation phase, dating to the Early Islamic period (7th-10th century AD), is represented by an external trodden floor abutting three walls (224, 232 and 233) and some waste pits (256, 268 and 318). The walls (Fig. 7a) were built with large cobblestones of different sizes (20-40 cm) taken from the nearby river, laid in courses and bound with brown or grey mud; they are probably the foundations of mud-brick walls that were not preserved. The above-mentioned

graves heavily damaged this level. The ceramic material found in several large rubbish pits (diameter: 2-2.5 m; depth 1-1.5 m; Fig. 7b-c) is particularly interesting. The pottery assemblages from the bell-shaped disposal pits, which might originally have been used as storage pits, are homogeneous and of great interest for understanding the material culture of the poorly known earliest phase of the Islamic period in the Gir-e Gomel region.

The excavated evidence is far too fragmentary to ascertain the nature of the area's occupation. However, the uncovered features suggest that in the Early Islamic period this part of the site was used for domestic and storage activities.

The pottery from the Early Islamic dumps (C. Tonghini)

It is well known that the material culture of northern Iraq in the long Islamic period is still poorly understood and that a well-established reference chronology for the ceramic finds is not available yet. However, it must also be said that the situation is gradually changing thanks to the most recent fieldwork seasons.⁴⁷ The excavation of a site such as Gomel, characterised by continuous occupation dur-

⁴⁷ See for example NOVÁČEK *et alii* 2016, 122-159. At the 11th ICAANE held in Munich, April 2018, ceramic assemblages from on-going projects in Iraqi Kurdistan were discussed: M. AHMAD "Islamic Archaeology in Iraqi Kurdistan: Sulaymaniyah region as a case-study"; K. KAERCHER "Chronology and Social Identity in the Middle and Late Islamic Periods in Northeastern Iraq via the Study of Unglazed Earthenwares"; C. TONGHINI, V. VEZZOLI "The Islamic period settlement in Kurdistan/Iraq: results from the Land of Nineveh Archaeological Project".

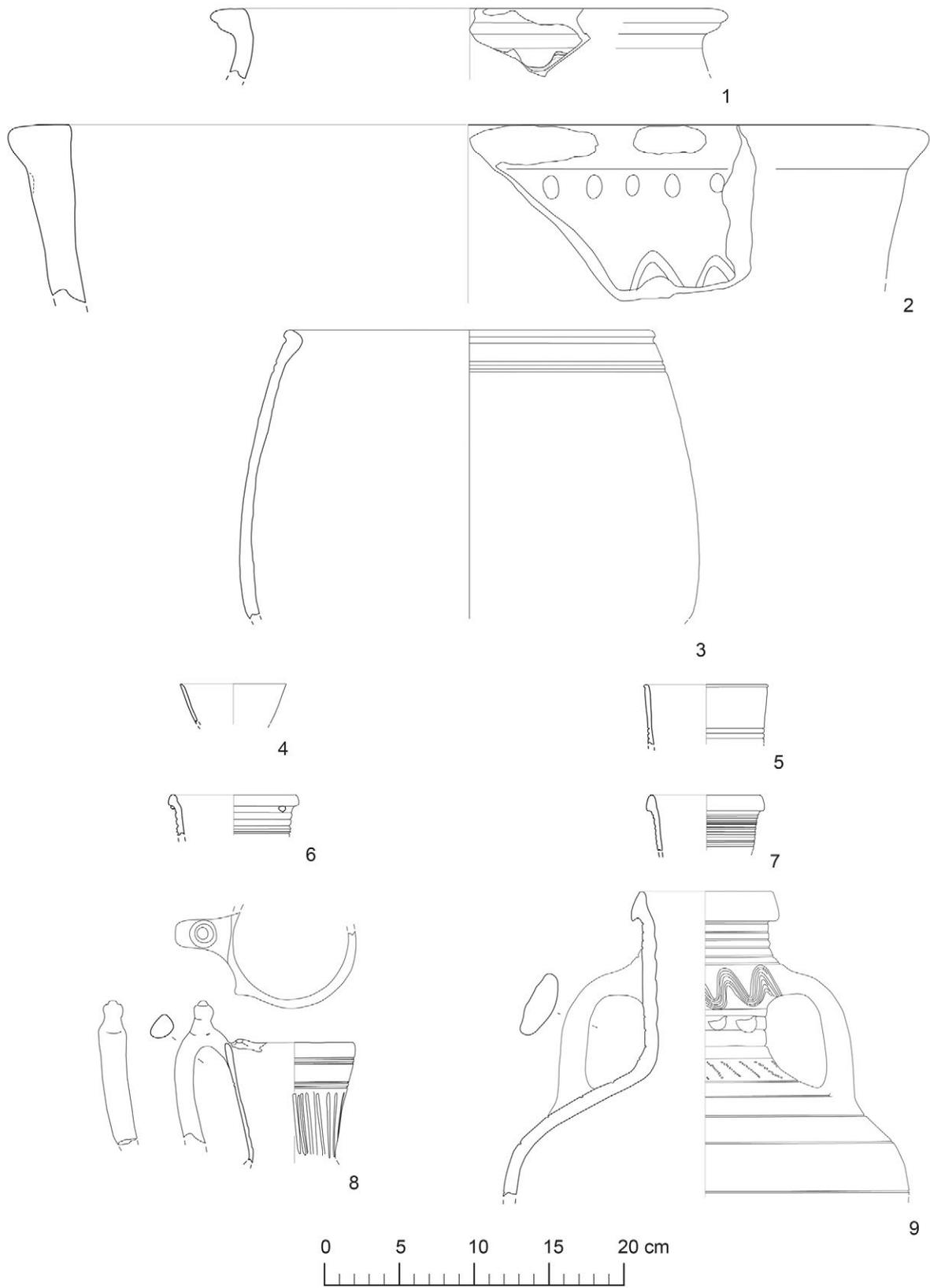


Fig. 8 - Early Islamic Pottery from stratigraphic unit 318.

Early Islamic pottery from stratigraphic units 318 and 227.

N.	SU	PHASE	WARE	DESCRIPTION
1	318.41	3	w7	Eggshell ware, pale-yellow, well levigated body
2	318.42	3	w5	Pink ware, reddish yellow ceramic body, with medium occurrence fine inclusions
3	318.43	3	w6	Pale-yellow ware, with medium occurrence fine inclusions
4	227.37	3	w14	Cooking ware, reddish-grey hard fire ware, with abundant inclusions, presence of quartz
5	227.24-25	3	w3	Abbasid moulded ware: pale-yellow ceramic body, well levigated, rare inclusions, presence of quartz
6	227.35	3	w3	Abbasid moulded ware: pale-yellow ceramic body, well levigated, rare inclusions, presence of quartz
7	227.21	3		Pale yellow, levigated body with glaze, deteriorated

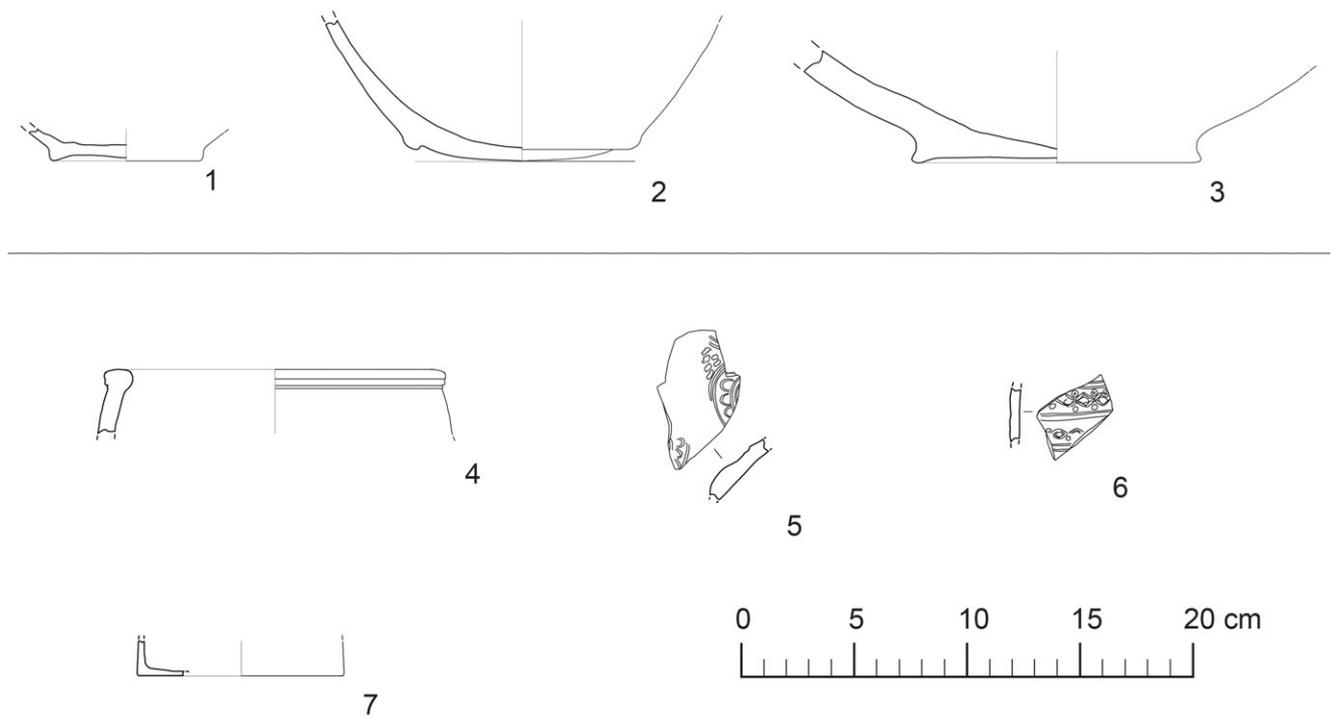


Fig. 9 - Early Islamic pottery from stratigraphic units 318 and 227.

ing the long Islamic period, may provide important evidence in this respect.

In fact, it is especially the pottery finds from the 2017 and 2018 excavations of Gir-e Gomel that made it possible to complete the typological work carried out in the framework of the survey project in relation to the Early Islamic period (7th-10th centuries).⁴⁸ This typology had been originally established on a few well-known, well-dated ceramic types circulating in the region as well as in the neighbouring areas (Syria, Turkey, Iran) and on the pottery from sites characterised by a single-period occupation through a seriation process.⁴⁹

The ceramic finds from a number of dumps at Gir-e Gomel significantly enlarged the assemblage of pottery types that can be ascribed to the Early Islamic period; at the same time, they contribute to a first evaluation of the settlement's character in this period. The dumps are located in an area that, according to the results of an intensive survey, seems to constitute the southern outskirts of the settlement in the Early Islamic period; the finds may thus illustrate the repertoire of a domestic and peripheral context.

The selection of pottery presented here comes from two different dumps, stratigraphic units 227 and 318.

Glazed pottery is rare, and comprises a few samples of the so-called *Yellow Glazed Family*, a distinctive type characterised by a well-levigated fabric and a bright yellow glaze, often associated with black-painted decoration.⁵⁰ The largest group in the assemblage consists of unglazed beige ware, with a number of different varieties. Highly diagnostic types are represented by so-called *Egg-shell Ware*,⁵¹ with a very fine, well-levigated fabric, generally associated with water-juglets (Figs. 8, 4-8 and 9, 1), and by moulded-ware, associated with small closed and open forms (Figs. 9, 5-6 and 10).

The quantity of sand and mineral inclusions can vary considerably within this group. Closed forms of small and medium dimensions generally present a smooth surface and various types of decoration (incised, moulded, applied, and stamped: Figs. 8, 1-2, 9 and 9, 2-3). Larger forms, such as basins and jars, are characterised by a much grittier fabric. A highly diagnostic decoration of the 7th-9th centuries is the so-called *Honeycomb Ware* (finger impressed decoration),⁵² usually associated with jars.

The cooking ware seems to differ from the well-known *Brittle Ware* well attested in the whole region;⁵³ it is characterised by a reddish/brownish gritty fabric, with abundant mineral inclusions; a globular pot with a thickened rim seems to be the most typical form (Figs. 8, 3 and 9, 4).

The repertoire fits within the morphological and decorative horizon of other contemporary and well-known contexts of the Abbasid period in the Mesopotamian region.⁵⁴ The absence of the well-known *Blue-*

Glazed Abbasid Ware can be noted. This absence may bear chronological implications and suggests that the dumps discussed here should be dated toward the later part of the Early Islamic horizon.

The pottery types that are found in the dumps seem to illustrate a peripheral domestic context within an urban environment that must have been well connected to a regional commercial network. The variety of the pottery types and their quality demonstrates easy access to the fine table wares market, and is comparable with that of other urban entities, such as al-Raqqā; the percentages of the various types and especially the paucity of the glazed-ware indicate that this area was somewhat marginal in comparison with the areas of the town presumably frequented by the elites. The continuation of the archaeological exploration of the buried deposits will undoubtedly provide important evidence in relation to the occupation of the site during the long Islamic period and contribute significantly to our understanding of the material culture of this period in the whole area.

Parthian Period (Phases 4-6)

The occupation of Phase 4 is poorly documented through the presence of a fragmentary structure (Building 2), which extended beyond the northern excavation limit. Only one room of this building was brought to light in Operation 1 (Fig. 11a).

Underneath one of the mud-brick walls of Building 2, a burial (Grave 31, Phase 5, Fig. 11b) was found: the inhumation grave consisted of an ellipsoidal pit at the bottom of which the skeleton of an adult was lying prone.

Although the few walls of Building 2 found in Operation 1 do not indicate its precise function, due to their thickness and construction quality it can be deduced that in the Parthian period the area had a domestic use. The finding of a burial on an external surface belonging to Phase 5 further emphasizes that this region of the site located at its south-western edge was not densely and permanently inhabited.

⁴⁸ Following WHITCOMB 1992, 112-118, the long Islamic period can be divided into three main horizons: Early Islamic Period (7th-10th centuries), Middle Islamic Period (11th-15th centuries), Late Islamic Period (16th-20th centuries).

⁴⁹ TONGHINI, VEZZOLI 2018.

⁵⁰ WATSON 1999, 81-87.

⁵¹ NORTHEGE *et alii* 1988, 86-87; KENNET 2004, 31.

⁵² NORTHEGE, FALKNER 1987, Pl. XXX, and note 62; MIGLUS, STĘPNIOWSKI 1999, taf. 76: i-j.

⁵³ VOKAER 2011.

⁵⁴ Especially MIGLUS 1999; FRANÇOIS, SHADDOUD 2013; ROUSSET 1996.



Fig. 10 - A group of Abbasid moulded ware vessels (Ware 3) from stratigraphic unit 227.

Hellenistic Period (Phases 7-9)

In the entire Operation 1 settlement sequence, the Hellenistic period is the only one that has yielded considerable – although so far only partly cohesive – architectural remains. Several walls constructed with different building techniques have been uncovered: mud-bricks walls, a mud-brick and *pisé* wall, mud-brick walls with stone foundations, mud-brick walls with stone and baked-brick foundations. A single fragmentary dwelling, Building 1 – consisting of the stone foundations of two parallel walls (46 and 47), a poorly preserved mud floor (50) and a mud-brick bench (49) abutting one of the walls – was brought to light in the eastern part of the excavation in Phase 9 (Fig. 12a). A third perpendicular mud-brick wall on

stone foundations (283), measuring 4 m long and 0.9 m wide and possibly belonging to the same building, was found in the western part of the excavation (Fig. 12b).

Another structure, called Building 2 (Fig. 13), was partially cleared in Phase 7. It was formed of an east-west oriented mud-brick wall (263), partly extending beyond the northern excavation limit, that measured about 5 m in length, with a width ranging from 0.45 to 0.65 m. The eastern part of the wall was built with mud-bricks and *pisé*, while its western part consisted of smaller and better preserved mud-bricks. This wall was abutted to the south by a perpendicular mud-brick wall (271), measuring 1.50 x 0.85 m. Another fragmentary structure (272), measuring 2 x 0.50 m,

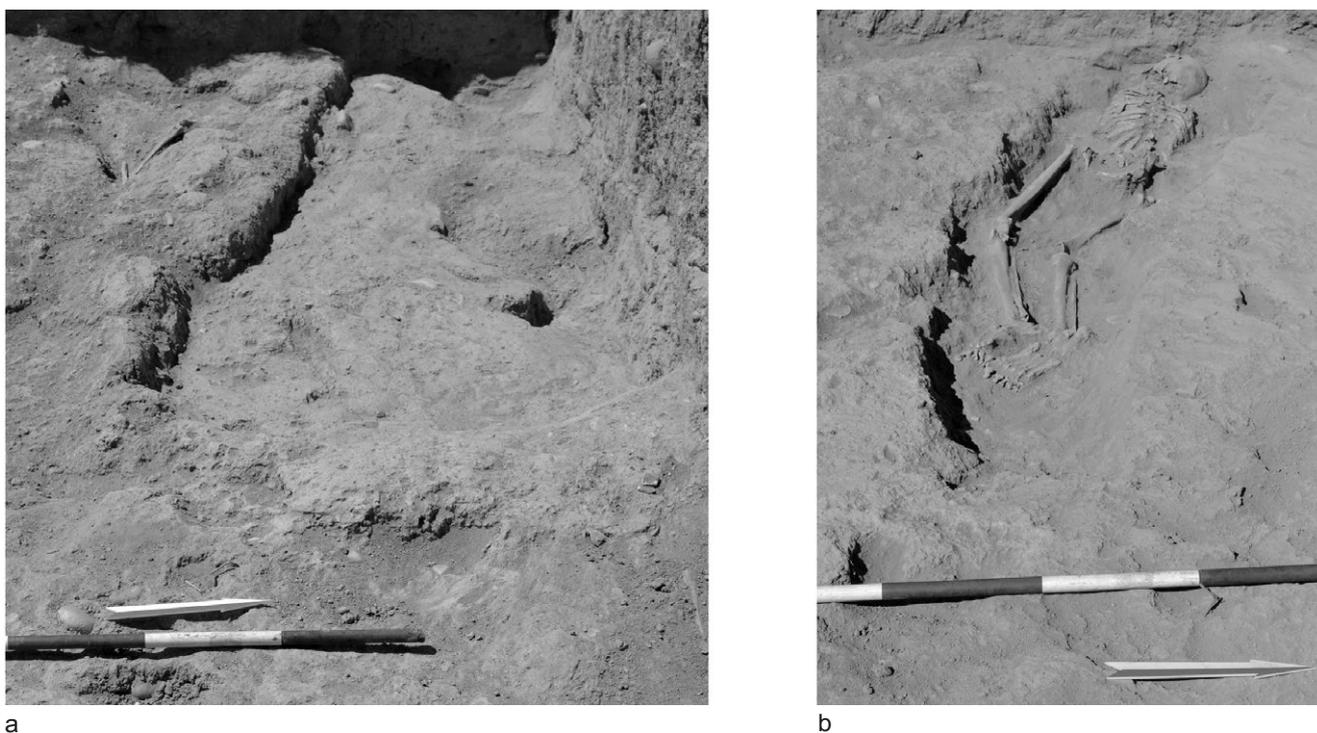


Fig. 11 - Building 2, walls 242 and 243 and floor 244 (a) and Grave 31 (b).

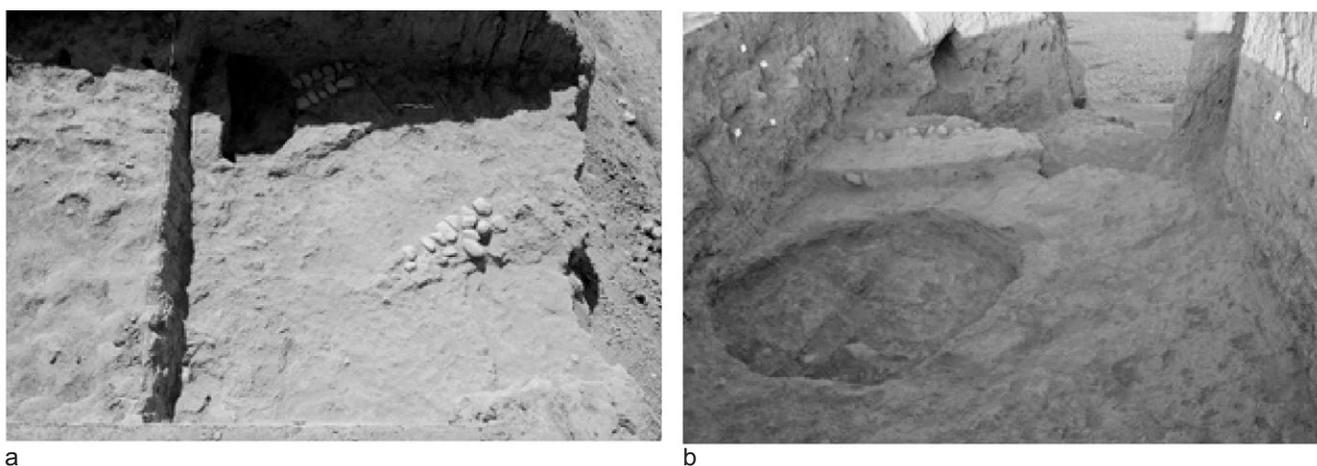


Fig. 12 - Building 1: walls 46 and 47, floor 50 and bench 49 from the north (a) and wall 283 from the east (b).

was found to the east of wall 271. This mud-brick structure, which continues beyond the eastern excavation limit, was not physically linked to walls 263 and 271 and probably served as a work bench or small platform. Building 2 was in use during at least two sub-phases (Phases 7a - 7b), since two floors (270 and underlying 275) abutted all the architectural features described above.

On the two floors, some interesting objects have been uncovered: spindle-whorls, loom-weights, a bone pin and a bronze knife: the character of the fragmentary architecture exposed and the nature of the objects found on its floors suggest that the use of this building was related to craft and domestic activities.

Although the function of Buildings 1 and 2 is still unclear, the rather considerable size of the walls, especially of those of Building 2, suggests that the latter was a dwelling of a certain size, where craft and domestic activities were carried out. Both buildings were in use for more than a sub-phase, as various floors were in function with the same walls. Comparable Hellenistic structures with mud-brick and *pisé* walls have been discovered at Tell Beydar.⁵⁵

⁵⁵ DEZZI BARDESCHI, STÈNUIT 2011, 238-240; DE CONCEIÇÃO LOPEZ *et alii* 2011, 275-277.



Fig. 13 - Building 2: walls 263, 271, 272, 264-265 and floor 275.

Post-Assyrian? Period (Phases 10-12)

Three phases have been dated to the Post-Assyrian period on the basis of the pottery discovered. Three trodden floors (289, 305 and 333) probably pertaining to open areas were brought to light. The only structure found in Phase 10 was a sloping ramp made of hard compact clayey soil, higher to the south, on which wall 283 had been built. Under this ramp, a stamp seal was discovered (305.701).⁵⁶ The deposits on the trodden floors contained abundant pottery; in particular, numerous small bowls with incurved and internally thickened rims (Fig. 17, 1-2). Several similar pieces were found in Level 3 at Khirbet Khatuniyeh,⁵⁷ dated to the Post-Assyrian period. Moreover, the presence of a fragment of carinated beaker with everted rim (Fig. 17, 3) resembling specimens found at Kharabeh Shattani in levels dated to the Achaemenid period⁵⁸ and at Khirbet Khatuniyeh, level 3,⁵⁹ further confirms the dating of these levels to the Post-Assyrian period.

Neo-Assyrian Period (Phases 13-15)

In the Neo-Assyrian period, the region of Gir-e Gomel investigated in Operation 1 was an open area,

the occupation of which is represented by trodden floors with few installations separated by thick layers that accumulated on them. In Phase 14 six *in-situ* cremation burials were discovered in the western part of the excavated area, whilst in the eastern part of the area's trodden floor 321 two stone installations were exposed (307-308; Fig. 14). The western part of the open area was cut by a cluster of east-west oriented cremation graves (G 17, G 18, G 20, G 37, G 38, G 39 and G 40). This cremation necropolis extended towards the west and was partially eroded by the river. The main characteristic of the Operation 1 burial ground is that it consisted exclusively of *in-situ* incineration graves, *i.e.* not cinerary urns containing the ashes of the dead (who had been cremated elsewhere) buried in a pit, but rather cremation burials dug into the soil in which the funeral pyre with the

⁵⁶ For details, see Section 8, Fig. 58.

⁵⁷ CURTIS, GREEN 1997, figs. 55, 347 and 59, 403.

⁵⁸ BAIRD *et alii* 1995, fig. 36, 10.

⁵⁹ CURTIS, GREEN 1997, fig. 55, 353.

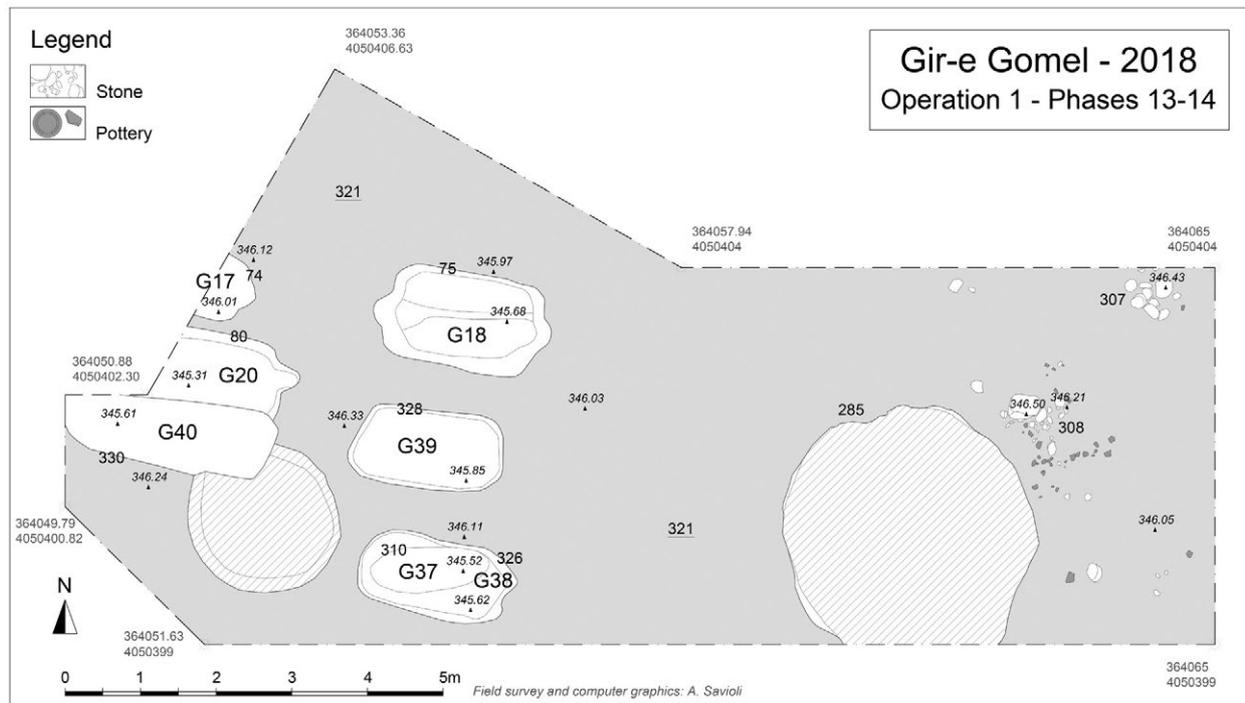


Fig. 14 - Plan of the Neo-Assyrian occupation phases with cremation graves.

body of the deceased on it was burnt. After the full combustion of the pyre and body, the remains fell into the pit (as shown by the heavily scorched bottom and sides), the grave goods were deposited in the burial and the whole structure was covered with earth.

Four cremation burials (G 17, 18, 20 and 38) have a roughly rectangular shape with rounded corners and two small lobate openings on the short sides (Figs. 14 and 15a-b). In few cases these were linked at the bottom of the grave by a still recognisable shallow channel for the ignition of the funeral pyre constructed above the pit (G 18, 20);⁶⁰ this would have permitted air to circulate and thus made full cremation of the body possible.

The burials range from 2 to 2.30 m in length, 0.90 to 1.30 m in width and are approximately 0.50 m deep. The pit surfaces were reddish and hardened due to their exposure to the heat of the pyres' combustion. The grave fills contained greenish vitrified parts of the pit sides mixed with ashes and small fragments of burnt bones. Graves 39 and 40 were also rectangular in shape with rounded corners but lacked the two lobate openings on the short sides and the shallow aeration channels (Figs. 14 and 15c). The sides of Graves 39-40 were less rubified and burnt, probably because the combustion temperature was lower than in the graves with lobes and ventilation channels. The hypothesis that these graves had a lower burning temperature is also supported by the condition of the

bone remains, which in these cremations were bigger and less burnt than those found in the lobate graves with aeration channels.

Grave 37 was smaller (1.30 x 0.60 m) and cut Grave 38 (2.20 x 1.20 m) on its northern side, thus indicating that the graveyard had at least two phases of use (Phase 13 with G 37 and Phase 14, which is the cemetery's main phase of use). The section of Grave 37 (Fig. 15d) shows that the fill consisted of several layers: the upper part was composed of soft ash, which probably represents the remnants of the pyre. Below it, layers of ash were interspersed with layers of compact reddish coloured clay, while towards the bottom of the grave a large quantity of hard greenish burnt material resulting from the firing of the grave-cut sides was found. The burial goods do not consist of prestige objects and the majority of graves contained just a few items. In Grave 17 a typical fine-fabric Neo-Assyrian beaker was found (Figs. 16c and 17, 4). This vessel resembles the elongate Palace Ware beakers⁶¹ found at several Neo-Assyrian

⁶⁰ MORANDI BONACOSI 2018b, fig. 3.7. In fig. 3.7 a, the burial has erroneously been marked as T. 17 instead of T. 20.

⁶¹ BT_03 type, following ANASTASIO 2010, 48-49 and pl. 28, 6-1.

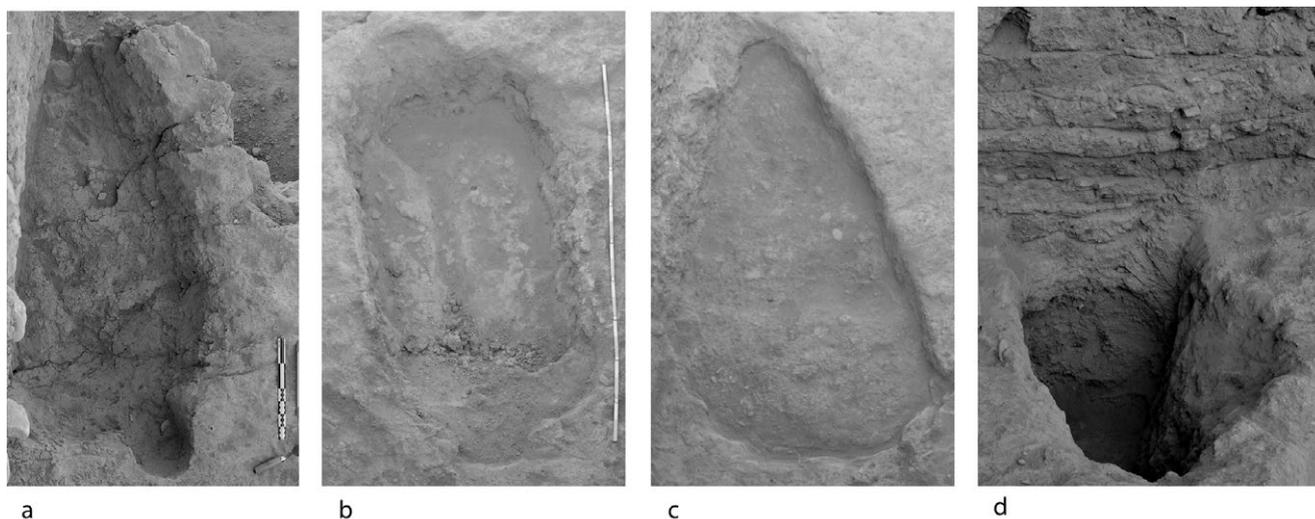


Fig. 15 - Neo-Assyrian cremation graves with lobes (a and b: G 18 and 20) and without lobes (c: G 39) and section of Grave 37 (d). All graves seen from the east.

sites, such as Nimrud,⁶² Qal'at Sharqat⁶³ and Ziyaret Tepe.⁶⁴

Grave 18 contained two vessels (Figs. 16a-b and 17, 5-6) and a small metal fragment, possibly part of a bronze fibula (Fig. 16g). The very poor state of preservation makes it impossible to understand to which type of fibula it belonged.⁶⁵

One of the two Grave 18 vessels is of the same type as the beaker found in Grave 17, but is whitish in colour and finer (Figs. 16a and 17, 5). The second vessel recovered is a small squat beaker with a wide mouth and is similar to the “dimple beakers” found for instance in Nimrud⁶⁶ and Khirbet Khatuniyah,⁶⁷ but has a shorter neck (Figs. 16b and 17, 6). It has a very fine fabric (possibly Palace Ware) and shows the characteristic dimple impressions in the lower part of the body.

In Grave 39, no grave goods were found. A small squat jar with a fine greenish fabric and a corrugated shoulder was found in Grave 20 (Figs. 16d and 17, 7). A similar vessel was found at Nimrud - Fort Shalmanasar.⁶⁸ This small jar has been damaged by exposure to heat, which suggests that the vessel had been placed in the grave before the burning of the funeral pyre or immediately after the combustion process, when the ash and residual material were still hot. This was not the case for the vessels found in the other graves, which do not bear traces of secondary firing, thus indicating that they were added to the grave after the end of the combustion process.

Grave 37, which due to its small dimensions possibly belongs to a child, contained almost 50 beads and a fragment of an arm-shaped bronze fibula (310.773, Figs. 16h and 17, 8). The fibula belongs to Pedde's Gruppe D1.5.⁶⁹ Very similar specimens were found for instance in Nineveh,⁷⁰ Nimrud,⁷¹ and Assur⁷² and are

mainly dated to the 7th century. The beads were partially deformed by heat. They have different shapes but the most common are biconical and disc-shaped white quartz beads. Other beads are made of different kinds of stone (for example carnelian, and grey and pinkish quartz).

As mentioned above, the northern part of Grave 38 was cut by G 37. In the southern portion, two vessels were uncovered: a small bottle and a beaker (Figs. 16e-f and 17, 9-10) in fine ware. Parallels to the small bottle have been found at Qal'at Sharqat⁷³ and Tell Ahmar on the Syrian Euphrates,⁷⁴ while similar beakers come from Khirbet Khatuniyah,⁷⁵ Khirbet Qasrij⁷⁶ and Qal'at Sharqat.⁷⁷

The vessels found in the above-described graves belong to the typical late Neo-Assyrian ceramic assemblage of the 8th-7th centuries BC.

⁶² OATES 1959, pl. XXXVII, 64.

⁶³ HALLER 1954, taf. 3n1.

⁶⁴ MATNEY, RAINVILLE 2005, fig. 16, 34.

⁶⁵ On Iron Age fibulae, see PEDDE 2000, 356-364.

⁶⁶ OATES 1959, pl. XXXVII, 62.

⁶⁷ CURTIS, READE 1995, fig. 51, 267.

⁶⁸ OATES 1959, pl. xxxvii, 73.

⁶⁹ PEDDE 2000, 268-282, taf. 62-65.

⁷⁰ STRONACH 1959, 200, fig. 9-10, Type iii-7.

⁷¹ *Ibidem*, 205, pl. li, 3, Type iii-7.

⁷² HAUSLEITER 1996, 67.80.353.

⁷³ HALLER 1954, taf. 4m.

⁷⁴ JAMIESON 1999, fig. 4, 6.

⁷⁵ CURTIS, GREEN 1997, fig. 39, 168; CURTIS, READE 1995, fig. 39, 168.

⁷⁶ CURTIS 1989, fig. 40, 269.

⁷⁷ HALLER 1954, taf. 3t.

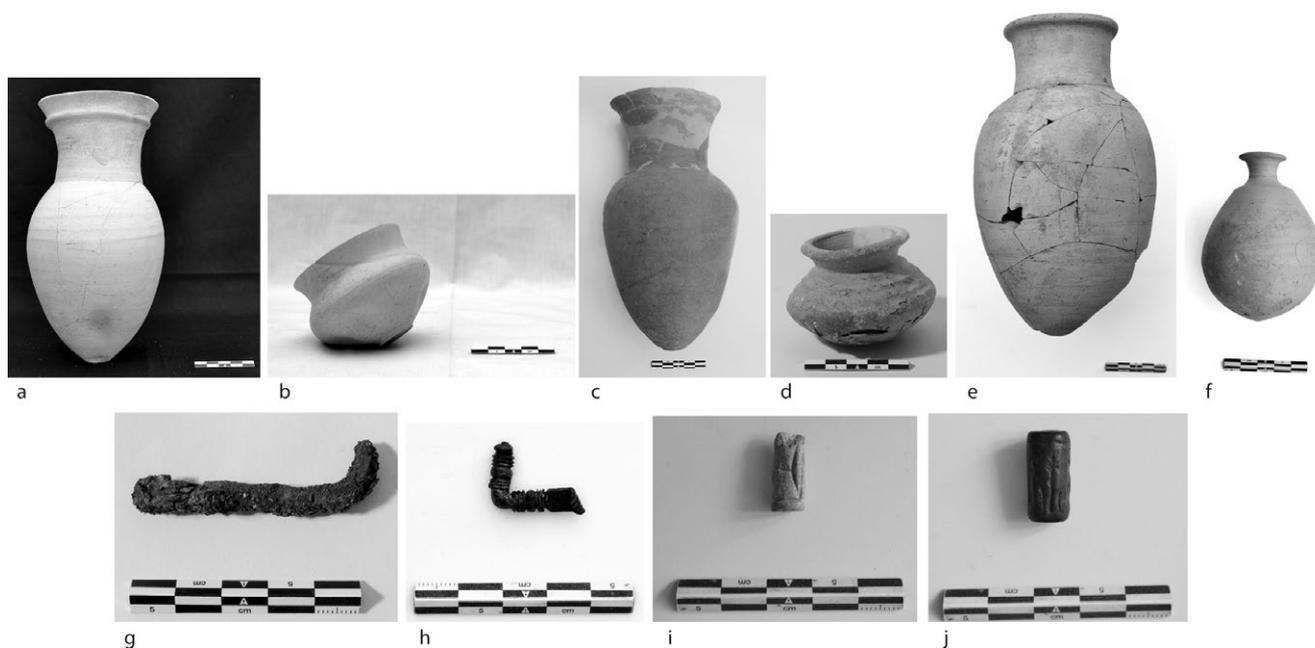


Fig. 16 - Burial goods from Neo-Assyrian cremation graves.

Lastly Grave 40, which was cut on its south-eastern side by an Islamic period pit, while its north-western corner had been eroded by the river, contained two cylinder seals (329.702-703; Fig. 16 i-j).⁷⁸

The finding of *in-situ* cremation burials in a Late Assyrian context such as that of Gir-e Gomel, a site that was located in the very core of the Assyrian Empire in the immediate vicinity of its two last capital cities, Khorsabad and Nineveh, is rather unusual. As is well known, the Neo-Assyrian funerary ritual was characterised by inhumation.⁷⁹ During the Iron Age II, cremation was widespread in western Syria⁸⁰ and Anatolia,⁸¹ but in the 'Land of Ashur' cremations directly above the grave cut that closely resemble those found at Gomel are known only from two sites: Tell Sheikh Hamad on the Lower Khabur, where fifteen *in-situ* cremation burials were identified in the Neo-Assyrian residences in levels dating to the late ninth to mid-6th century BC,⁸² and Ziyaret Tepe on the Turkish Tigris, where five cremation graves dating to the late 8th to 7th century BC of the same type were found in the main courtyard of the probable palace of the local Neo-Assyrian governor.⁸³

Grave shape and structure and the evidence of funerary ritual from the Sheikh Hamad and Ziyaret burials are identical to those documented at Gomel.

The only significant difference is that the grave goods found in the Gomel cremation burials appear to be more humble and do not include luxury items such as the metal and ivory objects documented in the Ziyaret Tepe graves⁸⁴ and also present in some of the Sheikh Hamad cremations (those in Courtyard Z and outdoor area IZ⁸⁵). A further peculiarity of the

Gomel burials is that they seem to be placed in an open area that, as far as we can ascertain at this stage of the excavation, was not properly settled in the Neo-Assyrian period. However, it cannot be excluded that the continuation of the excavation to the north, south and east will show the presence of structures dating to the Neo-Assyrian period. Moreover, it is possible that the settlement extended further to the west of the graves, where the site has been strongly eroded by the river. In this case, the cremation cemetery might possibly not have been located at the margins of the settlement.

At Ziyaret Tepe, the funerary ritual of *in-situ* cremation has been interpreted as evidence of the pres-

⁷⁸ For these seals, see Section 8.

⁷⁹ STROMMINGER 1971, 592; MOFIDI-NASRABADI 1999; MORANDI BONACOSI 2018b, 71. On the other hand, non *in-situ* cremation burials, i.e. incinerated remains in urns interred in pits, are known for the Middle Assyrian period (for a discussion, see MORANDI BONACOSI 2018b, 71).

⁸⁰ See, e.g., the cemeteries at Yunus-Tepe (WOOLLEY 1939-1940, 11-37), Deve-Hüyük I (MOOREY 1980), Tell Shiukh Fawqani (AL-BAHLOUL, BARRO, D'ALFONSO 2005, 997-1048; LE GOFF 2005, 21-27; TENU, BACHELOT 2005, 11-14) and Hama (RHS 1948). For cremation in the Iron Age Levant, see also BIENKOWSKI 1982.

⁸¹ For an overview, see WICKE 2013, 245.

⁸² KREPPNER 2008.

⁸³ MATNEY *et alii* 2002; WICKE 2013. On this topic, see also MORANDI BONACOSI 2018b, 69-72.

⁸⁴ MATNEY *et alii* 2002, 55-56.

⁸⁵ KREPPNER 2008, 266.

Pottery from Post-Assyrian level (Phase 12) and finds from Neo-Assyrian cremation graves (Phases 13-14).

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	306.327	12	Sand, Calcite	h	ss/ss	sm/sm	7.5 yr 6/8 ry	7.5 yr 6/8 ry	w		CURTIS-GREEN 1997, fig. 59, 403.
2	306.330	12	Sand, Chaff	h	ss/ss	sm/sm	2.5 yr 4/8 r	2.5 yr 4/8 r	w		CURTIS-GREEN 1997, fig. 55, 346.
3	306.326	12	Sand	h	ss/ss	sm/b	5 yr 6/8 ry	5 yr 6/8 ry	w		BAIRD <i>et alii</i> 1995, fig. 36, 10. CURTIS-GREEN 1997, fig. 55, 353.
4	73.701	14	Calcite, Basalt	h	s/ss	nt/b	7.5 yr 7/6 ry	7.5 yr 7/6 ry	w		OATES 1959, pl. XXXVII, 64. HALLER 1954, Taf. 3n1.
5	83.701	14	Sand, Chaff	h	ss/ss	sm/sm	5y 8/2 py	5y 8/2 py	w	Rib	OATES 1959, pl. XXXVII, 64.
6	83.702	14	Sand, Calcite	h	ss/ss	sm/sm	5y 8/2 py	5y 8/2 py	w		OATES 1959, pl. XXXVII, 62. CURTIS-READE 1995, fig. 51, 267.
7	79.701	14	Calcite	h	ss/ss	sm/sm	2.5 y 8/2 py	2.5 y 8/2 py	w	Corr.	OATES 1959, pl. XXXVII, 73.
9	325.701	14	Calcite	h	ss/ss	nt/sm	10 yr 8/3 vpb - 10 r 6/6	10 yr 8/3 - 8/4	w	Ribs	CURTIS-GREEN 1997, fig. 39, 168. CURTIS 1989, fig. 40, 269.
10	325.702	14	Calcite	h	ss/s	sm/sm	5 y 8/2 py	5 y 8/2 py	w		HALLER 1954, Taf. 4m. JAMIESON 1999, fig. 4, 6.

ence in the governor's palace of members of the local eastern Anatolian elite appointed as local governors by the Assyrians. They lived following an Assyrian way of life, in a Neo-Assyrian-type palace and using an Assyrian material culture, but retained their traditional burial custom of *in-situ* cremation.⁸⁶ However, Gir-e Gomel is a site located in the Assyrian imperial core region. Although other hypotheses cannot be excluded (see below), the most plausible interpretation of Gomel's unusual funerary evidence is that the use of a burial practice completely alien to Assyrian traditions can be tentatively explained as a consequence of the presence in the region of the two last capitals of the Assyrian Empire of deportees from Assyrian military campaigns. The mass immigration of deportees from conquered lands is well documented by Assyrian sources.⁸⁷ Our hypothesis is that the *in-situ* Gomel cremations belong to deportees coming from regions in which during the Iron Age cremation was practised, such as the Levant and eastern Anatolia.

The only two graves for which sex determination has been possible so far (Graves 17 and 18 excavated in 2012) belong to two women. The majority of the cremation burials found at Sheikh Hamad pertain to women and children too.⁸⁸ Should the future analysis of the cremated skeletal remains from the graves excavated in 2017 and 2018 confirm their attribution to women and/or children,⁸⁹ this could suggest that cremation on funeral pyres in pit graves was used at Gomel for the burial of foreign women, who maybe had married Assyrians and wanted to be buried according to their traditional custom.⁹⁰ Stable strontium

isotopes analysis (⁸⁷Sr/⁸⁶Sr) to investigate patterns of residential mobility has been attempted experimentally on teeth from the graves, but was unfortunately found to be impossible due to the extremely poor preservation of the tooth enamel caused by exposure of the teeth to heat during cremation. Further attempts will be made in the future on other tooth samples.

Middle-Assyrian and Mitanni Period (Phases 16-17)

The Late Bronze Age in Operation 1 is weakly attested. Some Mitanni and Middle Assyrian pottery sherds were discovered in the accumulation layers between trodden floors 316 of the Neo-Assyrian Period (Phase 15) and 340 of the Middle Bronze Age (Phase 18). The occupation of the site in the Mitanni and Middle Assyrian periods had already been documented by the extensive and intensive surveys of Gomel. The weak occupation evidence from the Phase 16 and 17 deposits, which were devoid of any

⁸⁶ WICKE 2013, 245-246.

⁸⁷ ODED 1979.

⁸⁸ KREPPNER 2008, 266; table 1.

⁸⁹ G 37 is a child's grave, given its size and the personal ornaments found in it (see above).

⁹⁰ MORANDI BONACOSSÌ 2018b, 72. For a comparable situation, see for example Seeher's interpretation of the four cremation burials found together with seventy-two inhumations at the Anatolian early Middle Bronze Age site of Demircihöyük (SEEHER 1993,225).

