Bridging the Gap:
Disciplines, Times, and Spaces in Dialogue

Volume 3

Sessions 4 and 6 from the Conference Broadening Horizons 6 Held at the Freie Universität Berlin, 24–28 June 2019

Edited by
Costanza Coppini, Georg Cyrus,
and Hamaseh Golestaneh

BROADENING HORIZONS 6

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Foreword

These volumes represent the proceedings of the conference Broadening Horizons 6, hosted by the Institute for Ancient Near Eastern Studies and the Institute for Near Eastern Archaeology at the Freie Universität Berlin from 24–28 June 2019. Taking the long-standing partnership of the two institutes and the multidisciplinary tradition of Ancient Studies in Berlin as inspiration, the general theme of 'Bridging the Gap' was chosen to encourage approaches to the study of the Ancient Near East which transcend traditional disciplinary boundaries in bringing a range of evidence and methods into dialogue.

The Berlin conference was fortunate to include over 100 papers presented by participants from over 22 countries and 70 universities. These were divided into eight thematic sessions, each framed by an introductory keynote. Since its first incarnation at the University of Ghent in 2006, Broadening Horizons has developed into a regular venue for young scholars in the field. In many respects, it remains the only conference of its kind, taking both 'ancient' and 'Near East' in the broadest sense possible, from the prehistoric to the Islamic periods. It is a particular point of pride that the conference is not confined by field, but remains open to any philological, archaeological, and methodological approaches to the material. As a conference for and organized by young scholars, it thus provides a uniquely wide snapshot of current work.

Berlin was chosen as a venue for Broadening Horizons 6 by the members of the Organizing Committee of the previous conference that took place in Udine in 2017, and to whom we are grateful. In agreement between the two committees and in the spirit of international cooperation, the organization of the conference in Berlin also included members of the preceding one. We are happy to express our enormous thanks to the institutions and persons without whose support the conference, and these proceedings, would not have been possible. Funding for the conference was provided by the German Research Foundation (DFG), the Office of International affairs of the Freie Universität Berlin, and the Ernst-Reuter Gesellschaft. The university's administration and staff, the Department of History and Cultural Studies, Prof. Dominik Bonatz (Institute for Near Eastern Archaeology), and Prof. Jörg Klinger (Institute for Ancient Near Eastern Studies) all provided generous logistic and administrative support during the organization and the conference itself. Rana Zaher designed our brilliant logo, which contributed greatly both to conference identity and now the cover of these volumes. Members of our Scientific Committee, some of whom joined us during the conference, provided generous advice and encouragement.

The smooth and timely flow of the individual sessions was largely due to the tireless efforts of the numerous student assistants and session chairs. It is only fitting that we mention here explicitly the catering and hosting offered by Cosimo Dalessandro and the Ristorante Galileo, which has long since become an institution of its own within the Freie Universität Berlin, and which kept the breaks of the conference amply supplied with coffee and refreshments. The conference's opening and closing events hosted at the Museum Europäischer Kulturen (MEK) by EßKultur provided the ideal setting for social interaction and exchange.

These volumes were only possible due to the perseverance of the participants who submitted their contributions despite the closure of libraries, difficulties in accessing resources, and the many hardships

the pandemic imposed on our lives in 2020 and 2021. Our thanks are due especially for their heroic efforts in the timely submission of their papers during a most difficult year. We also express our sympathy and understanding to those who decided to withdraw their papers as a result of the imposed limitations. Finally, we are especially grateful to the many referees who graciously agreed to donate their time and efforts to the reviews, even as their crucial contributions remain anonymous.

Costanza Coppini
Georg Cyrus
Hamaseh Golestaneh
Christian W. Hess
Nathalie Kallas
Federico Manuelli
Rocco Palermo

Berlin, 18 July 2021

Introduction

Costanza Coppini, Georg Cyrus, and Hamaseh Golestaneh

The third volume of the proceedings of the conference 'Broadening Horizons 6 — Bridging the Gap' gathers the papers presented in two sessions: 'Session 4 — Crossing Boundaries: Connectivity and Interaction' and 'Session 6 — Landscape and Geography: Human Dynamics and Perceptions'. The contributions clearly represent the broad and very diverse geographic areas of the Near East, where despite the quite distinct landscapes the cultures seem to have been well-connected and to have widely interacted across this vast territory.

The topic of Session 4, 'Crossing Boundaries: Connectivity and Interaction', is clearly reflected in the papers dealing with interactions and connectivity patterns on different levels, for instance in long-distance relations. Two contributions present the contacts between the Arabian Peninsula on the one hand — specifically the Oman Peninsula — and the Indus Valley and the Persian Gulf on the other, respectively during the Iron Age (Fernández Rodríguez) and the Seleucid period (Pachón Barragán).

Further contributions address the topic of the session on a regional level, in which the interacting of local communities in delimited regions is discussed by Luca Forni with Roberto Arciero as well as by Dan Socaciu. In Forni and Arciero's paper the region of Murghab (Southern Turkmenistan) sets the stage for the analysis of the remarkable material culture of Togolok 1: they propose an interesting interpretation about the interaction of the semi-mobile communities of Togolok with the neighbouring sedentary communities, thus showing how neat boundaries between these societies were probably non-existent. Another case study on the regional level is offered by Socaciu's investigation of the interaction in political entities such as kingdoms, empires, and states by observing the distribution of the rock-carved inscriptions in the Urartian territories. The study highlights one specific aspect of connectivity and interaction on a state-level and points out the value of detailed investigations of the two topics of Session 4.

Besides landscapes and political systems, interaction and connectivity can also be traced in material culture, as Valentina Oselini shows in her contribution on 2nd millennium BC pottery in Mesopotamia. The author highlights the identification of two vast and very different pottery macro-regions, pinpointing distinctions between the Northern Mesopotamian ceramic tradition, characterised by an abundance of painted pottery, and the Southern Mesopotamian ceramic tradition, which is more complex and characterised by the presence of plain pottery. Nonetheless, points of contact can be detected, as the author shows in her paper.

Boundary-crossings and indications of connectivity and interactions are significantly mirrored in visual art, which plays an important role in the interpretation of underlying contexts and circumstances. In this regard, the multi-disciplinary approach of Sevil Çonka inspects female-figured statues (caryatids) that occur as architectural elements in Eastern Mediterranean and Greco-Roman buildings, evoking a possible precursor in Egyptian and Cypriot peers for these elements, namely Hathoric columns, and delving into potential socio-cultural settings for this motif. In the sphere of female figures, Mari Yamasaki focuses on the representations of sea goddesses. She highlights common traits of these

feminine deities, comparing their representations from the Levant and the Aegean in the Late Bronze and Early Iron Ages, and pinpoints the cultural hybridisation resulting from the encounter between the individual traditions of various places of provenance.