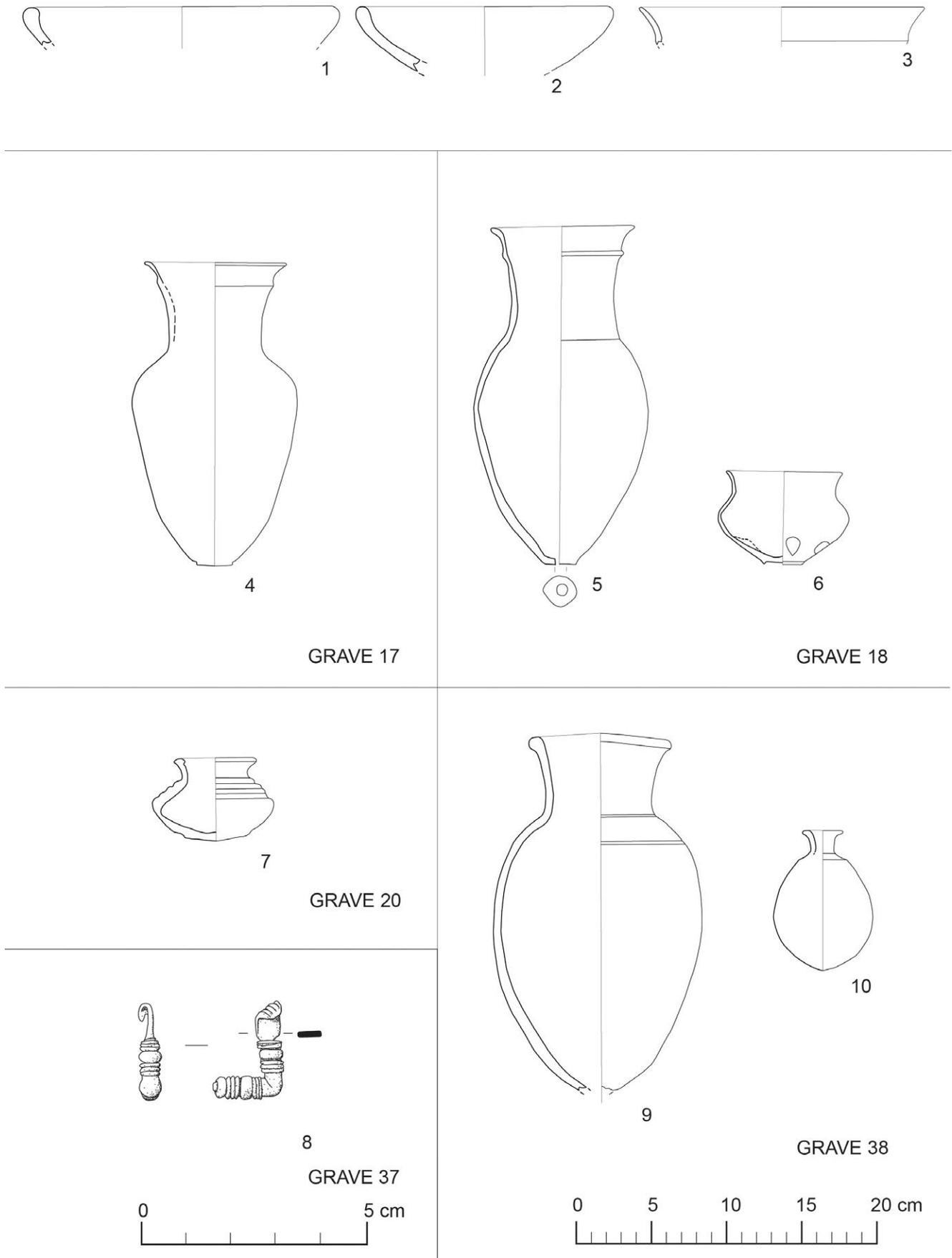


Fig. 17 - Pottery from Post-Assyrian level (Phase 12) and finds from Neo-Assyrian cremation graves (Phases 13-14).

structures, suggests that the Operation 1 area, located at the southern periphery of the site, was not properly settled during the Middle Assyrian and Mitanni periods.

Middle Bronze Age (Phases 18-22)

The best attested period in Operation 1 is the Middle Bronze Age. As in the preceding sub-recent and Neo-Assyrian phases, the area continued to be used as a graveyard throughout the four phases of the Middle Bronze Age II investigated in this trench. Several burials have been excavated, together with some installations that were possibly connected to funerary/ritual activities (Fig. 18). Two different burial types were recorded: simple pit burials covered with baked bricks (Graves 41 and 43) and baked-brick vaulted chamber tombs with shaft pit entrances (Graves 21, 44, 53, 54 and 55). A series of four trodden-earth floors (340, 352, 347 and 348) with graves cut into them characterise Phases 18-22. Grave 41, belonging to Phase 18, was covered by sparse broken baked bricks and river cobbles (Fig. 18). The grave was located in the southern section of the operation, so that only a part of it could be exposed by moving back the section. The inhumation in a simple pit contained the skeletal remains of an adult (only the skull that was smashed by a brick and a stone could be removed, whilst in the section a thigh-bone was visible). Between the bricks, a broken jar with ovoid body, ring base, everted rim and decorated with a rib at the base of the neck and some grooves on the shoulder, dating to the Middle Bronze Age II, was uncovered (Fig. 19, 1). A similar vessel, but without the grooves, was found in a grave at Chagar Bazar, phase II/1.⁹¹

Grave 43, Phase 20, in the north-eastern part of the excavation (Fig. 18), was oval in shape and covered by two baked bricks, south of which two Grey Ware vessels, a bowl and a small jar, were unearthed. In the simple pit burial, we found the skeletal remains of two children (3-4 and 7 years old) and a disarticulated adult. The southern side of the pit cut was not clearly visible because it had been disturbed by the Hellenistic pit 285, which also cut the west side of the access shaft (360) to the baked-brick vaulted chamber tomb (Grave 44). Associated with the same trodden floor cut by Grave 43 and Grave 44's entrance shaft were some installations (344, 349 and 354); these were connected with activities involving the use of fire, as indicated by the presence of ash. These installations close to Graves 43 and 44, on the trodden floor into which they had been cut, might have been used during funerary ritual activities performed in connection with the burials (Fig. 18).

The access shaft to Grave 44 had a semi-circular shape; it measured 1.20 x 1 m in plan and was about 2.80 m deep (Fig. 20a, e). In the shaft fills, ceramic vessels were found in five main levels: the three upper ones were separated by about 20 cm of compact

greyish soil. The uppermost level contained two Grey Ware bowls and a small painted jar (Fig. 19, 2, 4-5), the second one a small painted bottle and a complete Grey Ware bowl (Fig. 19, 3, 8) and the third a medium-sized jar and sherds of a Grey Ware bowl. Together with the pottery, a few animal bones were found that could be the remains of meat offerings to the deceased or of a funerary banquet. Under these first three levels containing ceramic vessels, other two levels of pottery, one about 30 cm above the other were found: one consisted of a complete Grey Ware bowl (Figs. 19, 6 and 20d) and the other of a Grey Ware bowl (Fig. 19, 9). Parallels for this pottery assemblage exist in several sites: Grey Ware bowls are well attested in Middle Bronze Age II contexts in Tell Brak level 9,⁹² Tell Leilan Level 3,⁹³ Chagar Bazar phases II and III,⁹⁴ Tell Barri, Phase K⁹⁵ in the Upper Khabur basin, and in Hamad Aga as Saghir in the Tigris Valley.⁹⁶ The miniature bottles with painted bands are typical of earlier funerary contexts; they date to the Middle Bronze Age I and are attested in Tell Arbid in graves G4/36/62,⁹⁷ G8/37/62,⁹⁸ G1/37/62,⁹⁹ in Chagar Bazar, Tomb 33,¹⁰⁰ and in Tell Mozan.¹⁰¹ The ceramic parallels for the Grey Ware bowls allow us to date our assemblage from the Grave 44 shaft to the Middle Bronze Age IIB, while the small painted bottles seem to be earlier and date to the Middle Bronze Age I. As the miniature painted bottles represent a ceramic production that is typical of funerary contexts, we argue that they could be heirlooms perhaps used to contain perfumed oil to anoint the body of the deceased during the funerary ritual.

The shaft gave access to Grave 44 located in the south-eastern part of the excavated area. Only its northern part was situated in the excavated area, while the southern part of the chamber grave extends beyond the southern excavation limit (Figs. 18 and 20a-c). The structure is 4.15 m long and 2.26 m wide. The entrance façade of the hypogeum was built with about 30 courses of baked bricks and had a corbelled arch¹⁰² that reached a height of 2.75 m: about 0.70 m higher than the top of chamber vault itself. The

⁹¹ McMAHON *et alii* 2009, pl. 7, tomb 11, CB 2001.

⁹² OATES *et alii* 1997, fig. 189,194.

⁹³ FRANE 1996, fig. 45.

⁹⁴ McMAHON 2009, pl. 28,24-25, pl. 29,12.

⁹⁵ D'AGOSTINO, COPPINI 2014, fig. 9.7.

⁹⁶ SPANOS 1990, fig. 16.2.

⁹⁷ KOLIŃSKI 2012, fig. 6.

⁹⁸ *Ibidem*, fig. 9.

⁹⁹ KOLIŃSKI 2011, fig. 6.

¹⁰⁰ McMAHON *et alii* 2009, pl. 9a, CB 2977.

¹⁰¹ SCHMIDT 2013, taf. 259. K2470.

¹⁰² Single brick courses were laid so that each protruded in relation to that underneath, until the vault was closed (BESSEVAL 1984, 41-42).

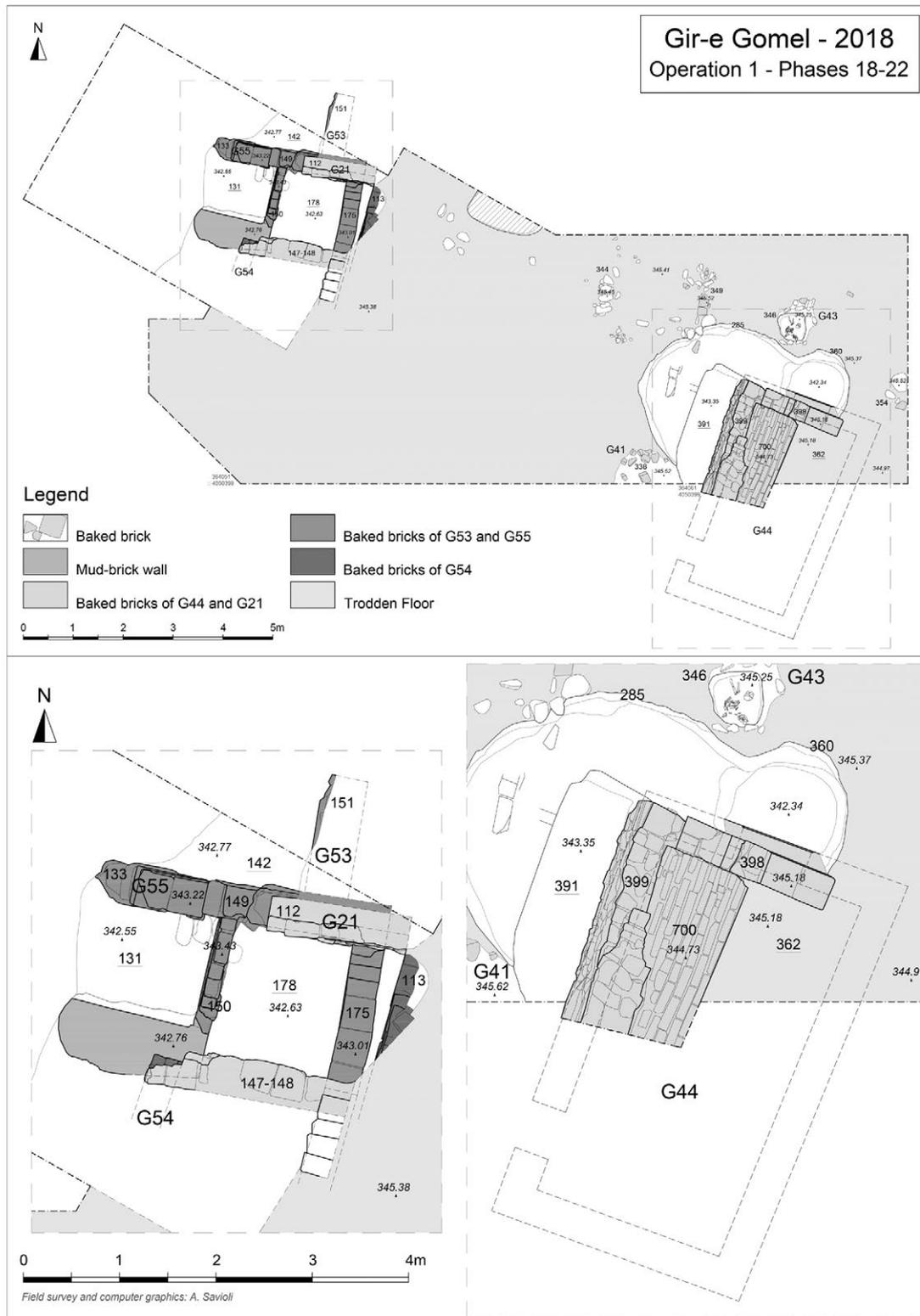


Fig. 18 - General plan of the Middle Bronze Age burials of Phases 18-22.

Vessels from Grave 41 and pit shaft 360 of Grave 44.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	350.701	18	Calcite	d	ss/ss	sm/sm	2.5 y 8/1 w	5 y 8/2 py	w	Rib, Grooves	MCMAHON <i>et alii</i> 2009, pl. 7, tomb 11, CB 2001.
2	359.708	22	Calcite	h	ss/s	sm/sm	10 yr 8/2 vpb	10 yr 8/4 vpb	w	Painted bands on the shoulder	SCHMIDT 2013, taf. 259, K2470. KOLIŃSKI 2012, fig. 6.
3	359.707	22	Basalt	h	ss/ss	sm/sm	10 yr 8/3 vpb	10 yr 8/3 vpb	w	Painted bands on the shoulder	KOLIŃSKI 2012, fig. 6. MCMAHON <i>et alii</i> 2009, pl. 9a, CB 2977.
4	359.718	22	Calcite	d	ss/ss	b/b	2.5 y 5/1 g	2.5 y 7/2 lg	w		MCMAHON 2009, pl. 28.24-25
5	359.719	22	Calcite	h	ss/ss	b/b	10 yr 4/1 dg	10 yr 4/1 dg	w		OATES <i>et alii</i> 1997, fig. 189, 194.
6	359.721	22	Calcite	h	ss/ss	b/b	10 yr 5/1 g	gley 1 4/n dg	w		MCMAHON <i>et alii</i> 2009, pl. 28, 7.
7	359.709	22	Calcite	h	ss/ss	b/b	10 yr 7/1 lg	10 yr 7/1 lg	w		MCMAHON <i>et alii</i> 2009, pl. 28, 7.
8	359.712	22	Calcite	h	ss/ss	b/b	10 yr 4/1 dg	2.5 y 4/1 dg	w	Grooves	MCMAHON <i>et alii</i> 2009, pl. 28, 7.
9	359.720	22		d	ss/ss	b/b	10 yr 6/3 pb	10 yr 6/2 lbg	w		MCMAHON <i>et alii</i> 2009, pl. 28, 7.

inner part of the vault was about 2 m high, so that the top of entrance façade to the chamber was originally visible and functioned as a grave marker, indicating the burial's location. A baked-brick enclosure wall surrounded the vaulted chamber, guaranteeing the stability of the whole structure (Fig. 20c). The vault was built on a thick, hard reddish clayey layer that also formed the floor of the chamber, and into which the graves of the 3rd millennium BC graveyard were cut (see below). On this very compact layer, the vaulted chamber was erected. The barrel vault itself, built with fine construction technique based on radially arranged bricks¹⁰³ was set up on seven horizontal baked-brick courses.

Where the vault started to bend, six big oval stones from the River Gomel bed (33-34 cm in length), three for each long side, were inserted into the two long walls, protruding for a length of 10-15 cm (Fig. 20b). Underneath the collapsed bricks that had been part of the northern face of the southern wall, which had been washed out by water that entered the chamber after its closure as a consequence of river flooding, three more stones that originally must have been placed in the southern wall of the chamber were found. In the western chamber wall, close to the south-western

corner of the structure, a doorway has been detected. At approximately the centre of the long eastern and western walls, the chamber grave was provided with two triangular openings, built about 0.25 m above the protruding stones and about 1 m above the chamber's floor. While the eastern opening was a closed niche that possibly served to hold an oil lamp used to illuminate the chamber, the western one was open.

The entry doorway giving access to the chamber was 0.70 m wide lower down and 0.20 m at the top; it was about 1.30 m high. It was blocked with baked bricks (30-35 x 30 x 8 cm and 30-35 x 13-17 x 8 cm); only few of them were still *in situ*, while the others had fallen inside the vaulted chamber in front of the door. Diversely, the south-western doorway

¹⁰³ This technique consisted of a progression of rows of bricks, radially arranged, parallel to the axis of the vault. The first row of bricks was inclined towards the arch span (the distance between the piers) by the interposition of small stones or potsherds in the extrados (the external surface of the vault). Starting with both springers at the same time, the process was repeated until the arch was closed at the top by bricks in a vertical position. (BESINVAL 1984, 48-49; VAN BEEK 1987, 84).

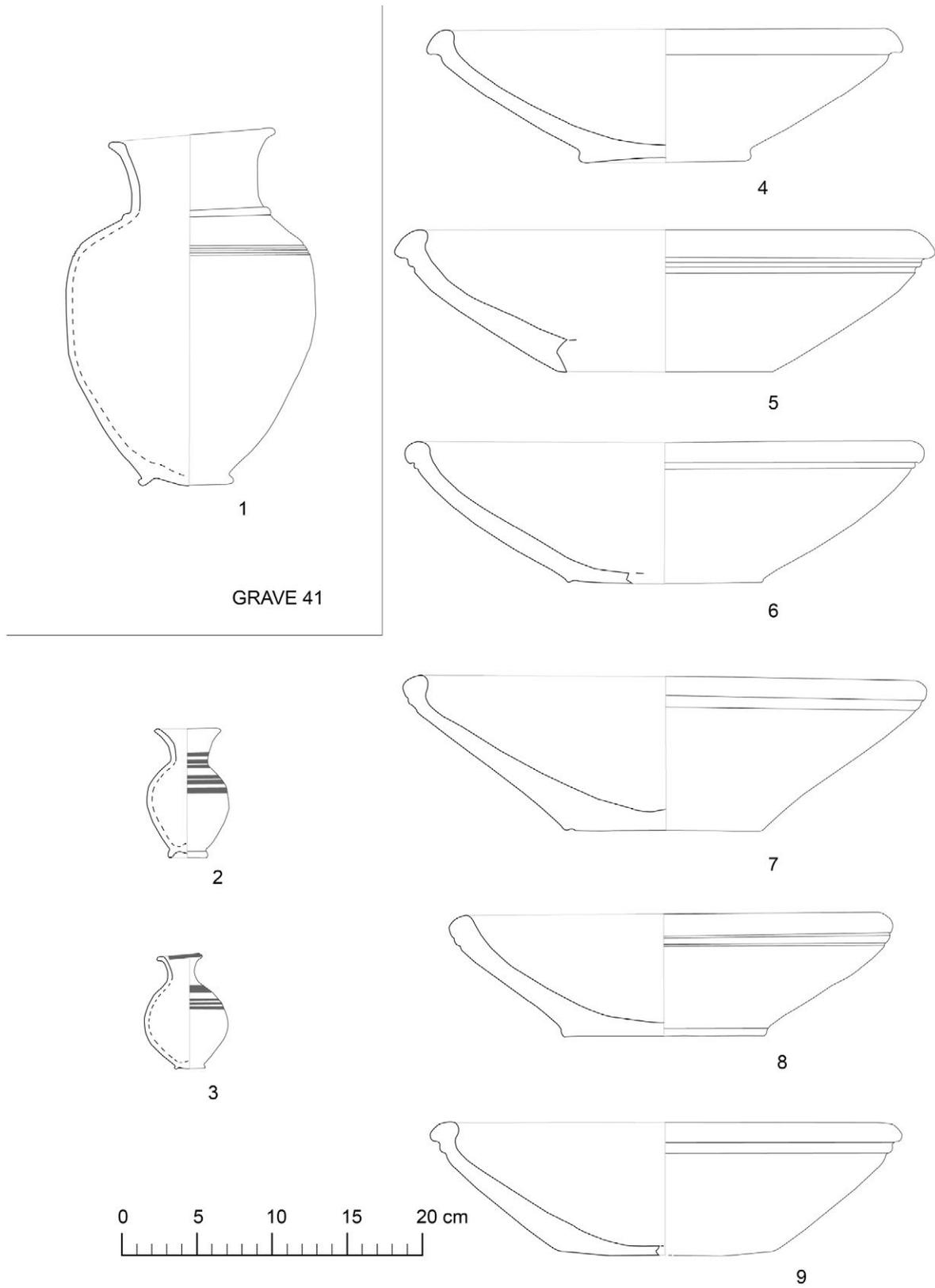


Fig. 19 - Vessels from Grave 41 and pit shaft 360 of Grave 44.



Fig. 20 - Middle Bronze Age vaulted chamber Grave 44 (a-c), pottery found in the shaft's fill (d) and a view of the shaft during the excavation (e).

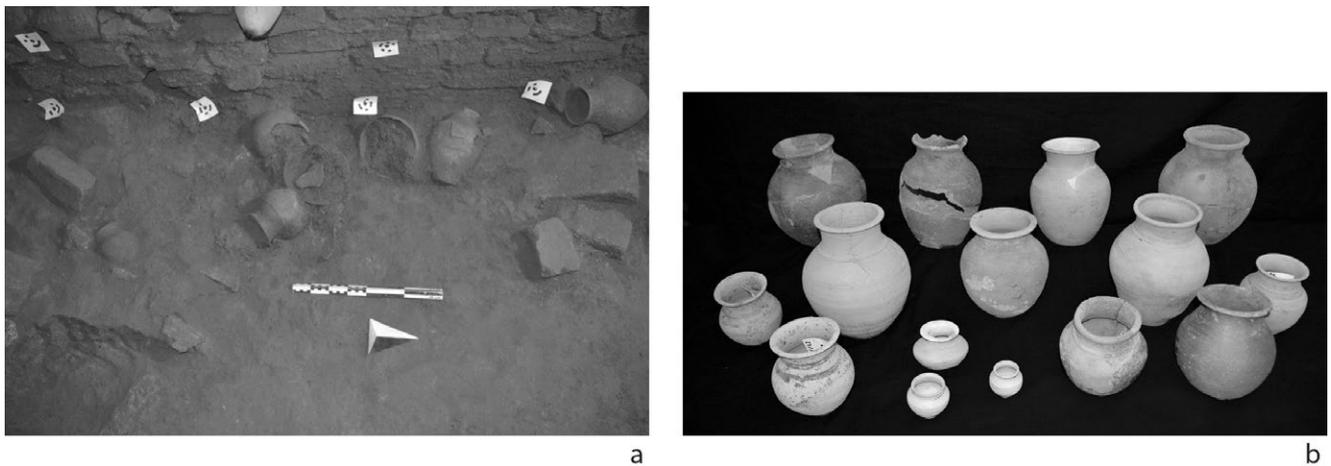


Fig. 21 - Fill 365 with the jars in situ (a); Jars found in Grave 44 after conservation (b).

measuring 1.12 x 0.55 m had not been blocked with bricks and was filled by a compact clayey accumulation resulting from a river flooding. At the moment of its discovery, the vaulted chamber was filled up to the protruding stones in the long walls with laminated river sediments consisting of dark grey silt layers (363), indicating that rather massive flooding had affected the entire structure; the alluvial deposit was about 0.40 m thick and only 1.30 m of the chamber's height was empty. Under these layers, a compact grey and orange clayey deposit was found (365); from this fill a group of 16 almost complete closed-shaped vessels of different dimensions were recovered (Figs. 21 a-b; 22-24). Nearly all the jars had been placed along the western side of the grave; only two were found near the eastern chamber wall.

Seven medium jars in Grey Ware with oval/globular bodies, everted rims and flat (or slightly convex) bases formed part of the vaulted chamber's pottery assemblage (Fig. 23, 1-6). One of these is smaller and squatter (Fig. 23, 1) and presents a rib at the base of the neck, which is attested also in other three jars (Fig. 23, 4-6). Several parallels have been recorded for these Grey Ware jars in Tell Brak,¹⁰⁴ levels 8, 5 and 4. A few finds of Grey Ware jars have been made at Tell Leilan,¹⁰⁵ Period 1, but no illustrations have been published.

¹⁰⁴ OATES *et alii* 1997, fig. 206, 548-551.

¹⁰⁵ FRANE 1996, 93-96.

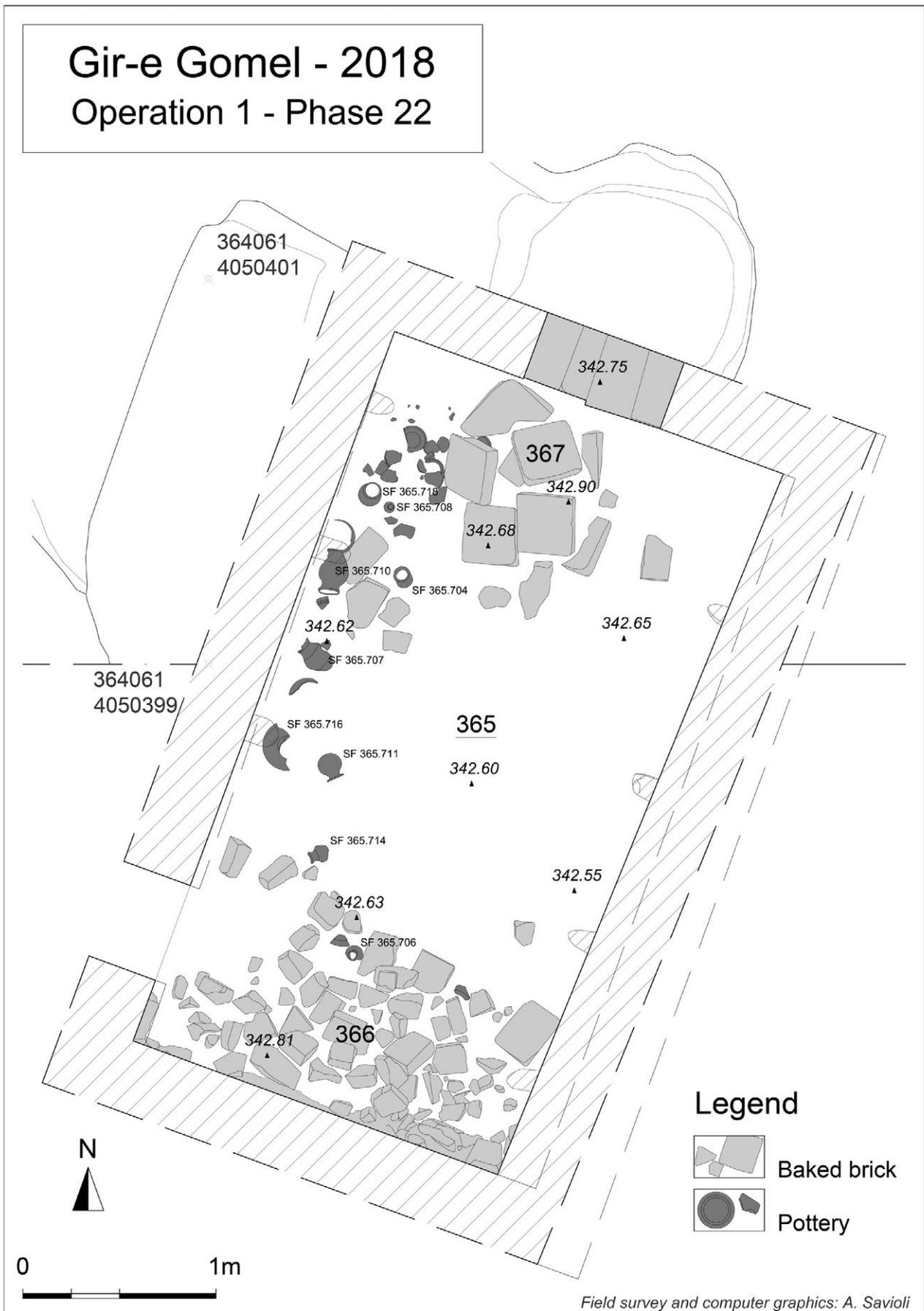


Fig. 22 - Plan of the Phase 22 vaulted chamber (Grave 44) with grave goods (indicated with the acronym SF/Small Find).

Middle Bronze Age II vessels from the Grave 44 vaulted chamber.

N.	SU	PHASE	FIRING	FABRIC	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	365.711	22	h	Calcite	ss/ss	nt/b	2.5 y 5/1 g	2.5 y 5/1 g	w	Rib	
2	365.704	22	h	Calcite	ss/ss	nt/b	10 yr 5/1 g	10 yr 4/1 dg	w		OATES <i>et alii</i> 1997, fig. 206, 549.
3	365.718	22	h	Basalt	ss/ss	sm/sm	10 yr 8/3 vpb	10 yr 8/3 vpb	w		OATES <i>et alii</i> 1997, fig. 206, 549.
4	365.710	22	h	Calcite	ss/ss	b/b	5 y 7/1 lg	5 y 7/1 lg	w	Rib	
5	365.707	22	h	Calcite	ss/ss	nt/sm	10 yr 7/1 lg	10 yr 7/1 lg	w	Rib	
6	365.720	22	h	Calcite	ss/ss	nt/b	2.5 y 5/1 g	gley 1 4/n dg	w	Rib	
7	365.721	22	h	Calcite	ss/ss	b/b	2.5 y 8/6 y	7.5 yr 7/3 p	w	Rib, Groove	McMAHON <i>et alii</i> 2009, pl. 53.5, 55.7. KOLIŃSKI 2000, pl. 26B.
8	365.716	22	h	Calcite	ss/ss	nt/b	7.5 yr 8/6 ry	7.5 yr 8/6 ry	w	Rib, Grooves	McMAHON <i>et alii</i> 2009, pl. 53.5, 55.7. KOLIŃSKI 2000, pl. 26B.

A further three medium-sized jars are in Common Ware (Figs. 23, 7-8 and 24, 1). They have ovular bodies, long necks, everted rims and ring/flat bases and bear on the shoulder a decoration of comb-incised parallel lines. Similar but larger vessels have been recovered from Ashur,¹⁰⁶ Chagar Bazar,¹⁰⁷ Tell Rijim¹⁰⁸ and Tell Barri.¹⁰⁹ A medium-sized Khabur Ware jar with everted rim, ovoid body and ring base is decorated with painted stripes: three at the base of the neck and three on the shoulder (Fig. 24, 5). A similar specimen, but with less numerous painted stripes was recovered in Tell Leilan,¹¹⁰ latest phase of Period 1. The remaining vessels are three Khabur Ware small jars with globular body, short neck and ring base with painted stripe decoration (three parallel lines on the shoulder, one painted red and two dark coloured, Fig. 24, 2-4). Parallels are known from Chagar Bazar, Phase II¹¹¹ and Tell Leilan, Eastern Lower Town Palace.¹¹² Two miniature Khabur Ware shouldered beakers with one painted band on the short neck were also found; one has a flat string-cut base (Fig. 24, 6) and the other a ring base (Fig. 24, 7). Similar specimens have been recovered from Chagar Bazar, Phase III,¹¹³ and Tell Arbid, Level III,¹¹⁴ dated to the MBA I.

To sum up, most of the ceramics found in the pit shaft and the Grave 44 chamber, namely the Grey Ware bowls and jars, date to the Middle Bronze Age IIB. The jars with grooves on the shoulder and the Khabur Ware jars are of Middle Bronze Age IIA and IIB date (18th-17th century BC). The painted shouldered beakers and the miniature painted bottles are earlier and find parallels in the Middle Bronze Age I

(from Tell Arbid) and Middle Bronze Age IIA (from Chagar Bazar). These small painted vessels probably belonged to a specialised production of bottles and shouldered beakers for funerary use and represent a distinct class of pottery that was manufactured exclusively to be placed in tombs. They possibly contained perfumed oils or unguents used in the funerary ritual. As these miniature vessels are older than the bulk of the ceramic artefacts found in the Grave 44 vaulted chamber and the pit shaft, they can be considered as heirlooms from the preceding period.

The lack of human remains in the excavated baked-brick vaulted chamber of Grave 44, the distribution of the vessels mainly along the western chamber side, the presence of a second doorway in the south-western side of the chamber and a window in its western wall, are all elements that suggest that this vaulted space was only the antechamber of a multi-roomed hypogeum. Since no skeletal remains were found in the chamber, it seems very likely that the dead were buried in a second adjoining and probably vaulted room, which – as the window in the western ante-

¹⁰⁶ HALLER 1952, taf. 1, al; HOCKMANN 2010, taf. 99.

¹⁰⁷ McMAHON *et alii* 2009, pl. 53.5, 55.7.

¹⁰⁸ KOLIŃSKI 2000, pl. 26B.

¹⁰⁹ BACCELLI, MANUELLI 2008, fig. 3.1.

¹¹⁰ FRANE 1996, fig. 97, 1.

¹¹¹ McMAHON *et alii* 2009, pl. 46.

¹¹² PULHAN 2000, fig. 3.736.

¹¹³ McMAHON *et alii* 2009, pl. 45, 11.

¹¹⁴ KOLIŃSKI 2013, fig. 4.

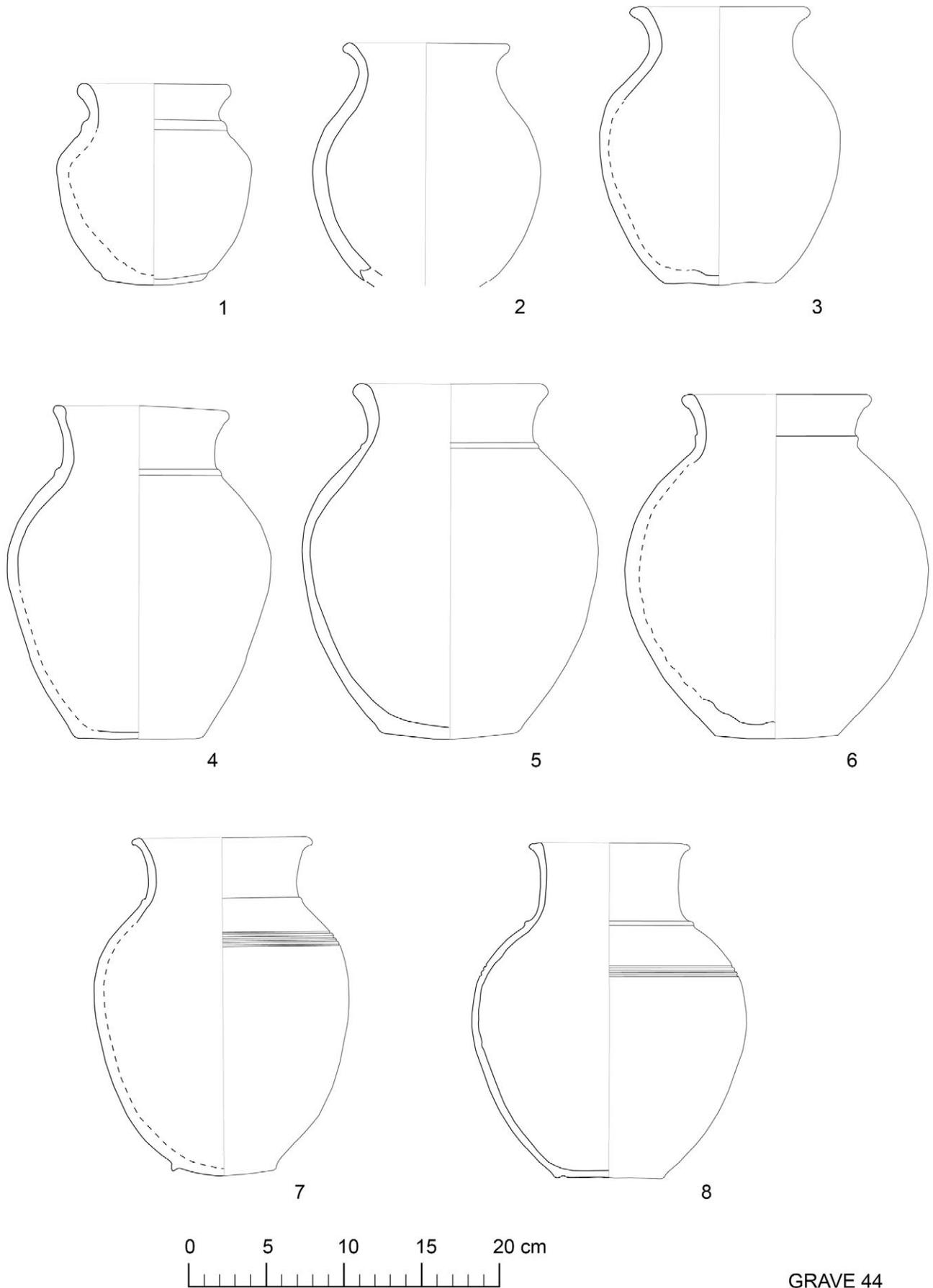


Fig. 23 - Middle Bronze Age II vessels from the Grave 44 vaulted chamber.

Middle Bronze Age II vessels from Grave 44.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	365.712	22	Calcite	d	ss/ss	nt/b	2.5 y 5/1 g	2.5 y 5/1 g	w	Rib	MCMAHON <i>et alii</i> 2009, pl. 53.5, 55.7. KOLIŃSKI 2000, pl. 26B.
2	365.709	22	Calcite	h	ss/ss	nt/sm	10 yr 8/2 vpb	10 yr 8/2 vpb	w	Painted bands on the shoulder	MCMAHON <i>et alii</i> 2009, pl. 46, 3.
3	365.713	22	Calcite	h	ss/ss	nt/sm	10 yr 8/1 w	2.5 y 8/1 w	w	Painted bands on neck and shoulder	MCMAHON <i>et alii</i> 2009, pl. 46. PULHAN 2000, fig. 3.765.
4	365.714	22	-	h	ss/ss	nt/sm	2.5 y 8/1 w	2.5 y 8/1 w	w	Painted bands on neck and shoulder	MCMAHON <i>et alii</i> 2009, pl. 46, 1. PULHAN 2000, fig. 3.736.
5	365.722	22	Calcite	h	ss/ss	nt/sm	10 yr 7/1 lg	10 yr 7/1 lg	w		FRANE 1996, fig. 97, 1.
6	365.719	22	Calcite	h	ss/ss	sm/sm	5 y 7/4 py	5 y 7/4 py	w	Painted band on the neck	KOLIŃSKI 2013, fig. 4.
7	365.708	22	-	h	ss/ss	sm/sm	5 y 8/2 py	5 y 8/2 py	w	Painted band on the neck	MCMAHON <i>et alii</i> 2009, pl. 45, 11. KOLIŃSKI 2013, fig. 4.

chamber's wall suggests – must have been parallel to the excavated vaulted antechamber and linked to it via the doorway in the antechamber's south-western corner. If the continuation of the excavation confirms this interpretation, Grave 44 could turn out to be a rather monumental multi-chambered vaulted hypogea with an antechamber that was used to deposit pottery vessels, which probably contained food offerings for the deceased.

Thus, Grave 44 appears to be a massive burial covered by a finely constructed barrel vault with radially arranged bricks; the vaulted roof was based on walls made of baked bricks enclosed by surrounding walls. This technique was not very common in Upper Mesopotamia during the Middle Bronze Age. Generally, the grave roof was built with a corbelled vault – such as in the case of the chamber graves at Ashur – or with the tilted-row technique – such as in the Tell Barri and Tell Mohammed Diyab hypogea. Grave 44 is also unusual for its size and number of rooms. Indeed, the antechamber is about twice as large as the other vaulted tombs of this period and the tomb is probably a multi-roomed hypogea. This grave type is quite rare in Middle Bronze Age

Upper Mesopotamia and resembles only Grave 13 in Ashur.¹¹⁵ In this case, however, the entrance shaft is located between the two aligned grave chambers, whilst in the case of Grave 44 the two chambers were linked by a doorway and the entrance shaft gave access to the grave antechamber. Even the baked-brick enclosure wall is quite unusual, for in some sites hypogea have an entrance façade and a back wall,¹¹⁶ but not an enclosing wall along their long sides. In all these examples the entrance façade was characterized by a corbelled arch, as in the case of the Gomel grave. In the wider context of Middle Bronze Age funerary architecture, Grave 44 stands out for its remarkable size, building technique and layout.

A further four smaller vaulted hypogea were uncovered in the western part of Operation 1 along the edge of the site, where the River Gomel had eroded part of them (G 21, 53, 54 and 55). The graves were thus

¹¹⁵ HOCKMANN 2010, 99-100.

¹¹⁶ Such as Hypogea 570 and 609 from Tell Barri (VALENTINI 2003, 279).

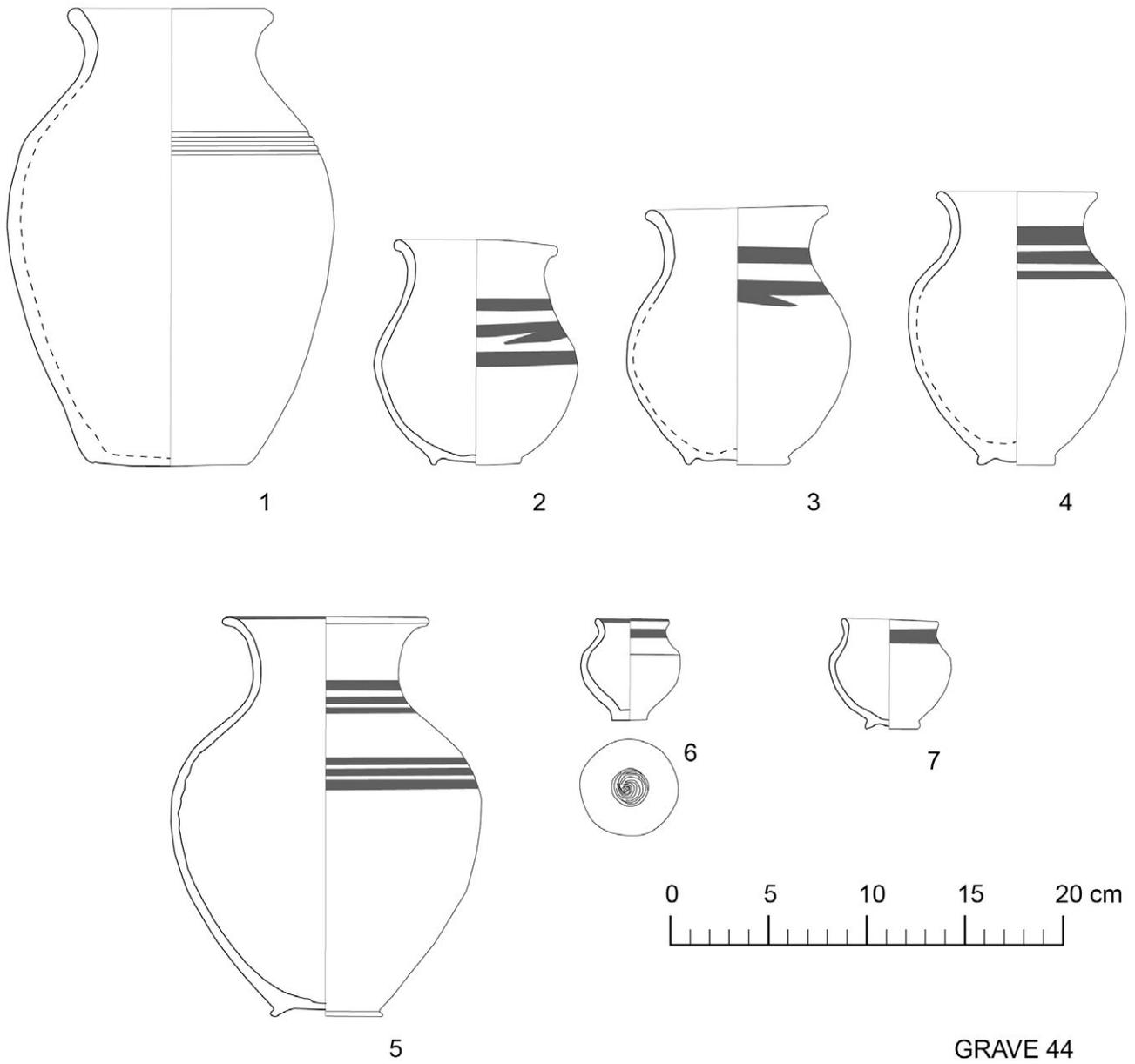


Fig. 24 - Middle Bronze Age II vessels from Grave 44.

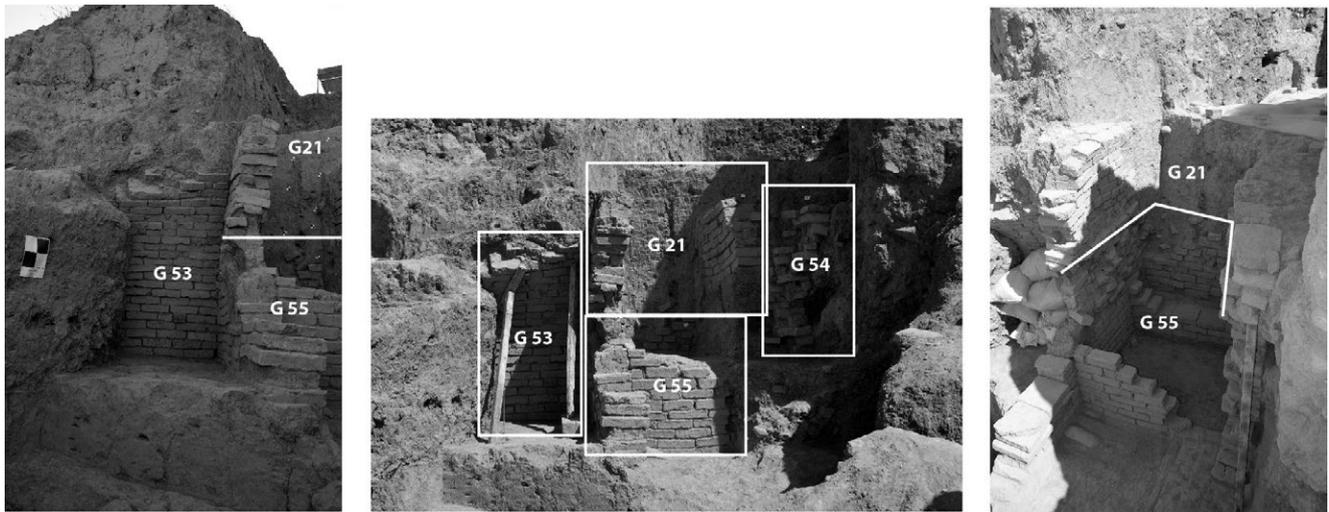


Fig. 25 - Graves 21, 53, 54 and 55 seen from the west.

heavily damaged and no traces of the access shafts or the hypogea's front parts have survived (Figs. 18 and 25). Since the erosion made these graves visible in the western section of the site, they have unfortunately been subjected to looting.

In Grave 21, the upper part of the vault was not preserved. Only the remains of the east-west oriented baked-brick walls survived (Fig. 25). To the south of this structure and adjacent to it, the poorly preserved remains of another similar grave were detected (Grave 54). They consist of another probable vault parallel to Grave 21 and have not been excavated so far (Fig. 25, centre).

Grave 21 reused an older underlying structure (Grave 55) composed of two main parallel baked-brick walls (112 and 148) oriented east-west, with two smaller perpendicular walls (175 and 150). Grave 21 was built by adding a southern east-west wall (147), whereas the northern wall was built upon an older one: the southern face of the northern wall shows a clear interruption between a lower and an upper section of the wall (Fig. 25, right). Furthermore, the vault of Grave 53 (151) is bonded to the lower part of the northern wall of Grave 55, but not with the upper part (belonging to Grave 21, Fig. 25, left). This evidence suggests the existence in the western part of Operation 1 of two different phases with vaulted hypogea, with Graves 21 and probably 54 belonging to the second, later phase and Graves 53 and 55 to the earlier one.

The very poor preservation state of the structures unearthed did not allow us to understand the tombs' architecture with certainty, but it is clear that they belonged to four different hypogea that were smaller than Grave 44. Grave 53, the largest one, was located to the north and oriented north-south (as was Grave

44). Only its eastern wall (151) and the beginning of the vault were preserved (Fig. 25, left). Graves 21 and 54 are smaller, parallel to each other and perpendicular to the previous one. They belong to a later phase. Grave 55 is contemporary to Grave 53 and was damaged by the construction of Grave 21 above it, which re-used its wall 112.