When it comes to connectivity and interaction in the ancient world, it is almost inevitable to think of Egypt and its diplomatic relations to other contemporary political powers. Along these lines, Marco De Pietri analyses — by means of valuable textual sources such as the Amarna letters — the profile of messengers and envoys appointed for official communication between the Egyptian and Hittite empires.[1] As this research effectively demonstrates, the diverse and cosmopolitan environment surrounding these officials, who possess different titles and designations, is indeed significant, and the knowledge of it certainly broadens our horizons regarding the agents involved in the interactions between Egypt, Anatolia, and Northern Syria. Another topic relating to Late Bronze Age Egypt and its relationship with Levant and Mesopotamia is the role of deportation policies in internal and international affairs: this is the subject of Christian Langer's contribution. Deportees, who were gained through wars and through political treaties with Levantine vassal states, played a very significant role in the economy of the New Kingdom, and Langer's contribution provides crucial data about their position in the economy and the society of Egypt during the Late Bronze Age.

In Session 6 ('Landscape and Geography: Human Dynamics and Perceptions'), various aspects of human dynamics in landscapes are illustrated from different perspectives. Felix Levenson and Monica Pacheco offer an interesting comparison of two very different landscapes: starting from the analysis of high temples in Mesopotamia (Levenson) and Mesoamerica (Pacheco), they highlight the similar interpretations provided in the history of research, and thus enter the sphere of cross-cultural similarities. The understanding of interactions in a settlement area is the main focus of Maria Tamburrini's contribution investigating the Southern Levant shortly after the so-called Late Bronze Age collapse. She identifies how intensively the settlement patterns are connected to the river system in the Southern Levant, criticising models of site hierarchy previously used to explain the society in the Early Iron Age. This study combines different views on connectivity and interaction and underlines the importance of landscape in reconstructing a society.

Another important aspect of the analysis of landscapes is their social construction. This concerns, for instance, their connection to religious practices, and was most famously emphasised by Tilly, although criticised in actual landscape studies for being not well-founded enough.[2] Francesca Giusto fills this gap in her paper about the Hellenistic and Parthian mountain sanctuary of Shami in Khuzestan, Iran, contextualising the religious site within a wider settlement area and describing methodological challenges in reconstructing such areas.

Southern Mesopotamia in ancient times, blistering with different activities between humans and their environment, is certainly a central point in this session. Indeed, the economic documents from this region in the 3rd millennium BC point toward the importance of fishery and how an intricate network of (human) bureaucratic interaction is implemented and managed to control and exploit the natural environment.[3] In this line of investigation, Angela Greco utilises a wide range of sources belonging to Ur-III period Umma, and surveys different bureaucratic and economic material, such as taxes and work obligations, offering in addition a prosopographical analysis of different agents of the bureaucratic apparatus.

[1] Schniedewind and Cochavi-Rainey 2015; Edel 1994; Cordani 2017.
[2] Tilly 1994; Barrett and Ko 2009.
[3] Englund 1990; 1998.

Another possible approach to the topic of this session is to investigate a cityscape in detail to understand diachronic changes in the human use of urban space. This line of research is pursued by Enrico Foietta in his contribution about the development of the city of Hatra in Northern Mesopotamia, in which he shows how a city slowly developed from a small settlement in post-imperial Assyria into an important 3rd century BC regional centre and capital of a small kingdom.[4] The development of this urban space is depicted in a long-term perspective from its beginning until its abandonment, validating an often lacking perspective in contemporary urban sociology.[5]

This overview provides only a partial picture of the lively scientific exchanges and interactions of the Berlin conference. We are glad to have been able to transfer it into this volume, which would have not been possible without the invaluable support and patience of the papers' authors and of the anonymous peer-reviewers, to whom we are very grateful. We hope that this will be our little contribution in *bridging gaps* between periods, space, and disciplines.

Costanza Coppini
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Hamaseh Golestaneh

Berlin and Prato, August 2021

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[4] Lawrence *et al.* 2017.
[5] Ortman *et al.* 2020.

Session 4 —
Crossing Boundaries: Connectivity and Interaction

Oman Peninsula and the Indus Valley: An Assessment of Material Exchanges during the Iron Age (*c.* 1300–300 BC)

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Abstract

The archaeological record of the Oman Peninsula holds a variety of local and imported material that suggests well-established trade networks between this region and other territories, one of whose oldest examples is the Indus Valley. At archaeological sites of this peninsula, such as Mleiha, Dibba or Ed-Dur, it is also possible to recognize trade that developed with the Mediterranean Sea, throughout the Gulf and beyond. The populations living in Southeast Arabia during the Iron Age (*c.* 1300–300 BC) were thus elements of complex multidirectional trade networks. Materials such as certain metals (copper), minerals (agate and carnelian) and ivory travelled through the Indian Ocean and some of these items are recorded as funerary goods on certain necropolis.

Keywords

Oman Peninsula, Indus Valley, Iron Age, Material and Cultural Exchanges, Trade

Introduction

The level of in-depth research on the Ancient Near East varies depending on the sources, period, and geographic region one focuses on. In the case of the Mesopotamian written sources, these report about trade of raw materials, products, people and ideas throughout the Gulf and Indian Ocean flourishing during the third and second millennia BC.[1] Since the third millennium BC, these texts state that places such as Meluḫḫa (the Indus Valley at large),[2] Dilmun (Bahrain) and Magan (i.e., the Oman Peninsula and Mesopotamia's primary source of copper)[3] were relevant locations of that trade network. From the second half of the second millennium BC, Mesopotamia started to source its raw materials from other regions so that the previous golden age of commerce with the Southern Arabian Peninsula languished even before the Iron Age started.[4] During the first millennium BC, which corresponds to the Iron Age in Southeast Arabia, Mesopotamian sources show very few references about trade with this area. The role played by the Gulf (as a centre of trade) during the Iron Age has lagged, due to the emphasis by the few Mesopotamian texts.

[1] Eidem and Hojlund 1993, 441.
[2] Potts 2016, 114.
[3] Goy *et al.* 2017, 368.
[4] Carter 2001, 183.