All the graves had been looted. Only in Graves 21 and 55 were a few grave goods found. In Grave 21, some pottery vessels were recovered from different fills: the upper fill contained three shouldered beakers (Fig. 26, 7-9).¹¹⁷ These have a fine fabric and had been very well smoothed. Two of them have a long vertical neck and a slender body (Fig. 26, 7, 9). The third specimen has a short neck and a globular body (Fig. 26, 8). Common to all beakers is the grooved band on the shoulder. The shouldered beaker with grooved band on the shoulder closely resembles vessels in the Middle Bronze Age IIA ceramic tradition, as attested by parallels found in Chagar Bazar, G II Phase III,¹¹⁸ Tell al-Rimah, C 7,¹¹⁹ and Tell Leilan, level III.¹²⁰

In the second fill, the following vessels and objects were found: two complete miniature Khabur Ware shouldered beakers (Fig. 26, 1-2) and a small bottle, lacking the rim, decorated with painted bands (Fig. 26, 3); three shallow bowls (Fig. 26, 4-6), one

¹¹⁷ The pottery from this grave has already been partially published by Costanza Coppini (COPPINI 2016, 72-73; figs. 12-13).

¹¹⁸ McMAHON *et alii* 2009, pl. 37.10.

¹¹⁹ POSTGATE *et alii* 1997, pl. 79, 879.

¹²⁰ FRANE 1996, fig. 53, 2.

in Common Ware and two in Grey Ware; a painted Khabur Ware jar (Fig. 26, 10); a terracotta figurine (90.704; Fig. 27, 2), probably representing a bovine decorated with dark painted stripes. In the lowest fill a fragmentary bone needle (91.701; Fig. 27, 1), resembling a needle found in Tomb 4 at Chagar Bazar,¹²¹ together with a carnelian bead and another in vitreous material, were discovered. All of these artefacts were located along the northern side of the tomb, next to a line of mud-bricks that perhaps formed a bench along the wall: that their original position was on top of this bench is thus a possibility.

Parallels for the painted shouldered beakers can be found at Tell Arbid Area P¹²² and for the Grey Ware bowls at Tell al-Rimah.¹²³ While the painted Khabur Ware beakers date to the Middle Bronze Age I, the Grey Ware bowls belong to the Middle Bronze Age II. The Khabur Ware painted jar with stripes and triangles is similar in its decoration to a jar found at Dinkha Tepe, Stratum 9.¹²⁴ Painted animal figurines are quite common in Middle Bronze Age II contexts and have been found in several sites, for instance at Chagar Bazar, Phases II and II/1.¹²⁵

To sum up, Grave 21 dates to the Middle Bronze Age II, since parallels for its grave goods have been found in Middle Bronze Age IIA and IIB contexts. The painted shouldered beakers are earlier, of Middle Bronze Age I date. As for the Grave 44 pit shaft miniature vessels, this kind of small painted beaker and bottle has only been found in funerary contexts and probably represent heirlooms that were deposited in burials as containers for perfumed oils or ointments used during the funerary ritual.

A well-preserved copper/bronze toggle pin (123.701; Fig. 27, 3) came from a deposit located in proximity to the northern side of Grave 55 and was probably part of the personal ornaments pertaining to this tomb. The toggle pin can be classified as belonging to *Formgruppe* 13 of Klein's classification¹²⁶ and finds parallels for instance at Chagar Bazar, Grave 131¹²⁷ dated to the Middle Bronze Age I, thus confirming the earlier date of this grave.

Vaulted baked-brick hypogeic graves with a pit-shaft entrance represent a widespread tomb type, found in numerous Middle Bronze Age Upper Mesopotamian sites, such as Tell Barri,¹²⁸ Tell Arbid,¹²⁹ Tell Mohammed Diyab,¹³⁰ Tell Chagar Bazar¹³¹ and Ashur.¹³² In all these sites, however, the vaulted chambers were discovered underneath houses (Ashur, Chagar Bazar, Barri, Mohammed Diyab) or in courtyards close to houses (Tell Arbid). For the time being, the available evidence (concentration of a high number of hypogeic vaulted burial chambers in a rather small excavated area of 85 sq. m and the absence of other architectural remains) indicates that the Gir-e Gomel graves were concentrated in an open area used as a cemetery. This would represent a quite significant anomaly in the wider framework of Upper Mesopotamian Middle

Bronze Age residential funerary architecture. It will thus be extremely interesting to extend the Operation 1 excavation area in order to understand whether at Gomel a graveyard existed that was not associated with residential buildings. The intensive survey¹³³ and the excavations carried out in other areas of the site¹³⁴ have revealed that Gomel was intensively occupied during the Middle Bronze Age II and reached an area of about 35 ha. It is thus possible that the southern edges of the settlement were used in this period as a cemetery.

To conclude, the discovery of several small vaulted-chamber hypogea (G 21, 53-55) and a large and multi-chambered one (G 44) interspersed with simple pit inhumations in a limited area indicates the existence of social distinction in the fabric of Gomel's urban society and points to the presence of a local elite. The complexity and monumentality of hypogeum G 44, its high quality construction technique, and the abundance and quality of the pottery inventory recovered from its antechamber suggest the emergence in Middle Bronze Age II Gomel of richer households (as had already happened in the Early Bronze Age; see below) that were able to increase their own wealth and social position in this urban centre through the control of the Navkur Plain's rich agricultural resources and the trade routes crossing the region. These elite social groups also expressed their status through the construction of hypogeic tombs for the cult of their ancestors as part of a framework that served to strengthen the collective memory of the community.¹³⁵

Early Bronze Age (Phases 23-24)

Under the floor of Grave 44 (370), eight burials dated to the Early Bronze Age were uncovered (Fig. 28). During the 2013 campaign, a ninth grave of the mid-3rd millennium BC (G 24) was found in the lowest step of the trench in the westernmost part of

¹²¹ McMAHON *et alii* 2009, pl. 1, CB 988.

¹²² KOLIŃSKI 2013, fig. 4.

¹²³ POSTGATE *et alii* 1997, pls. 47, 48.

¹²⁴ HAMLIN 1974, fig. XII, e; STEIN 1984, pl. III, 22.

¹²⁵ McMAHON 2009, pl. 70, 6, 14.

¹²⁶ KLEIN 1992, 276-277; taf. 119-121.

¹²⁷ MALLOWAN 1937, pl. 16, b; KLEIN 1992, taf. 120, 1.

¹²⁸ VALENTINI 2003.

¹²⁹ KOLIŃSKI 2012, 542; 2013, 454.

¹³⁰ BACHELOT, CASTEL 1992, 97-99.

¹³¹ MALLOWAN 1937, 121-122, 127, fig. 8; McMAHON *et alii* 2009, 112-113.

¹³² HOCKMANN 2010, 43, 89.

¹³³ SIMI in press.

¹³⁴ See below Coppini, Section 6, and Iamoni, Section 7.

¹³⁵ LANERI 2014 and 2016. On the risks of the search for the archaeological indicators of the ancestors' cult, see WHITLEY 2002.

Vessels from Grave 21.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARI SONS
1	90.701	22	Calcite	h	ss/ss	sm/sm	2.5 y 8/2 py	2.5 y 8/2 py	w	Painted bands on the neck and dots on the rim	KOLIŃSKI 2013, fig. 4.
2	90.702	22	Calcite	h	ss/ss	sm/sm	2.5 y 8/2 py	2.5 y 8/2 py	w	Painted bands on the neck	KOLIŃSKI 2013, fig. 4.
3	90.703	22	Calcite, Chaff	h	ss/ss	sm/sm	2.5 y 8/3 py	2.5 y 8/3 py	w	Painted bands on neck and shoulder	KOLIŃSKI 2012, fig. 6. MCMAHON <i>et alii</i> 2009, pl. 9a, CB 2977.
4	90.707	22	-	h	ss/ss	nt/nt	10 yr 5/1 g	10 yr 5/1 g	w	Grooves under the rim	OATES <i>et alii</i> 1997, fig. 189, 194.
5	90.706	22	Calcite, Chaff	h	ss/ss	nt/nt	7.5 yr 8/3 p	7.5 yr 8/3 p	w		POSTGATE <i>et alii</i> 1997, pls. 47, 301.
6	90.708	22	Basalt	h	s/s	sm/sm	10 yr 3/1 dg	10 yr 3/1 dg	w	Grooves under the rim	MCMAHON <i>et alii</i> 2009, pl. 30, 1.
7	89.701	22	Calcite	h	s/s	sm/b	5 yr 7/6 ry	10 yr 8/4 vpb	w	Grooves on shoulder	FRANE 1996, fig. 53, 1. MCMAHON <i>et alii</i> 2009, pl. 37.10
8	89.702	22	-	h	ss/s	sm/b	7.5 r 8/3 lp	7.5 r 8/3 lp	w	Grooves on shoulder	MCMAHON <i>et alii</i> 2009, pl. 37.10 POSTGATE <i>et alii</i> 1997, pl. 79, 879. FRANE 1996, fig. 53, 1.
9	89.703	22	-	h	s/s	b/b	5 y 8/2 py	5 y 8/2 py	w	Grooves on shoulder	FRANE 1996, fig. 53, 2.
10	90.709	22	Basalt, Calcite	H	SS/SS	SM/SM	2.5 Y 8/2 PY	2.5 Y 8/2 PY	W	Painted band on neck and shoulder and triangles (full and hatched) on shoulder	HAMLIN 1974, fig. XII, e. STAIN 1984, pl. III, 22.

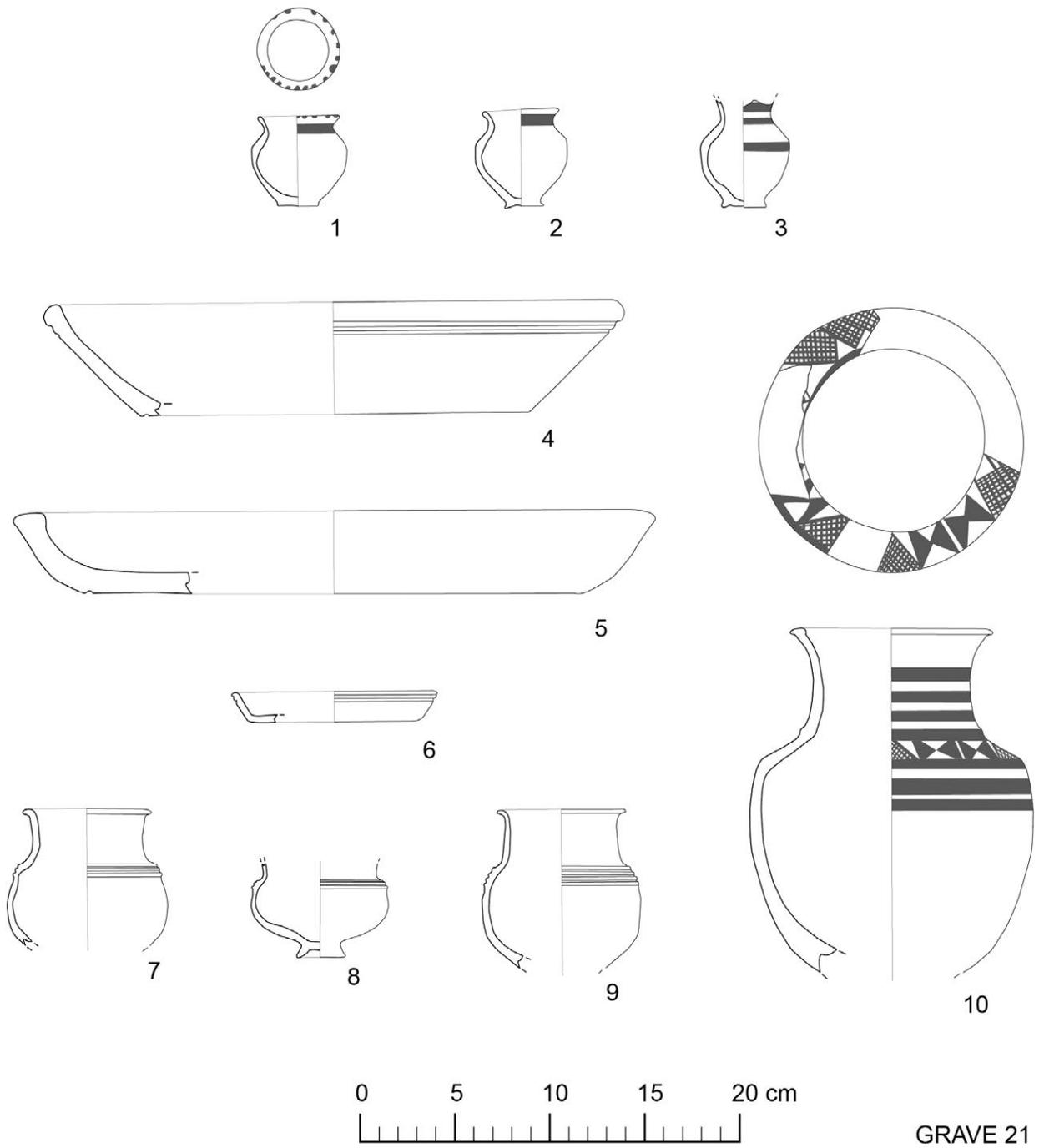


Fig. 26 - Vessels from Grave 21.

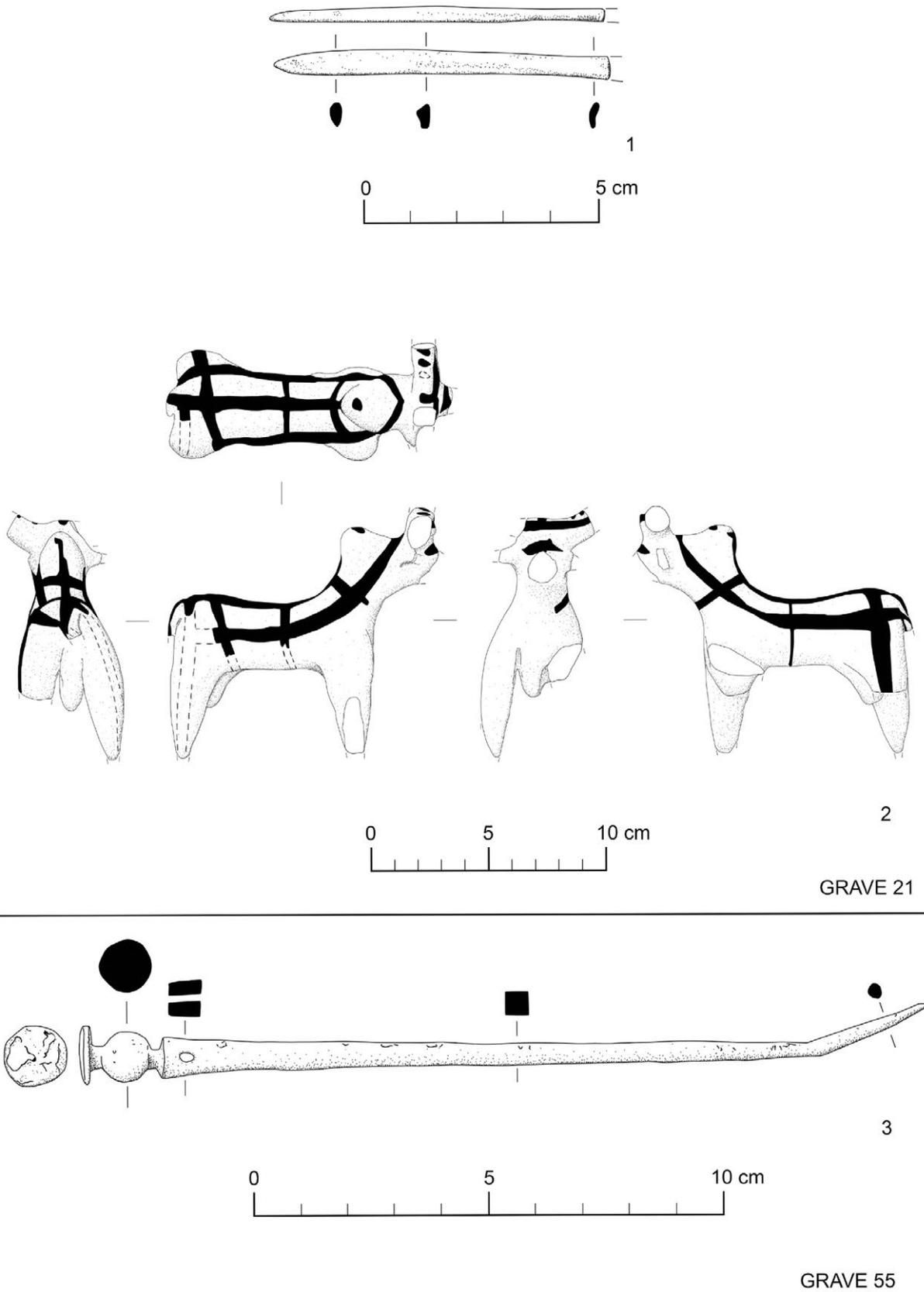


Fig. 27 - Objects from Grave 21 and Grave 55.

Operation 1, suggesting already at that time the possibility that the area was also used as a graveyard in the Early Bronze Age. During the 2018 campaign, we were able to confirm this hypothesis and ascertain that the graveyard was in use for various spans of time during the 3rd millennium, and had been used intensively. All burials including G 24 at the western edge of the Operation were cut into an approximately 0.50 m thick layer of very compact reddish clayey soil (376). The characteristics of this layer coupled with the poor illumination conditions in which the graves were excavated in the area occupied by the Middle Bronze Age Grave 44, made identification of the grave cuts very difficult.

The latest graveyard phase (Phase 23) is represented by a very disturbed grave found in the south-western corner of G 44 (Grave 50, Figs. 28; 29b) and a very poorly preserved grave in its south-eastern corner (Grave 56, Fig. 28). In G 50 only a few fragmentary bones of an adult of indeterminate age and sex accompanied by two complete bowls, a beaker and some sherds were found (Fig. 29b). The small bowl with thin-beaded rim (Fig. 31, 6) is similar to the ARCANE Tigris type 69;¹³⁶ the bowl with in-turned rim (Fig. 31, 7) resembles those defined as ARCANE Jazira type 9¹³⁷ and the beaker with out-turned rim (Fig. 31, 5) is very similar to a specimen found in Tell Taya.¹³⁸ All these vessels and the potsherds retrieved from the grave date to the Akkadian period.

Grave 53 was probably disturbed by the collapse of the bricks of the southern wall of Grave 44. Just a few bones were found, without grave goods; they probably belonged to an adult and were not articulated.

The grave goods and personal ornaments discovered in the six remaining burials made it possible to date them to the central part of the 3rd millennium BC. They belong to two different sub-phases: the later one – Phase 24a (Fig. 32) – comprised Graves 45-48 and a large nearly circular structure – possibly a fireplace – located between them (368, 373, 374). The earliest sub-phase – 24b – is represented by Graves 49 and 51 (Fig. 34): the first of these was brought to light under the above-mentioned circular installation and the second was found immediately underneath Grave 48. Some of the burials did not contain grave goods (G 46, 48-49), which makes it difficult to date them precisely.

The approximately circular structure (Fig. 32) was composed of four baked bricks (368), one larger and square (36 x 36 cm) and three rectangular (32 x 14 cm). The bricks were laid in an L-shape. North of the bricks, a horseshoe-shaped black ashy layer delimiting a nearly circular depression was uncovered (373). In its centre, it contained ash and scattered rounded cobbles (374). These characteristics suggest that the circular structure was a fireplace, possibly associated with ritual/funerary activities performed in connection with the graveyard.

Immediately underneath the entrance to Grave 44, a child burial was found (Grave 45). The skeleton, lying on its left side with bent legs and oriented east-west (Fig. 29a), was in a poor state of preservation and its head was missing. An upper limb – perhaps the right – was covered by Grave 44 northern wall; this suggests that the original position of the body was with the arms bent at the elbow and the hands resting on the abdomen. The personal ornaments found were more than a hundred beads (Fig. 30a); the burial extended beyond Grave 44's entrance and could not be entirely excavated; no grave goods were found in the cleared part of the tomb. Close to the arm, 30 small rounded white beads belonging to a bracelet were found, while on the pelvis there were the remains of a belt decorated with shell rings. The beads were made of different kinds of shells originating from the Gulf: *Dentalia*, *Engina mendicaria*, *Nassarius* and *Conus*. The last was used to produce the rings that were parts of the belt. Scattered around the pelvis and the chest were about 20 grey stone disc beads and also two complete unpierced *Conus* specimens. Particularly interesting are three animal-shaped pendants/amulets (Fig. 31, 1-3). Two are made of a white stone and portray a porcupine and a cow/bear (?), whilst the third is made of a dark stone and represents a turtle. The presence of beads in child burials is well attested in several sites of Early Bronze Age Upper Mesopotamia, such as Tell Arbid,¹³⁹ Tell Abu Hijaira¹⁴⁰ and Tell Jigan.¹⁴¹ Parallels to the *Dentalia* beads are known from Tell Fisna,¹⁴² Tell Gubba¹⁴³ and Tell Jigan,¹⁴⁴ while the *Conus* rings are attested also at Tell Gubba¹⁴⁵ and Tell Jigan.¹⁴⁶ Animal shaped pendant/amulets have also been recovered from other Upper Mesopotamian sites but with different shapes: for instance, at Tell Rad Shaqrah, a frog and other two animals have been recorded;¹⁴⁷ at Tell Raqa'i, a dog, a snake, and three fishes were found,¹⁴⁸ from Tell Jigan an animal that looks like a duck was recovered.¹⁴⁹ However, no porcupine/hedgehog, turtle or bear/cow have been found hitherto.

¹³⁶ ARRIVABENI 2018, 89; pl. 3.13, 12.

¹³⁷ ROVA 2011, 76; pl. 14, 10-12.

¹³⁸ ARCANE Tigris type 76; ARRIVABENI 2018, 85; pl. 3.14, 15.

¹³⁹ BIELIŃSKI 2004, 338; IDEM 2010, 543.

¹⁴⁰ LUTZ, TIETZE 1992, 258.

¹⁴¹ HIROYUKI 2003, 59.

¹⁴² NUMOTO 1988, fig. 43, 32.

¹⁴³ HIROYUKI 1989, fig. 18, 57c-d; pl. 42.

¹⁴⁴ HIROYUKI, MASANORI 1989, fig. 25, 53.

¹⁴⁵ HIROYUKI 1989, fig. 21, 66-79; pl. 41.

¹⁴⁶ HIROYUKI, MASANORI 1989, fig. 23, 9.

¹⁴⁷ BIELIŃSKI 1994, 160.

¹⁴⁸ DUNHAM 1992, 242; fig. 1, 4, 5.

¹⁴⁹ HIROYUKI 2003, 59.

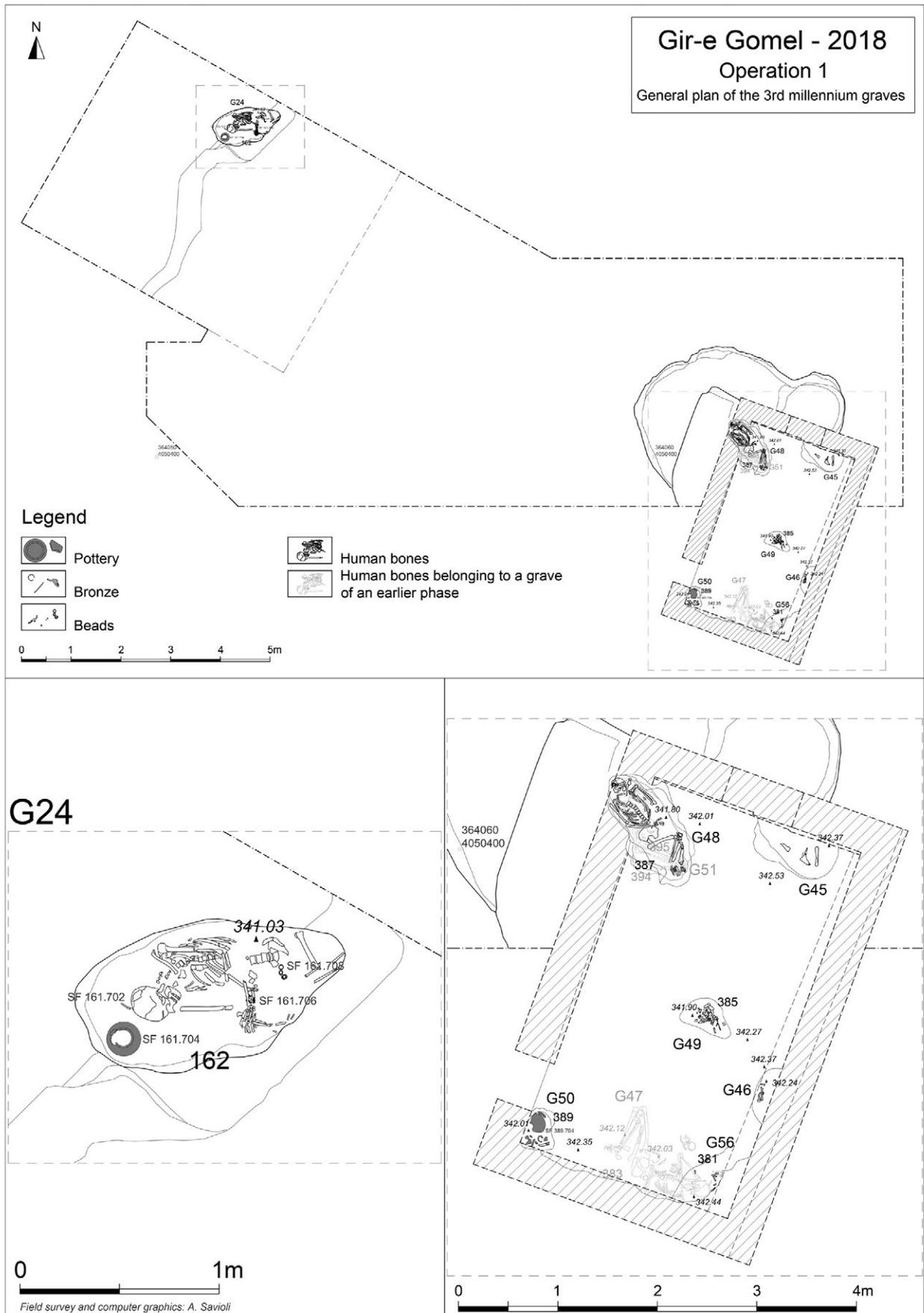


Fig. 28 - General plan of the 3rd millennium graves. The plan brings together the graves of Phases 23 and 24a-b.

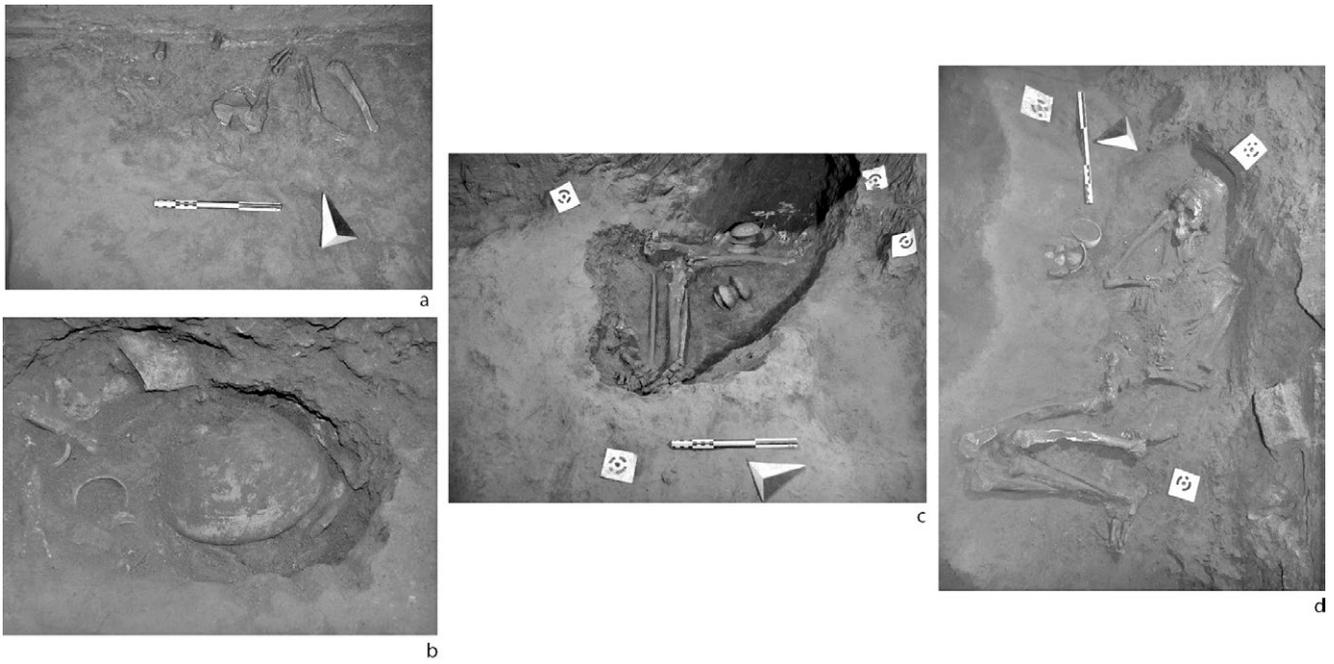


Fig. 29 - Grave 45 (a); Grave 50 (b); Grave 51 (c) and Grave 47 (d).

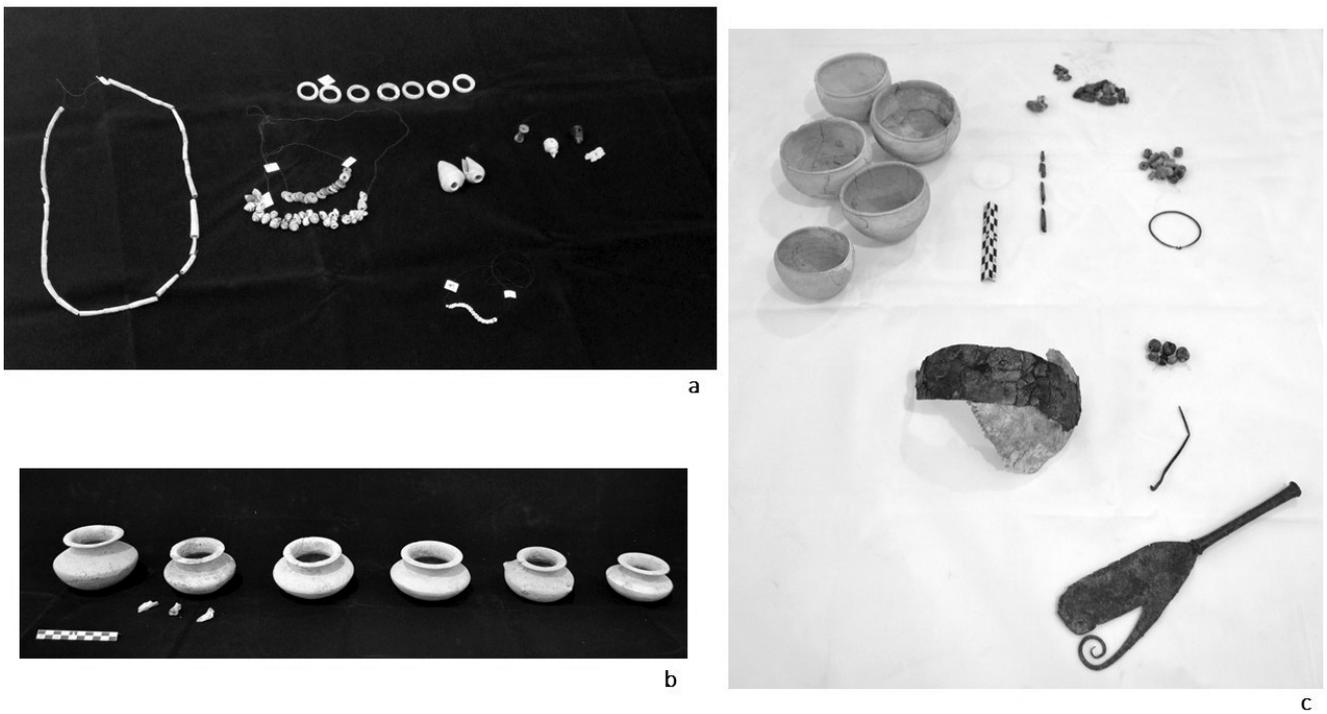


Fig. 30 - Personal ornaments from Grave 45 (a), grave goods from Grave 51 (b) and personal ornaments and grave goods from Grave 47 (c).

Personal ornaments from Grave 45 and grave goods from Grave 50.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
5	389.706	23	-	h	s/s	sm/sm	5 y 7/2 lg	5 y 7/3 py	w		ARRIVABENI 2018, 85, pl. 3.14, 15.
6	389.703	23	Calcite	h	ss/ss	sm/sm	10 yr 8/2 vpb	2.5 y 8/3 py	w		ARRIVABENI 2018, 89, pl. 3.13, 12.
7	389.704	23	Mica	h	ss/ss	b/b	7.5 yr 8/2 pw	7.5 yr 8/3 p - 7.5 yr 7/6 ry	w		ROVA 2011, 76, pl. 14, 10-12.

In G 45 an hourglass-shaped pendant/seal decorated with a geometric pattern of concentric semi-circular lines was also found (Figs. 30a; 31, 4). A parallel for the hourglass shaped pendant has been recorded from Tell Jigan.¹⁵⁰

All parallels for the personal ornaments contained in this burial are found in graves dated to the Ninevite 5 period. Unfortunately, the lack of ceramics in the excavated part of the grave makes the more precise dating of G 45 difficult.

Grave 46 was largely covered by the eastern wall of Grave 44, which lay above. Only very poorly preserved bones were found.

Grave 47 was particularly well preserved and is significant due to the unusually rich personal ornaments and grave goods found in it. The east-west oriented skeleton (Figs. 29d and 32) belonged to a 21-22 years old male buried lying on his right side in a crouched position with strongly bent lower limbs. The upper limbs were flexed at the elbow, the left hand was placed on the abdomen and the right on the chest, the skull facing north. On the forehead of the deceased a copper/bronze crescent-shaped diadem (383.715) made of a thin metal sheet was located (Figs. 29d; 30c and 33, 10).

The diadem is very simple and resembles a specimen found in Tomb 2 in Tell Fisna, in the Eski Mosul Dam region, and dated to the second part of the 3rd millennium BC.¹⁵¹ A copper/bronze pin (383.710) with a rolled head was found under the head (Figs. 30c and 33, 6), perhaps used to secure the diadem or the fabric or perishable material (leather?) to which the diadem was fastened.¹⁵² The roll-headed pin belongs to Klein's type I.14B1a;¹⁵³ similar specimens have also been found at Tell Beydar,¹⁵⁴ Tell Khazna,¹⁵⁵ Tell Mohammed 'Arab¹⁵⁶ and Ashur¹⁵⁷ in contexts dated from the very end of the Ninevite 5 to the Akkadian period.

Close to the head, immediately to the north of it, a rather exceptional copper/bronze object, possibly a razor (383.708), had been deposited (Figs. 30c and 33, 9). The object consists of a flat oval-shaped copper/bronze lamina with a spiral-ended attachment on one side and a round-profiled handle ending with an

expanded base. A similar (although unfortunately not complete) object has been recovered from Grave Ob 1 in Tell Mozan.¹⁵⁸ The pottery grave goods from this burial date to the latest phase of the Ninevite 5 period.¹⁵⁹

In the region of the chest of the deceased there was a copper/bronze straw (383.711; Figs. 30c and 33, 8), while in the pelvis area a copper/bronze bracelet (383.709; Figs. 30c and 33, 7) and some beads were found. Other beads were uncovered close to the arms and the neck (Fig. 30c). Some of the beads were made of silver. Lastly, north of the chest, five small cups with beaded rims and flat string-cut bases were found (Figs. 30c and 33, 1-5). These cups are very similar to those found in graves at Tell Jigan and Tell Fisna¹⁶⁰ that date to the EJZ 3-early EJZ 4 periods.

The abundant inventory of Grave 47, which stands out among the Early Bronze Age burials hitherto excavated in Operation 1 for the variety and quality of the ornaments and goods accompanying the deceased, was composed of significant prestige objects that stress his high status. The most important was the handled copper/bronze blade with a spiral decoration, tentatively interpreted as a razor that was placed near the dead man's skull and might perhaps have been used for shaving his head during the funerary ritual. The existence of an approximately contemporary parallel from a Tell Mozan grave suggests that

¹⁵⁰ HIROYUKI, MASANORI 1989, fig. 26, 5.

¹⁵¹ NUMOTO 1988, 41; fig. 41, 6; pl. 20, 201.

¹⁵² Residues of a decomposed dark brown organic material were found in the head and pelvis regions. These remains will be analysed in the future.

¹⁵³ KLEIN 1992, 124; taf. 124-125.

¹⁵⁴ TONUSSI 2008, pl. 7.

¹⁵⁵ MUNCHAIEV *et alii* 2004, tav. 7, 11-12.

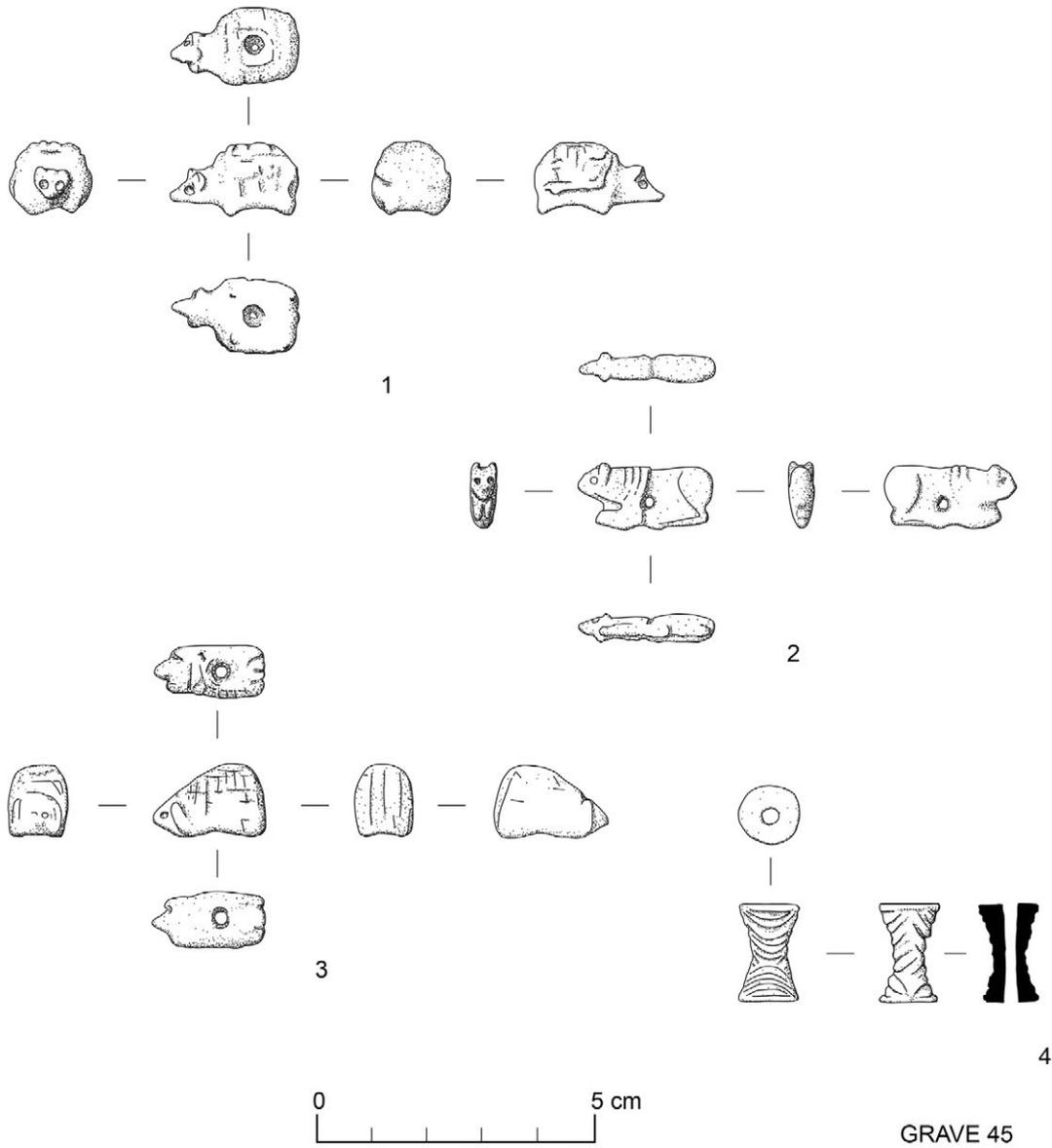
¹⁵⁶ ROAF 1983, fig. 4.13.

¹⁵⁷ HOCKMANN 2010, taf. 78, m.

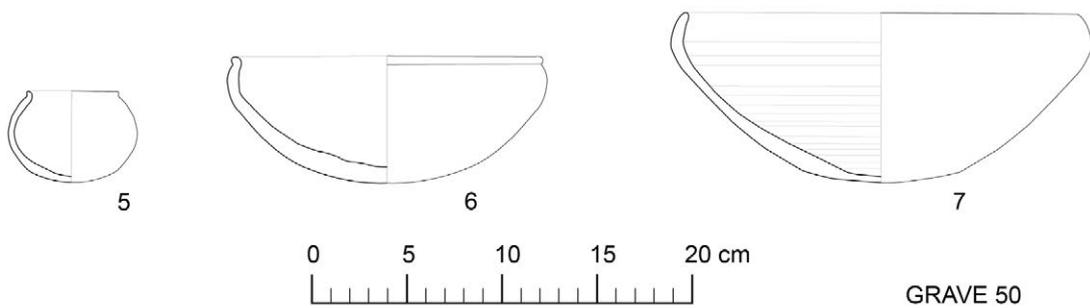
¹⁵⁸ Elena Rova kindly pointed out this comparison to us.

¹⁵⁹ KELLY-BUCCELLATI 1990, Pl. 28b. More details about the pottery from this grave are published in MILANO *et alii* 1991, fig. 8.

¹⁶⁰ ARRIVABENI 2018, 82; Pl. 3.12, 2-4.



GRAVE 45



GRAVE 50

Fig. 31 - Personal ornaments from Grave 45 and grave goods from Grave 50.

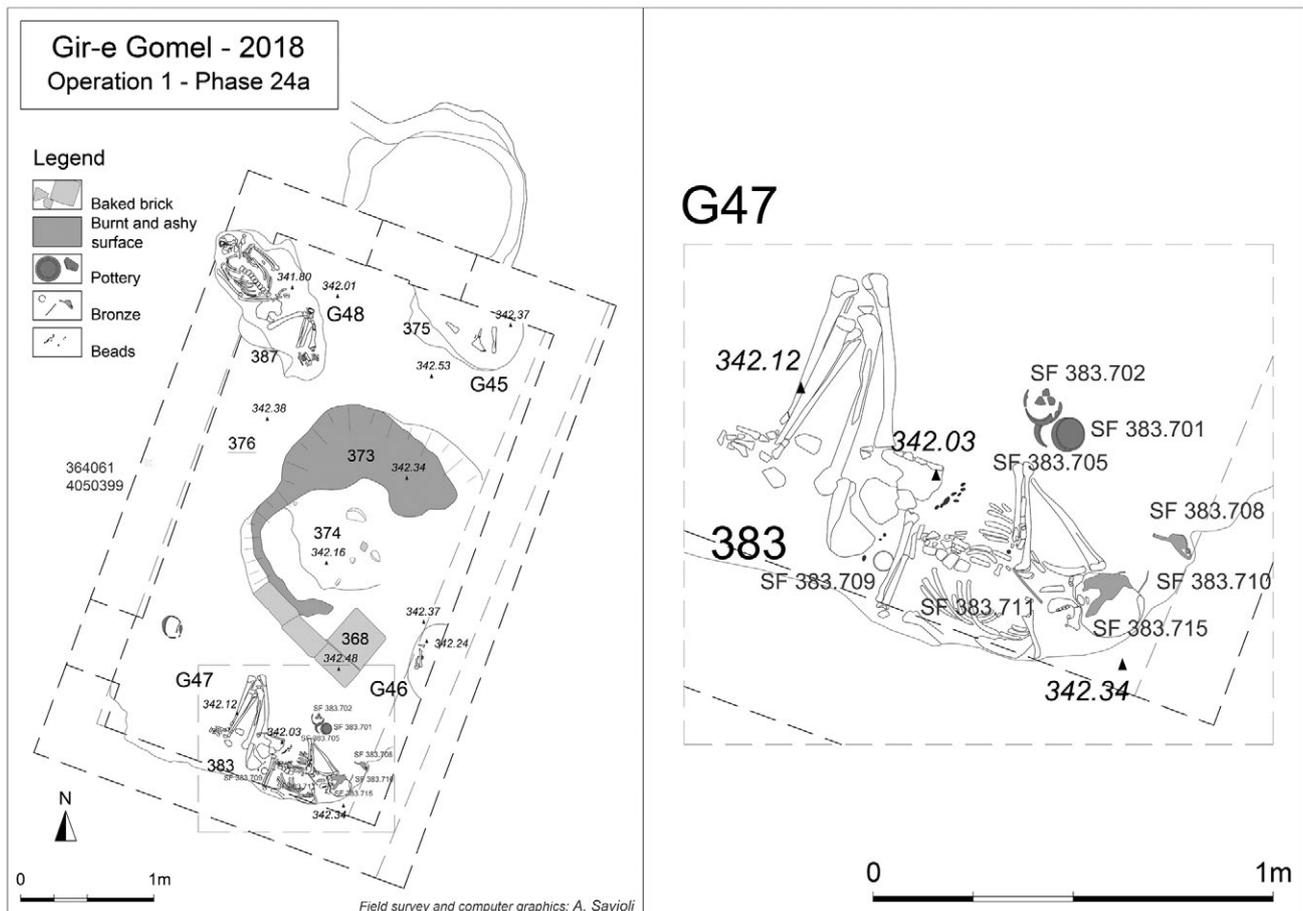


Fig. 32 - Mid-3rd millennium graves, Phase 24a.

Grave goods and personal ornaments from Grave 47.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	383.701	24a	-	h	ss/ss	sm/sm	2.5 y 8/2 py	2.5 y 8/2 py	w		ARRIVABENI 2018, pl. 3.12, 2-4.
2	383.702	24a	Calcite	h	ss/ss	sm/sm	2.5 y 8/3 py	2.5 y 8/3 py	w		ARRIVABENI 2018, pl. 3.12, 2-4.
3	383.705	24a	Mica	h	ss/ss	sm/sm	2.5 y 8/3 py	2.5 y 8/3 py	w		ARRIVABENI 2018, pl. 3.12, 2-4.
4	383.707	24a	Calcite	h	ss/ss	sm/sm	10 yr 8/3 vpb	10 yr 8/3 vpb	w		ARRIVABENI 2018, pl. 3.12, 2-4.
5	383.706	24a	Mica	h	ss/ss	sm/sm	5 y 8/2 py	5 y 8/2 py	w		ARRIVABENI 2018, pl. 3.12, 2-4.

the deposition of similar objects in mid-3rd millennium high status burials in Upper Mesopotamia was not entirely uncommon. The buried juvenile's high rank was also indicated by the metal diadem (perhaps secured by a pin) and the copper/bronze straw laid on his chest. The latter was associated with the consumption of fermented beverages, like beer, in the wider socio-economic context of elite commensality and feasting, i.e. of food and beverage consumption during elite meals, which were an important basis of state power in emerging centralised urban societies of mid-3rd millennium Upper Mesopotamia.¹⁶¹ Of great

significance in this context are also the silver beads found in the grave, which suggest the local control by the Gomel elite of the silver supply routes.

Grave 48 did not contain grave goods. The individual was buried in a crouched position, with his lower limbs bent at the knee and resting against the east wall of the burial pit; the upper limbs were flexed at the elbow and the hands placed on the abdomen.

¹⁶¹ POLLOCK 2012; ROMANO 2015.

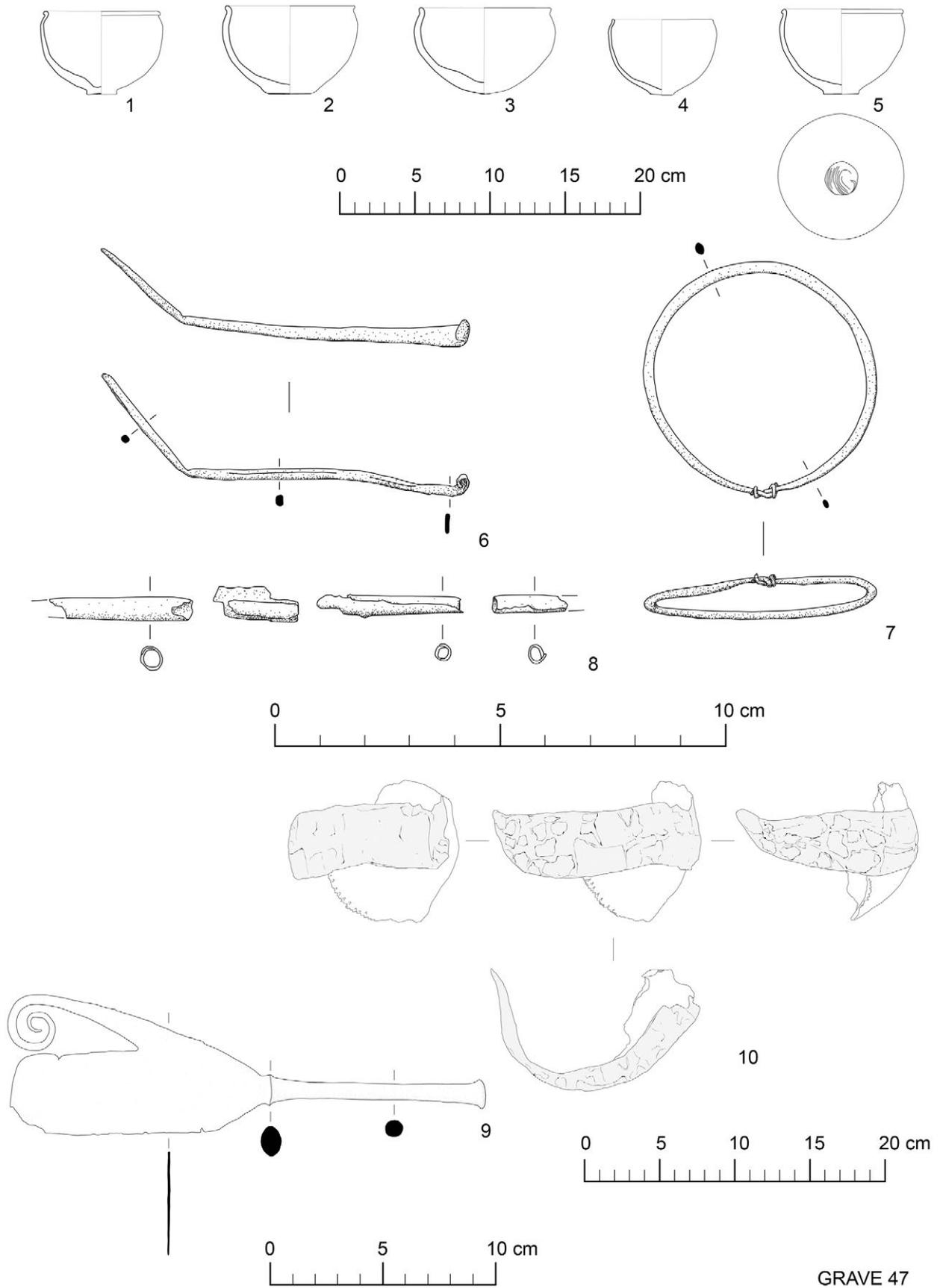


Fig. 33 - Grave goods and personal ornaments from Grave 47.

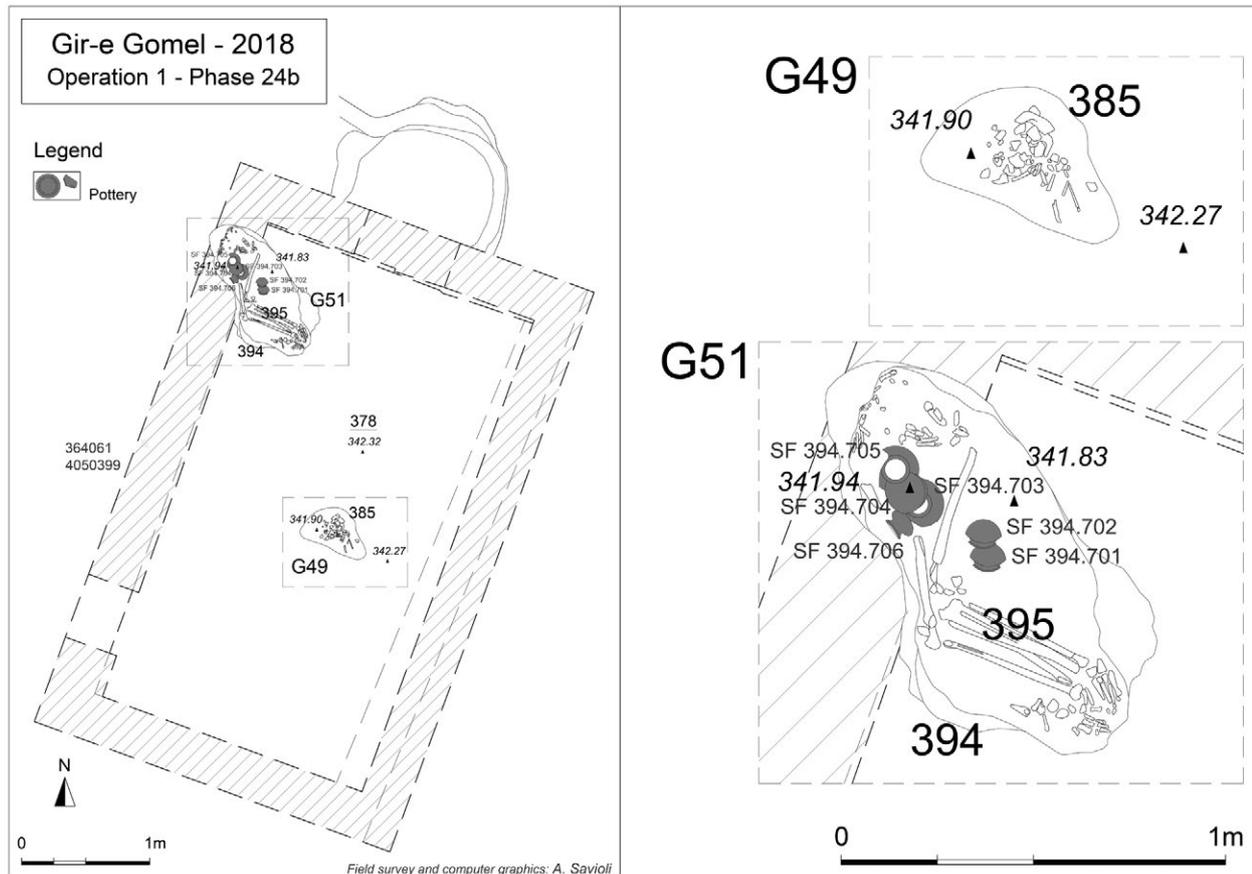


Fig. 34 - Graves 49 and 51, Phase 24b.

The skull was not in its original position, but had rolled backwards, a position that implies the presence of an empty space behind the head: it is possible that the head of the deceased was supported by a cushion of organic material that rotted over time. The skeleton, which was oriented north-west/south-east and faced south, belonged to an approximately 22-24 years old male.

The last two graves found belong to sub-phase 24b (Graves 49 and 51; Fig. 34). Grave 49 was very poorly preserved and consisted of scattered human bones found in a pit that was later covered by the Phase 24a fireplace 368. The scarce skeletal material belonged to an adult, possibly male, with an estimated age at death of approximately 45-55 years.

Lastly, Grave 51 (Figs. 29c and 34) was found directly under the skeleton in Grave 48. The upper part of the burial had been covered by the north-western corner of the Middle Bronze Age Grave 44; thus the upper part of the chest and the head of the deceased could not be excavated. The skeleton lay in contracted position with bent legs, oriented north-west/south-east. Close to the pelvis four small jars (Figs. 30b and 36, 3-6), with squat bodies, bent rims

and rounded bases were found. Two more small jars of the same type, one with four suspenders, were present under the legs, close to the knees (Fig. 36, 1-2). Specimens similar to these small jars are known from Tell Barri,¹⁶² Tell Leilan,¹⁶³ Tell Hamad Agha as-Sagir¹⁶⁴ and Tell Billa.¹⁶⁵ They belong to ARCANE Jazira type 43¹⁶⁶ and ARCANE Tigridian type 57,¹⁶⁷ dated to the end of the Ninevite 5 period-central part of the 3rd millennium BC (EJZ 3a).

The last grave (Grave 24, Fig. 28) belonging to the Early Bronze Age was unearthed in 2013 in the westernmost part of the trench; it is still unknown to which phase of the 3rd millennium BC cemetery it belonged. The burial contained the skeleton of an adult woman (about 20-30 years old) in a poor state

¹⁶² VALENTINI 2006.

¹⁶³ CALDERONE, WEISS 2003, fig. 7, 6.

¹⁶⁴ SPANOS, BLAHA 1992, Abb. 19, 14.

¹⁶⁵ SPEISER 1933, pl. LIII, 4.

¹⁶⁶ ROVA 2011, 70; pl. 6, 5-8.

¹⁶⁷ ARRIVABENI 2018, 82; pl. 3.10, 13-14.



Fig. 35 - Grave goods and personal ornaments from Grave 24.

of preservation and a significant assemblage of grave goods and personal ornaments that suggest she was of high social rank (Figs. 35-36). These included two pottery vessels, a jar and a cup, two bracelets made of white beads and worked shells on the left and right wrists (161.706 and 709), and a copper/bronze band (161.702), which, together with a series of white beads (161.703), formed a diadem, as its position around the skull suggests. Moreover, a copper/bronze toggle pin with lanceolate head (161.705), a large white cylindrical pendant, three carnelian beads (possibly also part of the bracelets) and finally a series of *Conus* shell rings, which were probably part of a belt placed around the abdomen (161.708), were also found.

The shell rings are of the same type described above for Grave 45; the diadem is very similar to one from Tell Fisna¹⁶⁸ and the cylindrical pendant has a parallel in Tell Jigan.¹⁶⁹ The toggle pin belongs to Klein's type I.6A2¹⁷⁰ and closely resembles one from Tell Chuera.¹⁷¹ This type seems to be more characteristic of the Levant and occurs from the end of the third to the beginning of the 2nd millennium BC. This late date for the pin is in contrast with the pottery found in the grave: the jar with an incised herringbone and lattice decoration on the shoulder can be dated to the very end of the Ninevite 5 period and may be considered to pertain to the so-called Late Excised Ninevite 5 tradition.¹⁷² The jar shape is quite uncommon and could belong to a local production, since no identical vessels have been found in stratified contexts to date.¹⁷³ However, the incised decoration is similar to a pattern found on a small jar from Tell Leilan, Period IIIc.¹⁷⁴ The small cup recovered with it has parallels at Tell Leilan, Period 2a.¹⁷⁵

The distribution of the nine Early Bronze Age graves found in Operation 1, eight of which were

concentrated under the Middle Bronze Age Grave 44 in the south-eastern part of the operation and one (G 24) was located in the western part, indicates that 3rd millennium burials were very probably distributed across the entire area investigated. The continuation of the excavation in the central part of the operation below the Middle Bronze Age levels will most likely lead to the discovery of more graves of this period. The density and close-spacing of the sub-phase 24b-a and 23 burials clustered under the 2nd millennium Grave 44, and their partial superimposition, is particularly remarkable. This evidence suggests that the graveyard was rather intensively used. The Operation 1 Early Bronze Age burial ground was intensely used for a rather long period, spanning from the late Ninevite 5 to the Akkadian epoch (2700/2600-2150 BC), with a chronological concentration of the tombs currently excavated in around the mid-3rd millennium BC (EJZ 3). It was located at the south-western edge of a settlement which, according to the results of the survey, in the mid-late 3rd millennium had reached the size of a town (35 ha). The urban character of Gomel in this period is indicated not only by the area it covered, but also by the evidence of an urban elite and social stratification provided by the discovery of rather rich inventories in Graves 47 and 24. The occupants of both tombs had been buried with prestige personal ornaments (diadems, jewellery made of shells imported from the Gulf region, silver beads) and other high-status objects (such as the possible copper/bronze razor with spiral decoration) pointing at the existence in the site of high rank individuals, who controlled the local sections of the supraregional trade routes crossing Upper Mesopotamia in the mid-3rd millennium BC.

6. Operation 2

Introduction

Operation 2 was opened along the eastern margin of the central lower town (Fig. 3) with the general aim of delineating the site's settlement sequence. During the intensive surface survey carried out by Francesca

¹⁶⁸ NUMOTO 1988, fig. 43, 31; pl. 23, 229.

¹⁶⁹ HIROYUKI 2003, fig. 24, 28.

¹⁷⁰ KLEIN 1992, 268; Taf. 81.

¹⁷¹ *Ibidem*; Taf. 81, 10.

¹⁷² ROVA 2003, 5.

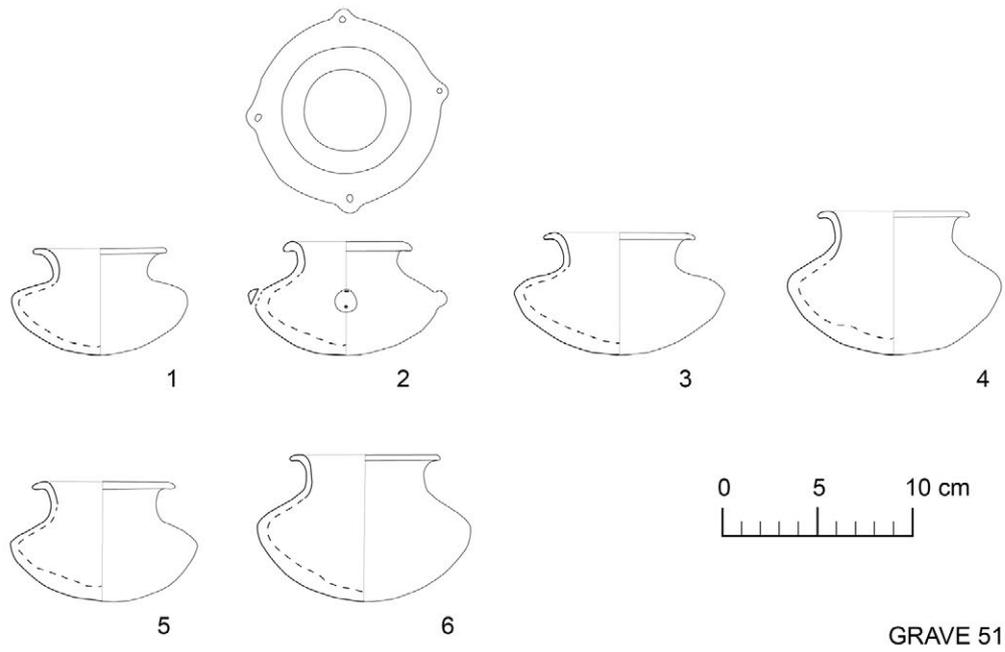
¹⁷³ Thanks to the kindness of the owner, in September 2013 we had the opportunity to visit the Qadir Qachakh Museum in Duhok. In the museum, an unfortunately unprovenanced vessel that closely resembles the jar found in G 24 is stored. This strengthens our hypothesis of the local production of the G 24 vessel.

¹⁷⁴ SCHWARTZ 1988, fig. 39, 1.

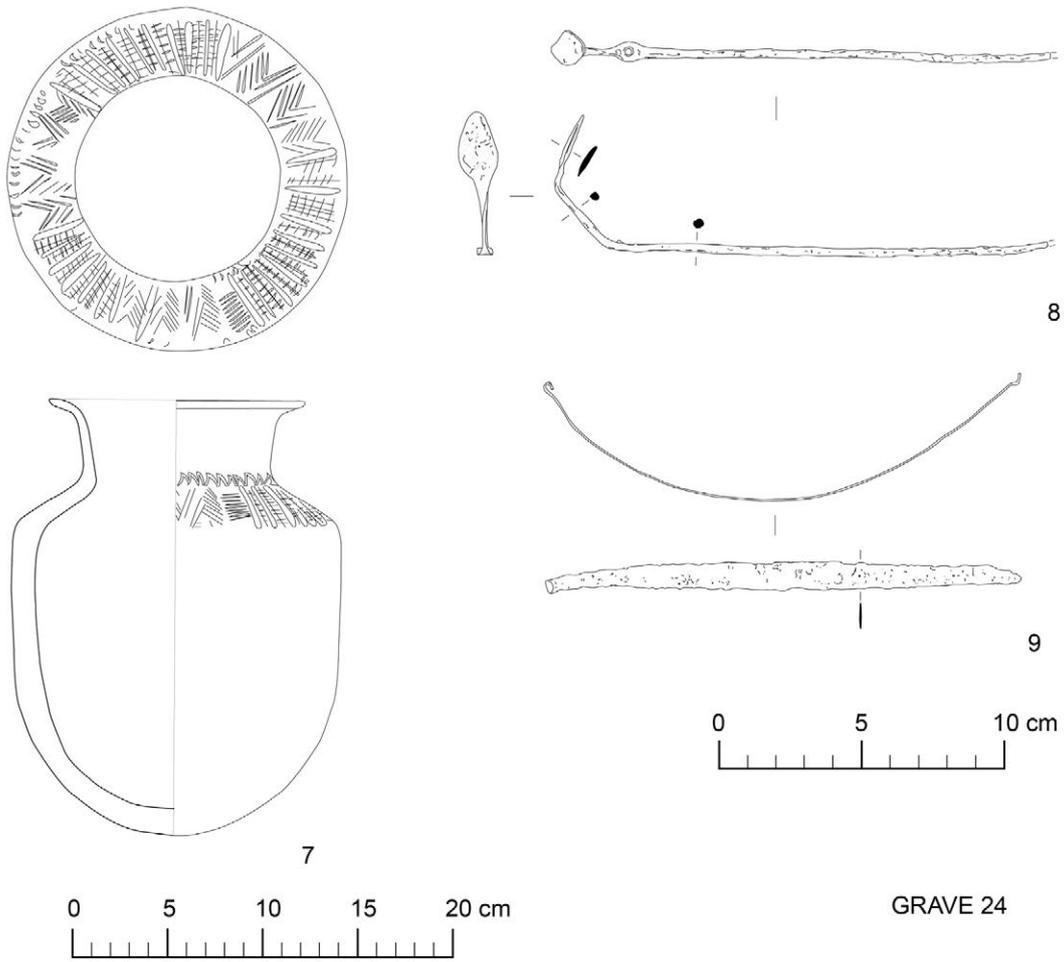
¹⁷⁵ CALDERONE, WEISS 2003, fig. 9, 4.

Vessels from Grave 51 and grave goods and personal ornaments from Grave 24.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	394.701	24b	-	h	ss/ss	sm/b	2.5 y 8/3 py	2.5 y 8/3 py	w		CALDERONE, WEISS 2003, fig. 7, 6. SPANOS, BLAHA1992, Abb. 19, 14. SPEISER 1933, pl. LIII, 4.
2	394.702	24b	Calcite	h	ss/ss	sm/b	10 yr 8/4 vpb	10 yr 8/4 vpb	w		
3	394.703	24b	Mica, Calcite	h	ss/ss	sm/b	5 y 7/2 lg	5 y 8/1 w	w		CALDERONE, WEISS 2003, fig. 7, 6. SPANOS, BLAHA1992, Abb. 19, 14. SPEISER1933, pl. LIII, 4.
4	394.704	24b	Mica	d	ss/ss	sm/b	5 y 7/1 lg	5 y 7/2 lg	w		CALDERONE, WEISS 2003, fig. 7, 6. SPANOS, BLAHA1992, Abb. 19, 14. SPEISER1933, pl. LIII, 4.
5	394.705	24b	-	d	ss/s	sm/b	5 yr 7/6 ry	10 yr 8/4 vpb - 5yr 7/6 ry	w		CALDERONE, WEISS 2003, fig. 7, 6. SPANOS, BLAHA1992, Abb. 19, 14. SPEISER1933, pl. LIII, 4.
6	394.706	24b	Mica	h	ss/ss	sm/sm	5 y 8/2 py	5 y 8/1 w	w		CALDERONE, WEISS 2003, fig. 7, 6. SPANOS, BLAHA1992, Abb. 19, 14. SPEISER1933, pl. LIII, 4.
7	161.701	24	Sand, Calcite	h	ss/ss	sm/sm	7.5 yr 7/4 p	7.5 yr 7/4 p	w	Incised geometric decoration	



GRAVE 51



GRAVE 24

Fig. 36 - Vessels from Grave 51 and grave goods and personal ornaments from Grave 24.

Simi as part of her PhD research project,¹⁷⁶ a large amount of diagnostic Middle Bronze Age pottery was found in this region of the site,¹⁷⁷ as well as surface material dating to the 3rd millennium BC, the Late Bronze Age, and the Neo-Assyrian, Hellenistic, Parthian and Islamic periods. In particular, the evidence related to the Middle Bronze Age – seen in the context of the possible identification of Gir-e Gomel with the Middle Bronze Age city of *Nurrugum*¹⁷⁸ – gave us the opportunity to investigate the extension and character of the Middle Bronze Age occupation in this region of the site. The opening of Operation 2 was also based on observations made regarding the morphology of Gomel's lower town. Satellite and aerial images show in the area of Operation 2 a deep gully along the steep eastern slope of the lower town that might mark the location of a gate in a city wall.¹⁷⁹ The ideal spot for digging the new trench was offered by a square pit measuring about 40 x 40 m that had been excavated by the villagers who intended to use it as a pond for breeding fish, which was dug into the site's archaeological deposits in 2013.¹⁸⁰ This recent dig had produced a large quantity of 3rd and 2nd millennium pottery, thus making it an attractive and easily accessible spot to investigate the Bronze Age settlement levels. Two excavation areas were opened (Fig. 3), one on the southern and one on the western side of the aforementioned square pit, respectively Area South and Area West. In Area West, the excavation reached only the Parthian levels.

The stratigraphy investigated at present in Operation 2 spans from the Middle Bronze Age to the Parthian epoch, although it does not feature all the chronological phases comprised in this period. Phases 1 and 2 represent the modern use of the area. Phase 1 consists of the modern ground surface and relative accumulation, which was cut for the excavation of the fish pond, and the modern cut for a water channel. Phase 2 is a series of three accumulations, with no evidence of structures or ancient material, cut for the excavation of the water basin.

Specifically, in Area West only remains dated to the Parthian period were uncovered, subdivided into 6 archaeological phases (Tab. 1). In Area South twelve archaeological phases dating to the Parthian period, the Neo-Assyrian period (Iron Age II) and the Middle Bronze Age were recorded.

Parthian Period (Phases 3-6)

Stratigraphy and architecture

The Parthian levels in Area South (Fig. 3) were characterised by trodden floors, with which walls and installations were associated. The occupation of Phases 5 and 6 was organised around installations: especially in Phase 5, the very badly preserved trodden floor was associated with two stone installations, probably work benches and a *tannur*, and cut by two

pits filled with ashy soil. Most likely the pits were associated with the use of the *tannur* and the work benches, and the zone was utilized as an open area for domestic activities.

Parthian phases in Area West (Fig. 3), which are stratigraphically correlated with the Area South levels, were excavated in a smaller area. In Phase 3 an external trodden floor extended over the whole area; it was cut at its northern end by a water channel, built of baked bricks placed both horizontally and vertically.

In Phase 4, the architectonic layout is more complex, although the state of preservation is poor. A trodden floor was associated with two different structures. In the southern part of the excavation a square structure made of three rows of medium-sized undressed stones was found. To the north of it, a larger rectangular north-south oriented structure, built of medium-sized stones and baked-brick fragments was located. This structure was covered by mud-brick debris. Given its shape and size we interpret it as a platform; it could have held a large building that has disappeared, the nature of which cannot be determined.

In Phase 5 the area was marked by a lack of connected architectural remains. The only visible structures, associated with a trodden floor, were two fragmentary walls.

In the earliest investigated occupation phase, Phase 6 (Fig. 37), the area's architectural layout centred on two partially uncovered buildings. In the northern and central sectors, parts of Building 2 and Building 3 were exposed. Both buildings were situated close to the western slope of the fish pond built by the villagers, so that the western parts of both buildings continued beyond the western excavation limit. Building 2 extended southwards from the central sector of the area and was defined by walls 659 and 660. Floor 665

¹⁷⁶ For a more exhaustive analysis of these results, see SIMI 2019.

¹⁷⁷ A total of 177 MBA sherds were collected.

¹⁷⁸ On this issue, see the introduction and conclusions to this article and MORANDI BONACOSSI, IAMONI 2015, 24.

¹⁷⁹ These features were clearly visible in the U2 aerial pictures (Fig. 5). Some U2 film rolls were declassified and in December 1997 transferred to the National Archives and Records Administration (NARA, Maryland), where they are available to the public (UR, HAMMER 2018, B1554_flight_path).

¹⁸⁰ When this tank was filled with water, it rapidly drained into the ground, making it useless for fish breeding. The excavation in Operation 2 allowed us to understand that the fish pond water ran into a well (449) located in the south-western corner of Operation 2 (Fig. 37). The precise date of the well could not be established due to the fact that its upper part had been cut by the excavation of the fish pond, but the presence of plastic material in the upper well fill suggests that it was dug in modern times.

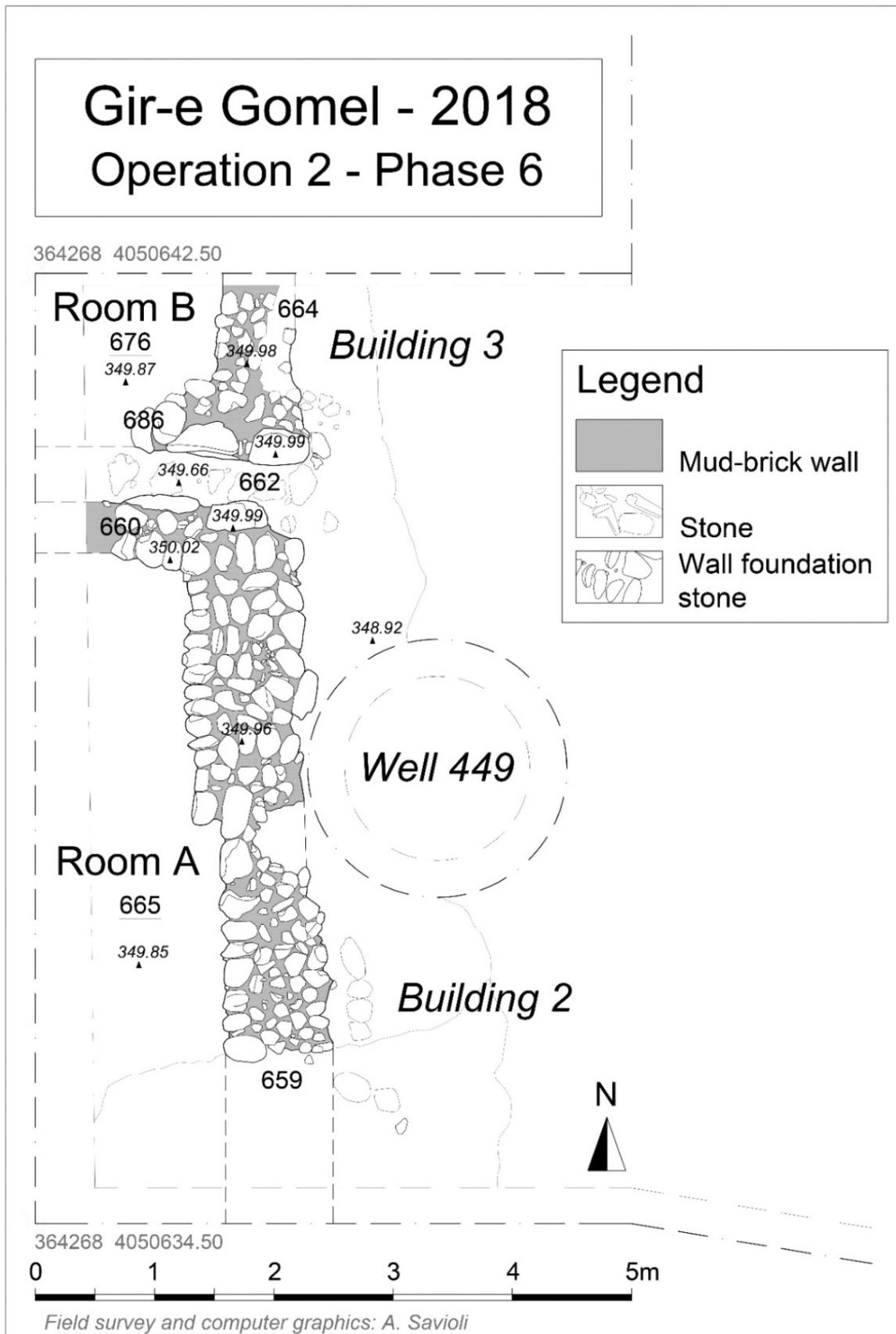


Fig. 37 - Phase 6, Area W, Operation 2.

Parthian pottery and terracotta plaque, Phase 4, Area S.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	419.20	4	Sand, calcite	h	ss / ss	sm / sm	5y 8/2 py	5y 8/2 py	w		HAUSER 1994, Taf.111.h; 263A1
2	419.26	4	Sand, calcite	h	ss / ss	sm / sm	5y 8/2 py	5y 8/2 py	w		
3	419.25	4	Sand, calcite	h	ss / ss	sm / sm	5y 8/2 py	5y 8/2 py	w		KÜHNE 2005, Abb. 205
4	419.24	4	Sand, calcite	h	ss / ss	sm / sm	5y 8/2 py	5y 8/2 py	w		DEBEVOISE 1934, fig. 128-13 KÜHNE 2005, 205, A 215
5	419.23	4	Sand, calcite	h	ss / ss	sm / sm	5y 8/2 py	5y 8/2 py	w		KÜHNE 2005, Abb. 202

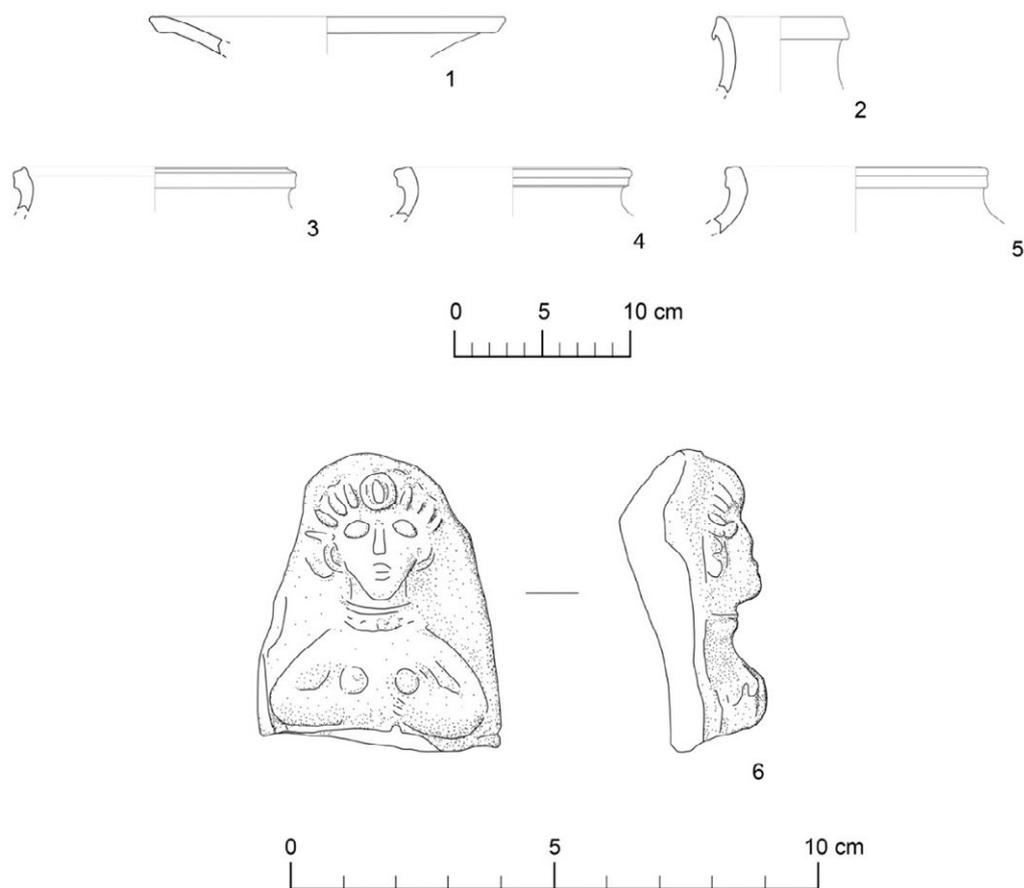


Fig. 38 - Parthian pottery and terracotta plaque, Phase 4, Area S.

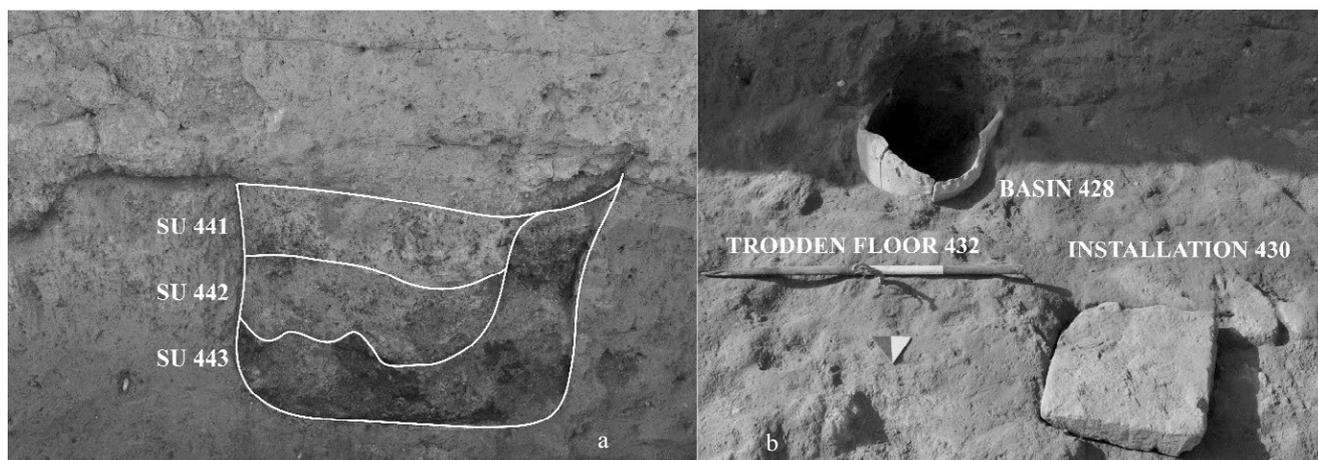


Fig. 39 - Furnace 444 (a) and installations 428 and 430 (b).

of Building 2's Room A abutted both walls. Immediately to the north, between Buildings 2 and 3, a water channel (662) drained the water eastward. This drain was built with squared and rounded medium-sized stones, which formed its vertical sides and bottom. To the north of this, the south-eastern corner of Building 3 was located, delimited by walls 664 and 686. At present, it is difficult to understand the function of these buildings, although some similarity is attested with Gebäude I and IV at Ashur,¹⁸¹ Haus IV at Tell Sheikh Hamad,¹⁸² and the Area A second phase building at Tell Sheikh Qubba.¹⁸³ All these constructions have been interpreted as residential buildings.

Pottery and small finds

The ceramic repertoire from the Parthian phases consists mainly of closed forms and only few open ones (Fig. 38). In the whole sequence, the forms are very homogeneous, with the presence of plates (Fig. 38, 1) and jars with double rim (Fig. 38, 3-5), characterized by a mineral-tempered fabric. Parallels are known from Ashur,¹⁸⁴ Tell Sheikh Hamad,¹⁸⁵ and Seleucia on the Tigris¹⁸⁶ among others. From the Parthian levels the most remarkable and the only datable small find is a moulded terracotta plaque, with the relief of a female figure (Fig. 38, 6).

The occupation dated to the Parthian period presents two different patterns of space use in Operation 2. In Area South, there are open-air surfaces equipped with very simple installations. In Area West, on the other hand, structures with solid walls with stone foundations indicate the occurrence of a built-up area, probably occupied by dwellings, as suggested by the above-mentioned comparisons with important Mesopotamian Parthian period sites, such as Sheikh Hamad and Ashur. However, this interpretation has to remain hypothetical, since the excavated area is

not large enough to reliably ascertain the nature and function of the remains brought to light.

Neo-Assyrian period/Iron Age II (Phases 9-7)

Stratigraphy and architecture

In Phase 7, the spatial organisation of the area was focussed on several installations. In the central part of Area South's southern section, an installation (444, Fig. 39a) was found. It consisted of a pit filled with three deposits: from the top downwards, a clayey soil (441), an ashy fill in the second accumulation (442), underlain by a very ashy fill with a lot of charcoal at the bottom of the installation (443). The characteristics of the two lowest fills, rich in ash and charcoal, together with the shape of the installation suggest its interpretation as a kiln, most probably belonging to the so-called "bowl-type",¹⁸⁷ which consists of a pit dug into the ground with a superstructure made of clay.¹⁸⁸ At a distance of ca. 0.8 m to the west of the furnace, and most probably connected to it, a complete ceramic basin (428, Fig. 39b) and an installation (430) were found. Basin 428 was embedded in

¹⁸¹ HAUSER 1994, Taf. 15; ANDRAE, LENZEN 1961, Taf. 12.

¹⁸² NOVÁK 2005, 66.

¹⁸³ BALL 1989, 9, fig. 1.5.

¹⁸⁴ HAUSER 1994, Taf. 111h, Taf. 263A11a.

¹⁸⁵ KÜHNE 2005, Abb. 205, Abb. 215.

¹⁸⁶ DEBEVOISE 1934, figs. 128-130.

¹⁸⁷ TYLECOTE 1980, 210, fig. 7.10. According to MOOREY 1985, 94, this type of kiln was used in the iron-smelting process, i.e. to extract iron from the ore. A similar furnace interpreted as a smelting facility was found in Tell Shiikh Fawqani (LUCIANI 2005, 728).

¹⁸⁸ TYLECOTE 1980, 210.

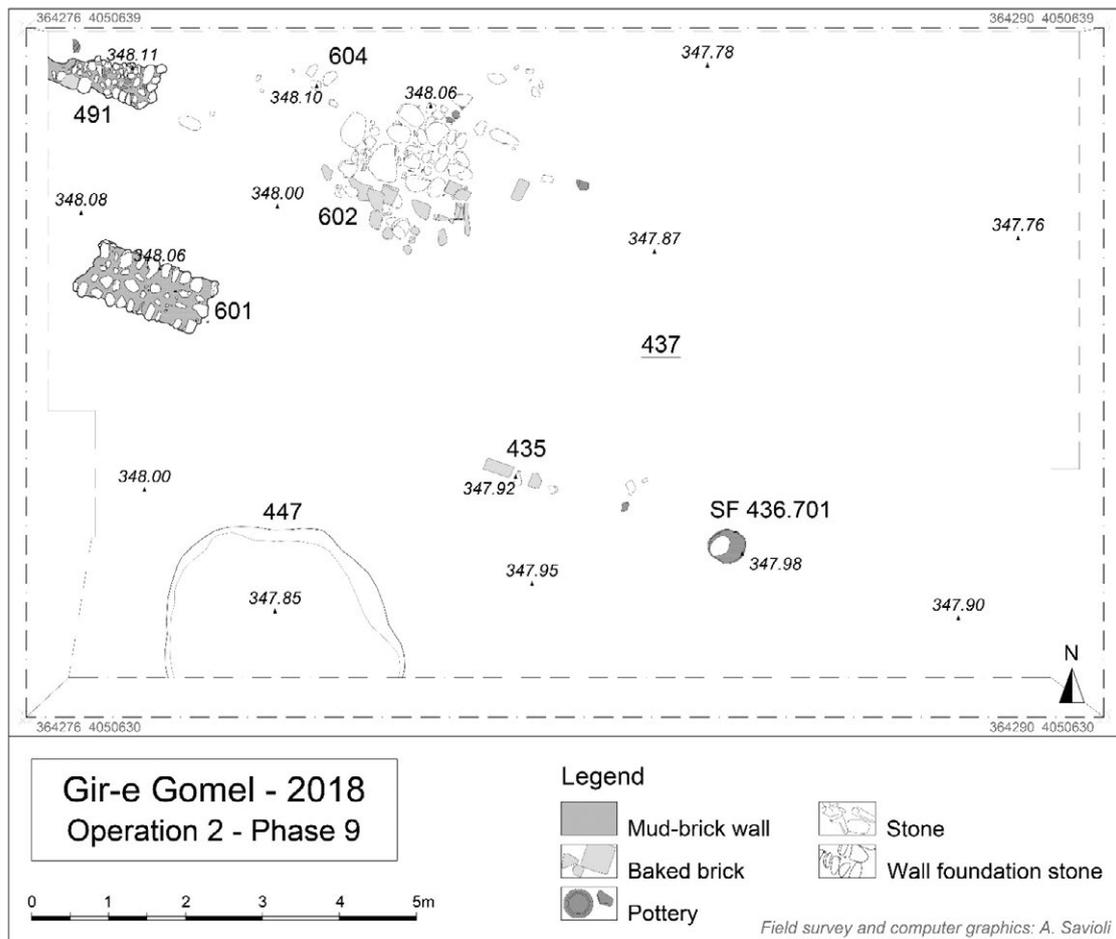


Fig. 40 - Phase 9, Operation 2.

trodden floor 432 and part of it continued beyond the excavation's southern section. The basin was oval in shape, and it measured 0.37 m wide and 0.70 m deep. Its internal walls were coated with a bitumen layer ca. 5 mm thick, indicating that the basin was most probably used to contain water. Its vicinity to furnace 444 might be because water was used in the metalworking process. Adjacent to the basin was installation 430, consisting of a baked brick laid on the floor. To the west of the installation and the basin, a thick accumulation of ash (445) on trodden floor 432 and a circular pit (456) filled with ashy soil with frequent animal bones, charcoal fragments, and mud-brick fragments with reed impressions were uncovered. The occurrence of two pieces of iron slag in the accumulation in the south-western part of the area, together with the presence of the ash deposit¹⁸⁹ and the pit with ashy fill, support the identification of the installation as an iron smelting kiln, and leads to the conclusion that the area was most probably used for metalworking. This hypothesis is also supported by the presence in the accumulations of ground basalt

artefacts, i.e. grinding stones that could have been used as natural anvils, and stone pestles, probably used to crush ore nodules. The presence of iron slag, basalt grinding stones and pestles, together with the occurrence of the furnace, the basin used to hold water and the large deposits of ashes, clearly indicate the use of the area for iron smelting.

In Phase 8, there is no further evidence of metalworking, though the function of the area was still connected to craft activities. The southern sector was entirely devoid of structures and installations, which were concentrated in the north-western part of the area and associated with a trodden floor. The installations were mainly made of baked bricks, sometimes with medium- or small-sized stones and re-used door sockets, but no evidence of real architecture was found in the area. The finds associated with these

¹⁸⁹ It was probably connected to the cleaning of the furnace.

installations were basalt grinding stones and pestles, hinting at the use of the area for craft activities.

Phase 9 (Fig. 40) is the earliest phase, dating to the Neo-Assyrian period/Iron Age II. In this phase, the area was again organized around several installations, as in Phases 8 and 7. Most of the installations were located in the north-western sector of trodden floor 437: installation 491, probably a work bench made of small-sized stones bound with mortar and potsherds, was first used in this phase. To the south of bench 491, another similar installation (601) was located. In the northern part of the excavated area, another roughly square installation made of stones and baked bricks was brought to light (602). To the south of it, a small installation made of baked bricks (435) and a jar (436.701) embedded in the floor were located (Fig. 42, 1).¹⁹⁰ Fragments of the neck and rim of a larger jar, probably used for storage, were discovered to the south of the embedded jar. Pit 447, located in the western part of the area, was filled with ashy soil, and it would have functioned together with the installations, probably as a disposal pit for refuse from the craft activities carried out in the area.

Pottery and small finds

The dating of Phases 7-9 has been problematic due to the nature of the pottery found. Ceramic assemblages from the Neo-Assyrian phases of Operation 2 consist mainly of closed forms and a few open-form specimens (Figs. 41 and 42). In all three phases, the ceramic material was associated with the craft activities conducted in the area, where there is no evidence of zones with a domestic function. This may explain why the majority of the recorded vessels have closed forms; they were probably used for storing materials related to craft activities. Another remarkable characteristic of the pottery from these phases is the absence of typical Neo-Assyrian ceramic markers, such as hammer-head bowls, carinated bowls, jars with distinct neck and everted rim. The forms that have allowed the dating of these phases to the Neo-Assyrian period (Fig. 41, 2-3, 5) resemble specimens from Neo-Assyrian sites, even though they are not the most typical examples of Neo-Assyrian pottery production. It seems likely that the artisanal character of this part of the settlement has influenced this matter. In fact, it is to be expected that in a specialised craft context the vessels in use would differ from an assemblage that might be found in a domestic context; therefore, it is not surprising that typical Neo-Assyrian forms are absent. However, the jars and bowls illustrated here (Fig. 41, 2-3, 5) do show similarities with pottery from Neo-Assyrian sites and support our dating to this period. Convex wall bowls (Fig. 41, 3), which are scarcely attested in the Gir-e Gomel Neo-Assyrian phases, and jars with everted rim (Fig. 41, 1 and 5), both from Phase 8, allow the assemblage to be dated to the Iron Age II.¹⁹¹ Concerning Phase 9, the two

jars (Fig. 42, 1-2) found in association with floor 437 contribute to the interpretation of the area as a space for craft activities. One jar (Fig. 42, 1) was embedded in the floor and is almost complete: the body is ovoid with a small concave neck ending in a squared rim; on the shoulder, there are three grooves and a ridge at the base of the neck.¹⁹²

Small finds from the Neo-Assyrian phases are represented by stone tools that are connected to the use of the area for metalworking. In the Neo-Assyrian/Iron Age phase deposits the tools included grinding stones and pestles, together with jar stoppers made from potsherds. The most remarkable find was a glazed frit anthropomorphic figurine (Fig. 41, 6) from the accumulation above the Neo-Assyrian Phase 8 trodden floor. The figurine represents the lower part of a female body, with the pelvis and the legs.¹⁹³

The archaeological evidence gathered from the Neo-Assyrian phases shows that this part of the lower town was devoted to craft work. It is not surprising that a craft area was situated on the edge of the lower town.¹⁹⁴ In Bassetki, in the Duhok region, a pottery production area is known¹⁹⁵ and evidence of craft activities has been found at the site of Gird-i Bazar.¹⁹⁶ Metalworking and metal-smelting are known from the site of Tell Shiukh Fawqani, in the Upper Syrian Euphrates. An area devoted to metalworking activities was excavated in Operation G, located at the foot of the mound,¹⁹⁷ i.e. at the edge of the settlement, as is our Phase 7 metalworking area. In Area G at Tell Shiukh Fawqani, however, there was evidence of architecture, which is lacking in Phase 7 of Operation 2, but the occurrence of kilns,¹⁹⁸ and similar ground

¹⁹⁰ See § Pottery and small finds.