It is generally accepted that such inertia has generated a biased assessment of trade taking place between places such as Magan and Meluḫḫa during this first millennium BC underestimating the real level of interchange between both regions. Archaeology offers the possibility of enlarging the scope of this research by tracing trade through direct physical evidence bypassing the limitations that written sources bear. In this paper we review the available archaeological records on the subject during the first millennium BC to assess a first approach to the evidence of trade between the Oman Peninsula and the Indus Valley and conclude that this reveals a significant level of commerce.

How did the environment influence navigation in the first millennium BC?

Ancient navigation in the gulfs of Arabia, Persia and Oman required adequate conditions and more so when ships were loaded with goods. In terms of the marine environment, in the Gulf of Oman these conditions did not drastically change since the start of the Holocene but they changed drastically in the case of the Gulf.[5] In the Gulf of Oman, the moderate and constant sea breezes of the Indian Ocean favour navigation except during the summer monsoon (from May to October) when gusty winds set in. From May onwards, these winds weaken.[6] During summer, sea currents resume to pre-monsoon conditions.

The Gulf is a unique hydrographic basin exhibiting contrasting features on the Persian and Arabian coasts. In the latter, and more specifically from the Strait of Hormuz and all the way up to the Bahrain coast, coral reefs, mangroves, swamps and coastal lagoons, in addition to very shallow seas, complicate navigation.[7] Hydrodynamic dunes, violent winds and shifting sea currents add further complications.[8] Despite these limitations, the inhabitants of the Gulf have managed to overcome them mainly by practising a coastal navigation.[9]

The Iron Age: between the Oman Peninsula and the Indus Valley

The Indus Valley

The Dark Ages period in the Indian subcontinent spans from the late Indus Civilization (*c.* 1500 BC) until the historical period (*c.* 600 BC). This stage is scarcely documented due to an absence of written sources and a dearth of archaeological data.[10] Within the Indus Valley one finds heterogeneous landscapes that, during this time also exhibit heterogeneity at the level of settlement patterns and material cultures. From an archaeological standpoint, the period witnesses a coexistence of distinct cultural horizons that nevertheless share common features.[11]

Two main ceramic groups were present in this area during the Iron Age: The Painted Grey Ware (PGW) and the Northern Black Polished Ware (NBPW). There are no hints that suggest the PGW and NBPW inheriting elements from the previous the Indus Civilization.[12] The PGW is a painted ware with grey fabric, first documented at Achichhatra in 1940. Sites like Hastinapura, Bhagwanpura, Mathura, Dadheri and Madina constitute seminal loci to understand this culture.[13] Most of these sites appear in the Punjab area, in Haryana, Northeastern Rajasthan, and the Sindh and Harappa regions. The focal area of the PGW (i.e., the Ganges-Jamuna river plains) best document the economy of this culture. This area is

[5] Sanlaville 1988, 24.
[6] Sanlaville 2000, 38.
[7] Sanlaville 2000, 34.
[8] Sanlaville and Dalongeville 2005, 15–16.
[9] Sanlaville 1988, 22.
[10] Mughal 2012, 233.
[11] Uesugi 2002, 182.
[12] Sharma 2000, 3.
[13] Uesugi 2018, 1–10.

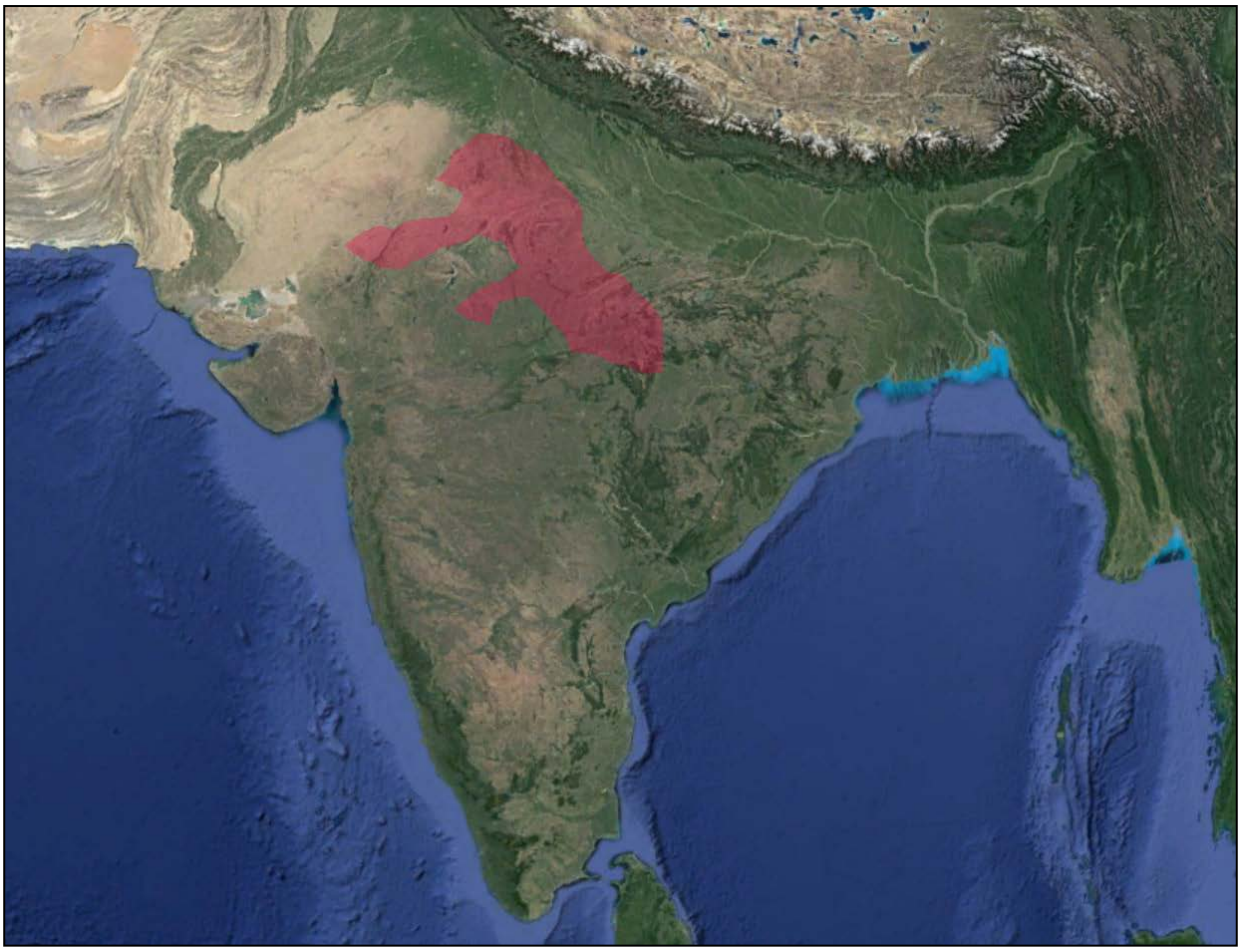

Figure 1: *Partial satellite view of the Indian Subcontinent. An approximate expanse of the Painted Grey Ware culture. Base image: Google Earth. Made by the author.*

located on fertile land where agriculture and farming flourished, also boosted by innovative iron tools, that allowed for broader and more efficient agricultural practices to be developed. The main crops were wheat, barley and rice.[14] These groups also bred cattle, pigs, horses, poultry, sheep and goats. Based on the data from Hastinapura and Atranjikera, hunting and fishing complemented husbandry and agriculture.[15]

B.B. Lal proposed a preliminary chronology for the PGW based on the data from Hastinapura, although the consensus nowadays is that the dates from this site cannot be extrapolated to other settlements. Such consensus considers that the PGW first appeared during the second half of the second millennium BC in the western Ganges plain despite a majority of its sites yielding chronologies set between 1000–500 BC.

The PGW marks the beginning of the Iron Age on the Upper Ganges Basin, and soon expanded westwards, including the Ghaggar-Hakra Valley,[16] to fill in the void left by the Indus Civilization (**Figure 1**).[17] This ceramic culture is essential to understand the changes that took place from the end

[14] Lal 1992, 416.
[15] Lal 1992, 417–418.
[16] Singh 2016, 56.
[17] Singh *et al.* 2014, 82.

of the Indus Civilization and how the new social system, culminating with the Second Urbanization of the Indus Valley, emerged across the Ganges plain.[18] The PGW is associated with small to medium-size settlements, always below the complexity of cities.[19] These sites, mostly found on river basins, are separated from each other by distances in the range of 10–12 km. Larger settlements acted as regional centres controlling and influencing smaller ones.[20] In the case of the larger settlements, the distances among them would range between 60–200 km.[21]

The PGW culture is the first one to document iron metallurgy in India. Of particular relevance for us are its craftworks in ivory and jewellery made with local stones such as agate, carnelian and jasper.[22] Due to an overall lack of local metal and stone sources in this valley, the Aravalli mountains are the only regional sources of ores such as steatite, copper and lead, and it is to them that one turns to explain the frequency of metal and stone objects in the archaeological record during this period.[23] Indeed, these settled communities could have had venues to obtain raw materials from the Aravalli mountains as has been documented in the later phases of Harappa. This does not rule out the possibility that raw materials could had been brought from more distant areas, as the origin of these raw materials remains unknown as of this writing.

There seems to be a general agreement that the Northern Black Polished Ware (NBPW) replaced the PGW, but this also depends on the region, since both cultures coexisted from 900–200 BC in several areas. Likewise, there are cases in which no stratigraphic interruption between these cultural groups exists (Sonkh) and others where transitional phases (Atranjikhera) are distinctive.[24] The NBPW phase began towards the 7th century BC in Uttar Pradesh and Bihar (Middle Ganges plain). It would later expand into other regions of the Indian subcontinent and the western bank of the Indus between the 7–5th centuries BC (**Figure 2**).[25]

Long-distance trade in the Indus Valley continued during the first millennium BC, decreasing in intensity towards the final moments of the Harappa Civilization. It intensified during the first half of the first millennium BC. Set within such frame of reference, one can see why the coasts of Gujarat and the Oman Peninsula were essential posts in the trade routes that established contacts among several regions of the Indian Ocean, Southeastern Arabia and the Gulf.

The Oman Peninsula

In contrast with the Indus Valley, the Oman Peninsula features a much more homogeneous archaeological record during the Iron Age. This stage is characterized by an increase in the number of settlements fostered by innovative agricultural developments.[26] The *falaj* (*qanat* in Iran), a new irrigation system that permitted artificial palm groves to grow inland, was one major technological development and possibly the trigger for this demographic expansion.[27] Another critical factor was the domestication of the dromedary.[28] This animal lived in Arabia since the beginning of the Holocene and its domestication

[18] *Cfr.* Uesugi 2018, 25.
[19] Lal 1992, 424.
[20] Lal 1992, 414.
[21] Singh *et al.* 2014, 81.
[22] Singh 2016, 56.
[23] Law 2013. About the 'tin problem', see Weeks 1999, 60–61.
[24] Gupta and Mani 2017, 370.
[25] Singh 2017, 1489.
[26] Córdoba 2016, 68; Boucharlat and Lombard 2001, 225.
[27] Del Cerro 1999, 336.
[28] Hellyer 1998, 83.