¹⁹¹ HAUSLEITER 2010, Taf. 36a, 72. ST13R1; ANASTASIO 2010, pl. 6.2; CURTIS, READE 1995, fig. 55, 352; KREPPNER 2006, Taf. 13.8, Taf. 28.4, Taf. 42.8.

¹⁹² There are no convincing parallels for this jar, the closest resemblance being with a jar from ASSUR (HAUSLEITER 2010, Taf. 118.TG3.1) for the general shape and the combed decoration, but not for the rim shape.

¹⁹³ At Tell al-Rimah (OATES 1966, pl. XXXIVa), the heads of two fragmentary glazed frit female figurines were found together in the last use phase of the Great Temple (Phase 1) dating to the late Middle Assyrian period (second half of the 12th century BC).

¹⁹⁴ Ongoing excavations at Zincirli suggest too that open areas in the lower town took up a substantial proportion of the city (HERRMANN, SCHLOEN 2016, 270).

¹⁹⁵ PFÄLZNER, QASIM 2017, 30.

¹⁹⁶ The site is located in the southern part of Iraqi Kurdistan at the eastern margin of the Neo-Assyrian Empire. The archaeological evidence shows the occurrence of pottery production and craft activities (MACGINNIS-KREPPNER 2016, 53-54, 57; STONE 2016, 66, 67), attested by the presence of lithic tools as in Operation 2.

¹⁹⁷ LUCIANI 2016, 825.

¹⁹⁸ LUCIANI 2005, 728.

Neo-Assyrian pottery and small finds from Phase 8 and 9.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPA RISONS
1	437.13	9	Calcite, chaff	h	ss / ss	sm / sm	5yr 7/6 ry	5yr 7/6 ry	w		
2	437.3	9	Calcite, chaff	h	ss / ss	sm / sm	7.5 yr 8/3 p	7.5 yr 8/3 p	w		
3	433.20	8	Calcite	h	ss / ss	sm / sm	5 yr 6/6 ry	5 yr 6/6 ry	w		HAUSLEITER 2010, Taf. 36a, 72.ST13R; ANASTASIO 2010, pl. 6.2; KREPPNER 2006, Taf. 13.8
4	433.701	8	Calcite	h	ss / ss	sm / sm	7.5 yr 8/3 p	7.5 yr 8/3 p	hm		
5	433.95	8	Calcite, chaff	d	ss / ss	sm / sm	5 yr 5/3 rb	2.5 yr 6/3 lrb	w/hm		KREPPNER 2006, Taf.28.4, 42.8

stone tools and iron slag as in Gir-e Gomel, emphasizes the similarity of the two contexts. Although few areas devoted to metal working have hitherto been found in the Near East, another iron workshop is known at Tel Yin'am, in Israel (lower Galilee), where a quarter with evidence of metal-smelting activities was found.¹⁹⁹ The occurrence of iron-working areas is not frequent in the Near East and there are still many unanswered questions about the technology required and supply of ore. The iron-working area in Gomel was probably connected to a sizeable Neo-Assyrian centre, where specialized activities were carried out in different parts of the settlement.²⁰⁰

Middle Bronze Age (Phases 10-12)

Stratigraphy and architecture

The Middle Bronze Age settlement sequence was exposed in the entire Area South (Fig. 3); three phases were excavated. The most important architectural feature of the Middle Bronze Age sequence was Building 1 (Fig. 43), a large structure that occupied the whole excavation area in Phase 11. The latest Middle Bronze Age phase, Phase 10, was not characterized by the presence of a coherent building and the area was subsequently greatly disturbed by the foundation cuts of the installations of the later Phase 9. Phase 10 is subdivided into two sub-phases, in which few structures occurred in the area, all poorly preserved. The area was probably occupied by a building, as suggested by the finding of two baked-brick fireplaces, which are usually located in roofed areas, one located in the northern part of the excavation and the other in the southern half. Besides the presence of the fireplaces, two walls, which could perhaps mark the limits of a room, were located only in the northern half of the area; this interpretation cannot currently be proofed, since the northernmost part of the structure lies beyond the excavation limit.

In the following Phase 11, which is separated from Phase 10 by an accumulation consisting of mud-brick debris marking the abandonment of the building and the new arrangement and function of the area in Phase 10, the area was occupied by Building 1 (Fig. 43). The building has three sub-phases associated with changes in its internal layout. Unfortunately, in all sub-phases the walls of the building had been demolished to foundation level and rebuilt. The floors had been swept, so that only a limited amount of pottery and small finds was retrieved.

Sub-phase 11A represents the last period of the building's use, in which the main wall (464, Fig. 44, sub-phase 11b) dividing the excavated part of the building into two parts was still functional. Wall 464 was in fact the division between the two different sectors of the building, which were better preserved in the preceding sub-phase 11b, as described below. In the sector to the west of wall 464 only two areas survived, one interpreted as a courtyard (A), paved with baked bricks and a plastered floor. The second was a room with two work benches.²⁰¹ In its floor a grave was cut: a jar burial containing the skeletons of three newborns.²⁰² In the eastern sector of the building, no installations were found.

¹⁹⁹ LIEBOWITZ, FOLK 1984, 271.

²⁰⁰ As mentioned above, this situation is also found at Tell Shiukh Fawqani, ancient Burmarina (LUCIANI 2005, 980). At Tell Afis (western Syria), the discovery of iron slag in an 8th century BC context indicates the occurrence of iron-smelting activities (INGO *et alii* 1992).

²⁰¹ The two rectangular-shaped work benches, oriented north-west – southeast and northeast – southwest and consisting of three parallel rows of undressed stones, re-use the razed walls with stone foundations that were built in sub-phase 11b (walls 651 and 652, see below).

²⁰² Jar burials of infants under floors are common in Middle Bronze Age buildings of Upper and Lower Mesopotamia. For

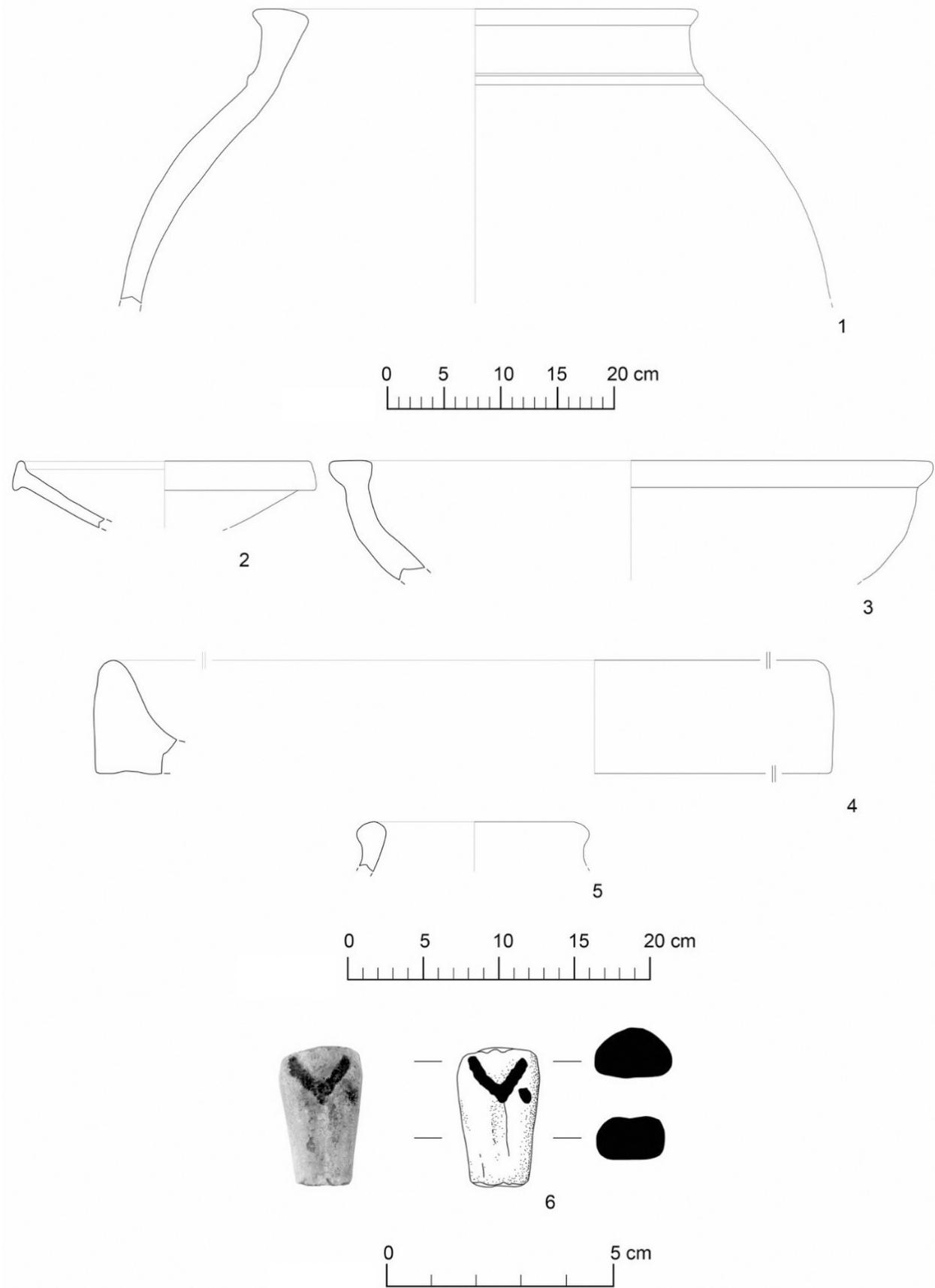


Fig. 41 - Neo-Assyrian pottery and small finds from Phase 8 and 9.

Neo-Assyrian pottery from Phase 9.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	436.701	9	Calcite, chaff	h	ss / ss	sm / sm	10yr 8/3 vpb	10yr 8/3 vpb	w	Ridge; grooves on the shoulder	
2	437.12	9	Calcite, chaff	h	ss / ss	sm / sm	10yr 8/3 vpb	10yr 8/3 vpb	w	Bitumen traces	

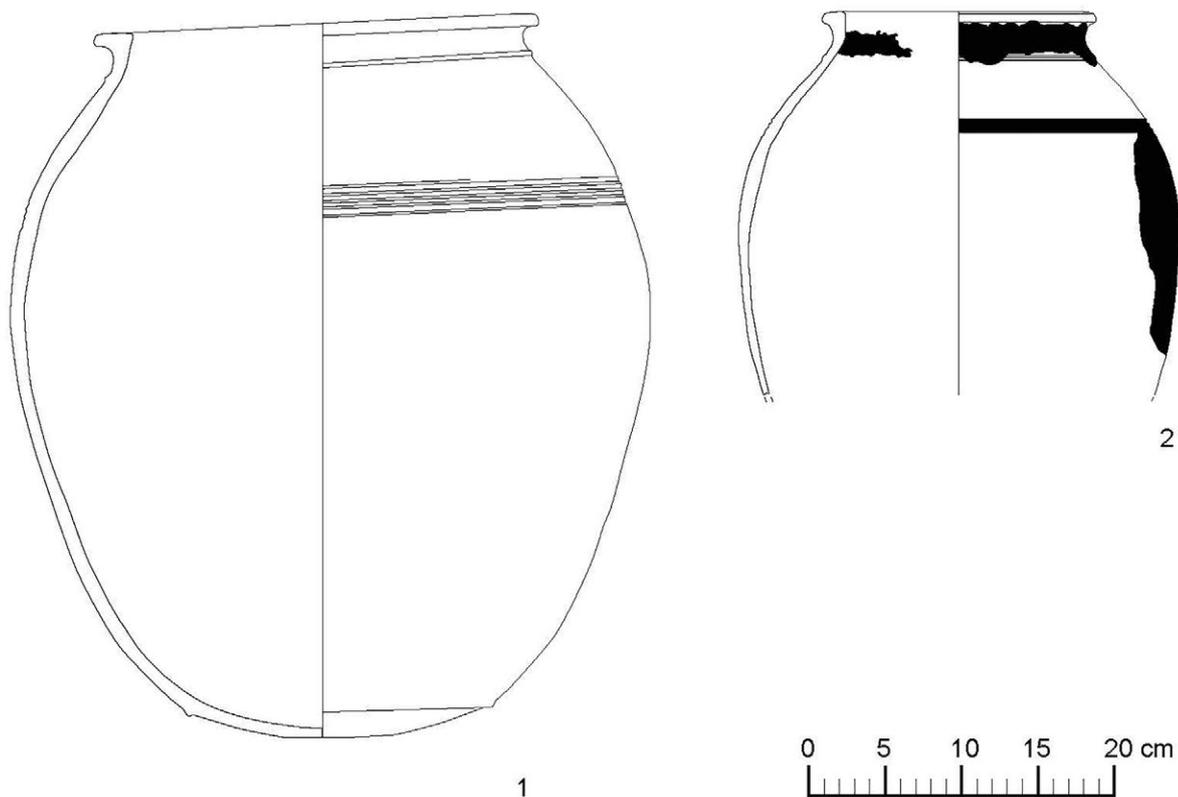


Fig. 42 - Neo-Assyrian pottery from Phase 9.



Fig. 43 - Building 1, Phase 11b, Operation 2.

Sub-phase 11b (Fig. 44) was brought to light in the whole area: this made it possible to gain an insight into a large part of Building 1. Five rooms and courtyards were discovered in the excavated area, labelled A to E. Despite the poor preservation of the walls, of which in most cases only the stone foundation and the first fragmentary mud-brick course were preserved, it was possible to reconstruct the building's layout. The excavated part of the building was probably entered from Courtyard A (Fig. 44), in the north-western part of the excavation area. The court was delimited by walls 628, 651, and 620, and was paved with a well-laid pebble floor, framed in the south-east by baked-brick paving, which constituted the south-easternmost part of Courtyard A and gave access to the adjacent Room E.²⁰³ Another monumental entrance to Room E, 2.88 m wide, was located to the south of Courtyard A, between walls 628 and 461.²⁰⁴ Room E occupied a central position in this section of Building 1. It thus seems likely that it had an important function, which is suggested also by the size of the excavated part and the large, central fireplace installation (Fig. 45) on its mud floor (467). The fireplace was located close to the trench's south-

ern section and consisted of nine baked bricks with signs of burning that were bordered on all sides of the structure by a row of mud-bricks bearing traces

instance, a similar situation was observed in Tell Chagar Bazar, where in Area G, Phase III, an infantburial was found in a level that was razed before the construction of the successive level (McMAHON, COLANTONI 2009, 71). In this site other infant burials were also found, all inside buildings (McMAHON 2009a, 47; IDEM 2009b, 120; McMAHON-COLANTONI 2009, 72). Newborn burials were also found in Nippur, in Area TA and TB. According to STONE 1987, 125, they marked the end of the Old Babylonian occupation and the final abandonment of the city in the 18th century BC.

²⁰³ A similar feature has been found at Tell Chagar Bazar, in the Upper Khabur basin: in Building III, dated to the Middle Bronze Age II and located in Area A, a pebble surface was found, bordered by a baked-brick floor which marked the entrance to a room in the building (McMAHON 2009a, 35 and fig. 12). Another building comprising a pebble-paved courtyard has been excavated at Bakr Awa in the Middle Bronze Age levels: according to the excavators, the courtyard led into a reception room (MIGLUS *et alii* 2013, 54).

²⁰⁴ At the present state of excavation it is not possible to ascertain whether this gave access from outside of the building.



Fig. 45 - Phase 11b, fireplace 465 and floor 467, seen from the W.

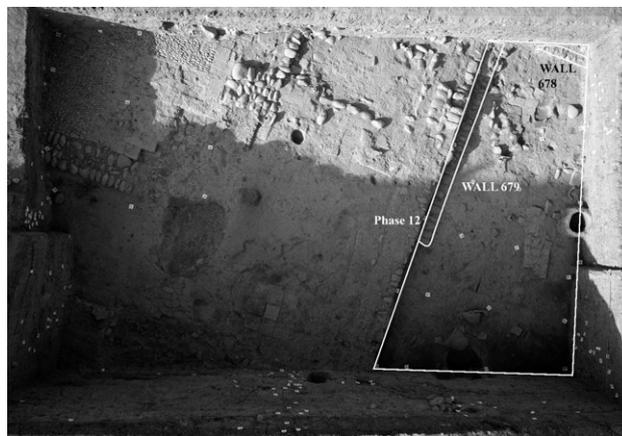


Fig. 46 - Phase 12 (the currently excavated part of the phase is delimited in white).

Room D), divided by wall 632. This structure, which was very poorly preserved and survived only in foundation, consisted of medium-sized stones and baked bricks. A doorway connected Room D and Courtyard C. The latter was interpreted as an internal courtyard of Building 1, given that its floor (636) consisted of an earth layer on a thin gravel preparation, which served to drain water and reduce dampness. Room D, to the south, was equipped in the north-east corner with *tannur* 634, which was abutted by the room's floor 470. In its southern part, the room was equipped with two large jars set in the floor and used for cereal storage, as shown by grains found in the fill of one of the jars. The presence in Room D of a *tannur* and large storage jars indicates that this was a closed space, probably a kitchen, as suggested not only by the installations but also by the amount of Cooking Ware found in it.²⁰⁶

The earliest sub-phase 11c was excavated in the eastern part of the area, to the east of wall 464, in an area measuring 8.91 m x 5.01 m (Fig. 46)²⁰⁷ that was occupied by Room D. *Tannur* 634, first constructed in this sub-phase, was abutted by a mud floor, which, to the south of the *tannur*, was reinforced by an underpinning localized in the easternmost part of the area. It consisted of baked bricks, rectangular or square, and was probably built to strengthen this part of the floor – which, due to the presence of the *tannur*, was intensively trampled.

In Phase 12²⁰⁸ (Fig. 46) the space was delimited by two walls, located in the north-western part of the excavated area: wall 678, oriented west-northwest/east-southeast, and wall 679, oriented north-east/south-west, and abutted by mud floor 685. The walls, of which only the stone foundation was preserved,

bounded a room equipped with two installations. In its western part, *tannur* 634 was located, which functioned together with an installation consisting of a working platform of baked bricks associated with the *tannur*. The space south and west of the *tannur* was devoid of installations, though vessels were found on the floor:²⁰⁹ to the west of the *tannur*, two pot-stands were found, the lower part of a fenestrated stand, probably an incense burner, and a pie-crust pot-stand²¹⁰ (Fig. 47, 4). To the south of the *tannur*, close to the south section, three large jars²¹¹ lay on the floor (Fig. 47, 1-3).

The archaeological evidence gathered thus far suggests that Building 1 existed already in Phase 12, although with a different layout. However, this cannot be conclusively demonstrated without extending the excavation.

²⁰⁶ Due to the presence of the *tannur* and the sunken jars, this room shows similarities with the Late Old Babylonian “kitchen” of Tell al-Rimah (POSTGATE *et alii* 1997, 34-35).

²⁰⁷ We decided to investigate the eastern sector of Building 1 by removing the sub-phase 11b floor in order to investigate 1) the masonry of the wall, 2) the possible presence of an older wall pertaining to an earlier phase of the building on which the sub-phase 11b wall was built, 3) the layout and function of the area in this sector.

²⁰⁸ This is considered as a separate phase and not as a sub-phase of Phase 11, even though it was excavated on a smaller part of the explored area. Wall 464 did not exist; this shows that the layout of the building was different from the following Phase 11.

²⁰⁹ See § Pottery and small finds.

²¹⁰ See § Pottery and small finds.

²¹¹ See § Pottery and small finds.

Middle Bronze Age Pottery from Phase 12 and 11b and a.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	685.3	12	Calcite, chaff	h	ss / ss	sm / sm	10 yr 8/2 vpb	10 yr 8/2 vpb	hm		POSTGATE <i>et alii</i> 1997, 608; KOLIŃSKI 2000, pl. 19E
2	685.2	12	Calcite, chaff	h	ss / ss	sm / sm	10 yr 8/2 vpb	10 yr 8/2 vpb	hm		POSTGATE <i>et alii</i> 1997, 608, 618
3	685.1	12	Calcite, chaff	h	ss / ss	sm / sm	10 yr 8/2 vpb	10 yr 8/2 vpb	w		POSTGATE <i>et alii</i> 1997, 1034
4	685.701	12	Calcite	h	ss / ss	sm / sm	7.5 yr 8/3 p	7.5 yr 8/3 p	w/hm		KOLIŃSKI 2000, pl. 20A, 22, 23A; SCHWARTZ <i>et alii</i> 2017, 232, fig. 26.17
5	624.704	11A	Calcite	h	ss / ss	sm / sm	7.5 yr 8/3 p	7.5 yr 8/3 p	w		POSTGATE <i>et alii</i> 1997, 149, 151; PULHAN 2000, 421-422; SCHWARTZ <i>et alii</i> . 2017, figs. 25.4, 6
6	624.705	11A	Calcite	h	ss/ss	sm / sm	7.5 yr 8/3 p	7.5 yr 8/3 p	w		McMAHON <i>et alii</i> 2009, pl. 19.7
7	463.5-6	11B	Grit, calcite, chaff	h	ss / ss	sm / sm	10yr 7/3 vpb	10yr 8/2 vpb	w		McMAHON <i>et alii</i> 2009, pl. 27.2; KOLIŃSKI 2000, pl. 16A
8	463.3	11B	Grit, calcite, chaff	h	ss / ss	b / b	7.5yr 4/1 dg	7.5yr 4/1 dg	w	2 grooves	McMAHON <i>et alii</i> 2009, pl. 29.8
9	463.8	11B	Calcite	h	ss / ss	sm / sm	10yr 7/3 vpb	10yr 3/1 vdg	w	Painted bands on the rim and on the body	FRANE 1996, fig. 21.3

Pottery and small finds

The ceramic assemblages from the Middle Bronze Age levels of Operation 2 are relatively homogeneous through all phases, with residual sherds from earlier periods buried under Building 1. A characteristic shared by all assemblages is the prevalence of closed with respect to open forms and a large amount of painted pottery.²¹²

In situ pottery was found in Phase 12, floor 685 (Fig. 47, 1-4), consisting of large jars, with chaff and calcite temper (Fig. 47, 1-3), which were found in the southern part of the excavated area, close to *tannur* 634. On the same floor, two pot-stands lay to the west of the *tannur*: one pie-crust pot-stand²¹³ (Fig. 47, 4) and one fenestrated stand, the upper part of which was missing.²¹⁴ On the basis of parallels this phase can be dated to the late Middle Bronze Age II, as suggested by evidence from Tell al-Rimah, i.e. from late Middle Bronze II contexts,²¹⁵ and Tell Rijim,²¹⁶ where the Middle Bronze Age levels are dated to the 17th century BC.

The ceramic assemblage from Phase 11 (Figs. 47, 5-9 and 48, 1-8) and Phase 10 (Fig. 48, 9-13), mainly from accumulations, includes a variety of Khabur

²¹² In this article, two categories of pottery are considered separately from the rest of the ceramic assemblage, Khabur Ware and Grey Ware. Since this is a preliminary report on the ceramics found during the excavation, a detailed study of the pottery assemblages is yet to be done; the categories we use, therefore, concerning both technological and morphological aspects, have still to be more precisely defined. The same is valid for the distinction of Grey and Khabur Ware: we use these labels here to refer to ceramic categories that are well established in the literature (for a more detailed analysis of the topic, see COPPINI in press).

²¹³ The discovery of a pie-crust pot-stand in a Middle Bronze Age context is noteworthy. This type of pot-stand has been found in the majority of the cases in Late Bronze Age contexts, although at Tell Rijim and Kurd Qaburstan pie-crust pot-stands have been documented already in Middle Bronze Age levels. Our specimen can be compared to the pot-stands found in these two sites of Iraqi Kurdistan (KOLIŃSKI 2000, pl. 20A, 22, 23A; SCHWARTZ *et alii* 2017, 232, fig. 26.17).

²¹⁴ Middle Bronze Age fenestrated stands have been found in various context, e.g. from the Ishtar temple in Ashur (BEUGER 2005, 325, Taf. 51.8), dated to the Old Assyrian period. At Tell al-Rimah, fenestrated stands were found in the Middle Bronze Age levels of the Temple area and in the late Old Babylonian "kitchen" (POSTGATE *et alii* 1997, pl. 98.1183-1185, pl. 100.1217).

²¹⁵ POSTGATE *et alii* 1997, 36.

²¹⁶ KOLIŃSKI 2000, 73.

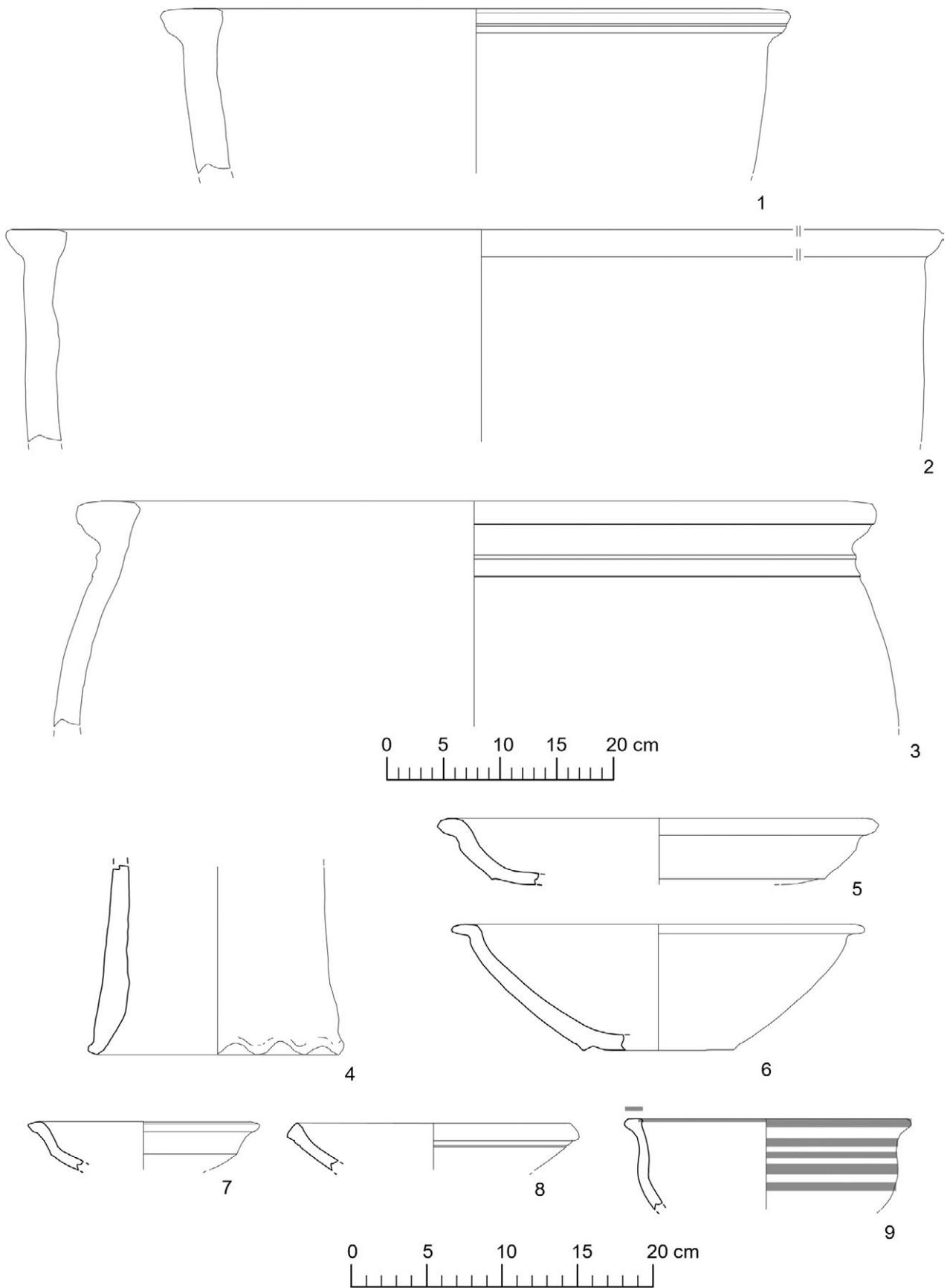


Fig. 47 - Middle Bronze Age Pottery from Phase 12 and 11b and a.

Middle Bronze Age pottery from Phase 11 and 10.

N.	SU	PHASE	FABRIC	FIRING	INT/ EXT SUR	INT/ EXT TREAT	INT COLOUR	EXT COLOUR	TECH	DEC	COMPARISONS
1	463.21	11B	Sand, calcite	h	ss / ss	sm / sm	5y 7/3 py	5y 7/3 py	w	Ridged band	FRANE 1996, fig. 72.1
2	463.22	11B	Sand, calcite	h	ss / ss	sm / sm	2.5y 7/2 lg	10yr 7/3 vpb	w		FAIVRE 1992, pl. 24.19; BEUGER 2005, Taf. 26.20, Taf. 71.41b
3	463.20	11B	Sand, calcite	h	ss / ss	sm / sm	5y 7/3 py	5y 8/3 py	w		MCMAHON <i>et alii</i> 2009, pl. 37.10; FRANE 1996, fig. 71, fig. 79.3; POSTGATE <i>et alii</i> 1997, pl. 79.879; KOLIŃSKI 2000, pl. 35A
4	463.23	11B	Sand, calcite	h	ss / ss	sm / sm	10yr 6/3 pb	2.5y 7/3 py	w	Painted bands on the neck and on the shoulder	MCMAHON <i>et alii</i> 2009, pl. 46.10; PULHAN 2000, fig. 3:1; FAIVRE 1992, fig. 7-25.5; SCHMIDT 2013, Taf. 404, K4036
5	463.24	11B	Sand, calcite	h	ss / ss	sm / sm	10yr 7/4 vpb	10yr 8/4 vpb	w	Painted bands on the shoulder	MCMAHON <i>et alii</i> 2009, pl. 37.9
6	463.34	11B	Calcite, grit, chaff	h	ss / ss	sm / sm	10yr 8/3 vpb	2.5y 8/3 py	w	Painted band on the neck	MCMAHON <i>et alii</i> 2009, pl. 48.6; POSTGATE <i>et alii</i> 1997, pl. 90.1042; FAIVRE 1992, fig. 11.7; SCHMIDT 2013, Taf. 418, K4158
7	466.701	11B	Grit, calcite, chaff	h	ss / ss	sm / sm	10yr 7/3 vpb	10yr 8/2 vpb	w		
8	460.1	10	Sand, calcite	h	ss / ss	b / b	2.5y 8/3 py	2.5y 8/3 py	w		BEUGER 2005, Taf. 71.30b
9	457.4	10	Calcite, chaff	h	ss / ss	sm / sm	10yr 7/4 vpb	10yr 8/4 vpb	w	Painted bands on the neck and on the shoulder	BACCELLI, MANUELLI 2008, fig. 4.10
10	457.16	10	Calcite, mica, chaff	h	ss / ss	b / b	2.5y 7/2 lg	2.5y 7/2 lg	w		
11	457.15	10	Calcite, mica, chaff	h	ss / ss	b / b	2.5y 7/2 lg	2.5y 7/2 lg	w	Groove under the rim	OATES <i>et alii</i> 1997, fig. 189.182; MCMAHON <i>et alii</i> 2009, pl. 28.8
12	457.21	10	Calcite, chaff	h	ss / ss	sm / sm	10yr 7/4 vpb	10yr 8/4 vpb	w	Painted strokes on the rim	MCMAHON <i>et alii</i> 2009, pl. 23.9; SCHMIDT 2013, Taf. 391, K3903
13	457.20	10	Calcite, chaff	h	ss / ss	sm / sm	10yr 7/4 vpb	10yr 8/4 vpb	w	Painted bands on the rim and on the body	

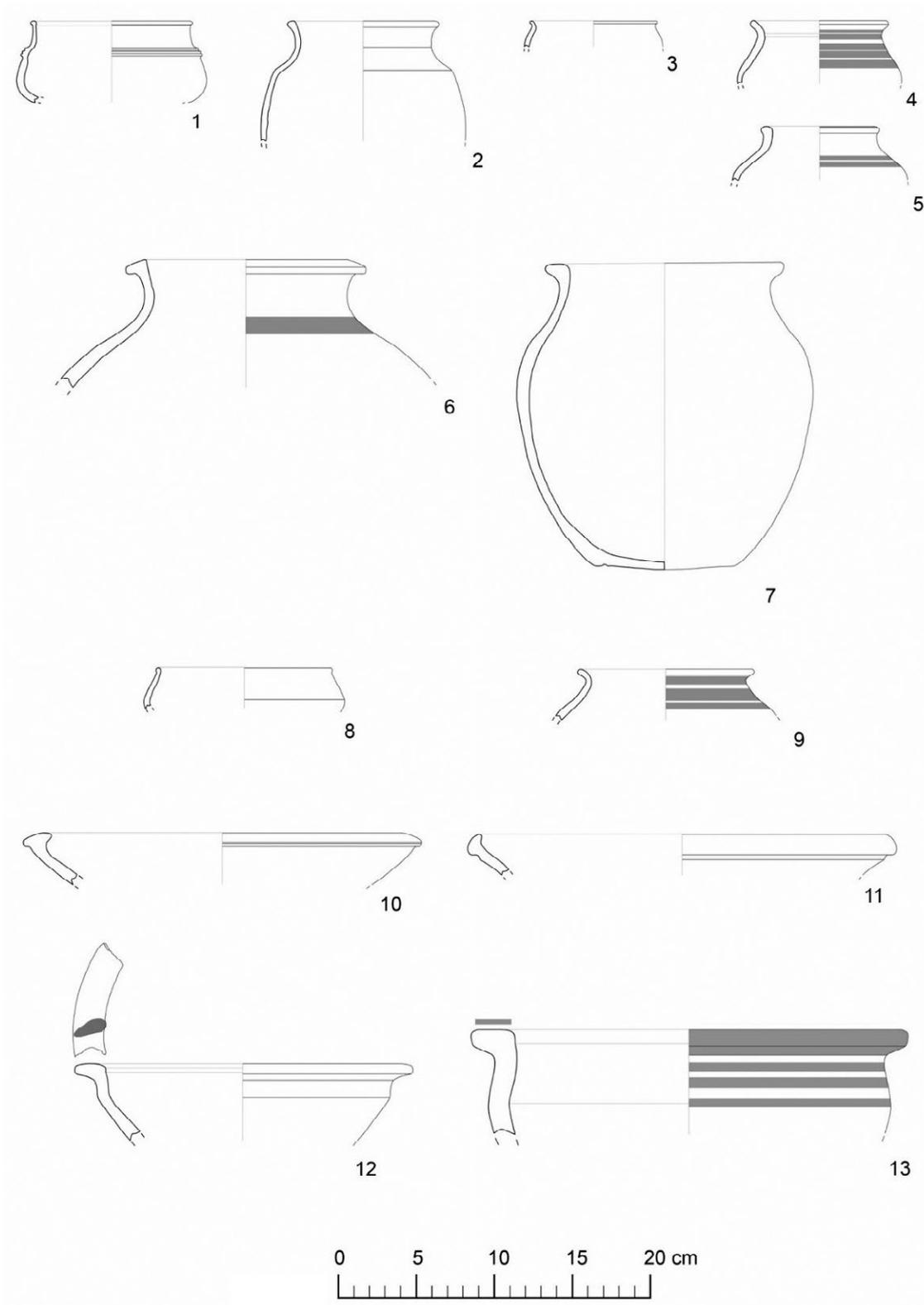


Fig. 48 - Middle Bronze Age pottery from Phase 11 and 10.

and Grey Ware sherds, besides unpainted specimens and Cooking Ware rims and body sherds. Among the open forms, the most diagnostic are shallow bowls (Fig. 47, 5), which also continue into Phase 10 and are typical of Middle Bronze Age contexts, as attested by parallels from Tell al-Rimah,²¹⁷ Tell Leilan²¹⁸ and Kurd Qaburstan,²¹⁹ among others, as well as from Gir-e Gomel, Operation 1.²²⁰

Among the fine ware closed forms, shouldered beakers are the most common forms. They occur without neck (Fig. 48, 3), with neck and sharp shoulder (Fig. 48, 2), and with ridges on the shoulder (Fig. 48, 1). These two vessels are diagnostic for the Middle Bronze Age II, as attested by parallels from Chagar Bazar,²²¹ Tell Leilan,²²² Tell al-Rimah²²³ and Tell Rijim,²²⁴ as well as from Gomel, Operation 1.²²⁵ Grey Ware specimens are represented by shallow bowls, with grooves under the rim (Fig. 48, 11), or with convex wall (Fig. 48, 10): these specimens date to the Middle Bronze Age IIB, as shown by similar finds from Tell Chagar Bazar and Tell Brak.²²⁶ Khabur Ware is represented by open as well as closed forms. Open forms are carinated bowls decorated with painted bands (Figs. 47, 9 and 48, 13) or with strokes on the rim (Fig. 48, 12). Examples of closed forms are necked jars (Fig. 48, 6), decorated with bands on the neck; frequently attested also are shouldered beakers, with short neck and painted bands on the neck and on the shoulder (Fig. 48, 9).²²⁷

In general, the pottery from the Middle Bronze Age phases shows similarities with assemblages from sites located in the Jezirah, in both the Syrian and Iraqi parts, i.e. respectively in the Upper Khabur basin and the area west of the Tigris, and from sites in the Erbil plain and on the River Tigris, such as Ashur. These sites exhibit Middle Bronze Age occupation dating to the Middle Bronze Age II, in the period after the fall of the Kingdom of Upper Mesopotamia ruled by Samsi-Addu; some of them were inhabited into the Late Bronze Age, showing uninterrupted occupation. Evidence from Tell Leilan, which was destroyed in 1728 BC,²²⁸ and from Tell al-Rimah²²⁹ suggest the first half of the 18th century BC as the earliest date for the pottery of these phases. On the other hand, comparisons from Tell Rijim (17th-early 16th century BC),²³⁰ Level 7 of Tell Brak (late Old Babylonian),²³¹ Level 6a of Tell al-Rimah (late Old Babylonian),²³² and from the Ashur Deep Sounding (layer IIIa),²³³ lead to the conclusion that the very last phase of occupation of Operation 2 in the Middle Bronze Age – Phase 10 – may be dated to a time period in the 17th to early 16th century BC.

The few small finds recovered show the practice of administrative activities in the area: the cylinder seal found on the Phase 10a floor (459.701), as well as one sealing from the latest accumulation dated to the Middle Bronze Age (606.701).²³⁴ The evidence of activities related to food preparation consists of *tan-*

nurs and basalt grinding stones and pestles.

To sum up, despite the poor preservation of the architecture of Building 1, it is clear that we are dealing with a large building with at least two courtyards extending beyond the excavation limits. The dearth of finds on the rooms' floors suggests that the building was cleaned before its abandonment.²³⁵ Building 1 must have been a large and well-built construction, as shown by the size of the rooms and the quality of the building units. Given the Middle Bronze Age II date provided by the ceramic assemblages, the building can be closely compared with the aforementioned structures excavated in several Mesopotamian sites, such as Tell Leilan (Northern²³⁶ and Eastern Lower Town Palace²³⁷), Tell Chagar Bazar (Building A²³⁸), Tell al-Rimah (late Old Babylonian "kitchen"²³⁹), Bakr Awa (Old Babylonian House²⁴⁰) and Nippur (Area TB houses, level II²⁴¹). Building 1 had a reception zone (large Room E entered via Courtyard A and the monumental doorway to the south of it), separated from

²¹⁷ POSTGATE *et alii* 1997, 149 and 151.

²¹⁸ PULHAN 2000, 421-422.

²¹⁹ SCHWARTZ *et alii* 2017, fig. 25.4 and 6.

²²⁰ COPPINI 2018, 72.

²²¹ MCMAHON *et alii* 2009, pl. 37.10.

²²² FRANE 1996, fig. 71, fig. 79.3.

²²³ POSTGATE *et alii* 1997, pl. 79.879.

²²⁴ KOLIŃSKI 2000, pl. 35A.

²²⁵ COPPINI 2018, fig. 12 m.

²²⁶ OATES *et alii* 1997, fig. 189-182.

²²⁷ Comparisons for the Khabur Ware are attested in all the above-mentioned sites, i.e. Tell Barri, Phase M (BACCELLI, MANUELLI 2008, fig. 4.10), Tell Brak, Level 7 (OATES *et alii* 1997, fig. 189.182), Tell Chagar Bazar, Area A and G, Phase II (MCMAHON *et alii* 2009, pl. 46.10, pl. 37.9, pl. 48.6; pl. 23.9), Tell Leilan, Eastern and Northern Lower Town Palaces (PULHAN 2000, fig. 3:1), Mohammed Diyab (FAIVRE 1992, fig. 7-25.5, fig. 11.7), Tell Mozan, Area C, Schicht 4 and 5 (SCHMIDT 2013, Taf. 404, K4036, Taf. 391, K3903, Taf. 418, K4158, Taf. 391, K3903), and Tell al-Rimah (POSTGATE *et alii* 1997, pl. 90.1042).

²²⁸ EIDEM 2011, 3.

²²⁹ POSTGATE *et alii* 1997, 30, giving the time span 1775-1750 BC.

²³⁰ KOLIŃSKI 2000, 77.

²³¹ OATES *et alii* 1997, 21.

²³² POSTGATE *et alii* 1997, 36.

²³³ BEUGER 2005, 55: layer (Schicht) IIIa is dated by Beuger to the late Old Assyrian/early Mitanni.

²³⁴ For these seals, see Section 8.

²³⁵ The same situation was found in contemporary and similar contexts in Tell Chagar Bazar, Area G (MCMAHON, COLANTONI 2009, 71), Tell Leilan (PULHAN 2000, 17), Bakr Awa (MIGLUS *et alii* 2013, 55), and Nippur, Area TB (STONE 1987, 125).

²³⁶ PULHAN 2000.

²³⁷ WEISS *et alii* 1990, 543.

²³⁸ MCMAHON 2009a, 29.

²³⁹ POSTGATE *et alii* 1997, 36.

²⁴⁰ MIGLUS *et alii* 2013, 53.

²⁴¹ STONE 1987, 82.

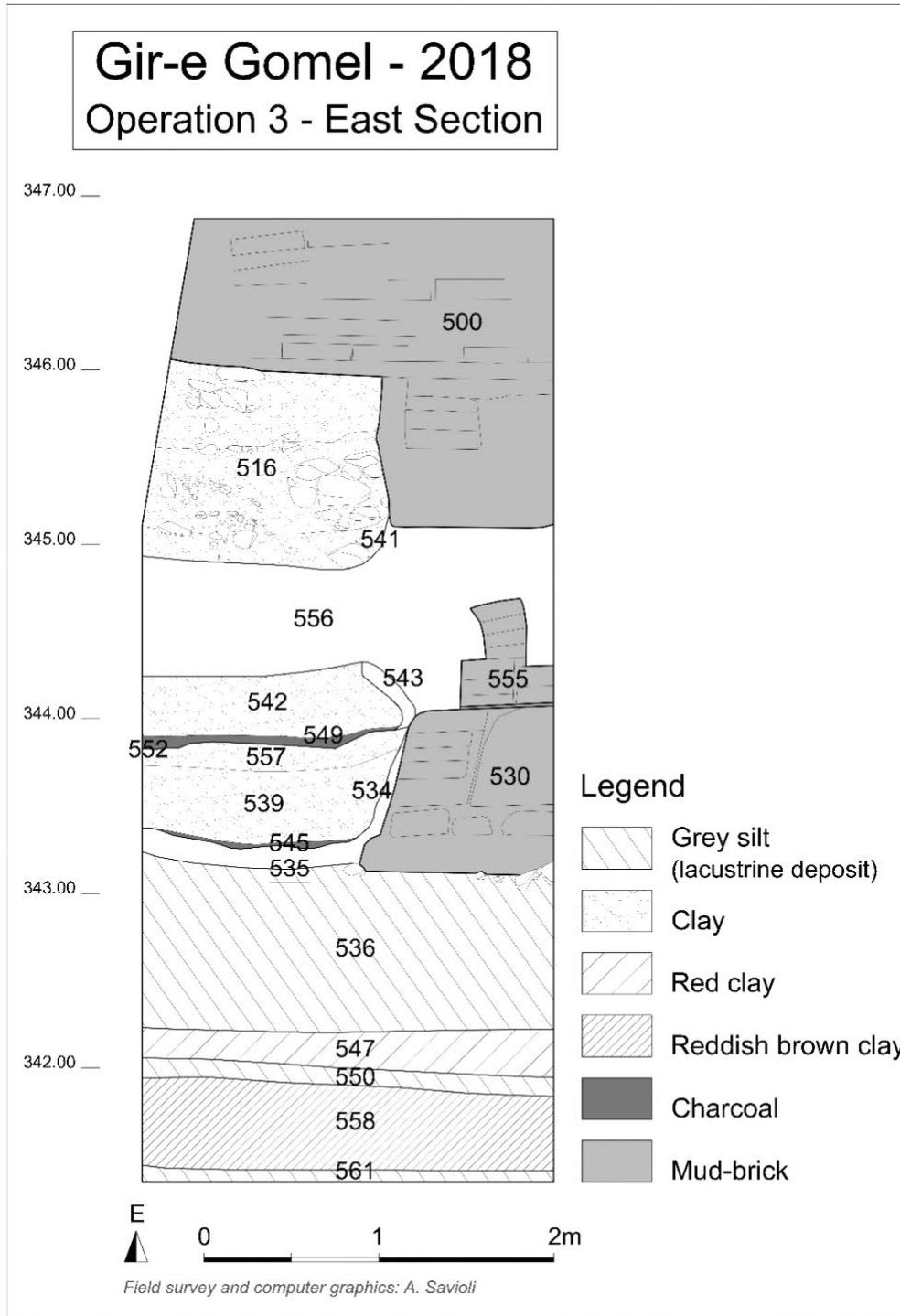


Fig. 49 - Operation 3, east section.

the service wing by a long, thick wall (464).²⁴² The lack of finds from rooms and presence of a destruction level point to the progressive abandonment of the building, probably ending with a squatting occupation of the abandoned structure (Phase 10). This recalls a characteristic pattern of abandonment and squatting occupation seen in Upper Mesopotamian settlements; this pattern is rather specific to the Iraqi and Syrian Jezirah at the end of the Middle Bronze Age, in the time frame between the fall of large Amorrite urban centres, such as Tell Leilan and Tell al-Rimah. This goes together with the provisional lack of local power exercised by local rulers and the following emergence in the new panorama of the Middle Bronze-Late Bronze Age transition of new political centres, often governed by rulers with Hurrian names.²⁴³

7. Operation 3

Introduction

Operation 3 is a 2 m wide and 12.5 m long step trench that was opened at the base of the great western section of Gir-e Gomel, approximately in the central sector, at the junction between the high mound and the northern lower town (Figs. 49 and 50). The target of this excavation was the investigation of the earliest levels of the settlement, in particular the Late Chalcolithic occupation of the site, which preliminary results obtained by the extensive and intensive surveys carried out have suggested to be of considerable size.²⁴⁴ On the basis of this evidence, the location of the trench was chosen at the base of the main mound, where most of the Late Chalcolithic finds were collected during the survey. This position was ideal for exploration of the 5th-4th millennium levels, since the considerable erosion caused by the River Gomel has removed the massive uppermost occupation layers. Initially the trench was subdivided into six different steps, which were eventually reduced to three, when excavation led to the identification of the most significant archaeological phases.