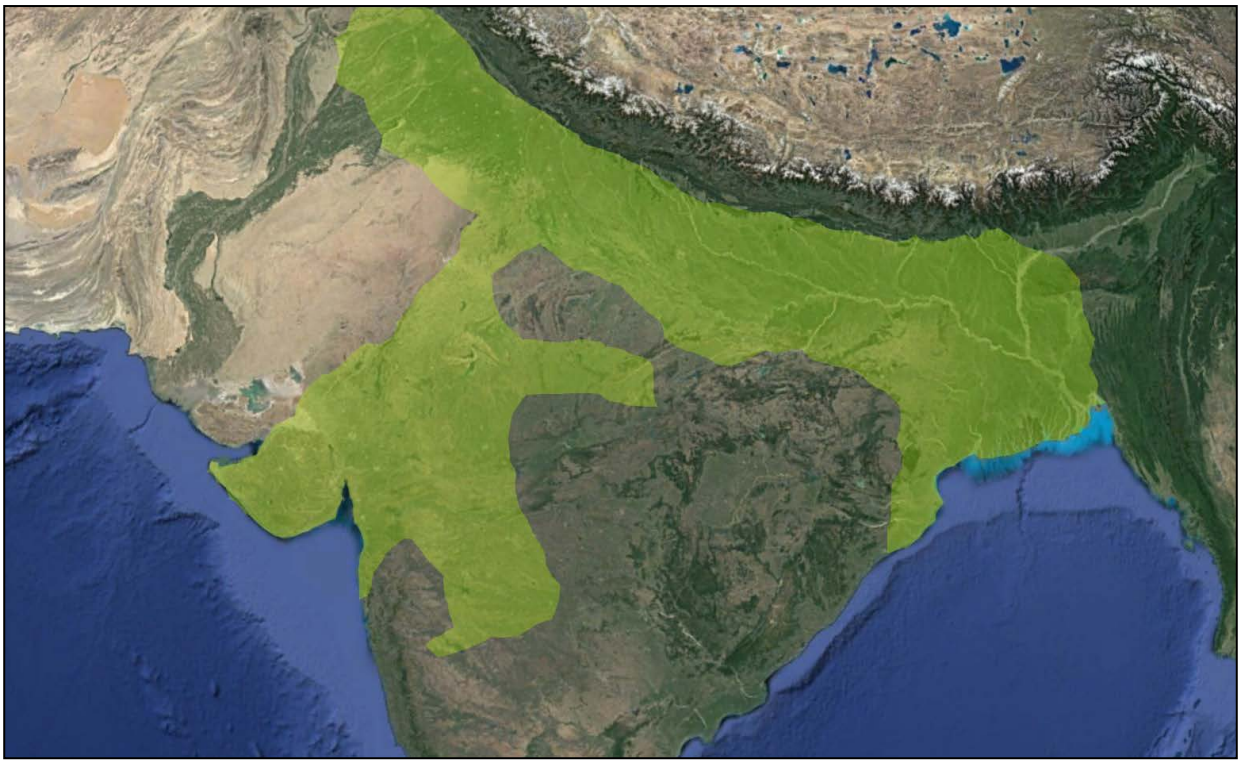

Figure 2: *Partial satellite view of the Indian Subcontinent. An approximate expanse of the Northern Black Polished Ware culture. Base image: Google Earth. Made by the author.*

stimulated trade by land routes, boosting the movement of people and products throughout the desert lands.[29]

Metallurgy also thrived during this period, as evidenced in the numerous mining sites and crucibles.[30] The Omani mountains were a key spot for copper extraction in the Near East since the fourth millennium BC and, along with stone, objects made on copper and bronze from Omani mines were the most frequent and appear in numerous sites and necropolis of the peninsula.[31] During the Hafit period,[32] copper mining apparently diminished yet it went up again in the ensuing Umm an Nar period.[33] Copper extraction increased between 1200 BC and 800 BC, reaching its peak in 1000 BC, as we see at Wadi Madhab.[34] Although in comparison with bronze and copper, iron metallurgy was scarcely developed in this area throughout the Iron Age, it is documented by grave goods from tombs at Jebel al Buhais[35] and the site of Muweilah.[36]

[29] Magee 2014, 197.
[30] Goy *et al.* 2017, 367.
[31] Goy *et al.* 2017, 367.
[32] It is the earliest Bronze Age human settlement in the ancient Oman Peninsula, in the period from 3200 to 2600 BC. It is characterized by the distinctive tombs, made of local, unworked, or roughly cut stones. Pottery demonstrates trading links with Mesopotamia and the Indus Valley.
[33] Goy *et al.* 2017, 367. During the Umm an Nar Period (*c.* 2500–2000 BC) large tombs with a single or several chambers were constructed. The population lived in hunt-like settlement protected by grand defence towers (Tell Abraq, Sharjah Emirate) or mudbrick-made houses (Umm an Nar, Abu Dhabi Emirate; or Maysar, Sultanate of Oman).
[34] Giardino 2017, 114; Goy *et al.* 2017, 364–367.
[35] Jasim 2012, 298.
[36] Magee *et al.* 2002, 151–152.

Figure 3: *Satellite view of the Oman Peninsula with the archaeological sites mentioned in this paper marked. Base Image: NASA. Made by the author.*

In short, during the Iron Age, the Oman Peninsula witnesses a shift in the relationship of humans with their environment. The *falaj* and the domesticated dromedary permitted a more efficient use of the landscape and an intensification of trade.[37] According to P. Magee, the 'social cohesion that had maintained human settlement in this region for millennia was, however, reaffirmed and communicated to the population by innovative displays of ritual and pilgrimage'.[38] Not surprisingly, this time coincides with the earliest documentation of cultic places. At sites such as Bithnah and Masāfī, these cultic spaces are associated with a snake-like deity. These sites offer exciting data concerning the relationship between regional and local political authorities, represented through a pillared structure.[39]

The first permanent settlements are also documented in the Oman Peninsula during the Iron Age.[40] These are found in three areas: the coast, associated with fishing and trade; the mountains, in the *wadian* terraces, occasionally with defensive architecture, and the inland oases, where extensive palm groves (some of them artificial, due to *falaj* agriculture) existed from al Aïn all the way up to Dhaid, along a path set parallel to the Omani mountains (**Figure 3**).[41] Coastal settlements on the Oman Peninsula are numerous during the Iron Age. Most of the coasts were occupied by semi-nomadic groups.[42] Sometimes, sites are characterised by their seasonal occupations and are documented as shell mounds with Iron Age materials. These have been interpreted as seasonal camps.[43] Although far scarcer, sites such as Tell

[37] Córdoba 2016, 66.
[38] Magee 2014, 240.
[39] Pillared buildings have been interpreted to be related with administration or a refuge for the local authority. They are quite common during the Iron Age at Oman, like those found in Muweilah (Magee 2003, 183–186), Rumeilah or Bida bint Sa'ud (Boucharlat and Lombard 2001, 215–220).
[40] Del Cerro 1999, 336.
[41] Del Cerro 1999, 336.
[42] Del Cerro 2005, 221.
[43] Del Cerro 2005, 212.

Kalba in the Indian Ocean coast, and Tell Abraq, Shimal and ed Dur in the Gulf coast, are considered to represent permanent settlements. These coastal groups possibly moved towards inland in winter in search of pastures for their cattle, as most Bedouin groups did until well into the twentieth century.[44]

A recurrent feature of these coastal groups is trade resulting from contacts with foreign communities. Contacts with non-Omani groups should not come as a surprise due to the proximity of regions like Iran and Pakistan. Archaeological evidence indicates that contacts with Mesopotamia occurred at least since the Jemdet Nasr period.[45] [46] The inhabitants of the oases at Rumeilah and al Madam were known for their agricultural and husbandry activities, yet the presence of numerous marine shells suggests that these were also part of their diet.[47] At al Thuqeibah (al Madam 1), several households shared common spaces where ovens and areas for food processing were documented. In these areas, researchers found grinding stones, pounders and other tools for cereal processing. The existence of a *falaj* in Sector 2 of Al Madam 1 confirms the existence of an intensive agricultural practice during the Iron Age. Consequently, people who were not occupied in trade would have found in the inland oases a place to develop agriculture and husbandry further.

Exchange and trade between the Oman Peninsula and the Indus Valley during the Iron Age

The Oman Peninsula was part of international trade circuits since the fourth millennium BC due to its abundance of raw materials. Mesopotamia and ancient Dilmun (Bahrain) demanded copper from Magan, along with stones like diorite. In recent years, investigations have confirmed agate, carnelian and ivory occurred in the peninsula (**Table 1**). Their presence can be taken as evidence of long-distance trade connecting the area with the Indus Valley during millennia. Along with these materials, imported pottery from Mesopotamia and the Indus Valley has been documented at Masāfī.[48] In some areas of the Indus Valley, an equivalent picture emerges. PGW groups expanded into the central plateau of the Ganges and Yamuna rivers fostering agricultural and husbandry practices in this region despite its lack of raw materials such as metals and stone. It is assumed that for that reason the Punjab area must have turned to places such as the Aravalli mountains, to provision themselves with copper and flint as the previous Indus Civilization did during its later phases.[49]

However, the Indus Valley does have numerous semiprecious stone mines, mainly carnelian, agate and jasper. Also, Asian elephants were not only present but probably also in high demand for their ivory. Semiprecious stones on the Oman Peninsula were highly appreciated for their colour and are mostly found in funerary contexts. Jebel al Buhais has one of the finest jewellery examples made on carnelian and agate. These are often carved into necklace beads (**Figure 4**).

Saruq al Hadeed (inland Dubai emirate) is one of the sites that has provided evidence on long-distance trade.[50] Archaeologists have documented a significant number of carnelian, agate and ivory objects, especially as beads and pottery or crystal.[51] The vast number of beads suggest that the site could have been an important religious centre in this region.[52]

[44] Del Cerro 2005, 214.
[45] Del Cerro 1998, 77.
[46] Jemdet Nasr is an archaeological culture, generally dated from 3100–2900 BC. This culture was a local development of the preceding Uruk period.
[47] Del Cerro 2009, 245.
[48] Benoist 2013, 64.
[49] Singh *et al.* 2014, 82.
[50] Hermann *et al.* 2012, 50.
[51] VV.AA. 2018, 117–125.
[52] Weeks *et al.* 2017, 53–56.

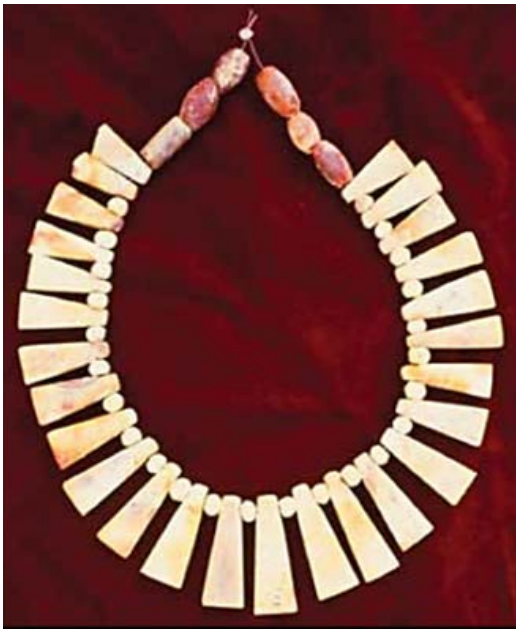

Figure 4: *Carnelian and agate beaded necklace, from Tomb 83 of Jebel al Buhais (after Jasim 2012: 237).*

Sites/Materials	Carnelian	Agate	Ivory
Al Qusais[53]	Present	Present	Absent
Jebel al Buhais[54]	Present	Present	Absent
Maysar 30[55]	Absent	Absent	Present
Muweilah[56]	Present	Present	Absent
Šimal 102[57]	Present	Absent	Absent
Saruq al Hadeed[58]	Present	Present	Present
Tell Abraq[59]	Present	Present	Absent

Table 1: *Raw materials with a potential origin in the Indus Valley and Iron Age contexts from Omani archaeological sites where these materials have been documented (Compiled by the author).*

Etched carnelian beads are rare objects during this period.[60] They come from India and Pakistan and are usually documented in Early Bronze Age contexts or even the Late Pre-Islamic period. It seems that trade declined during the second quarter of the second millennium BC. However, halfway through the first millennium BC, commerce started to reactivate. It is this trade that may explain etched carnelian beads at sites such as Rawdah-Muqatta (Oman Sultanate).[61]

An unusual find documented at Tell Abraq in an Iron Age context (*c.* 1000–600 BC) consisted of five fragments of a vegetal substance.[62] Physico-chemical analyses identified them as belonging to the

[53] Taha 2009, 81 and following.
[54] See Jasim 2012, 237, as an example.
[55] Vogt 1984, 272.
[56] Magee and Thompson 2019, 44.
[57] Vogt and Franke-Vogt 1987, 31.
[58] Weeks *et al.* 2017, 53.
[59] Potts 1991, 104.
[60] De Waele and Haerinck 2006, 31.
[61] De Waele and Haerinck 2006, 32–36.
[62] Tengberg and Potts 1999, 129.

species *Dalbergia sissoo*. This arboreal plant is widespread in India and Pakistan, especially in the river basins of the Indian Subcontinent.[63] Could this plant possibly had a wider geographical distribution reaching the mountains Oman in antiquity?[64] For the moment, it has not been confirmed if the Tell Abraq samples were local or imported. It is accepted that people highly valued this type of wood for its hardness, resistance, and colour as they frequently used it for furniture, ship tools and chariots. Neo-Assyrian sources mention this wood as 'Magan wood' or 'wood from Magan' and that it was used for doors, beds and beams.[65]

Future prospects

As of this writing, there are a number of issues that need to be addressed in connection with the issue of trade between Oman and the Indus Valley.