Stratigraphy

The stratigraphy seen in trench has been provisionally summarised in six phases, which represent the periods that were better preserved in the stratigraphic sequence brought to light. River Gomel's erosive activity was accompanied by the formation of sloping accumulations (in some cases covered by re-deposited river sediments, some of which must have been very recent, whereas others, characterised by mixed archaeological material brought by the river itself, may have formed in earlier times) that made the recognition of the archaeological layers – and the consequent understanding of the stratigraphy – extremely difficult. As a consequence of these particular circumstances, only after a more careful evaluation

of the excavated archaeological material will it be possible to provide a reliable definition of the various phases present.

A short description is given for each of the excavated phases, from the most recent to the earliest. However, this account focusses on the evidence that is most relevant for the target of the operation, that is the pre-Bronze Age occupation Phases 4 and 5. Phase 6, although – as explained below – extremely important in order to understand the genesis of the settlement, is only briefly discussed, waiting for the analysis of some geomorphological samples that will help us to understand better the formation mechanisms of the ancient settlement of Gir-e Gomel.

Phases 1-3

Phase 1 is thus far represented by the modern layers that formed the upper surface of the operation. These have a twin genesis: either as material collapsed from the side of the Gomel high mound or from the deposition of fine red/grey sandy layers and medium-sized pebbles by the river. Both types are interleaved due to the occurrence of multiple deposition episodes. At present, the most interesting aspect is the thick stratum of river pebbles at the base of the trench that forms what may well be the earliest relevant episode of river deposition, a massive sedimentation on the part of River Gomel. Deposition of the pebbles began after the initial erosive activity that resulted in the main collapse of the western side of the site and the formation of the great 38 m high section that characterises the western side of the high mound (Figs. 50 and 51). The evidence collected from Phase 1 attests thus to River Gomel's twin actions of erosion and deposition and provides a good set of

²⁴² An interesting interpretation of the possible function of similar buildings has been proposed by McMAHON 2009a, 30-31. Referring in particular to Building III in Chagar Bazar, Area A, she suggests that such buildings can be defined as “community buildings” used for meetings between leaders of the settlement. However, the excavated part of Building 1 seems more complex and monumental than Chagar Bazar's Building III and can be better compared with the architecture of the Palace in Tell al-Rimah or that of the Eastern and Northern Lower Town Palaces in Tell Leilan. However, the state of the excavation, which is still in its initial stage, and the lack of special finds such as cuneiform texts or a significant amount of administrative devices suggest caution in the interpretation of this Middle Bronze Age II building.

²⁴³ Such as in the cases of Tish-ulme in Bassetki and Pizigarra in Nineveh; see Section 4.

²⁴⁴ MORANDI BONACOSSÌ, IAMONI 2015; see also SIMI in press. It seems likely that Gir-e Gomel was occupied also during the Northern Ubaid/Early Chalcolithic period as the discovery of an Ubaid seal now at the Museum of the Oriental Institute of Chicago suggests (FRANKFORT 1935, 29-31): a few sherds found during the Op. 1 excavation and currently under study might confirm this hypothesis.



Fig. 50 - Operation 3 with the great western section of Gir-e Gomel (right: high mound, left: northern lower town).

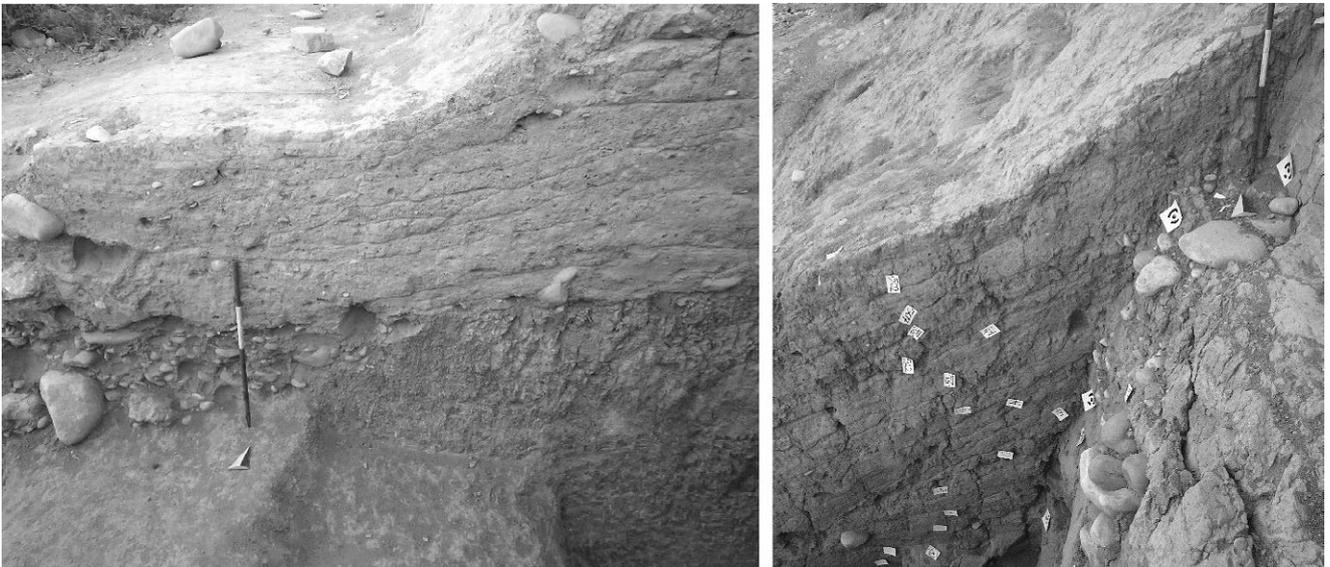


Fig. 51 - Section of the operation illustrating the sloping deposits and fluvial accumulations of pebbles and sand (on the left).



Fig. 52 - Stratigraphic units 503 and 500 on the left and glacis SU 512 on the right. Note in the upper right corner of the photo on the left the presence of two big stones that represent the last fill of the kiln, abutting wall 500.

data for a more detailed future interpretation of the formation of the Gir-e Gomel archaeological mound as it now stands. At the same time, the thickness of the pebble deposits (as well as the size of the pebbles themselves) confirms the strength of the river and its capacity to occasionally overflow its banks and flood the surrounding plain. This aspect is of particular relevance for the formation of the earliest settlement at Gir-e Gomel, since it may suggest the occurrence of environmental conditions during more recent times that are/were significantly different from those of the late 5th-4th millennium BC, when river activity was probably weaker/less destructive and thus more suitable for stable human settlement.

Phase 2 was the first *in-situ* archaeological evidence encountered during the excavation, consisting of a well-preserved north-west/south-east oriented wall (500) made of solid mud-bricks, protruding directly from the section of the mound (Figs. 49 and 52). Abutting the wall were a series of regular sloping mud surfaces that we interpreted as part of a glacis that protected the wall itself from rainfall, and at the same time formed a regular surface that spanned the significant difference in height between what must have been the “upper town” of Gir-e Gomel and the surrounding area (possibly the western, now eroded lower city). The presence of sloping surfaces/glacis abutting walls was not unique to this period, but also occurred in lower/earlier phases (see below) and was probably a phenomenon that began as soon as the level of the settlement started to rise. The quality of the mud-bricks and their careful disposition in alternating red and brown colours suggest that this wall may have belonged to some kind of public construction, possibly as part of an enclosing peripheral urban

wall, or was part of a large building located in the western sector of the upper town. We have no finds that indicate a reliable chronology for the wall and the associated glacis: based on the dating of the following phase and of the material collected on the slopes of the glacis, a generic (early?) 2nd millennium date seems plausible.

Phase 3 was the first to provide some more recognizable archaeological contexts, thanks to the presence of a likely kiln for the production of pottery that abutted wall 500 on its north-western side (Fig. 52). The kiln was abandoned and filled up with ashy layers of earth mixed with stones and pebbles and a number of sherds lying horizontally.

We cannot put forward a precise chronology or typology for this kiln, since it was not possible to excavate its fill due to the risk of collapse of the entire upper part of the excavation section. A few mixed sherds were, however, collected from the lower fill of the kiln: these date to the Late Chalcolithic and the late 3rd millennium BC. This latter date may be taken as a *terminus ante quem* for the kiln’s use, which would thus have been in about the initial/mid-Early Bronze Age. To this phase might also pertain Grave 42, the burial of an adult located about 100 m further north than Operation 3 (Fig. 53), whose inhumation was target of a salvage excavation after river erosion brought to light part of the skull. Preliminary analysis of the skeletal remains indicates a male individual 28-35 years old.²⁴⁵ Study of the grave goods and personal ornaments (a small jar, a bronze/copper toggle pin and a *Conus* shell ring possibly belonging to a belt)²⁴⁶ is currently ongoing, though a date around the mid-3rd millennium (end of the Ninevite 5 period-central part of the 3rd millennium BC; late EJZ 2-EJZ 3a) is indicated by comparison with similar jars found in Grave 51 of Operation 1.²⁴⁷ As we will see, this information, albeit preliminary and thus in need of a more thorough study, may provide some insights into the development of the ancient settlement of Gir-e Gomel (see below, Conclusions).

The Late Chalcolithic evidence: Phases 4 and 5

Phase 4 could be split into two sub-phases 4a and 4b, the former composed of a hard, thick layer of mud and collapsed material (SU 556) probably laid down

²⁴⁵ The complete analysis of the skeleton is currently under way by A. Canci and G. Bellandi and will be described in a future publication.

²⁴⁶ This interpretation is based on a similar discovery made during excavation of the 3rd millennium Graves 24 and 45 in Operation 1 (see Section 5); in both graves, the personal ornaments included a number of these shell rings found lined up next to the pelvis, which suggested their use as decorative belts for the cloth of the buried individual.

²⁴⁷ See Section 5.



Fig. 53 - Grave 42 during excavation.

to level the area for the overlying Phase 3. It is likely that this levelling also included a vaulted structure, which was visible only in the section (Fig. 49, SU 555): there were no associated finds, and no archaeological fill was visible inside the structure that might have helped to understand its function. Its proximity to the overlying and underlying kilns, however, suggests a similar use.

Sub-phase 4a covered 4b, that is the earliest phase characterised by archaeological contexts with *in-situ* remains. It featured a bell-shaped kiln (543) that abutted a red mud-brick wall (530; Fig. 49); though poorly preserved due to subsequent erosion, a few fills and two internal floors were excavated (Fig. 54). These suggested the prolonged use of the kiln, which was eventually sealed by a layer of compact mud that covered the last deposits containing abundant potsherds. The kiln's function was very likely the production of ceramic vessels, as attested by the presence of pottery wasters, e.g. overfired green sherds, in the ashy layers that filled the firing chamber. The latter was underneath the firing surface, and still visible in the northern side of the section. Kiln 543 was thus probably a two-storey, updraught kiln: this kiln type is not unusual and parallels have been found in other Late Chalcolithic sites in the area such as Khirbet Hatara, and further east in the region of Sulaymaniah, at Girdi Qala.²⁴⁸ At this latter site it is notable that a number of these kilns (5 in Lev. 10 and 3 in Lev. 7, dated respec-

tively to the LC 2 and 3) share the same ventilation system and can therefore be interpreted as part of a single, coordinated pottery production system.

Although it has been possible to excavate – or to be more precise, to extract from the section – only a tiny part of the ashy fills of the kiln, these have yielded a considerable number of ceramic fragments that permit this installation to be dated to the Late Chalcolithic, possibly to the later phase of the period (LC 3-5). The study of the Operation 3 ceramic assemblages is still ongoing and a future account will provide a more exhaustive description of the pottery. At the same time, the results should soon be available of the radiocarbon determinations of charcoal samples that were collected from the firing chamber; these will help us to determine with more precision the chronology of kiln 543.

The underlying Phase 5 is thus far the best evidence excavated in Operation 3 – apart, that is, from the underlying Phase 6, which however merits a more detailed presentation. Phase 5 features another kiln (534) above which kiln 543 was built (Fig. 49).

²⁴⁸ FIORINA 1997, 25-26. VALLET *et alii* 2017, 70-71. In both these sites, however, the kilns are partially sunken into the floor, a possibility that we cannot rule out also for kiln 543.



Fig. 54 - Kiln 543 with the ash deposits and a layer of potsherds. Note on the left, evidenced by the white marker, the likely firing surface of the kiln. On the right, note the presence of an overfired green potsherd.



Fig. 55 - Kiln 534: note on the left side of the picture, marked by the white arrow, the repair of the kiln still recognisable due to the slight misalignment of the mud-brick used to fix the likely rupture of the lower kiln's structure.

Thanks to its position in the mid-lower sector of the trench, a larger and better preserved portion of kiln 534 was not covered by the adjacent Gir-e Gomel section. This permitted the excavation of a greater number of fills, which in turn facilitated our understanding of the nature of the archaeological contexts (Fig. 55), and eventually the collection of enough data to put forward a more reliable interpretation of the kiln.

Kiln 534 was a round or more likely oval shaped kiln, which – similarly to the later kiln 543 – was used for a considerable time, as the presence of a likely repair with mud bricks in the northern side of the kiln suggests (Fig. 55). The kiln's function is difficult to ascertain, due to the absence of any material waste. From a technical point of view, the kiln looks different from 543, since it does not seem to have an upper firing surface separated from the combustion chamber. The presence of some mud-bricks carefully laid on the firing floor leaves, however, room for the possible existence of a second upper firing surface, although the possibility that these were only part of the fill that sealed the kiln after it ceased to function cannot be ignored. If the first option holds true, the firing of artefacts, which we suggest may have been pottery on the basis of a possible (but hypothetical) functional continuity that characterised this sector of the settlement, probably occurred at the same level as that of the fire itself. Similar examples of oval kilns occur in Northern Ubaid as well as early Late Chalcolithic contexts in Upper Mesopotamia. The first include Tepe Gawra, Level XV,²⁴⁹ Tell al Abr,²⁵⁰ and Tell Ziadeh,²⁵¹ whereas among the second are Tepe Gawra, Level VIIIA,²⁵² and Khirbet Hatara.²⁵³

More recently, a very similar kiln was excavated at Muqable, a site close to the River Tigris to the west of Duhok: it is a large single-chamber structure dated on the basis of the pottery assemblages to the Late Chalcolithic 2.²⁵⁴ The similarity as well as the contemporaneity with Muqable of kiln 534 and the other above-mentioned kilns suggests the existence of a shared ceramic production technology extending over a very wide portion of Upper Mesopotamia, stretching from the Syro-Iraqi Jezira to the Navkur Plain.

The potsherds collected from the excavation of the firing chamber have not yet been studied in detail, hence it is impossible to propose here a detailed account of their characteristic traits. Preliminary observation indicates that they date to the Late Chalcolithic (possibly LC 1-2). However, since these potsherds might have simply been reused to fill the kiln as part of subsequent levelling operations, they might not be contemporary with the kiln itself and therefore may not be a reliable indicator of its chronology. A few sherds collected from a trampled surface abutting the kiln on its western side offer more reliable evidence (Fig. 56): all the studied types date to the Late Chalcolithic 1-2. Two charcoal samples have been taken for 14C determinations that will provide a more reli-

²⁴⁹ TOBLER 1950, 39.

²⁵⁰ YAMAZAKI 2010, 318-320.

²⁵¹ AKKERMANS, SCHWARTZ 2003, 170-171.

²⁵² SPEISER 1935, 34.

²⁵³ FIORINA 1997, 25-26.

²⁵⁴ PFÄLZNER *et alii* 2017, 52-51.



Fig. 56 - Late Chalcolithic 1-2 sherds collected from the area of kiln 534.

able chronological reference. The kiln was possibly part of a more complex workshop, since it abutted a red mud-brick wall (530), whose function is still unclear (building? Or simple partition wall?) because of the limited area excavated. The entire complex (kiln and mud-brick wall) lay directly on the original virgin soil of Operation 3 (but see below for a more detailed account of the pre-settlement layers), hence it constitutes the earliest undoubted settlement evidence uncovered to date at Gir-e Gomel.

The pre-settlement evidence: Phase 6

Both kiln 534 and wall 530 were founded on the same level and surface: a thick grey deposit of silt and mud (Fig. 49: SU 536). It was immediately clear that the nature of this deposit was not anthropogenic, rather it must have been of lacustrine origin. We therefore took the chance of investigating the original natural surface of Gir-e Gomel and dug a small sounding. The excavation exposed a series of alternating strata of mud and silt, greyish and brown/reddish brown in colour, for a total thickness of about 2.5 m (Fig. 57). These results were of great importance for a full understanding of the genesis of the settlement at Gir-e Gomel: the layers' different colours are the likely result of variable water levels in a possible small lake or pool of water created by the River Gomel itself that was present in the area of Gir-e Gomel. The water basin apparently underwent at least two distinct major phases probably characterised by high water level (Figs. 49 and 57): both are represented by grey deposits (536 and 561), and are separated by red-brown layers that were probably produced during drier periods when the lake basin decreased in

size. It is noteworthy that throughout the excavation of these different levels, we continued to find potsherds, though always in tiny quantities. However, these were not scattered randomly, but rather occurred in or in proximity to the grey lacustrine deposits. The combination of these two factors – the pottery came almost exclusively from lacustrine layers – suggests the presence of a “mobile” prehistoric settlement that shifted together with the edge of the water body.

Conclusions

The investigation carried out in Operation 3 has confirmed the data obtained from both the extensive and intensive surveys carried out at Gir-e Gomel: the settlement of the central mound started during the mid-late 5th millennium and grew significantly during the 3rd and 2nd millennia BC, as the evidence retrieved in Operations 1 and 2 also suggests. Based on what has been observed in Operation 3, a few further considerations may be added about the general site organization and the surrounding regional environment.

The first concerns the archaeological contexts identified in the area under investigation, all of which are characterised by the presence of pyrotechnological installations, especially during the Late Chalcolithic phases. The presence of pottery kilns seems to be a noteworthy and constant feature of Late Chalcolithic sites in Upper Mesopotamia that clearly mirrors one of the distinctive traits of the emergence and success of socio-economic complexity, i.e. the occurrence of labour specialization in craft activities. This aspect has been usually associated with the working of precious raw materials such as metals



Fig. 57 - The section of the natural deposits forming the original surface above which lies the artificial mound of Gir-e Gomel: note the alternating levels of grey (lacustrine) and reddish earth indicating periods of higher and lower water level.

(e.g. copper) and stone (e.g. obsidian, cornelian) in the case of Tell Brak and Khirbet al Fakhra, which are probably the best exemplification of this.²⁵⁵ Yet the widespread presence of a number of pottery kilns in Late Chalcolithic settlements suggests that also (and perhaps above all) the production of common items of everyday use such as pottery might be the best evidence to explore in order to identify traits of increasing socio-economic complexity.²⁵⁶

A second consideration regards the position of these kilns: it seems likely that the original earliest settlement at Gir-e Gomel was located in proximity to water sources, i.e. not far from the current course of the River Gomel and/or possibly next to a pool of water/pond formed by the river. The presence of a sequence of pottery workshops dating to the Chalcolithic in a peripheral area of the site suggests two aspects, both of prominent relevance for the formation of stable settlements characterised by increased level of complexity. First, the area dedicated to craft activities, especially when these involved firing processes/activities, was located in a specific sector of the settlement, normally in a marginal zone, so as to reduce the likely harmful effect of these operations.

Second, the definition of this area and its position in a specific sector started to occur at least during the Late Chalcolithic period, if not even earlier: this suggests that the traits of a “modern” settlement (subdivision of the settled areas in functionally separated sectors/quarters, e.g. inhabited areas, quarters dedicated to administration and/or local elites, areas for craft activities) started to occur clearly in the Chalcolithic period and became a steady feature throughout the entire 4th millennium BC. The lack of extensive excavation in Late Chalcolithic sites hampers the further confirmation of this proposed model. Tepe Gawra may offer some support for this hypothesis for at least the Early Chalcolithic period, since in its Level XV pottery kilns were located on the north-western edge of the settlement, together with buildings probably dedicated to communal storage of goods.²⁵⁷ Similarly, preliminary data from Girdi Qala suggest that also there a significant sector of the Late Chalcolithic settlement was probably dedicated to craft activities, in particular pottery production.²⁵⁸ The organization of settled areas might be corroborated at Gir-e Gomel by the funerary evidence obtained from Operations 1 and 3. The location of graves – though dating to a later period, the mid-3rd millennium BC – at the possible northern (Operation 3) and southern (Operation 1) edge of the early Gir-e Gomel settlement might be a further indicator of the occurrence of an internal and external arrangement of the different sectors characterising the ancient settlement of Gir-e Gomel: they might be indications of its original limits during the 4th and 3rd millennium BC.

8. Seals and sealings from Gir-e Gomel²⁵⁹

In the following section, the glyptic finds discovered in Gir-e Gomel during the excavation seasons 2012-2018 will be described. The group includes six cylinder seals, one stamp seal and three clay sealings. Four of these finds date back to the 3rd millennium BC,²⁶⁰ three to the first half of the 2nd millennium BC,²⁶¹ two cylinder seals²⁶² are Neo-Assyrian and the

²⁵⁵ OATES 2012, 172-174; McMAHON 2013; McMAHON *et alii* 2007, 151-153; AL-QUNTAR, KHALIDI, UR 2011.

²⁵⁶ AL-QUNTAR 2016.

²⁵⁷ TOBLER 1950, 39, 41; see also pl. XV.

²⁵⁸ VALLET *et alii* 2017, 72.

²⁵⁹ I am very grateful to Professor Elena Rova for her useful comments and to Professor Lorenzo Lazzarini for help in identifying the stone from which the seals are made.

²⁶⁰ Cylinder seals GG18.512.701 and TGM13.161.710. Sealings GG18.448.702 and GG18.509.708.

²⁶¹ Cylinder seals GG18.459.701, GG18 OP.3 Surface.701, and sealing GG18.606.701.

²⁶² GG18.329.702, GG18.329.703.

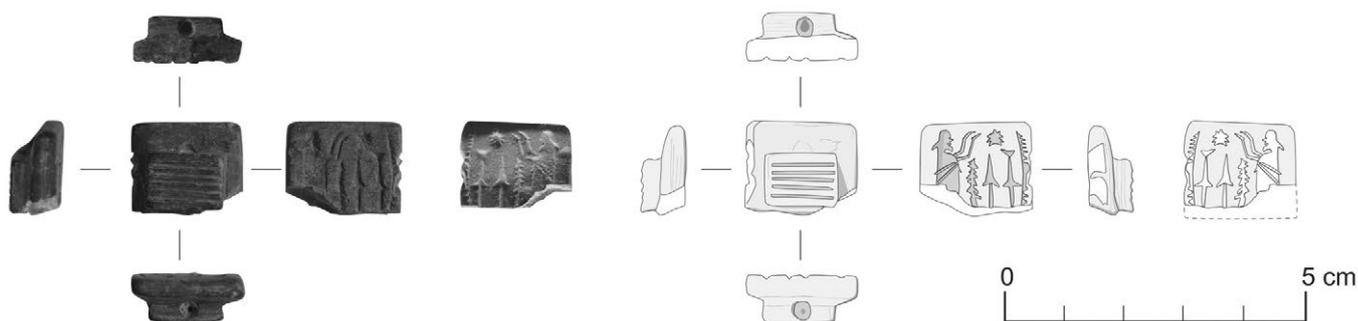


Fig. 58 - Photograph and drawing of stamp seal.

single stamp seal (GG18.305.701) is Post-Assyrian. Three cylinder seals were found in graves,²⁶³ one cylinder seal and one sealing were found in a squatting occupation area over the remains of an abandoned large building of the Middle Bronze Age, and the stamp seal was discovered beneath a ramp structure. Four finds²⁶⁴ come from mixed contexts and were dated according to their style. The style of the 3rd millennium BC glyptic finds is typical of Upper Mesopotamia, on the contrary the style of the finds of the 2nd millennium BC is influenced by Lower Mesopotamian productions. The Neo-Assyrian cylinder seals were possibly connected with Syrian or Anatolian areas.

Operation 1

GG18.305.701 (Fig. 58)

Shape: button-shaped rectangular stamp seal

Material: limestone

Dimensions:

Base: 1.8 x 1.5 cm; thickness: 0.4 cm

Handle: 1.3 x 0.9 cm; height: 0.3 cm

Perforation hole: 0.2 cm

Date: Post-Assyrian period (6th-4th centuries BC)

Finding context: Phase 11 (Stratigraphic Unit 305), associated with Post-Assyrian pottery (6th-4th centuries BC)

Decoration: adoration of divine symbols

Description:

Brownish, dark grey limestone button-shaped stamp seal of the Post-Assyrian period. The seal has a rectangular base with rounded corners and a low rectangular perforated handle. The flat top of the handle is incised with five shallow horizontal parallel lines. The perforation is widthwise and the hole measures 0.2 cm. The seal was possibly worn suspended by means of a very thin string and must have been easy to carry around for its light weight.

The decoration is deeply cut. The slightly stylised design fills the stamp face almost completely. The bottom of the engraved design is missing because the seal is chipped at the lower edge and slightly at both the lateral edges.

The seal depicts a worshipper facing right (left in the impression), standing in front of divine symbols that were possibly originally placed on a stand. The worshipper seems to have long hair bunched at the back of his neck and a long, pointed beard that does not fall over his chest. His arms are slightly bent and uplifted. He wears a long robe with a double oblique hem descending towards his back. The robe is rather simple, lacking any characteristic features. The lower part of his body is missing. An eight-pointed star²⁶⁵ is represented over Marduk's spear (on the left) and Nabû's stylus (on the right), between two high floral elements. Nabû's stylus is similar to Marduk's spear, but has in addition a downward pointing triangular top.²⁶⁶ The plant close to the edge of the seal is taller than the other one and is characterised by short leaves along only one side of its stem.²⁶⁷

A dating of the seal based on its shape and iconography is problematic. As regards its shape, no closely similar specimen has been found. From the end of

²⁶³ TGM13.161.710 in a grave of the mid-3rd millennium BC; GG18.329.702, GG18.329.703 in a grave of the Neo-Assyrian period.

²⁶⁴ GG18.448.702, GG18.509.708, GG18.512.701, GG18 OP.3 Surface.701.

²⁶⁵ For the eight-pointed star on stamp seals of the Neo-Assyrian period, see for example, MITCHELL, SEARIGHT 2008, 113, n. 271; 115, n. 278 (both of the 8th-7th century BC from Nineveh and associated with a plant).

²⁶⁶ For a similar Nabû's stylus, see FÜGERT 2015b, 8, 420, n. 5.

²⁶⁷ For a similar plant, see MITCHELL, SEARIGHT 2008, 59, n. 89 (660 BC); 109, n. 244, 246 (from Nineveh). For a similar plant on a cylinder seal of the Achaemenid period, see NEUMANN 2016, 16, n. 129.



Fig. 59 - (a, b, c) Syrian rectangular stamp seals with high stem of the 9th-7th centuries BC (KEEL-LEU 1991, 58, 59, n. 67, 68; 147, Abb. 181). (d) A square stamp seal with perforated stem of the Neo-Babylonian period, decorated with a quadruped (SALJE 1995, 607, Taf. 49 c).

the 8th century BC onwards stamp seals gradually replaced cylinder seals because of the increased use of alphabetic Aramaic writing on perishable materials (parchment or papyrus) instead of cuneiform writing on clay tablets. Among several different stamp seal types (conoid, octagonal pyramidal, low-oval, scarabaeoid, theriomorphic),²⁶⁸ the tabloid/plaque seal, of varying thickness, with a basic parallelepiped shape, perforated along its body, possibly represents the most common type of stamp seal with a rectangular face in Mesopotamian glyptics during the Neo-Assyrian and later periods. Tabloid/plaque seals without a perforated handle are so common during the Neo-Assyrian,²⁶⁹ Neo-Babylonian,²⁷⁰ Achaemenid²⁷¹ and Seleucid²⁷² periods that the impressions of stamp seals with a rectangular face can be confidently related to this glyptic category.

Another type of stamp seal more similar to that discovered at Gir-e Gomel consists of a rectangular base and a loop handle of variable height. Evidence of this typology is rather frequent in prehistoric times (6th-4th millennium BC, Halaf/Obeid periods),²⁷³ only occasional during the Akkadian period,²⁷⁴ more com-

436, 317 (with quadrupeds); Taf. 66, n. 464 (with winged human headed bull). From Urartu, see SEIDL 1988, Taf. 34, fig. 4 (with winged horse), 5 (with a quadruped and an arrow). For some rectangular impressions of Neo-Assyrian stamp seals with unknown shape (tabloid?) mostly decorated with motifs such as quadrupeds, plant, crescent, star, see MITCHELL, SEARIGHT 2008, 54, n. 71A; 59, n. 89; 64, n. 106, 107; 65-66, n. 110; 86, n. 173; 90, n. 184; 93, n. 194; 96, n. 207 (with a figure with cone and bucket, plant/Nabû's stylus).

²⁷⁰ For a rectangular impression of a Neo-Babylonian stamp seal with unknown shape, decorated with a worshipper, crescent and bird on posts, on platform, see MITCHELL, SEARIGHT 2008, 128, n. 338 (from Ur).

²⁷¹ For tabloids during the Achaemenid period, see HOEY MIDDLETON 1998, 29-32. For an impression of a stamp seal of 501 BC from Persepolis with a rounded sub-rectangular face (possibly of a pyramidal/cubic stamp), decorated with a royal hero grasping a rampant lion, see GARRISON, COOL ROOT 2001, 323, n. 221. For an Achaemenid stamp seal with a rectangular face and unknown shape (possibly a pyramidal/cubic or a plaque/tabloid seal), decorated with a hero and a lion, see GARRISON, COOL ROOT 2001, 364, n. 253 and 365, n. 254.

²⁷² For flat rectangular seals ("tax office seals"), characterised by a Greek inscription, absence of engraved image or with western designs, see WALLENFELS 2016, 17, 18. For impressions of stamp seals of the Seleucid period with rectangular face but unknown shape (tabloid/plaque?), from Babylonia, see MITCHELL, SEARIGHT 2008, 216, n. 702 (239/238 BC), decorated with a dog on a plinth and a plant; 225, n. 728 (196/195 BC), decorated with a bull on altar; 241, n. 788 engraved with a human headed winged quadruped and olive branch. See also WALLENFELS 2016, 167, n. 50-1, decorated with a standing human figure; 238-239, n. 73 with Helios.

²⁷³ See for example, BUCHANAN 1981, 8, n. 11, 12, 13; NUNN 1999, n. 18, 19, 20, 21, 40 (from Syrian sites).

²⁷⁴ For examples of stamp seals of the Akkadian period with a loop handle and a rectangular face, see a stamp seal decorated with Ishtar and worshipper (EISEN 1940, pl. VI, fig. 43), a seal with a worshipper before a deity found at Tell Asmar, a seal decorated with concentric squares of Indian provenance or inspiration (PARPOLA 2018) discovered in the same site (FRANKFORT 1933, 50, 52, fig. 32), a seal from Ur (READE 1995). For the Post-Akkadian period, see for example a seal decorated with a seated figure and a standing figure (BUCHANAN 1981, 378, 379, n. 1079) and a seal decorated with a worshipper pouring a libation before a divine symbol (BUCHANAN 1981, 378, 379, n. 1080).

²⁶⁸ For some examples of Neo-Assyrian stamp seals of different shapes from Ashur, see KLENGEL-BRANDT 2014 (conoid seal), Taf. 25, n. 127; (low-oval seal), Taf. 25, n. 126, 128, 129; Taf. 26; (scarabaeoid seal), Taf. 22-27; Taf. 17, fig. 71, 72 (calf); Taf. 19, fig. 78 (duck). For the Achaemenid period, see for example the stamp seals from Persepolis (GARRISON, COOL ROOT 2001).

²⁶⁹ For Neo-Assyrian rectangular stamp seals without handle see FÜGERT 2015b, 348, 455, n. 452 (decorated with a quadruped); 357, n. 466 (with a quadruped, star, plant, Pleiades); 363, 457, n. 476 (with a caprid and a star). See also KLENGEL-BRANDT 2014, Taf. 20 & 65, n. 96 (with a bird); Taf. 24, n. 123 (Egyptian style); Taf. 30 & 68, n. 1st 42 (Egyptian style); Taf. 32, n. 1st 67; Taf. 56, n. 332, 334; Taf. 63, n. 422; Taf. 64, n.

mon in the North-Syrian glyptics of the 9th-7th centuries BC²⁷⁵ and sporadic during the Neo-Babylonian period²⁷⁶ (Fig. 59).

Lastly, another type of stamp seal with a rectangular face consists of metal tabloids with holes at the two edges for inserting a metal wire tightened close to the back and widening to form a loop handle.²⁷⁷ This type is attested during the Achaemenid period, in the 5th and 4th centuries BC.²⁷⁸ During the Seleucid period, the Babylonian seals were flat and almond-shaped and around the 3rd century BC signet rings replaced stone stamp seals.²⁷⁹

At present, although the rectangular face is a widespread attribute of the stamp-seal repertoire from the Neo-Assyrian period onwards and the button shape with a loop handle is attested as well, the stamp seal from Gir-e Gomel is unique for its flat low rectangular suspension feature.

With regard to the iconography, the adoration of divine symbols is a typical scene in Neo-Assyrian glyptics of the late 7th century BC²⁸⁰ and during the Neo-Babylonian period.²⁸¹ This iconography, even though not representing a typical subject, is attested in the glyptics of the Achaemenid period²⁸² as well, and stamp seals with this scene were still in use even during the Hellenistic period.²⁸³

This subject had possibly a devotional meaning and the seal could have had an amuletic function. Moreover, considering that at least during the 8th century BC the worship of divine symbols scene often occurs on seals of high officials,²⁸⁴ the subject could have been “prestigious” even if the modelling is rather coarse and the stone not precious.

The position of the worshipper’s arms is uncommon in Neo-Assyrian glyptics,²⁸⁵ where one arm is usually depicted raised before the divine symbols and the other arm stretched forward or downward.²⁸⁶ Worshipers with two raised arms are often attested in Neo-Babylonian scenes of worship of divine symbols, but the design of the Neo-Babylonian seals in cut-style is far more stylised than the seal discovered at Gir-e Gomel.²⁸⁷ In the case of Neo-Babylonian modelled seals (not in cut-style), the worshipper is often shaven-headed and beardless,²⁸⁸ or, even if he is bearded and with long hair, the palms of his hands are represented turned inwards, towards the worshipper’s face,²⁸⁹ while in the case of the stamp-seal from Gir-e Gomel the palms are turned downwards towards the divine symbols. In Achaemenid glyptics the worshipper may be represented with both arms slightly bent and uplifted²⁹⁰ but is usually depicted with one arm bent and raised in profile (hiding the other arm) with the palms of the hands facing inwards.²⁹¹

To sum up, on one hand, the engraved scene of the stamp seal from Gir-e Gomel expresses a link with religious and cultural traditions that go back to the

Neo-Assyrian period (7th century BC). On the other hand, for its original shape in particular, the stamp seal differs from the earlier tradition and represents a creative product of a later phase (Post-Assyrian) of the history of the site, whose precise date can hardly be determined.

²⁷⁵ For stud, stem-handles and hammer stamp seals from Syria of the 1st millennium BC see NUNN 1999, 327-334.

²⁷⁶ For a square quartz ceramic stamp seal of the Neo-Babylonian period with perforated stem, decorated with a quadruped, discovered in a grave at Uruk, see SALJE 1995, 607, Taf. 49c.

²⁷⁷ This kind of suspension device is attested already in Syria for scarabaeoids of the 8th-7th centuries BC (HOEY MIDDLETON 1998, 31).

²⁷⁸ See HOEY MIDDLETON 1998, 29-32.

²⁷⁹ See WALLENFELS 2016, 22.

²⁸⁰ For adoration of symbols on Neo-Assyrian glyptics, see for example FÜGERT 2015a, 174-175; FÜGERT 2015b, 201-209, 444, n. 234-244; KEEL-LEU 1991, n. 152-156; KLENGEL-BRANDT 2014, Taf. 20, 54, n. 85; Taf. 37, n. 177; Taf. 54-55, in particular n. 313, 314.

²⁸¹ For a worshipper with raised arms facing symbols in Neo-Babylonian glyptics, see for example, MITCHELL, SEARIGHT 2008, 117, n. 288; 119, n. 293; 124, n. 318, 321; 126, n. 327, 328; 127, n. 335; 128, n. 338; 132, n. 326.

²⁸² For a worshipper with raised arms facing symbols in Achaemenid glyptics, see for example, MITCHELL, SEARIGHT 2008, 135, 141, n. 399; 143, 145; 149, n. 439; 151, n. 448; 153, n. 456; 154, n. 460, 462; 155, n. 465, 466; 160, n. 489a.

²⁸³ For an impression with worshipper with raised hands facing a quadruped on a platform with curved symbol on its back, of 327/326 BC from Birs Nimrud, see MITCHELL, SEARIGHT 2008, 185, n. 599.

²⁸⁴ See COLLON 1987, 77.

²⁸⁵ For a worshipper with two raised arms in Neo-Assyrian glyptics from Nineveh, see MITCHELL, SEARIGHT 2008, 66, n. 112 dated to 641 BC; 85, n. 170, dated to 624 BC; 96-97, n. 211, not precisely dated; 105, n. 229A, date to the late 8th-7th century BC. For a worshipper with both arms raised, see FÜGERT 2015b, 196, n. 228, 229; 207, n. 242. For a beardless worshipper with two raised arms on a seal from Neirab (Syria), see COLLON 1987, 84, fig. 391. For a worshipper with raised arm and hand facing downwards on a stamp seal dated to 626 BC, see KLENGEL-BRANDT 2014, Taf. 20, n. 83.

²⁸⁶ For a worshipper with one arm uplifted and the other arm extended downwards before divine symbols in Neo-Assyrian seals, see for example COLLON 1987, 77, fig. 342; 78, fig. 344-346; 129, fig. 554; 180, fig. 856.

²⁸⁷ For worshipper with two raised arms in the Neo-Babylonian adoration of divine symbols scenes, see for example VOLLENWEIDER 1967, pl. 38.

²⁸⁸ See COLLON 1987, 82, fig. 375, 377, 378.

²⁸⁹ See for example, COLLON 1987, 152, fig. 676; 166, fig. 771, 774; 191, fig. 928.

²⁹⁰ See for example, NEUMANN 2016, 116, n. 129.

²⁹¹ See MERRILLEES 2005, 107, fig. 31, 71, 72; COLLON 1987, 91, fig. 418.

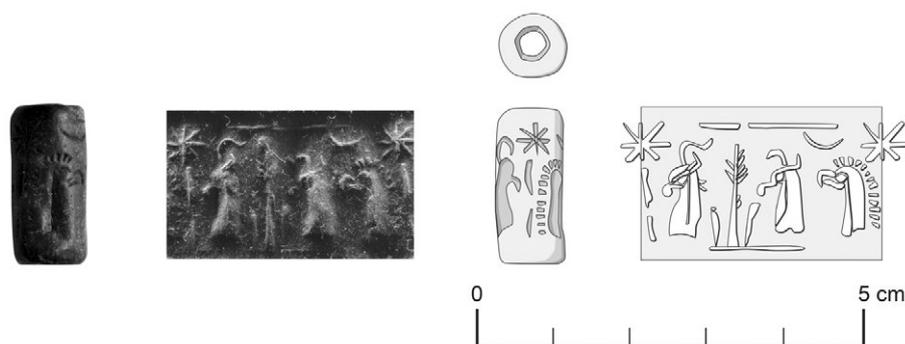


Fig. 60 - Photograph and drawing of cylinder seal GG18.329.702.

GG18.329.702 (Fig. 60)

Shape: cylinder seal

Material: hematite

Dimensions: 2 x 0.9 cm; perforation hole: 0.4 cm

Date: Neo-Assyrian period (8th-early 7th centuries BC)

Finding context: Phase 14, Grave 40

Decoration: row of detached (fantastic?) animal heads, astral and plant symbols

Description:

Tiny black hematite cylinder seal of the Neo-Assyrian period decorated with detached heads of animals, possibly fantastic, astral and plant symbols. The seal is finely cut and well preserved. It is slightly flattened on one side. At the top and bottom there are traces of the horizontal incised line borders. An eight-pointed star is depicted above two aligned vertical strokes that possibly represent a staff. Three detached heads of possibly fantastic animals are depicted in profile, facing left on the seal impression. These heads have similar dimensions and long necks. The first head to the right of the star is characterised by backwards curved horns, up-pointed ears and two tufts (feathers?) at the back of the neck. It is not clear if the animal has a short, rounded muzzle or a beak. A vertical floral element ("bottle-brush tree") is represented between two lower vertical, slightly oblique strokes that could be interpreted as leaves. The second head is characterised by forwards curved horns, up-pointed ears and a muzzle or a beak with a round point. A moon crescent is depicted between and above this head and a third head characterised by an eagle beak and a long crest, made with tiny triangles, from the forehead down along the neck.

This high-quality seal is exceptional for its engraved motif. Indeed, rows of detached heads are rare in the glyptics of the Neo-Assyrian period.²⁹² Just two similar items have been found. The first (Fig. 61 a) is a cylinder seal of the 9th-8th century

BC, decorated with some detached heads in profile on the lower register: a crested eagle, a bull, a caprid, a human head with a long beard, a dog and a star. On the upper register, there are: a god within the ring, a crescent, a bottle-brush tree, a winged genius smiting a bull.²⁹³ The second piece (Fig. 61 b) is an Urartian cylinder-stamp seal of the 8th-7th century BC decorated with a row of detached animal heads (bull, stags, caprids, moufflons, birds, horse), a star and a crescent, arranged in two registers and a star with a couchant griffin on the short edge.²⁹⁴ It is noteworthy that in both cases the decoration is arranged in two registers. Despite its small size, the seal discovered at Gir-e Gomel does not seem to have been a double-register seal that was cut in half; indeed, there are no traces of reworking.

The heads are represented in profile, facing left on both seals as on the one from Gir-e Gomel. Among animal heads, birds and horned animals are depicted on all the three compared seals. In the first, there is a crested eagle as in that from Gir-e Gomel. The full-body bird-headed griffin represented in the circle face of the Urartian seal recalls the eagle-headed griffin on the seal discovered at Gir-e Gomel. Considering other analogies, the lunar crescent, eight-pointed stars

²⁹² Rows of well modelled detached animal heads are attested already in Syrian glyptics of the mid 3rd millennium BC (lion-head; human-headed bull, horned animal head, at for example, Tell Brak and Tell Beydar). Animal and human detached head-sare seen on Syro-Cappadocian cylinder seals of the 19th century BC as well (see for example BUCHANAN 1981, 410, 411, n. 1176). Another famous precursor decorated with detached heads (bird, horned animals, lion, human heads) is the "Tiezkiewicz seal" of the 17th century BC, see COLLON 1987, 176, fig. 835.

²⁹³ See KEEL-LEU, TESSIER 2004, 188, 444, Abb. 199.

²⁹⁴ *Ibidem*, 218, 449, Abb. 243=SEIDL 1979, 148, Taf. 41, D 8'.



Fig. 61 - Modern cylinder seal impressions with detached animal heads (a=KEEL-LEU, TEISSIER 2004, 444, Abb. 199; b= SEIDL 1979, 148, Taf. 41, Abb. 10, 11, D8').

and bottle-brush tree²⁹⁵ are shared by all three seals, but these motifs are very popular in Neo-Assyrian glyptics.

As mentioned, caprid and bull heads are depicted on all the three seals, but in the case of the Gir-e Gomel seal the horned animals may have a beak. Thus, they may represent three different types of griffins. This hypothesis has to be treated with caution because no parallel has been detected so far except for the well-known “bird-griffin”.

As regarding the “caprid-griffin” (first head), in Neo-Assyrian glyptics winged goat-fishes²⁹⁶ and winged human-headed goats²⁹⁷ are usually represented. Winged caprids are attested in the glyptics of the late 2nd millennium BC,²⁹⁸ but no creatures with the same features as the caprid head on the seal of Gir-e Gomel has yet been found.

The second head could be simply of a bull or a winged bull,²⁹⁹ that is one of the main opponents of the hero in Neo-Assyrian contest scenes, or, exceptionally, of a bird of prey with bull horns.³⁰⁰ The singular “bull-griffin” of the Gir-e Gomel seal would share with the winged bull its mixed nature, part bull and part bird, with the eagle-component prevailing.

Finally, the third head, characterised by a crest of feathers, belongs to the so-called “bird-griffin”, that appears already in Middle Assyrian glyptics.³⁰¹ In Neo-Assyrian glyptics, this creature is frequently represented full-body, alone³⁰² or together with a not winged³⁰³ or winged bull³⁰⁴ or with a winged human-headed bull.³⁰⁵ Moreover, the “bird-griffin” is often the opponent of the hero in Neo-Assyrian and Neo-Babylonian glyptics.³⁰⁶ The bird-headed creature could occur as a genius³⁰⁷ with a human body at either side of the sacred tree in the glyptic³⁰⁸ repertoire as in Ashurnasirpal II's reliefs of the 9th century BC.

In conclusion, this cylinder seal is a masterpiece for the elegance and originality of its design. It was found in a cremation burial together with another seal (GG18.329.703) characterised, in contrast, by a

very schematic design, but possibly originally embellished by a coloured glaze treatment. Animal and fantastic animal detached heads are a typical feature of the Syrian glyptic tradition, while creativity in the invention of fantastic hybrid animals is characteristic of the Urartian glyptic repertoire. Possible elements of Syrian and/or eastern Anatolian origin may be detected in the design of this cylinder seal that fit well with the *in-situ* cremation practice that is not typical of the Assyrian core, but rather of those regions.

²⁹⁵ For similar trees on Neo-Assyrian cylinder seals of the Kist Collection (900-750 BC), see KIST 2003, 174, fig. 321; 179, fig. 333; 180, fig. 334-335.

²⁹⁶ For winged goat-fish, see for example COLLON 2001a, fig. 17, 293.

²⁹⁷ For winged human-headed bull, see for instance COLLON 2001a, fig. 27, 319, 332-333.

²⁹⁸ See MATTHEWS 1990, n. 206, 207.

²⁹⁹ For winged bulls, see for example COLLON 2001a, fig. 6, 14-18, 29-33, 281-384; KEEL-LEU, TEISSIER 2004, 436, Abb. 144; 439, Abb. 161Z-163Z.

³⁰⁰ For a similar winged griffin with bull horns, see COLLON 1987, 84, fig. 392, from Dor; 160, fig. 736 from Toprakkale.

³⁰¹ For a griffin with feathers on a Middle-Assyrian seal of the 12th century BC, see MAYER-OPIFICIUS 1986, 164-165, Abb. 13.

³⁰² See, for example, COLLON 2001a, fig. 66, 90-91; FÜGERT 2015b, 149, n. 160; KLENGEL-BRANDT 2014, Taf. 37, n. 177, 178; Taf. 49, fig. 262; Taf. 56, n. 342.

³⁰³ See FÜGERT 2015a, 169, n. 153; FÜGERT 2015b, 142, n. 153.

³⁰⁴ See for example COLLON 2001a, fig. 62, 63.

³⁰⁵ See for example COLLON 2001a, fig. 67; FÜGERT 2015b, 145, n. 156, 157; HUSSEIN *et alii* 2016, pl. 192, fig. b.