On the Oman Peninsula, carnelian sources are found on the emirate of Ras al Khaimah. According to O. Brunet, Omani carnelian documented in the second millennium BC tombs of Šimāl and Ḍāyah has different physical characteristics when compared to the homogenously orange-reddish carnelian from the Indus Valley.[66] This is to be expected given the tectonically different origins of Arabia (i.e., Laurasia) and India (Gondwanan) despite their present-day proximity. From a technical standpoint, this Indian carnelian is also more finely executed.

Secondly, no existing studies confirm an Indian origin for the ivory documented on the Oman Peninsula, which is rarely found in Iron Age contexts. Although there is no zooarchaeological/crystallographic research providing further information on provenance, it seems plausible that, due to the proximity of both regions, this ivory had a South-Asian origin.[67] Although the Indus Valley communities had access to local copper sources could they have stocked up truly valuable objects on copper of extraordinary quality as the one found on the Omani mountains? J. Reade suggests that Magan already sent crafted copper due to the lack of fuel for melting minerals in the Indus Valley[68] but whether these people exclusively made use of local copper or also imported copper at present remains an open issue.

Mesopotamian sources from the third and second millennia BC mention several products and materials that travelled throughout the Gulf.[69] Copper and pearls were the most demanded items, and these were apparently harvested on the coral reefs of the Arabian coasts.[70] Mesopotamian texts also mention Omani dates, whose high nutritional value turned them into luxury food. Fish —in particular processed (dried/salted)— must not be forgotten since this not only fed coastal communities but could last for a long time thus being susceptible to constitute yet another item of long-distance trade.[71] Lastly, Mesopotamia was also interested in the different woods from the Gulf: date palm (*Phoenix dactylifera*), grey/white mangrove (*Avicennia marina*), Jerusalem thorn (*Ziziphus Spina-christ*). Also from other regions as the case of the 'exotic' and aromatic Himalayan cedar (*Cedrus deodara*)[72] but archaeobotanical analyses of wood seem to be one final kind if pending issue that hopefully future research will manage to address.

[63] Tengberg 2002, 76.
[64] Tengberg and Potts 1999, 131.
[65] Tengberg and Potts 1999, 131.
[66] Brunet 2009, 57–68.
[67] For the scientific methodology which distinguishes between different ivories, refer to Edwards *et al.* 2006, 64–72; Singh *et al.* 2006, 144–151.
[68] Reade 2008, 16.
[69] Potts 2017, 133.
[70] Del Cerro 2009, 244.
[71] Potts 2017, 133.
[72] Potts 2017, 134.

Conclusions

Archaeological finds suggest that contacts between the Indus Valley and the Oman Peninsula continued uninterrupted throughout the first millennium BC despite the dearth of data yielded by the Mesopotamian written records. Most of the evidence from Parthian-Sasanian contexts of the Oman Peninsula likewise implies that those exchanges and contacts continued several centuries afterwards. Again, any trade study in the Gulf at this time needs to take into account Mesopotamia. To what extent did Mesopotamia influence the product demand that is mentioned by the written sources? Did it continue to promote trade in the area during the Iron Age? Or did Dilmun, Magan and/or Meluḫḫa developed more relevant and independent roles in those exchanges?

In this context, it appears that the Oman Peninsula seems to have maintained its role as a cross-point in trade relations throughout the Iron Age. The available archaeological evidence suggests that the peninsula had a greater dependence on Indus Valley imports than those from other regions. At the same time, one needs to stress the need to consider perishable materials that are difficult to persist in archaeological deposits and could have been an essential part of these commercial exchanges. From our perspective, this imbalance in data can be explained by the more substantial evidence in Iron Age contexts from the Oman Peninsula when compared to those from the Indus Valley or the Indian subcontinent for that matter. In terms of the Oman Peninsula, most researchers concede that some raw materials must have been imported. Do archaeologists have a similar concern in the case of the Indian sites?

Perfectly aware of the numerous unsolved issues we presently face, we strongly believe that only future research in the Indus Valley and the Oman Peninsula will help clarify the issues entertained in this paper. It would prove valuable to address that future research in a truly holistic way, where historical and archaeological evidence would combine with biological and physicochemical analyses in order to help one determine the origin of raw materials beyond the level of speculation into that of falsifiable hypotheses.

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Seleucid Rule over the Gulf

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Abstract

The question of a possible Seleucid conquest and administration of lands and islands along the coast of the Arabian side of the Persian Gulf has been debated since the discovery in the 1980s of undeniably Hellenistic remains in places such as Failaka, and even in Bahrain (then Tylos). Although for a long time it has been argued that the Seleucid rule was more *de iure*, rather than *de facto*, there are reasons to believe that the heirs of Seleucus exerted effective control over the area.

Keywords

Seleucid, Persian Gulf, Hellenistic Economy, Royal Administration, Failaka

Did the Seleucids truly control the Gulf? A long debate

Whether the Seleucids ever ruled over modern-day Arabia, or at least its northernmost coast (modern-day Qatar), has largely remained a moot point in many monographic works centred around the largest of Alexander's successor kingdoms. In fact, when the 19th and early 20th century historians studied the subject, they usually stated that the Seleucids never controlled any part of the Arabian Peninsula and thus, Seleucid control over the Gulf was limited to modern-day Kuwait, Southern Iran and Iraq.

For example, when Droysen, the first historian to ever define the idea of Hellenistic History, which began with Alexander and ended with the rise of Rome, he largely ignored the possible Seleucid, or Greek, conquest of Arabia. Of course, the number of primary sources available to him was quite limited, and was mostly reduced to Polybius, Strabo, Diodorus and Justin. No classical author claimed any sort of Greek rule over Arabia, except for the well-known reference to Gerrha, in Polybius, an Arabian city which is usually believed to have been located along the northern coast of the Arabian Peninsula,[1] and Antiochus III's expedition against it while he was coming back to Mesopotamia after his campaign in the Indian area.

However, Polybius seems to argue that the Gerrhaeans had been independent from the Seleucid Empire before the invasion of Antiochus III,[2] as they begged the king to respect what the gods had granted them, freedom. Nevertheless, it could be argued that the Gerrhaeans had only recently acquired that 'gift', breaking away from any Seleucid influence, as many other eastern Satrapies had done previously after the reign of Antiochus I, possibly during the reign of Seleucus II.[3] There is also a rather obscure

[1] Potts 1983 believes it to be in Thaj.

[2] Polyb. 13.9.2–5.