³⁰⁶ See for example HUSSEIN *et alii* 2016, pl. 191, fig. g; KEEL-LEU, TEISSIER 2004, 404, 439, Abb. 164 Z; 436, Abb. 147; 439, fig. 165; COLLON 2001a, fig. 300, pl. XXIX; KLENGEL-BRANDT 2014, 116, n. 128, Taf. 44, n. 222; COLLON 1987, 196, fig. 965; KIST 2003, 181, fig. 337.

³⁰⁷ See FÜGERT 2015b, 242, n. 286.

³⁰⁸ See for example COLLON 2001a, fig. 151, 160, 276; KLENGEL-BRANDT 2014, Taf. 39, n. 189, Taf. 40, n. 194.

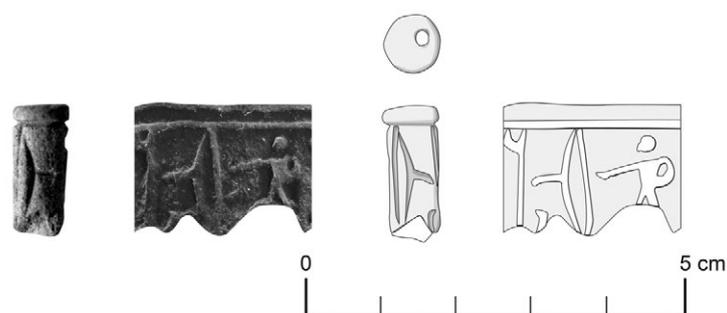


Fig. 62 - Photograph and drawing of cylinder seal GG18.329.703.

GG18.329.703 (Fig. 62)

Shape: cylinder seal

Material: quartz ceramic³⁰⁹

Dimensions: 1.7 x 0.7 cm; perforation hole: 0.2 cm

Date: Neo-Assyrian period (8th-early 7th centuries BC)

Finding context: Phase 14, Grave 40

Decoration: hunting scene with archer and snake

Description:

Small seal in whitish/cream quartz ceramic, possibly originally (green?)-glazed, heavily chipped at the bottom. The perforation is off-centre. The seal, of the Neo-Assyrian period (8th-early 7th centuries BC), is decorated with an archer aiming an arrow at a rearing horned snake. The stylised decoration, in linear style, is clear, made with deep incisions.

On the top there is a horizontal incised line border (0.1 cm thick) and possibly a line border was incised at the lost bottom as well. A standing man is facing leftwards with his left arm bent at his side and his right arm stretched to the left, holding a largebow, pointing an arrow at a snake. The snake with two horns is upright, touching the line border at the top of the scene (the snake is as tall as the bow). The curved point of its tail is preserved at the right of the rest of the snake, close to the chipped edge.

The mythological hunting scene with a horned snake³¹⁰ is attested already in the Mitanni period³¹¹ and is very common in Neo-Assyrian glyptics³¹² in the 8th-7th centuries BC (720-670 BC). This image seems to be attested only on quartz ceramic cylinder seals. Evidence of this image is spread over a wide territory (Assyria, Urartu, Babylonia,³¹³ Iran,³¹⁴ Syria³¹⁵) and possibly originated in Syria.³¹⁶ This scene may be stylised to a greater or lesser extent and is usually depicted within two horizontal borderlines. The snake sometimes faces the archer, sometimes it does not;³¹⁷ it may be hornless or have one or two horns, and has a more or less undulating body. A crescent and a tree are often represented in this scene as well.

This seal was found in a cremation burial together with the previously described seal (GG18.329.702),

characterised by a well-cut design that resembles Syrian and Urartian productions. The latter seal has very few parallels, conversely the design of the seal with the archer and the horned snake has a very wide distribution, from the Levant to Iran. As for its production technology, glazed pottery seals are a typical product of Eastern Syria.

The reasons for the widespread distribution and frequency of these glazed pottery seals decorated with the archer and the snake remain to be studied. It would be interesting to analyse their discovery contexts to ascertain whether there is any association with a specific context (funerary?) or a particular ritual (cremation?). This type of seal could have an identity meaning and might be related to the Syrian area.

³⁰⁹ The term “quartz ceramic” is used in this article for the material that in the literature is also named “frit”, “faience” or (more accurately) “sintered quartz”.

³¹⁰ The horned snake has been identified by Wiggerman (1993-97, 244: 26) with the poisonous creature *Bashmu*.

³¹¹ See HERBORDT 1992, 87.

³¹² For hunting scenes with the snake, see for example, COLLON 2001a, 39-41; 40, pl. IV, fig. 41 (Tell Halaf), 42, 43, 44 (Nimrud, Sargonid context); DOUMET 1992, 78, fig. 141; FRANKFORT 1939, pl. XXXIV, fig. G; FÜGERT 2015a, 163 (Dur-Katlimmu); FÜGERT 2015b, 91-95, n. 100-105; 431; HERBORDT 1992, 86-87, Taf. 5, Abb. 9, 12, 13 (Sennacherib’s reign); KEEL-LEU, TESSIER 2004, 155-156, 177-178; 440-441, Abb. 173-178, in particular, Abb. 178; KIST 2003, 185, fig. 345 (quartz ceramic) of 900-750 BC; 186, fig. 348; KLENGEL-BRANDT 2014, Taf. 10, 47; MARCUS 1996, 116-117, Nr. 60, fig. 82; pl. 22, fig. 71; PARKER 1955, pl. XV, 1, 2 (Nimrud); TUNCA 1979/1980, X, fig. 94, 95.

³¹³ See COLLON 1987, 77, 85.

³¹⁴ From Nushi-I Jan, see COLLON 1987, 84, fig. 387, 85.

³¹⁵ From Tell Halaf, COLLON 1987, 79, fig. 353; 80, 85. From a burial at Tall Knedig, KULEMANN-OSSSEN, MARTIN 2000, 500, fig. 16.

³¹⁶ See WICKE 2016, 89.

³¹⁷ The horned snake recurs in other scenes together with a tasselled crescent standard and a tree; see for example, FÜGERT 2015b, 153, n. 165; KLENGEL-BRANDT 2014, Taf. 8, 38, n. 30.

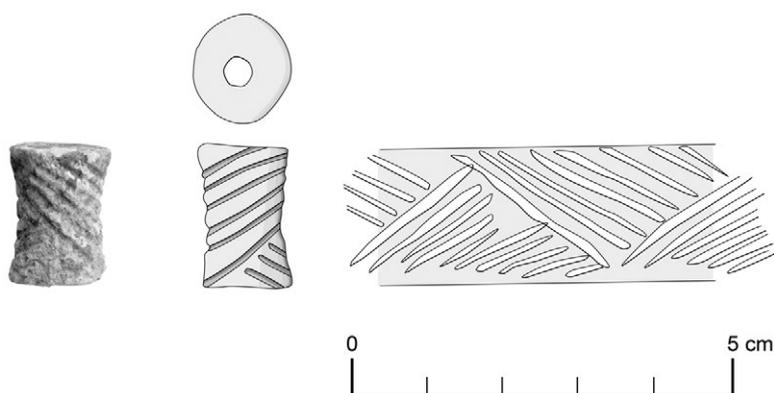


Fig. 63 - Photograph and drawing of cylinder seal GG13.161.710.

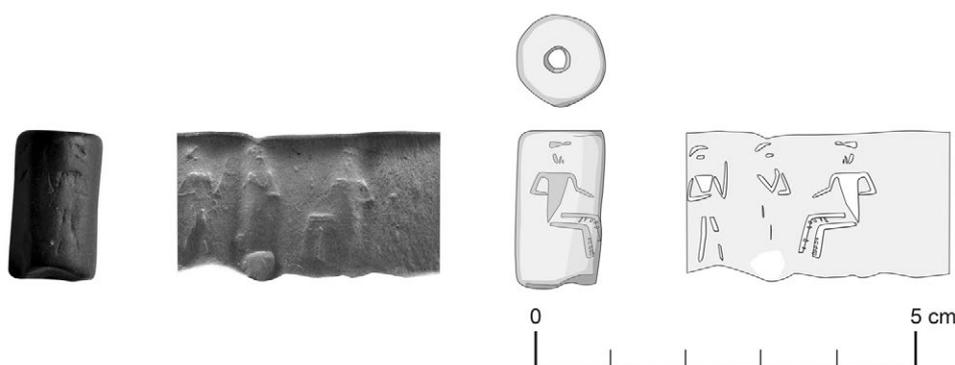


Fig. 64 - Photograph and drawing of sealing GG18.459.701.

TGM13.161.710 (Fig. 63)

Shape: cylinder seal/bead

Material: quartz ceramic

Dimensions: 1.8 x 1.3 cm; perforation hole: 0.4 cm

Date: half of the 3rd millennium BC (EJZ 3)

Finding context: Phase 24, Grave 24

Decoration: geometrical pattern

Description:

Cylinder seal or bead in quartz ceramic found in Grave 24, of the Early Jezirah 3 period. The seal is decorated with a geometrical motif consisting of a chevron formed by two triangles (one of them upside-down) filled with oblique parallel lines, which share their outer lines. The diameter of the seal is slightly shorter in its central part (1.1 cm). The surface of the seal/bead is rather worn. This kind of decoration is attested from the Jemdet Nasr period.³¹⁸ Hatches set in chevron pattern are typical of the international geometrical style of Upper Mesopotamia at the beginning of the 3rd millennium BC³¹⁹ and a seal decorated with a similar design was found in a burial at Jikan, of the mid-3rd millennium BC (EJZ 3/ETG 5).³²⁰

Operation 2

GG18.459.701 (Fig. 64)

Shape: cylinder seal

Material: hematite

Dimensions: 2 x 1.2 cm; perforation hole: 0.3 cm

Date: first half of the 2nd millennium BC

Finding context: Phase 10 (17th-16th centuries BC), floor

Decoration: presentation scene

Description:

Small, black hematite, cylinder seal of the first half of the 2nd millennium BC, decorated with a presentation scene. The lower edge of the seal is slightly chipped. The surface is heavily abraded. The incisions are rather superficial and only a few elements of the figures are cut into the surface. The seal comes from

³¹⁸ See for example VOLLENWEIDER 1967, 26, pl. 10, fig. 5.

³¹⁹ See PARAYRE 2003, 273.

³²⁰ See PITTMAN 2019, 335, n. 7, type 11.

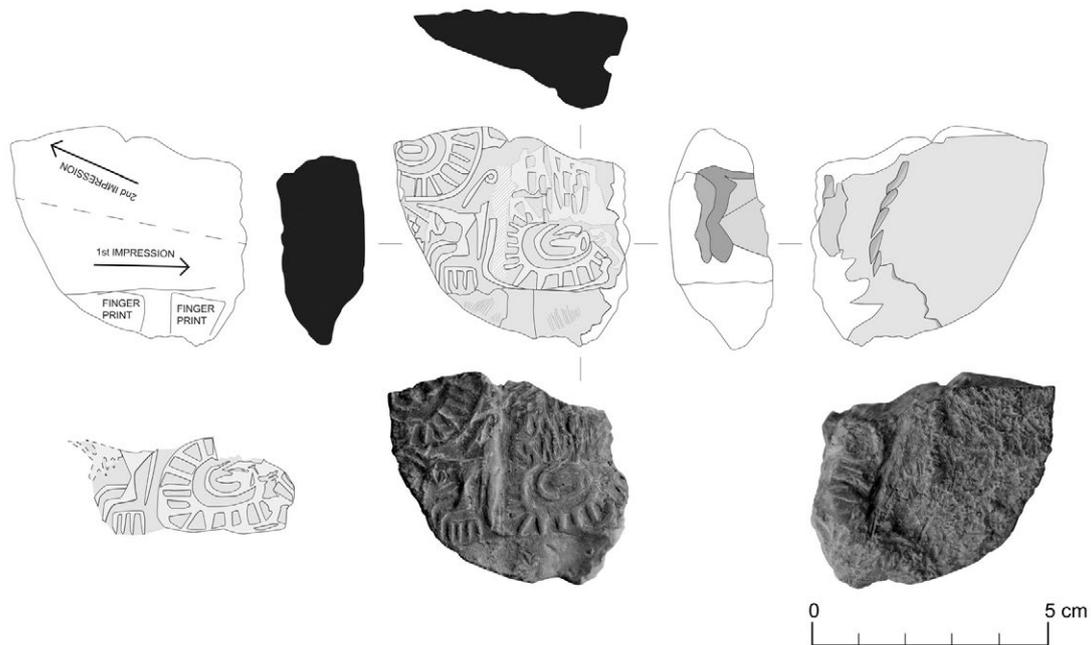


Fig. 65 - Photograph and drawing of sealing GG18.448.702.

the Middle Bronze Age II Phase 10 floor, close to fireplace 460.

A standing male figure is represented facing right towards a seated figure. His head and legs are depicted in profile, while his torso is in front view. His bent right arm is at his waist, while the left arm is bent and uplifted in front of his face. This figure wears a low round cap and possibly a kilt; its identity is uncertain. In most cases, figures with arms in these positions are not worshippers,³²¹ but either divine³²² or “heroic”,³²³ or royal³²⁴ figures, holding an item (i.e. a cup) in their left uplifted hand.

A standing worshipper³²⁵ is depicted looking right towards the seated figure, with his right arm bent and raised in front of his face, and the other arm bent and at waist level. A seated male figure, most probably the king, is shown facing left, with his torso in front view, his bent left arm at the waist and bent right arm reaching slightly forwards. He wears a flat headgear/a skull cap and possibly a fringed robe open in front (there are two lines of short horizontal grooves running down the legs). He is possibly seated on a stool. Between the seated king and the first described figure there is a blank space.

The seal is characterized by a Babylonian style. Due to the lack of any particular visible detail because of its poor state of preservation, it is difficult to ascertain its place of production (locally made or imported from Lower Mesopotamia). Considering its worn surface and design that is typical of an earlier phase (18th-17th century BC) with respect to its dis-

covery context, the seal must have been in use for a long time.

GG18.448.702 (Fig. 65)

Fragment of clay sealing (4.8 x 4.5 x 1.2 cm) decorated with two impressions of the same cylinder seal in Piedmont (Glazed Steatite) style, from the first half of the 3rd millennium BC, end of the Ninevite 5 (EJZ 2) period. The sealing fell from the section of a modern well in the south-western area of Operation 2 and can be dated on the basis of the design style.

³²¹ For a worshipper with arms in the same position, see, for example OTTO 2004, Taf. 10, Abb. 10 M 58, Taf. 12, Abb. 7, M 82, Abb. 13, M 88; TEISSIER 1994, 236, fig. 611. For another rare case of the same arm position, but possibly on a dubious seal, see KEEL-LEU, TEISSIER 2004, 102, n. 115, p. 432. The worshipper's right arm is usually bent and uplifted in front of the face, while the other arm is bent and the hand is held by an interceding goddess.

³²² See, for example, OTTO 2004, Taf. 6, Abb. 12, M 12; TEISSIER 1994, 234, fig. 549; BUCHANAN 1981, 322, n. 892-893, holding a lightning bolt.

³²³ See, for example, OTTO 2004, Taf. 12, Abb. 88; BUCHANAN 1981, 318, n. 870; 320, n. 880; 323, n. 894; 324, 325, n. 903.

³²⁴ See, for example, OTTO 2004, Taf. 10, Abb. 4, M 52.

³²⁵ See OTTO 2004, Taf. 9, M. 37; Taf. 10, M. 52, 53; Taf. 11, M. 65, 70; Taf. 12, M. 81, in particular M 82, M 88. See BUCHANAN 1981, 322, 323, n. 896; 324, 325, n. 902, 903, 907, 908; 327, n. 922, 924, 925; 328, n. 928.

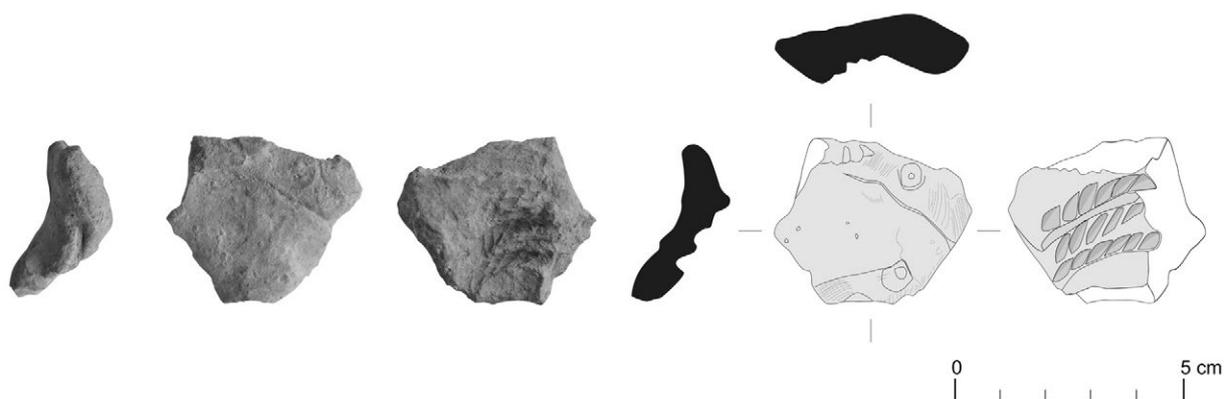


Fig. 66 - Photograph and drawing of cylinder seal GG18.606.701.

The sealing is triangular in section and has three edges. It is broken at two perpendicular edges and thins towards the third curved edge. On the shorter broken edge, there are possible traces of two parallel rope marks that are parallel to a single imprint of a thinner string on the back of the sealing.

The back of the sealing is almost completely flat and rough. There are no clear traces of a regular texture related to cloth, leather or basketwork. The surface on which the seal was rolled was possibly that of a pot with a rather coarse fabric. The surface of the back protrudes slightly along the edge with the double rope marks and in correspondence to the point where on the other side of the sealing there are two fingerprints. The impression of the thin string on the back seems to be perpendicular to the impression of a small smooth element (peg?), with a trapezoidal shape (0.9 cm wide at the top and 0.7 cm at the bottom), slightly upstanding.

The sealing was possibly placed on the lid of a vessel or a portable container because there are neither traces of the concave smooth surface of a pot neck, nor of a rim, nor of a mouth/opening.

With regard to the front of the sealing, there are at least two impressions of the same cylinder seal, rolled in almost parallel directions, but one of them is upside down. The seal impressions partially overlap and are perpendicular to the string impressions. A quarter of the sealed front surface is unreadable. The design can only be partially reconstructed because it is not preserved in all its length, width and details. The surface has been slightly scratched in the middle, probably by a blade tool during the excavation.

The design includes an oval ladder band around two concentric ovals.³²⁶ A stylized human figure is depicted facing left, with a triangular torso in front view and his left arm stretched along the back. It

is not clear whether the right arm was lifted and stretched out forwards. The head is missing. The stylization of the human figure resembles the style attested on sealings found at Tell Leilan.³²⁷ This human figure is seated on a stool that looks like a comb with four teeth³²⁸ and is reminiscent of the seats on which lyre players or drinking figures are depicted in the EJZ 2 period glyptics found at Tell Leilan³²⁹ and Tell Chuera.³³⁰

The seal rolled on the sealing found at Gir-e Gomel featured a combination of a geometrical pattern (the hatched/ladder band) and figurative elements.³³¹ The association of a ladder motif with human figures is typical of the Piedmont style glyptics of North Mesopotamian sites such as Nineveh, Mohammed 'Arab, Billa³³² and Tell Leilan.³³³ On the other hand, the association of a ladder motif with caprids is typical of Iranian Piedmont style glyptics.³³⁴

³²⁶ The two concentric ovals possibly formed a detached caprid head with an elongated muzzle (internal oval) and a long, curved horn in profile (external oval). A ladder band around a caprid in profile is attested on a sealing of the same period from Tell Leilan (Syria; see PARAYRE 2003, 292, pl. 5, fig. 7).

³²⁷ See PARAYRE 2003, 277.

³²⁸ A similar small rectangular hatched element is a common motif in Piedmont glyptics. See for example PARAYRE 2003, 300, pl. 9, fig. 13.

³²⁹ See PARAYRE 2003, 296, pl. 7; 298, pl. 8.

³³⁰ See, for example, a seal from Tell Chuera of the beginning of the 3rd millennium BC, COLLON 1987, 152, fig. 662.

³³¹ See MCCARTHEY 2011, 297, type 3, EJZ 1-2.

³³² ETG 2-4, type 5, PITTMAN 2019, 303.

³³³ In levels III d, EJZ 2, PARAYRE 2003, 274-275. The combination ladder-caprids-humans is attested as well (at Tepe Musian, MARCHETTI 1996, 112, n. 5).

³³⁴ PARAYRE 2003, 274-275.

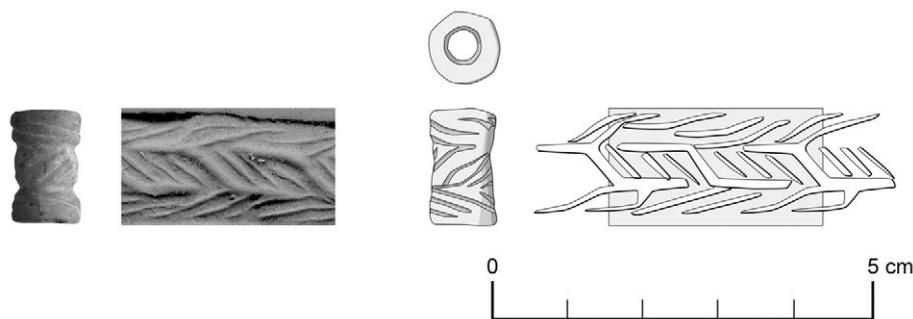


Fig. 67 - Photograph and drawing of cylinder seal GG18.512.701.

With respect to the shape of the hatched band, the oval or ring shape is mostly attested in the Piedmont glyptic repertoire of sites such as Nineveh,³³⁵ Billa and Mohammed Arab, while the arch, triangle and meander are known from Susa and Iranian sites.³³⁶

To sum up, the design of the sealing found at Gir-e Gomel shows characteristics of the Piedmont glyptic repertoire attested in late Ninevite 5 period sites in the core of the Tigridian region and the Jezirah. The closest parallels come from Tell Leilan³³⁷ and consist of scenes with a lyre player, related to the banquet scenes of south Mesopotamian tradition.

GG18.606.701 (Fig. 66)

Fragment of a small (4.1 x 4 x 0.7 cm) clay sealing, broken at all four edges. It comes from a Phase 10 accumulation layer of the Middle Bronze Age IIB. On the front of the sealing there are finger impressions and possibly leather imprints, but no evidence of a decorated seal impression. On the back, there are impressions of three parallel strands of rope and at the bottom a slightly concave smooth surface that may be the impression of a peg. At the top of the back there is a protruding part. The sealing could be a pot sealing with impressions of a small portion of the neck and the ropes that originally encircled the pot below its opening. Alternatively, this sealing may have been placed upside down around a vertical wooden peg, as the impression of a perpendicular curved surface may suggest.

Operation 3

GG18.512.701 (Fig. 67)

Shape: cylinder seal

Material: calcite-alabaster

Dimensions: 1.5 x 0.9 cm; perforation hole: 0.5 cm

Date: end of the 4th-beginning of the 3rd millennium BC

Finding context: Phase 2 (Stratigraphic Unit 512), beginning of the 2nd millennium BC, early Middle Bronze Age, glacis

Decoration: passing caprids

Description:

Small cylinder seal of yellowish calcite-alabaster, decorated with two stylised caprids passing to the left. The seal comes from a mixed context with pottery of different periods and can be tentatively dated to the end of the 4th-beginning of the 3rd millennium BC (Jemdet-Nasr/Ninevite 5 period/EJZ1) on the basis of its style. The seal is well preserved and decorated with very deep incisions all around its surface, like a bead.

The motif of the two caprids is almost symmetrical, with a horizontal axis. As a result, the design looks the same even when it is turned upside down. The bodies of the two caprids are formed by three main lines: a long, horizontal stroke for the head, a shorter oblique stroke for the neck and another long, horizontal stroke for the body. Oblique, slightly curved strokes shape the horns and legs. The horns are long and point backwards. The long legs seem to be stretched forwards as if the animals were running. Three short, parallel, diagonal strokes fill the two spaces between the animals' necks.

The motif of passing caprids is very common in the late 4th and early 3rd millennium BC (Late Uruk, Jemdet Nasr, Ninevite 5, Early Dynastic I periods). It is attested in both the fine and the schematic glyptic productions of the Late Chalcolithic and beginning

³³⁵ COLLON 2001b, 2003.

³³⁶ For the Piedmont/Glazed Steatite Style, see PITTMAN 2019, 302.

³³⁷ See PARAYRE 2003, 298, pl. 8, 300, pl. 9.

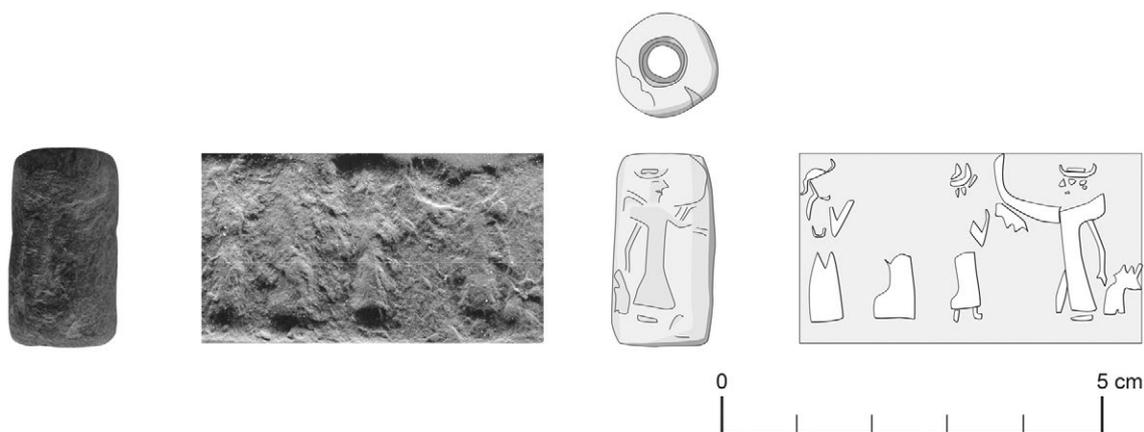


Fig. 68 - Photograph and drawing of cylinder seal GG18.OP3.Surface.701.

of the Early Bronze Age. It may be executed in a naturalistic³³⁸ or more or less stylised fashion.³³⁹

In the case of the seal from Gir-e Gomel, the motif is extremely schematic.³⁴⁰ It is almost an abstract design that plays with the geometrical principle of symmetry. As in the Brocade Style, the design is linear. The bodies of the animals are not finely modelled but simply sketched by means of wide grooves. However, the field is completely filled, while in Brocade Style compositions the elements are usually widely spaced. The design of the Gir-e Gomel seal resembles the Piedmont Style production with regard to the hatched elements. With respect to its shape, the seal differs from both the Brocade and Piedmont Style seals for its small size; both Brocade and Piedmont seals are usually tall and slender. The design seems to be a local interpretation of motifs belonging to Late Uruk, Jemdet Nasr, and Ninevite 5 (Piedmont and Brocade) traditions.

GG18 OP.3 Surface.701 (Fig. 68)

Shape: cylinder seal

Material: limestone

Dimensions: 2.6 x 1.4 cm; perforation hole: 0.4 cm

Date: end of the 3rd-beginning of the 2nd millennium BC

Finding context: surface (from the base of the high mound)

Decoration: scene with gods or presentation scene

Description:

Very abraded, small cylinder seal in dark grey limestone, of the late 3rd or early 2nd millennium BC. The surface of the seal is heavily worn and the decoration could be only tentatively read. Only a few elements

are rather deeply incised (for example, the skirts) and it is difficult to distinguish intentional cut elements from accidental chips. The surface is irregular, nowhere smooth.

A standing figure with a long skirt is represented facing right. This figure could have been divine as in scenes of the glyptic repertoire of the end of the 3rd millennium BC. There are traces of a tiny pigtail or horn of a tiara (the element similar to long hair falling down onto the back seems not to have been cut intentionally). Otherwise, this figure could have been a worshipper, wearing low round cup-shaped headgear, as in presentation scenes of the beginning of the 2nd millennium BC. Then there is an element that could be the long skirt of another standing figure facing right. Another standing figure is possibly represented with a long skirt, also facing rightwards. It is not clear if this figure wears a horned tiara and has a bent and uplifted arm. This figure could be divine and possibly represents an interceding goddess, such as in 2nd millennium BC presentation scenes.

Another standing figure is depicted facing left. It was possibly a (winged?) warrior god/goddess, with a horned tiara, the right leg emerging from the long skirt and the left arm stretched along the back. This

³³⁸ See for example BASMACHI 1994, pl. 4, fig. 21; pl. 5 fig. 35.

³³⁹ See for example BASMACHI 1994, pl. 4, fig. 20, 22, 27-32; pl. 5, fig. 36, 40-47; pl. 6, fig. 48, 52; associated with a shed/temple or plants – pl. 7, pl. 8, pl. 9, fig. fig. 81, 91-97; pl. 10; pl. 11; pl. 12; in Brocade Style: pl. 31; pl. 32; pl. 33; pl. 34.

³⁴⁰ For a close parallel, see KEEL-LEU, TEISSIER 2004, 245, 453, Abb. 267, dated to c. 2900-2600 BC, from North-west Syria. For a similar seal, but more naturalistic, see NEUMANN 2016, 35, n. 14.

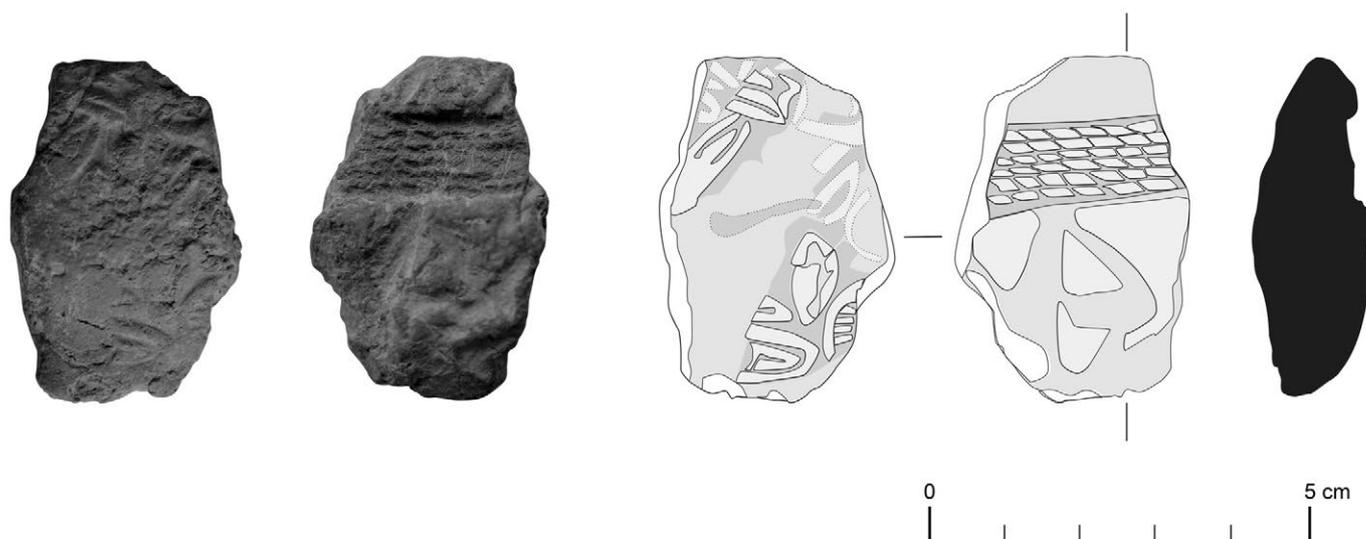


Fig. 69 - Photograph and drawing of sealing GG.18.509.708.

figure may represent Ishtar.³⁴¹ It is not possible to say whether an unintentional chip is present or a small element (animal?) was represented at the bottom of the scene.

Due to the widely-spaced figures, this seal from Gir-e Gomel is similar to southern productions; conversely, the Old-Assyrian glyptic style is characterised by crowded scenes, filled with motifs.

GG18.509.708 (Fig. 69)

Fragment of clay sealing (4.5 x 3 x 1.5 cm) from a mixed context (natural deposit of the River Gomel) with pottery of different periods. The sealing could be possibly dated to the 3rd millennium (EJZ 3a, b/Early Tigridian 5, 2600-2230 BC) on the basis of its design. The sealing is broken on both the long sides; regarding the short sides, only the edge close to the rope impressions is partially preserved. At this point, the sealing gets thinner. The sealing has a sub-rectangular shape, and is sub-oval in section. On the front there are at least two impressions, possibly of the same cylinder seal. On the back there are impressions of six parallel strands of a string. The back surface is irregular. The lump of clay was placed onto a rough surface but there is no clear evidence of textile or basketwork.

The front surface is worn and the reading of the seal impressions is problematic. The seal was possibly rolled twice, almost perpendicular to the string. The two seal impressions possibly converge and partially overlap close to the short best-preserved edge. The seal was decorated with oval elements and a

hatched feature, possibly a ring. The hatched element evokes designs typical of the Piedmont style of the Ninevite 5 period, while the ovals resemble geometrical designs³⁴² typical of a later period (EJZ 3a, b/ETG 5, 2600-2230 BC), that represent the closest parallels.

9. Conclusions

Gir-e Gomel, located in a commanding position in the middle of the fertile Navkur Plain of northern Iraqi Kurdistan, near a traditional crossing point of the River Gomel, is the largest and one of the most continuously settled archaeological sites in the region. Thanks to the fertility of its soils and its abundance of water, groundwater and soil moisture, the plain was one of the most productive regions of Upper Mesopotamia in terms of reliable cereal production.³⁴³ Building on this favourable ecological and economic foundation, the site grew to urban size (35 ha) during the Early Bronze Age and maintained its urban character and central function in the region during the Middle Bronze Age and many of the following periods. The first excavation seasons at Gomel have offered a comprehensive insight into the stratigraphy, chronology and history of the site from the begin-

³⁴¹ For Ishtar with long open skirt and stretched arm in Old-Assyrian glyptics, see TEISSIER 1994, 237, fig. 631, 632.

³⁴² See a seal from Jikan, PITTMAN 2019, 334, 335, n. 5.

³⁴³ MORANDI BONACOSSI 2018a, 103-108.

ning of the Late Chalcolithic to the Early Islamic period. The discovery in Gomel of a few unstratified pottery finds dating to the Halaf and Ubaid periods and an Ubaid stamp seal suggest that the occupation of the site may have started with a rural village that shifted along the left bank of the River Gomel during the Late Neolithic and Early Chalcolithic.³⁴⁴ The remains of this prehistoric settlement, however, are still hidden under the site's Late Chalcolithic occupation levels. It is with the beginning of this period in the second half of the 5th millennium BC that the first reliable and well-stratified evidence of significant settlement activity at Gomel becomes evident. In this respect, Gomel's settlement history parallels the general settlement trend recorded in the region by the Udine University survey, which has revealed a first massive settlement and demographic growth phase in the Late Chalcolithic.³⁴⁵ So far, part of a craft area devoted to the intensive production of pottery has been investigated on the western edge of the high mound's base. The occurrence of pottery kilns in many other Late Chalcolithic Upper Mesopotamian sites is a well-known phenomenon.³⁴⁶ The discovery of ceramic kilns dating to the Late Chalcolithic 1-2 and 3-5 also at Gomel further strengthens the already unmistakable archaeological association between labour specialization and the emergence of socio-economic complexity. At the same time, the ubiquitous occurrence of pottery production areas in many Late Chalcolithic sites in Upper Mesopotamia emphasises the importance of the role played in the emergence of complex social and economic structures by the intensive large-scale production of common artefacts such as pottery, as compared to the archaeologically much more explored specialised manufacturing of prestige items made of imported raw materials.

As from the late Ninevite 5 and the following EJZ 3a periods onwards, the archaeological evidence gathered at Gomel indicates a remarkable intensification of settlement activity at the site that during the mid-late 3rd millennium reaches full urban size with an extension of 35 ha. Of particular importance are the occurrence of administrative tools scattered over a huge area across the site ranging in date from the Ninevite 5 to EJZ 3 periods,³⁴⁷ and the discovery in the southern city's outskirts (Operation 1) of an intensively used burial ground with two elite graves containing prestige grave goods and personal ornaments and the presence of a contemporary burial on the western edge of the high mound (Operation 3). These elements combined with the distribution of the mid-late 3rd millennium pottery across the entire site surface area indicate Gomel's urban character and the presence at the site of a local elite which controlled the agricultural production surplus and access to precious raw materials and commodities (silver, Gulf shells) through the regional control of networks of long-distance exchange.

During the following Middle Bronze Age, the site retained its extension and urban nature. Middle Bronze Age II archaeological evidence from the surface and the excavation shows that the entire site covering 35 ha was settled. The high mound and the lower city might have been fortified and the architectural remains of a possible official building have been brought to light in Operation 2 in the eastern lower town (Building 1). Furthermore, the discovery in Operation 1 of a monumental and well-constructed multi-chambered vaulted hypogeum with an antechamber that was used to deposit a rich inventory of pottery vessels, and of four smaller baked-brick vaulted burial chambers, indicates the existence at Gomel's south-western fringes of a graveyard where the local urban elite was buried. Taken as a whole, the site's dimensions, the possibility that Gomel was fortified, the evidence of public monumental architecture and of an elite graveyard with at least one monumental hypogeum, its centrality and importance within the Navkur Plain and strategic location on the route connecting the three most important Middle Bronze Age sites west of the Greater Zab and east of the Upper Iraqi Tigris (Xrab-i Kilaşin, Gir-e Gomel and Bassetki, Fig. 1), are all elements that emphasise the centrality of the role played by the site within the Middle Bronze Age socio-economic and political scenario of the Transtigradian plains. These elements make of Gir-e Gomel a good candidate for identification with the Middle Bronze Age II city of Nurrugum, the capital of the local kingdom of the same name, which – according to an unpublished Mari letter – must have been located east of the Tigris in the Mosul region.³⁴⁸

During the following Late Bronze Age, the site's occupation seems to have been less dense than in previous periods. Mitanni and Middle-Assyrian levels have thus far been recorded only in Operation 1, where an ephemeral settlement activity of this period has been brought to light. The evidence from the archaeological survey suggests that occupation during

³⁴⁴ See footnote 20.

³⁴⁵ MORANDI BONACOSI, IAMONI 2015, 21-23.

³⁴⁶ Pottery manufacturing areas are known from Late Chalcolithic 2 and 3 contexts at Tell Brak (Tell 2, E-A; ARROYO-BARRANTES 2016, 141-142), Tell Hamoukar, Area ZD3/4, level 3 (AL-QUNTAR 2016, 163), Muqable I, phase 3 (PFALZNER *et alii* 2017, 51-52), Tepe Gawfa VIII A (SPEISER 1935, 34), and Girdi Qala, levels 10, 8 and 7 (VALLET *et alii* 2017, 70-71). Ceramic production areas with kilns have been also found in Late Chalcolithic 5 contexts in Khirbet Hatara (FIORINA 1997, 25-26) and Tell Abu Dahir (SIMPSON 2007).

³⁴⁷ See Section 8, seal TGM13.161.710 (Operation 1), sealing GG18.448.702 (Operation 2), seal GG18.512.701 (Operation 3), and sealing GG18.509.708 (Operation 3).

³⁴⁸ See also Section 4.

these periods was more intense towards the inner region of Gomel rather than on its outskirts. The same seems to be valid for the Neo-Assyrian phase, when excavations have unearthed a craft quarter probably specialised in iron metallurgy on the eastern edge of the lower town (Operation 2). This indicates that (as in previous periods, such as the Late Chalcolithic and the Early and Middle Bronze Age) the site's fringes were used for productive activities as well as for burying the dead. In fact, at the south-western margins of the lower town, above the Early and Middle Bronze Age cemeteries, an 8th-7th century BC necropolis was brought to light. The very peculiar and certainly non-Assyrian *in-situ* cremation burials excavated, characterised by pits containing the combusted remains of the skeletons and funeral pyres together with the grave goods and personal ornaments of the deceased, resemble discoveries only at the sites of Tell Sheikh Hamad (Eastern Syria) and Ziyaret Tepe, in the Upper Turkish Tigris Valley. The hypotheses put forth in this article – that the Operation 1 cremations on funeral pyres in pit graves belonged to deportees of the Assyrian military campaigns in Syria or Eastern Anatolia or, alternatively, to foreign women who had married Assyrians and wanted to be buried according to their traditional customs – might be strengthened by the discovery in Grave 40 of two significant cylinder seals.³⁴⁹ Both of them present motifs that are typical of the Syrian glyptic tradition.

Gir-e Gomel, possibly the Neo-Assyrian town of ^{URU}Gammagara/*Gamgamara mentioned in the Jerwan aqueduct Inscription B, continued to be settled after the collapse of the Assyrian Empire. The still scanty evidence of a Post-Assyrian occupation at the site has been exposed in Operation 1. More consistent, on the other hand, is the Hellenistic settlement activity. Three settlement phases with rather substantial – even though poorly preserved – residential architecture were investigated in Operation 1, the earliest of which dates to the beginning of the Hellenistic period in the late 4th century BC. The discovery of a significant early Hellenistic occupation at the site reinforces the identification proposal of Gaugamela and its battlefield with the mid-9th century Syriac Gogemal mentioned by the bishop Thomas of Marga and the present-day site of Gomel.

Parthian residential architecture was brought to light in Operations 1 and 2 suggesting the existence of a large settlement of this period with well-built houses, especially along the eastern margin of the lower town. The excavation evidence is supported also by the survey results. No evidence of the site's Sasanian occupation has yet been recovered from the excavation, although light settlement activity was recorded at Gomel by the survey. In the following Early Islamic period (7th-10th century AD) a series of dumps, in cuts which due to their depth and characteristic bell shape were probably originally storage pits, contain

Early Islamic pottery types that illustrate a peripheral domestic context within an urban environment that must have been well connected to a regional commercial network. During this period (as in the following Middle Islamic epoch, when the town was one of the biggest centres in the diocese of Marga), Gomel was settled by a Christian community that used an Early Islamic pottery assemblage. The Middle and Late Islamic periods, although present at the site (as shown by the survey results) have not yet been encountered in the excavations.

Continuation of the exploration of the archaeological site of Gir-e Gomel promises to enable the establishment of an essentially continuous settlement sequence for this important site of the Navkur Plain. At the same time, excavation work at Gomel will make it possible to achieve chrono-typological reference series of pottery and other artefacts and to date them by means of radiocarbon determinations,³⁵⁰ thus filling the substantial gap in knowledge of the material culture, history and society that still characterises this important region of Upper Mesopotamia.

Acknowledgements

The authors are most grateful to the General Director of Antiquities of the Kurdish Regional Government in Erbil, Kak Abubaker Othman Zengin (Mala Awat), and to the former Juridical Advisor of the General Directorate of Antiquities and since 2018 General Director of Antiquities, Kak Kaifi Mustafa Ali, for granting the permit to excavate the site of Gir-e Gomel and for their unceasing support for the project. During our work at the site and in the Duhok region, the Governor of Duhok, H.E. Farhad Ameen Atrushi, played always a crucial role in sustaining our work. The staff of the Duhok Directorate of Antiquities and of the Duhok Museum, the mayor of Gir-e Gomel and the workers from the site deserve our special thanks for their cooperation and hospitality. The Italian component of the project is greatly indebted to the Italian Ambassador in Baghdad, H.E. Bruno A. Pasquino, and the Italian Consul in Erbil, H.E. Serena Muroi, for the unremitting assistance that they provided to the project.

KIGAP thanks Jason Ur (Harvard University) for making available the U2 aerial photograph of Gir-e Gomel and providing us through the years with many

³⁴⁹ See Sections 5 for the interpretation proposal of the Gomel cremation burials and 8 for the glyptics evidence (seals GG18.329.702 and GG18.329.703).

³⁵⁰ Samples for radiocarbon dating have already been collected from all excavation areas and will be analysed in the near future.

other remotely sensed images (mainly Corona, Hexagon and U2) and being always a stimulating source of scientific discussion. We owe a debt of gratitude also to Rafał Koliński (University of Poznań) for the information he shared on the site of Xrab-i Kilaşin discovered by the Upper Greater Zab Archaeological Reconnaissance.

The excavation work at Gomel was funded by the Italian Ministry of Foreign Affairs and International Cooperation, the Italian Ministry of Education, Universities and Research, the Friuli Venezia Giulia Regional Authority, the Friuli Banking Foundation, and the University of Udine. The present article was written in the framework of the PRIN 2015 project 'Archaeological Landscapes of Ancient Iraq from Prehistory to the Islamic period: formation, transformation, protection, and management' funded by the Italian Ministry of Education, Universities and Research (Grant no. 20154X49JT).

During the 2017 field season at Gir-e Gomel, Katia Gavagnin was the Operation 1 supervisor together with Khaled Abdelkarim Zein Al Amadi (Duhok team). They were assisted in the field by Costanza Coppini, Lisa Doro and Rewar Sabah Ali (Duhok team). Cristina Tonghini (Ca' Foscari University of Venice) studied the water mills of the Islamic period with Enrico Reali as surveyor, Cecilia Conati Barbaro and Daniele Moscone (both Sapienza University of Rome) surveyed the prehistoric sites of the region, and Giancarlo Garna supervised the trial trenches dug across the Khinis canal. Alberto Savioli acted as GIS and remote sensing expert and surveyor and Jeanine Abdul Massih (Lebanese University) joined our team to study the Assyrian quarry at Khinis. Cristina Tonghini, Valentina Vezzoli (IfPO Beirut), Francesca Simi, and Laura Zanazzo acted as pottery specialists, Isabella Finzi Contini as conservator, Giampaolo Ceccarini and Luigi Turri as draughts persons, and Riccardo Menis as database specialist, small-find recorder and photographer. Roberto Orazi (Institute for Technologies Applied to Cultural Heritage-National Research Council, Rome) and Stefano Palpacelli (Università Politecnica delle Marche) spent two weeks in the field as cultural heritage specialist and hydrogeologist, respectively, to draft the project for the protection, enhancement and management of the monumental complexes of Khinis and Maltai. During the survey conducted by the University of Udine, the following members of the Duhok Antiquities Directorate worked jointly with the Italian team: Kovan Hussein Hassan, Sangar Ahmad Taib, Heresh Ahmed Abdelrahman, and Ali Saleh Mohammad.

Their commitment, advice and friendship have been highly valued.

In 2018, Katia Gavagnin supervised the excavation in Operation 1 together with Khaled Abdelkarim Zein Al Amadi (Duhok team). They were assisted in the field by Margherita Dallai, Riccardo Menis and Rewar Sabah Ali (Duhok team). Costanza Coppini acted as supervisor in Operation 2 together with Kovan Hussein Hassan (Duhok team). They were assisted by Giancarlo Garna, Lisa Doro, Massimiliano Ghiro, Alessandra Milocco, Leopoldo Zampiccoli and Zerevan Abdelhamid Ali (Duhok team). Fieldwork in Operation 3 was supervised by Marco Iamoni and Juwan Jamil (Duhok team). As in the previous years, Cristina Tonghini (Ca' Foscari University of Venice) continued the water mill survey in cooperation with Enrico Reali and Luca Tarducci (surveyors). Cecilia Conati Barbaro, Daniele Moscone, and Marco Mulargia (Sapienza University of Rome) surveyed the chert mines of the Jebel Zawa. Rocco Palermo (University of Groningen), Cristina Tonghini, and Laura Zanazzo carried out the pottery study, Alberto Savioli acted as GIS and remote sensing expert, drone pilot and surveyor, Isabella Finzi Contini as conservator, Giampaolo Ceccarini, Elisa Giroto, and Luigi Turri as draughts persons, and Riccardo Menis as database specialist, small-find recorder and photographer. Lastly, other team members were Giovanna Bellandi (archaeologist and physical anthropologist), Vittorio Berti (Syriac specialist, University of Padova), Michał Marciak (expert on the Hellenistic historical geography of the region, Jagiellonian University in Kraków), and Onur Usta (expert on Ottoman textual sources, Çanakkale University). During the survey, the following members of the Directorate of Antiquities of Duhok worked with the Italian team: Sangar Ahmad Taib, Takhsim Ahmed Mohammad, Ali Saleh Mohammad, and Heresh Ahmed Abdelrahman. Their support and expertise have been highly appreciated.

The authors are deeply indebted to Alberto Savioli, Giampaolo Ceccarini, Luigi Turri and Riccardo Menis for their contribution to the drafting of this article through the production of maps, plans, and drawings and photographs of pottery and other objects. Alessandro Canci and Giovanna Bellandi are to be credited for the preliminary anthropological analysis of the human remains discovered during the excavation in Operations 1-3, Margherita Dallai for her expertise on vaulted burial chamber construction techniques, Isabella Finzi Contini for the conservation work on the recovered objects and Umberto Simi for shell species determination.

BIBLIOGRAPHY

- AKKERMANS, P.M.M.G. - SCHWARTZ, G.
2003 - *The Archaeology of Syria. 16000-300 BC*, Cambridge.
- AL-BAHLOUL, K. - BARRO, A. - D'ALFONSO, L.
2005 - "Area H. The Iron Age Cremation Cemetery", in L. BACHELOT, F. M. FALES (eds.), *Tell Shikh Fawqani 1994-1998* (History of the Ancient Near East, Monographs 6), Padova, 997-1048.
- AL-HAMAWI, Y.
1977 - *Mu'jam al-buldan*, Beirut, Dar Sadir.
- AL-QUNTAR, S.
2016 - "Craft Specialisation and the Process of Urban Growth in Northern Mesopotamia in the Late Chalcolithic: A View from the Syrian Jazira", in M. IAMONI (ed.), *Trajectories of Complexity. Socio-economic Dynamics in Upper Mesopotamia in the Neolithic and Chalcolithic Periods* (Studia Chaburensia 6), Wiesbaden, 159-182.
- AL-QUNTAR, S. - KHALIDI, L. - UR, J.
2011 - "Proto-Urbanism in the Late 5th Millennium BC: Survey and Excavations at Khirbat Al-Fakhar (Hamoukar), North-East Syria", *Paléorient* 37/2, 151-175.
- ANASTASIO, S.
2010 - *Atlas of the Assyrian Pottery of the Iron Age* (Subartu XXIV), Turnhout.
- ANDRAE, W. - LENZEN, H.
1967 - *Die Partherstadt Assur* (Ausgrabungen der deutschen Orient-Gesellschaft in Assur 8), Osna-brück.
- ARRIVABENI, M.
2018 - "Pottery", in E. ROVA (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean. Vol. V Tigridian Region*, Turnhout, 45-129.
- ARROYO-BARRANTES, D.
2016 - "Communities in Transition: The Development of Mass Production and Urban Feasting in Northern Mesopotamia", in M. IAMONI (ed.), *Trajectories of Complexity. Socio-economic Dynamics in Upper Mesopotamia in the Neolithic and Chalcolithic Periods* (Studia Chaburensia 6), Wiesbaden, 139-158.
- BACCELLI, G. - MANUELLI, F.
2008 - "Middle Bronze Khabur Ware from Tell Barri/Kahat", in J. M. CÓRDOBA, M.C. PÉREZ, I. RUBIO, S. MARTÍNEZ (eds.), *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East, Vol. I*, Madrid, 187-205.
- BACHELOT, L. - CASTEL, C.
1992 - "Tell Mohammed Diyab (Syrie): Campagne 1992", *Nouvelles Assyriologiques Brèves et Utilitaires* 1992/4, 97-99.
- BACHMANN, W.
1927 - *Felsreliefs in Assyrien. Bawian, Maltai und Gundük*, Leipzig.
- BALL, W.
1989 - "Seh Qubba, a Roman Frontier Post in Northern Iraq", in D. H. L. FRENCH, C. S. LIGHTFOOT (eds.), *The Eastern Frontier of the Roman Empire, Proceedings of a colloquium held at Ankara in September 1988* (British Archaeological Reports/International Series 553(i), British Institute of Archaeology at Ankara Monograph 11), Oxford, 7-18.
- BASMACHI, F.
1994 - *Cylinder Seals in the Iraq Museum: Uruk and Jamdat Nasr* (Edubba 3), London.
- BESENVAL, R.
1984 - *Technologie de la voûte dans l'Orient ancien 1-2. Des origines à l'époque sasanide*, Paris.
- BEUGER, C.
2007 - *Keramik der spätfrühdynastischen bis spätassyrischen Zeit aus Assur. Eine Bearbeitungunter chronologischen Gesichtspunkten*, Berlin.
- BIANCHI, A. - FRANKE, K.A.
2011 - "Metal", in M. LEBEAU (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean, Vol. I Jezirah*, Turnhout, 201-238.
- BIELIŃSKI, P.
1994a - "Tell Rad Shaqrah 1993", *Polish Centre of Mediterranean Archaeology* 5, 154-163.
1994b - "Tell Rad Shaqrah excavations 1995", *Polish Centre of Mediterranean Archaeology* 6, 160-170.
2004 - "The 2003 Campaign of Polish-Syrian Excavations. Preliminary Report", *Polish Archaeology in the Mediterranean* 15, 335-354.
2010 - "Tell Arbid: Preliminary Report on the Result of the Twelfth Season of Syrian-Polish Excavations",

- Polish Archaeology in the Mediterranean* 19, 537-554.
- BIENKOWSKI, P.A.
1982 - "Some Remarks on the Practice of Cremation in the Levant", *Levant* 14, 80-89.
- BUCHANAN, B.
1981 - *Early Near Eastern Seals in the Yale Babylonian Collection*, New Haven.
- BUDGE, E.A.W.
1932 - *The Chronography of Bar Hebraeus*, London.
- BURINGH, P.
1960 - *Soils and Soil Conditions in Iraq*, Baghdad.
- CALDERONE, L. - WEISS, H.
2003 - "The End of the Ninevite 5 Period at Tell Leilan", in E. ROVA, H. WEISS (eds.), *The Origins of North Mesopotamian Civilization: the Ninevite 5 Chronology, Economy, Society* (Subartu IX), Turnhout, 193-220.
- CHARPIN, D. - ZIEGLER, N.
2003 - *Mari et le Proche-Orient à l'époque amorrite: essai d'histoire politique*, Paris.
- COLLON, D.
1987 - *First Impressions. Cylinder Seals in the Ancient Near East*, London.
2001a - *Catalogue of the Western Asiatic Seals in the British Museum. Cylinder Seals V. Neo-Assyrian and Neo-Babylonian Periods*, London.
2001b - "Les empreintes de la Période Ninevite 5 à Nineve", in C. BRENIQUET, C. KEPINSKI (eds.), *Études mésopotamiennes: recueil de textes offert à Jean-Louis Huot* (Bibliothèque de la Délégation Archéologique Française en Iraq 10), Paris, 121-150.
2003 - "The Ninevite 5 seal impressions from Nineveh", in E. ROVA, H. WEISS (eds.), *The Origins of North Mesopotamian Civilization: the Ninevite 5 Chronology, Economy, Society* (Subartu IX), Turnhout, 249-269.
- COPPINI, C.
2018 - "The Land of Nineveh Archaeological Project: Preliminary Results from the Analysis of the Second Millennium BC Pottery", in R.B.H. SALISBURY, F. HÖFLMAYER, T. BÜRGE (eds.), *Proceedings of the 10th International Congress on the Archaeology of the Ancient Near East. Volume 2, Prehistoric and historical landscapes & settlement patterns*, Wiesbaden, 65-82.
in press - "Settling the Land: settlements pattern and ceramics in the Land behind Nineveh from the Middle Bronze Age to the establishment of the Middle Assyrian state", in C. COPPINI, F. SIMI (eds.), *Session 6 "Marine connections: the Gulf and the interactions between the Arabian peninsula, Mesopotamia and the Iranian world and beyond"*, *Session 7 "Civilizations in contact: current research and new approaches in Mediterranean and Near Eastern archaeology"*, *Broadening Horizons 5 Proceedings*, Trieste.
- CURTIS, J.
1989 - *Excavations at Qasrij Cliff and Khirbet Qasrij* (Saddam Dam Report 10), London.
- CURTIS, J. - GREEN, A.
1997 - *Excavations at Khirbet Khatuniyeh* (Saddam Dam Report 11), London.
- CURTIS, J. - READE, J.E.
1995 - *Art and Empire. Treasures from Assyria in the British Museum*, London.
- D'AGOSTINO, A. - COPPINI, C.
2014 - "Life at the edge of the settlement: the MBA-LBA transition at the northern and southern slope of Tell Barri (NE Syria)", in P. BIELIŃSKI, M. GAWLIKOWSKI, R. KOLIŃSKI, D. ŁAWECKA, A. SOLTYSIAK, Z. WYGNAŃSKA (eds.), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East*, Wiesbaden, 272-297.
- DA CONCEIÇÃO LOPEZ, M. *et alii*
2011 - M. DA CONCEIÇÃO LOPEZ, R. CABRAL, A. GONÇALO TOMÉ, A.M. VAZ, T. COSTA, "Tell Beydar 2009 - Field C: Preliminary Report", in M. LEBEAU, A.SULEIMAN (eds.), *Tell Beydar. The 2004/2 - 2009 Seasons of Excavations, the 2004/2 - 2006 Seasons of Architectural Restoration. A Preliminary Report* (Subartu XXIX), Turnhout, 275-284.
- DE MARTINO, S.
2011 - "The 'Song of Release' Twenty-nine Years after its Discovery", *Altorientalische Forschungen* 39/2, 208-217.
- DEBEVOISE NEILSON, C.
1934 - *Parthian Pottery from Seleucia on the Tigris* (University of Michigan studies: Humanistic series 32), Ann Arbor.
- DEZZI BARDESCHI, C. - STÉNUIT, M-E.
2011 - "Chantier S: Le "Parvis Sud" (Southern Square). Campagnes 2004-2009", in M. LEBEAU, A. SULEIMAN (eds.), *Tell Beydar. The 2004/2-2009 Seasons of Excavations, the 2004/2-2006 Seasons of Architectural Restoration. A Preliminary Report* (Subartu XXIX), Turnhout, 227-274.
- DOUMET, C.
1992 - *Sceaux et cylindres orientaux: la collection Chica* (Orbis Antiquus et Orientalis 9), Fribourg.
- DUNHAM, S.
1992 - "Beads for Babies", *Zeitschrift für Assyriologie* 83/2, 237-257.
- EIDEM, J.
1985 - "News from the eastern front: the evidence from Tell Shemshara", *Iraq* 47, 83-107.

- 2011 - *The Royal Archives from Tell Leilan. Old Babylonian Letters and Treaties from the Lower Town Palace East* (Publications de l'Institut historique-archéologique néerlandais de Stamboul CVII), Leiden.
- EIDEM, J. - LAESSØE, J.
2001 - *The Shemshara. Archives. Vol. 1: The Letters*, Copenhagen.
- EISEN, G.A.
1940 - *Ancient Oriental Cylinder Seals with a Description of the Collection of Mrs. William H. Moore* (Oriental Institute Publications 47), Chicago.
- FAIVRE, X.
1992 - "La céramique de Mohammad Diyab, 1990-1991", in J.-M. DURAND (ed.), *Tell Mohammad Diyab Campagnes 1990 et 1991* (Mémoires de N.A.B.U. 2), Paris, 55-89.
- FALES, F.M. - DEL FABBRO, R.
2014 - "Back to Sennacherib's Aqueduct at Jerwan: A Reassessment of the Textual Evidence", *Iraq* 76, 65-98.
- FERRERI, S.
2014 - *Cremation Burials in North Mesopotamia in the First Millennium BC: Evidence of social differentiation in the Assyrian Empire?* (MA dissertation), Cambridge.
- FIGEY, J.M.
1965 - *Assyrie Chrétienne*, Beyrouth.
- FIORINA, P.
1997 - "Khirbet Hatara - La Stratigrafia", *Mesopotamia* XXXII, 7-62.
- FRANE, J.E.
1996 - *The Tell Leilan Period I Habur Ware Assemblage*, Ann Arbor.
- FRANKFORT, H.
1933 - *Tell Asmar, Khafaje and Khorsabad. Second Preliminary Report of the Iraq Expedition* (Oriental Institute Publications 16), Chicago.
1935 - *Oriental Institute Discoveries in Iraq, 1933/34: Fourth Preliminary Report of the Iraq Expedition* (Oriental Institute Communications 19), Chicago.
1939 - *Cylinder Seals. A Documentary Essay on the Art and Religion of the Ancient Near East*, London.
- FÜGERT, A.
2015a - *Die neuassyrische und spätbabylonische Glyptik aus Tall Sheikh Hamad* (Berichte der Ausgrabung Tall Šēḫ Ḥamad, Dūr-Katlimmu 16), Wiesbaden.
2015b - *Die neuassyrische und spätbabylonische Glyptik aus Tall Sheikh Hamad 2: Katalog und Tafeln* (Berichte der Ausgrabung Tall Šēḫ Ḥamad, Dūr-Katlimmu 16), Wiesbaden.
- GARRISON, M.B. - COOL ROOT, M.
2001 - *Seals on the Persepolis Fortification Tablets. Vol. 1. Images of Heroic Encounter* (Oriental Institute Publications 117), Chicago.
- GAVAGNIN, K. - IAMONI, M. - PALERMO, R.
2016 - "The Land of Nineveh Archaeological Project: The Ceramic Repertoire from the Early Pottery Neolithic to the Sasanian Period", *Bulletin of the American Schools of Oriental Research* 375, 119-169.
- GRAYSON, A.K. - NOVOTNY, J.
2014 - *The Royal Inscriptions of Sennacherib, King of Assyria (704-681 BC), Part 2*, Winona Lake.
- GUEST, E. (ed.)
1966 - *Flora of Iraq, Volume One: Introduction*, Baghdad.
- HALLER, A.
1954 - *Gräber und Gräfte aus Assur* (Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft 65), Berlin.
- HAMLIN, C.
1974 - "The early second millennium ceramic assemblage of Dinkha Tepe", *Iran* 12, 125-53.
- HAUSER, S.R.
1994 - *Chronologische und historisch-politische Untersuchungen zur östlichen Ġazīra in vorislamischer Zeit*, Berlin.
- HAUSLEITER, A.
1996 - *Chronologische und typologische Untersuchungen zur Neuassyrischen Keramik im Kerngebiet Assyriens* (PhD dissertation), Munich.
2010 - *Neuassyrische Keramik im Kerngebiet Assyriens. Chronologie und Formen* (Abhandlungen der Deutschen Orient-Gesellschaft 27), Wiesbaden.
- HERBORDT, S.
1992 - *Neuassyrische Glyptik des 8.7. Jh. V. Chr. Unter besonderer Berücksichtigung der Siegelungen auf Tafeln und Tonverschlüssen* (State Archives of Assyria Studies 1), Helsinki.
- HERRMANN, VI. - SCHLOEN, D.
2016 - "Assyrian Impact on the Kingdom of Sam'al: The View from Zincirli", in J. MACGINNIS, D. WICKE, T. GREENFIELD (eds.), *The Provincial Archaeology of the Assyrian Empire*, Cambridge, 265-274.
- HIROYUKI, I.
1989 - "Finds from Tell Gubba: Beads-Pendants-Rings, Glass objects, Spindle whorls, Metal and Bone objects" (in Japanese), *Al-Rafidan* X, 216-243.
2003 - "Tell Jigan and the Relationship between the Ninevite 5 and Scarlet Ware", in E. ROVA, H. WEISS (eds.), *The Origins of North Mesopotamian Civiliza-*

- tion: *Ninevite 5 Chronology, Economy, Society* (Sub-artu IX), Turnhout, 42-71.
- HIROYUKI, I. - MASANORI, K.
1989 - "The excavations at Tell Jigan by the Japanese Archaeological Expedition: A Preliminary Report on the First Season of Work", *Al-Rafidan* X, 151-195.
- HOCKMANN, D.
2010 - *Gräber und Gräfte aus Assur von der zweiten Hälfte des 3. bis zur Mitte des 2. Jahrtausends v. Chr.* (Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft 129), Wiesbaden.
- HOEY MIDDLETON, S.
1998 - *Seals, Finger Rings, Engraved Gems and Amulets in the Royal Albert Memorial Museum, Exeter*, Exeter.
- HONIGMANN, E.
1954 - *Le couvent de Barsauma et le patriarcat jacobite d'Antioche et de Syrie*, Louvain.
- HUSSEIN, M.-M. - ALTAWHEEL, M. - GIBSON, MCG. (eds.)
2016 - *Nimrud: The Queens' Tombs* (Oriental Institute Miscellaneous Publications), Chicago.
- IAMONI, M.
2016 - "Across Millennia of Occupation. The Land of Nineveh Archaeological Project in Iraqi Kurdistan: The Prehistory and Protohistory of the Upper Tigris Rediscovered", in K. KOPANIAS, J. MACGINNIS (eds.), *The Archaeology of the Kurdistan Region of Iraq and Adjacent Regions*, Oxford, 125-134.
- INGO, G.M. *et alii*
1992 - G.M. INGO, R. SCOPPIO, R. BRUNO, G. BULTRINI, "Microchemical Investigation of Early Iron Metallurgy Slags", *Mikrochimica Acta* 109, 269-280.
- JACOBSEN, TH. - LLOYD, S.
1935 - *Sennacherib's Aqueduct at Jerwan* (Oriental Institute Publications 24), Chicago.
- JAMIESON, A.S.
1999 - "Neo Assyrian Pottery from Tell Ahmar", in A. HAUSLEITER, A. REICHE (eds.), *Iron Age Pottery in Northern Mesopotamia, Northern Syria and South-eastern Anatolia* (Alttertumkunde des Vorderen Orients 10), Munster.
- KEEL-LEU, H.
1991 - *Vorderasiatische Stempelsiegel. Die Sammlung des Biblischen Instituts der Universität Freiburg Schweiz*, Freiburg/Göttingen.
- KEEL-LEU, H. - TESSIER, B.
2004 - *Die vorderasiatischen Rollsiegel der Sammlungen "Bibel+Orient" der Universität Freiburg Schweiz. The Ancient Near Eastern Cylinder Seals of the Collections "Bibel+Orient" of the University of Fribourg* (Orbis and Biblicus Orientalis 200), Freiburg.
- KELLY-BUCCELLATI, M.
1990 - "Trade in Metals in the Third Millennium: Northeastern Syria and Eastern Anatolia", in P. MATTHIAE, M. VAN LOON, H. WEISS (eds.), *Resurrecting the Past. A Joint Tribute to Adnan Bounni* (Uitgaven van het Nederlands Historisch-Archaeologisch Instituut te Istanbul 67) Istanbul, 117-132.
- KIST, J.
2003 - *Ancient Near Eastern Seals from the Kist collection* (Culture and History of the Ancient Near East 18), Leiden/Boston.
- KLEIN, H.
1992 - *Untersuchung zur Typologie bronzzeitlicher Nadeln in Mesopotamien und Syrien* (Schriften zur Vorderasiatische Archäologie 4), Saarbrücken.
- KLENGEL-BRANDT, E.
2014 - *Die neuassyrische Glyptik aus Assur* (Ausgrabungen der Deutschen Orient-Gesellschaft in Assur 7), Wiesbaden.
- KOLIŃSKI, R.
2000 - *Tell Rijim, Iraq. The Middle Bronze Age Layers* (British Archaeological Reports/International series 837), Oxford.
2011 - "Tell Arbid Adam Mickiewicz University Excavations in Sector P, Spring Season of 2008", *Polish Archaeology in the Mediterranean* 20, 301-317.
2012 - "Adam Mickiewicz University excavations in Sector P at Tell Arbid (spring 2009)", *Polish Archaeology in the Mediterranean* 21, 537-557.
2013 - "Tell Arbid. Adam Mickiewicz University excavations in Sector P (spring season of 2010)", *Polish Archaeology in the Mediterranean* 22, 451-478.
2018 - "An Archaeological Reconnaissance in the Greater Zab Area of the Iraqi Kurdistan (UGZAR) 2012-2015", in R. B. SALISBURY (ed.), *Proceedings of the 10th International Congress on the Archaeology of the Ancient Near East Volume 2 Prehistoric and Historical Landscapes & Settlement Patterns*, Wiesbaden, 13-26.
- KREPPNER, F.J.
2006 - *Die Keramik des "Roten Hauses" von Tall Šēḫ Ḥamad, Dūr-Katlimmu. Eine Betrachtung der Keramik Nordmesopotamiens aus der zweiten Hälfte des 7. und aus dem 6. Jh. v. Chr.* (Berichte der Ausgrabung Tall Šēḫ Ḥamad, Dūr-Katlimmu 7/1-2), Wiesbaden.
2008 - "Eine außergewöhnliche Brandbestattungssitte in Dūr-Katlimmu während der ersten Hälfte des ersten Jt. v. Chr.", in D. BONATZ, R. M. CZICHON, F. J. KREPPNER (eds.), *Fundstellen. Gesammelte Schriften zur Archäologie und Geschichte Altvorderasiens ad honorem Hartmut Kühne*, Wiesbaden, 263-276.
2014 - "The New Primary Cremation Custom of Iron Age Tell Sheikh Hamad/Dūr-Katlimmu (North-East-

- ern Syria)", in P. PFÄLZNER, H. NIEHR, E. PERNICKA, S. LANGE, T. KÖSTER (eds.), *Contextualising Grave Inventories in the Ancient Near East. Proceedings of a Workshop at the London 7th ICAANE in April 2010 and an International Symposium in Tübingen in November 2010, both Organised by the Tübingen Post-Graduate School „Symbols of the Dead“* (Qatna-Studien Supplementa 3), Wiesbaden, 171-186.
- KÜHNE, H. (ed.)
2005 - *Magdalu/Magdala. Tall Šēh Hamad von der postassyrischen Zeit bis zur römischen Kaiserzeit* (Berichte der Ausgrabung Tall Šēh Ḥamad, Dür-Katlimmu 2), Berlin.
- KULEMANN-OSSSEN, S. - MARTIN, L.
2000 - "Tell Knedig: A Rural Site in the Iron Age", in G. BUNNENS (ed.), *Essays on Syria in the Iron Age* (Ancient Near Eastern Studies Supplement 7), Louvain, 487-503.
- LE GOFF, I.
2005 - "À propos de la nécropole à incinération de Tell Shioukh Faouqâni (Syrie): recherche des séquences temporelles du protocole funéraire", *Ktema* 30, 21-27.
- LIEBOWITZ, H. - FOLK, R.
1984 - "The Dawn of Iron Smelting in Palestine: the Late Bronze Age Smelter at tel Yi'nam. Preliminary Report", *Journal of Field Archaeology* 11, 265-280.
- LUCIANI, M.
2005 - "Area G: the Iron Age Productive Area (Period IX) and the Inhumation Cemetery (Period X)", in L. BACHELOT, F. M. FALES (eds.), *Tell Shiukh Fawqani 1994-1998* (History of the Ancient Near East, Monographs 6), Padova, 719-983.
2016 - "Iron Smelting and Smithing in Northern Syria: The Context and Its Interpretation", in I. THUESEN (ed.), *Proceedings of the 2nd International Congress on the Archaeology of the Ancient Near East 22-26 May 2000, Copenhagen. Volume 1, The Environment, Images of Gods and Humans, The Tell, Excavation Reports and Summaries, Varia* (Chronology, Technology, Artifacts) (OrientLab Special Issue), Bologna, 823-838.
- LUTZ, M. - TIETZE, CH.
1992 - "Ausgrabungen auf dem Tell Abu Hgaira", *Altorientalische Forschungen* 19/2, 247-258.
- MACGINNIS, J. - KREPPNER, F. J.
2016 - "C3. The Eastern Trench", in K. RADNER, F. J. KREPPNER, A. SQUITIERI (eds.), *Exploring the Neo-Assyrian Frontier with Western Iran. The 2015 Season at Gird-i Bazar and Qalat-i Dinka* (Peshdar Plain Project Publications 1), Gladbeck, 53-61.
- MALLOWAN, M.E.L.
1937 - "The excavations at Chagar Bazar and an archaeological survey of the Ḥabur region, second campaign, 1936", *Iraq* 4, 91-177.
- MARCHETTI, N.
1996 - "The Ninivite 5 Glyptic of the Khabur Region and the Chronology of the Piedmont Style Motives", *Baghdader Mitteilungen* 27, 81-115.
- MARCUS, M.
1996 - *Emblems of Identity and Prestige. The Seals and Sealings from Hasanlu, Iran* (University Museum monograph/University of Pennsylvania Museum of Archaeology and Anthropology 84; Hasanlu special studies 3), Philadelphia.
- MATNEY, T. *et alii*
2017 - T. MATNEY, J. MACGINNIS, D. WICKE, K. KÖROĞLU, *Ziyaret Tepe: Exploring an Anatolian frontier of the Assyrian Empire*, Istanbul.
2002 - T. MATNEY, M. ROAF, J. MACGINNIS, H. McDONALD, "Archaeological Excavations at Ziyaret Tepe, 2000 and 2001", *Anatolica* 28, 47-89.
- MATNEY, T. - RAINVILLE, L.
2005 - "Archaeological Investigations at Ziyaret Tepe, 2003-2004", *Anatolica* 31, 19-68.
- MATTHEWS, D.M.
1990 - *Principles of composition in Near Eastern Glyptic of the Later Second millennium BC* (Orbis Biblicus et Orientalis/Series archaeologica 8), Freiburg Schweiz/Göttingen.
- MAYER-OPIFICIUS, R.
1986 - "Bemerkungen zur Mittlassyrischen Glyptik des 13. und 12. Jhd. V. Chr.", in M. KELLY BUCCELLATI (ed.) *Insight through Images. Studies in Honor of Edith Porada* (Bibliotheca Mesopotamica 21), Malibu, 161-169.
- MCCARTHEY, A.P.
2011 - "Glyptic", in M. LEBEAU (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean, Vol. I Jezirah*, Turnhout, 287-300.
- MCMAHON, A.
2009a - "Chapter 2. Community Buildings: Architecture in Area A", in A. MCMAHON, C. COLANTONI, J.E. FRANE, A. SOLTYSIAK, *Once There was a Place. Settlement Archaeology at Chagar Bazar, 1999-2002*, London, 29-62.
2009b - "Chapter. 4. Chagar Bazar Burial Practices", in A. MCMAHON, C. COLANTONI, J.E. FRANE, A. SOLTYSIAK, *Once There was a Place. Settlement Archaeology at Chagar Bazar, 1999-2002*, London, 109-128.
2013 - "Tell Brak. Early Northern Mesopotamian Urbanism, Economic Complexity and Social Stress, Fifth-Fourth Millennia BC", in D. BONATZ, M. LUTZ (eds.), *100 Jahre Archäologische Feldforschungen in Nordost-Syrien-Eine Bilanz* (Schriften der Max

- Freiherr von Oppenheim-Stiftung 18), Berlin, 65-78.
- MCMAHON, A. - COLANTONI, C.
2009 - "Chapter 3. Neighbourhood Dynamics: Area G and Mallovan's Area BD", in A. MCMAHON, C. COLANTONI, J.E. FRANE, A. SOLTYSIAK, *Once There was a Place. Settlement Archaeology at Chagar Bazar, 1999-2002*, London, 63-108.
- MCMAHON, A. *et alii*
2007 - A. MCMAHON, J. OATES, S. AL-QUNTAR, M. CHARLES, C. COLANTONI, M.M. HALD., P. KARSGAARD, L. KHALIDI, A. SOLTYSIAK, A. STONE, J. WEBER, "Excavations at Tell Brak 2006-2007", *Iraq* 69, 145-71.
- MENZE, B.H. - UR, J.A.
2012 - "Mapping patterns of long-term settlement in Northern Mesopotamia at a large scale", *Proceedings of the National Academy of Sciences of the United States of America*, 109:E778-E787. DOI:10.1073/pnas.1115472109.
- MERRILLEES, P.H.
2005 - *Catalogue of the Western Asiatic Seals in the British Museum. Cylinder Seals VI. Pre-Achaemenid and Achaemenid Periods*, London.
- MIARKOVÁ, D.
2016 - *Burials of Infants and Children in the Khabur Region and Eski Mosul Region during the Third Millennium BC* (BA dissertation), Brno.
- MIGLUS, P. *et alii*
2013 - P. MIGLUS, U. BÜRGER, R.A. FETNER, S. MÜHL, A. SOLLEE, "Excavations at Bakr Awa 2010 and 2011", *Iraq* 75, 43-88.
- MILANO, L. (ed.)
1991 - *Mozan 2. The Epigraphic Finds of the Sixth Season* (Monographic Journals of the Near East Syro-Mesopotamian Studies 5/1), Malibu.
- MITCHELL, T.C. - SEARIGHT, A.
2008 - *Catalogue of the Western Asiatic Seals in the British Museum. Stamp Seals III. Impressions of Stamp Seals on Cuneiform Tablets, Clay Bullae, and Jar Handles*, Leiden-Boston.
- MOOREY, P.R.S.
1980 - *Cemeteries of the First Millennium B.C. at Deve Hüyük, near Carchemish, salvaged by T.E. Lawrence and C.L. Woolley in 1913* (British Archaeological Reports/International Series 87), Oxford.
1985 - *Materials and manufacture in ancient Mesopotamia: the evidence of archaeology and art. Metals and Metalwork, glazed material and glass* (British Archaeological Reports International Series 237), Oxford.
- MORANDI BONACOSSO, D.
2012-2013 - "Il paesaggio archeologico nel centro dell'impero assiro. Insediamento e uso del territorio nella 'Terra di Ninive'", *Atti dell'Istituto Veneto di Scienze, Lettere ed Arti. Classe di scienze morali, lettere ed arti* 171, 181-223.
2016 - "The Land of Nineveh Archaeological Project. Assyrian Settlement in the Nineveh Hinterland: a View from the Centre", in J. MACGINNIS *et alii* (eds.), *The Provincial Archaeology of the Assyrian Empire*, Cambridge, 141-150.
2018a - "Water for Nineveh. The Nineveh Irrigation System in the Regional Context of the 'Assyrian Triangle': A First Geoarchaeological Assessment", in H. KÜHNE (ed.), *Water for Assyria* (Studia Chaburensia 7), Wiesbaden, 77-115.
2018b - "The Creation of the Assyrian Heartland: New Data from the 'Land Behind Nineveh'", in B. S. DÜRING, T.D. STEK (eds.), *The Archaeology of Imperial Landscapes. A Comparative Study of Empires in the Ancient Near East and Mediterranean World*, Cambridge, 48-85.
- MORANDI BONACOSSO, D. - IAMONI, M.
2015 - "Landscape and Settlement in the Eastern Upper Iraqi Tigris and Navkur Plains: The Land of Nineveh Archaeological Project, Seasons 2012-2013", *Iraq* 77, 9-39.
- MUNCHAEV, R.M. - MERPERT, N.I. - AMIROV, S.N.
2004 - *Tell Khazna I. A cultural and Administrative Centre of the 4th and 3rd Millennia BC in Northeastern Syria*, Moscow.
- NEU, E.
1996 - *Das hurritische Epos der Freilassung I* (Studien zu den Boğazköy-Texten 32), Wiesbaden.
- NEUMANN, G.
2005 - "Architektur und Stratigraphie der seleukidischen und partisch-römischen Siedlung auf der Zitadelle nach den Grabungen von 1987-88", in H. KÜHNE (ed.), *Magdalu/Magdala. Tall Šēh Hamad von der postassyrischen Zeit bis zur römischen Kaiserzeit*, Berlin, 59-90.
2016 - *Altorientalische Siegel und Keilschriftdokumente im Archäologischen Museum der Westfälischen Wilhelms-Universität Münster* (Veröffentlichungen des Archäologischen Museums der Westfälischen Wilhelms Universität Münster 6/Altertumskunde des Vorderen Orients 20), Münster.
- NOVÁČEK, K. *et alii*
2016 - K. NOVÁČEK, M. MELČÁK, L. STARKOVÁ, N. ALI MUHAMMAD AMIN, *Medieval Urban Landscape in Northeastern Mesopotamia*, Oxford.
- NUMOTO, H.
1988 - "Excavations at Tell Fisna" (in Japanese), *Al-Rafidan* IX, 1-72.

- NUNN, A.
1999 - *Stamp Seals from the Collections of the Aleppo Museum, Syrian Arab Republic* (British Archaeological Reports/International series 804), Oxford.
- OATES, D.
1966 - "The Excavations at Tell al Rimah, 1965", *Iraq* 28, 122-139.
- OATES, D. - MACDONALD, H. - OATES, J. (eds.)
1997 - *Excavations at Tell Brak Volume I. The Mitanni and Old Babylonian Periods*, London.
- OATES, J.
1959 - "Late Assyrian pottery from Fort Shalmaneser", *Iraq* 21, 130-146.
2012 - "Early Administration Arslantepe and Tell Brak (Ancient Nagar)", *Origini* XXXIV, 169-78.
- OTTO, A.
2004 - *Tall Bi'a/Tuttul-IV. Siegel und Siegelabrollungen* (Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft 104), Saarbrücken.
- PALERMO, R.
2016 - "Filling the Gap: The Upper Tigris Region from the Fall of Nineveh to the Sasanians. Archaeological and Historical Overview through the Data of the Land of Nineveh Archaeological Project", in K. KOPANIAS, J. MACGINNIS (eds.), *The Archaeology of the Kurdistan Region of Iraq and Adjacent Regions*, Oxford, 277-295.
- PARAYRE, D.
2003 - "The Ninevite 5 Sequence of Glyptic at Tell Leilan", in E. ROVA, H. WEISS (eds.), *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society* (Subartu IX), Turnhout.
- PARPOLA, A.
2018 - "Indus Seals and Glyptic Studies: An Overview", in M. AMERI, S. KIELT COSTELLO, G. JAMISON, S. JARMER SCOTT (eds.), *Seals and Sealing in the Ancient World. Case Studies from the Near East, Egypt, the Aegean, and South Asia*, Cambridge, 127-143.
- PEDDE, F.
2000 - *Vorderasiatische Fibeln. Von der Levante bis Iran* (Abhandlungen der Deutschen Orient-Gesellschaft 24), Saarbrücken.
- PFÄLZNER, P. - QASIM, H.A.
2017 - "The First and Second Seasons of the German-Kurdish Excavations at Bassetki in 2015 and 2016", *Zeitschrift für Orient-Archäologie* 10, 10-43.
- PFÄLZNER, P. *et alii*
2017 - P. PFÄLZNER, H.A. QASIM, P. SCONZO, I. PULJIZ, "Report on the First Season of German-Kurdish Excavations at Muqable in 2015", *Zeitschrift Für Orient-Archäologie* 10, 44-96.
- PITTMAN, H.
2019 - "Glyptic Art of the Tigridian Region", in E. ROVA (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean. Vol. V Tigridian Region*, Turnhout, 289-353.
- POLLOCK, S.
2012 - "Politics of Food in Early Mesopotamian Centralized Societies", *Origini* 34, 153-168.
- POSTGATE, C. - OATES, D. - OATES, J.
1997 - *The Excavations at Tell al Rimah. The Pottery* (Iraq Archaeological Reports 4), Warminster.
- PULHAN, G.
2000 - *On the Eve of the Dark Age. Qarni-Lim's Palace at Tell Leilan*, Ann Arbor.
- RADNER, K.
2006 - "Provinz. C. Assyrien", *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 11/1-2, Berlin/New York, 42-68.
- READE, J.E.
1978 - "Studies in Assyrian Geography. Part 1: Sennacherib and the Waters of Nineveh and Part 2", *Revue d'Assyriologie* 72, 47-72 and 157-180.
1995 - "Magan and Meluhhan merchants at Ur", in U. FINKBEINER, R. DITTMANN, H. HAUPTMANN (eds.), *Beiträge zur Kulturgeschichte Vorderasiens. Festschrift für Rainer Michael Boehmer*, Mainz, 597-600.
- READE, J.E. - ANDERSON, J.R.
2013 - "Gunduk, Khanes, Gaugamela, Gali Zardak: notes on Navkur and nearby rock-cut sculptures in Kurdistan", *Zeitschrift für Assyriologie* 103/1, 68-122.
- RIIS, P.J.
1948 - *Fouilles et Recherches de la fondation Carlsberg 1931-1938. Les cimetières à cremation* (Hama 2, 3), Copenhagen.
- ROAF, M.
1983a - "A Report on the Work of the British Archaeological Expedition in the Eski Mosul Dam Salvage Project from November 1982 to June 1983", *Sumer* 39, 68-82.
1983b - "Catalogue of the Registered Objects from Tell Mohammed 'Arab'", *Sumer* 39, 83-94.
- ROMANO, L.
2015 - *Simposio e banchetto nella Mesopotamia del Protodinastico*, Pisa-Roma.
- ROVA, E.
2011 - "Ceramics", in M. LEBEAU (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean. Vol. I Jezirah*, Turnhout, 49-127.

- RUTKOWSKY, L.
2018 - "Metal" in E. ROVA (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean. Vol. V Tigridian Region*, Turnhout, 171-215.
- SALJE, B.
1995 - "Zur Bedeutung von Siegeln im Leben und im Tode. Glyptikfunde aus Gräbern der neu bis spät-babylonischen Zeit in Uruk (Tafeln 46-49)", in U. FINKBEINER, R. DITTMANN, H. HAUPTMANN (eds.), *Beiträge zur Kulturgeschichte Vorderasiens. Festschrift für Rainer Michael Boehmer*, Mainz, 601-613.
- SCHMIDT, C.
2013 - *Ausgrabungen 1998-2001 in der Zentralen Oberstadt von Tall Mozan/Urkeš. Die Keramik der Früh-Ĝazīra V-bis Alt-Ĝazīra II-Zeit vom Tall Mozan (Studien zur Urbanisierung Nordmesopotamiens A 4)*, Wiesbaden.
- SCHWARTZ, G.M. *et alii*
2017 - G.M. SCHWARTZ, C.D. BRINKER, A.T. CREEK-MORE, M.H. FELDMAN, A. SMITH, J.A. WEBER, "Excavations at Kurd Qaburstan, a Second Millennium B.C. Urban Site on the Erbil Plain", *Iraq* 79, 213-255.
- SEEHER, J.
1993 - "Körperbestattung und Kremation - ein Gegensatz?", *Istanbuler Mitteilungen* 43, 219-226.
- SEIDL, U.
1979 - "Die Siegelbilder", in W. KLEISS (ed.), *Bastam I: Ausgrabungen in den urartäischen Anlagen 1972-1975* (Teheraner Forschungen 4), Berlin, 137-149.
1988 - "Die Siegelbilder", in W. KLEISS (ed.), *Bastam II: Ausgrabungen in den urartäischen Anlagen 1972-1975* (Teheraner Forschungen 5), Berlin, 146-154.
- SIMI, F.
2019 - *The Tell Gomel Archaeological Survey. Surface Research and Off-Site Investigations in the Heart of the Navkur Plain, Iraqi Kurdistan* (Unpublished PhD Dissertation, Ca' Foscari University of Venice), Venezia.
in press - "The Tell Gomel Archaeological Survey. Preliminary results of the 2015-2016 campaigns" in C. COPPINI, F. SIMI (eds.), *Session 6 "Marine connections: the Gulf and the interactions between the Arabian peninsula, Mesopotamia and the Iranian world and beyond"*, *Session 7 "Civilizations in contact: current research and new approaches in Mediterranean and Near Eastern archaeology"*, Broadening Horizons 5 Proceedings, Trieste.
- SIMPSON, ST.J.
2007 - *Ancient Settlement in the Zammar Region, Vol. 2. Excavations at Abu Dhahir*, BAR International Series 1724, Oxford.
- SPANOS, P.Z.
1990 - "Ausgrabungen in Tall Hamad Aga as-Saghir 1988", *Mitteilungen der Deutschen Orient-Gesellschaft* 122, 268-270.
- SPANOS, P.Z. - BLAHA, C.
1992 - "Die Ausgrabungen in Tell Hamad Aga as-Saghir 1990", *Baghdader Mitteilungen* 23, 87-115.
- SPEISER, E.A.
1933 - "The Pottery of Tell Billa", *Museum Journal* 23, 249-308.
1935 - *Excavations at Tepe Gawra. I, Levels I - VIII joint exhibition of the Baghdad School, the University Museum, and Dropsie College to Mesopotamia. Vol. I* (Publications of the Baghdad School Excavations 1), Philadelphia.
- STEIN, A.
1942 - "Notes on Alexander's Crossing of the Tigris and the Battle of Arbela", *Geographical Journal* 100, 155-164.
- STEIN, D.L.
1984 - *Khabur Ware and Nuzi Ware: Their Origin, Relationship and Significance* (Assur 4/1), Malibu.
- STONE, A.B.
2016 - "C4. The Connecting Trench", in K. RADNER, F.J. KREPPNER, A. SQUITIERI (eds.), *Exploring the Neo-Assyrian Frontier with Western Iran. The 2015 Season at Gird-i Bazar and Qalat-i Dinka* (Peshdar Plain Project Publications 1), Gladbeck, 62-70.
- STONE, E.C.
1987 - *Nippur Neighborhoods* (Studies in Ancient Oriental Civilization 44), Chicago.
- STRONACH, D.
1959 - "The Development of the Fibula in the Near East", *Iraq* 21, 181-206.
TAVO AIV-4 *Vorderer Orient. Mittlere Jahresniederschläge und Variabilität*.
TAVO AIV-5 *Vorderer Orient. Niederschlagsverläßlichkeit*.
- TEISSIER, B.
1994 - *Sealings and Seals on Texts from Kultepe Karum Level 2* (Uitgaven van het Nederlands Historisch-Archaeologisch Instituut te Istanbul, 70), Istanbul.
- TENU, A. - BACHELOT, L.
2005 - "La nécropole de Tell Shiukh Fawqani", *Ktema* 30, 11-14.
- TOBLER, A.J.
1950 - *Excavations at Tepe Gawra. Vol. II. Levels IX - XX: Joint Expedition of the Baghdad School and the University Museum to Mesopotamia/joint exhibition of the Baghdad School, the University Museum, and Dropsie College to Mesopotamia*, Philadelphia.
- TONUSSI, M.
2008 - "Metal Workshops and Metal Finds from 3rd

- Millennium Tell Beydar/Nabada (1992-2005 Seasons)", in M. LEBEAU, A. SULEIMAN (eds.), *Beydar Studies 1* (Subartu XXI), Turnhout, 195-258.
- TUNCA, Ö.
1979/1980 - *Catalogue de Sceaux-Cylindres du Musée Régional d'Adana* (Syro-Mesopotamian Studies 3), Malibu.
- TYLECOTE, R.F.
1980 - "Furnaces, Crucibles, and Slags", in T.A. WERTIME, J.D. MUHLY (eds.), *The Coming of the Age of Iron*, London, 183-228.
- UR, J.A. - HAMMER, E.
2018 - *Spatial Index of U2 Aerial Photography of the Middle East, 1958-1960*, Cambridge.
- VALENTINI, S.
2003 - "Le pratiche e l'ideologia funeraria a Tell Barri/Kahat durante il Bronzo Medio, in relazione all'area siro-mesopotamica settentrionale", *Studi Micenei ed Egeo-Anatolici* 45/2, 273-305.
2006 - *Usi e costumi funerari nella regione del Medio e Alto Khabur durante la prima metà del III Millennio a.C.* (Unpublished PhD Dissertation), Firenze.
2011 - "Burials and funerary practices" in M. LEBEAU (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean. Vol. I Jezirah*, Turnhout, 261-275.
2018 - "Burials and Funerary Practices", in E. ROVA (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean. Vol. V, Tigridian Region*, Turnhout, 273-288.
- VALLET, R. *et alii*
2017 - R. VALLET, J.S. BALDI, H. NACCARO, K. RASHEED, S.A. SABER, S.J. HAMARASHEED, "New evidence on Uruk expansion in the Central Mesopotamian Zagros Piedmont", *Paléorient* 43/1, 61-87.
- VAN BEEK, G.W.
1987 - "Archi e volte nell'Antico Vicino Oriente", *Le Scienze* 229, 82-90.
- VIDAL, J.
2013 - "Kill them all!" Some Remarks on the Annihilation of the Ya'ilanum Tribe (1781 B.C.E.)", *Journal of the American Oriental Society* 133/4, 683-689.
- VOLLENWEIDER, M.-L.
1967 - *Catalogue raisonné des sceaux cylindres et intailles 1*, Genève.
- WALLENFELS, R.
2016 - *Hellenistic Seal Impressions in the Yale Babylonian Collection. Ring-Bullae and other Clay Sealings* (Catalogue of the Babylonian collections at Yale 5), Bethesda.
- WEISS, H. *et alii*
1990 - H. WEISS, P.M.M.G. AKKERMANS, G. STEIN, D. PARAYRE, R. WHITING, "1985 Excavations at Tell Leilan, Syria", *American Journal of Archaeology* 94, 529-581.
- WICKE, D.
2013 - "Itti niše^{bur} Aššur amnušunuti. 'Zu den Leuten Assyriens zählte ich sie'. Beobachtungen zum kulturellen Austausch am Oberen Tigris in neuassyrischer Zeit", in TH. R. KÄMMERER, S. ROGGE (eds.), *Patterns of Urban Societies* (Acta Antiqua Mediterranea et Orientalia 2), Münster, 233-254.
2016 - "Connecting seals-seals connecting: the FSV group of Iron Age knobbed stamp-seals" in J. MACGINNIS, D. WICKE, T. GREENFIELD (eds.), *The Provincial Archaeology of the Assyrian Empire*, Cambridge, 85-96.
- WIGGERMANN, F.A.M.
1993/97 - "Mischwesen. A. Philologisch (Mesopotamien)", *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 8, Berlin/New York, 222-245.
- WILHELM, G.
2001 - "Das hurritisch-hethitische 'Lied der Freilassung'", in O. KAISER (ed.), *Texte aus der Umwelt des Alten Testaments*, Gütersloh, 82-91.
- WILKINSON, T.J.
2004 - *On the Margin of the Euphrates: Settlement and Land Use at Tell es-Sweyhat and in the Upper Lake Assad Area, Syria*, Chicago.
- WILKINSON, T.J. - HRITZ, C.
2013 - "Physical Geography, Environmental Change and the Role of Water", in T.J. WILKINSON, M. GIBSON, W. MAGNUS (eds.), *Models of Mesopotamian Landscapes: How small-scale processes contributed to the growth of early civilizations*, Oxford, 9-33.
- WIRTH, E.
1962 - *Agrargeographie des Irak*, Hamburg.
- WOOLLEY, L.
1939-40 - "The Iron-Age Graves of Carchemish", *Liverpool Annals of Archaeology and Anthropology* 26, 11-37.
- YAMAZAKI, Y.
2010 - "An Aspect of the Ubaid Intrusion in the Syrian Upper Euphrates Valley", in R. CARTER, G. PHILIP (eds.), *Beyond the Ubaid: transformation and integration in the late prehistoric societies of the Middle East. Papers from "The Ubaid expansion? Cultural meaning, identity and the lead-up to urbanism"* (Studies in Ancient Oriental Civilization 63), Chicago, 311-28.
- ZIEGLER, N.
2004 - "The conquest of the holy city of Nineveh and the kingdom of Nurrugûm by Samsî-Addu", *Iraq* 66, 19-26.
2011 - "Die Osttigrisregion im Spiegel der Archive von Mari", in P.A. MIGLUS, S. MÜHL (eds.), *Between the Cultures. The Central Tigris Region from the 3rd to the 1st Millennium BC*, Heidelberg, 143-155.