[3] It is hard to point when the dissolution and secession of certain satrapies, such as Parthia and Bactria, happened. Justin seems to make it clear that it happened during the reign of Seleucus II after a futile campaign in the area, but modern experts are not certain. Wenghoffer (2018) for the case of Bactria, Strootman (2018) for the case of Parthia.

mention in Polybius about an Erythrean Sea *eparchos* who was removed by Antiochus III after the king had defeated Molon, a usurper, *c.* 220 BCE. Its obscure nature comes from the fact that the Greeks considered the Erythrean Sea to not just be what is currently called the Red Sea, but also included the Persian side of the Persian Gulf and the Strait of Hormuz, regions that were surely under Seleucid control,[4] unlike the Red Sea, which was under Lagid control.

There is also a passage by Pliny the Elder in which the Roman author talks about how a Seleucid naval force defeated some 'Persians' (sic) in what we believe could be modern-day Northern Oman, near the Hormuz strait.[5] Whether this was commanded by Antiochus III, probably during his Anabasis, or by Antiochus IV later, remains a mystery.[6] The double tropaion built by Numenius, according to Pliny, has not yet been found. Why Droysen decided to ignore this small reference is unknown to us, but the passage itself does not offer much information, and the fact that they are called Persians could indicate that they were merely Persian rebels or pirates living off the coast of Hormuz and not off the coast of modern-day Oman or Qatar.

There is also an undated diary in which there is a mention of an obscure invasion by a King Demetrius. Sadly, we do not know who this King Demetrius was.[7] In summary, although not much, the above is all that was left by these classical authors about any possibility of a Seleucid control over the Gulf, which has led to some speculation by various modern authors.

Droysen, of course, also knew of the plans for an invasion that Alexander had deliberated with his generals and admirals, but he also knew that said foray, which was to be led by Nearchus, never ended up happening. Later, early historians, such as Rostovzteff, who paid more attention to the problematic Seleucid world and Hellenistic Persia, believed that the kings of Antioch once again defended the idea of a Greek-free Arabia.

A more modern historian, by comparison, is Jean-François Salles, who went as far as to claim in 1984 that there was nothing to prove that the Seleucids ever held any control over the region.[8] There was no proof, he wrote, of direct Seleucid control. Furthermore, the examples of Greek culture and its influence in the area were equally non-existent. In fairness, when he wrote those lines, he could not have possibly known that, just a few years later, inscriptions in Greek would start to change what we thought we knew about the region. In fact, just a few years later, he would start talking about the presence of Hellenistic-like ceramics, which bore more resemblance to those of Failaka,[9] which was Seleucid at the time, than to those of Arabia.[10] He, nevertheless, kept on arguing that the presence of a military force was doubtful and not likely at all.[11]

Another modern historian, D.T. Potts held a rather similar position in his writings about the Gulf in ancient times, stating that the Greeks never went far down the Arabian coast. Nonetheless, he recognized that Failaka, just off the coast of Mesopotamia, was certainly a Seleucid settlement, resembling what

[4] Tarn 1951, 481–485; Salles 1987, 80.

[5] Pliny *NH*, 6, 28. 152. It is highly unlikely they were actual Persians. Whether they were locals or pirates remains a mystery.

[6] Salles 1987, 75. Numenius, argues Salles, was probably given his post after Antiochus left Gerrha for Tylus and Mesopotamia. This seems likely, although it contradicts the authors' opinion of the region being exempt of much Seleucid control or influence. Naming a *strategos* shows that Antiochus had showed some interest.

[7] Kosmin 2013, 68.

[8] Salles 1984. He repeated the same a few years later (1987, 75), stating that 'nothing suggest that the region was under the direct control of the Seleucid Kings, nor is there any clear evidence that it formed part of their area of influence'.

[9] Not even Salles seems to argue Failaka was not a Seleucid settlement off the Persian Gulf. Salles 1987, 84–86. There are a few known Greek inscriptions from there. Sherwin-White 1985.

[10] Salles 1987, 81.

[11] Salles 1993; 1999.

Salles had also admitted a few years earlier,[12] but to be fair, this was what most historians thought in the 1990s,[13] thanks to the fact that a Greek inscription had been found and described by then, along with Aramaic ones dated in the 3rd century BCE.[14]

This was the first, albeit small, step towards a revaluation of the *Greek* Gulf. Although, there was a reason for Potts to claim so. After all, there was a known inscription, that both Salles and Potts likely knew about, that detailed that the Southern Mesopotamian kingdom of Characene seemed to have ruled over some of the islands. This was, thus, common knowledge by then and nobody seemed to dispute as much. What most of the authors claimed, though, was that this rule over the area only happened *after* the kingdom of Characene had already seceded from a disintegrating and crumbling Seleucid Empire, which was slowly but steadily being forced to give up its easternmost satrapies, such as Parthia or Bactria since the 2nd century BCE.[15]

Back then, historians were forced to choose between two apparently contradictory ideas. Either Characenian control started *after* its independence, or they ruled as Satraps over the area while they still paid homage to Antioch. As we have seen, most specialists seemed to prefer that first option.

Thankfully, an inscription found in 1997, and described in 2002, seems to be the key to understanding the political situation of the Gulf in the 3rd and 2nd centuries BCE, or at least its cultural outlook. This inscription mentions a Hyspaosines, a well-known Characenian king who probably became independent *c.* 120 BCE.[16] Alongside him, there is a mention of a Greek *strategos* of Tylos and the Islands called Kephisodoros, and of a Greek temple. This implies, thus, that there was a Greek-speaking community in Bahrain either after or before Characene's independence. Following this discovery, more inscriptions in Greek have been found, which have improved our understanding of the area during the Hellenistic period. One of these inscriptions, found on a tombstone, tells of a Babylonian-named naval officer who lived in the islands.

Accordingly, Hellenistic ceramics, which resemble the Attic type produced in the Levant during the Hellenistic period, and remains, including a hoard of coins with Greek inscriptions,[17] have been found in the archaeological excavation of Qalat-al Bahrain,[18] which can be identified as Tylus. This settlement shows both Seleucid and Parthian influence, on both the first and second levels of the excavation.[19]

This all indicates that, even if one still chooses to believe Seleucid control never reached that far down the Arabian coast, which can be argued, Greeks seemed to settle in some of the islands, and that a Seleucid successor state took some interest in controlling the area. It would not be unheard of, in fact, that the Seleucid kings would promote the colonization of far away and remote areas. Ai Khanoum,[20] in Central Asia, back then in the satrapy of Bactria, is probably the best example of this. Thus, the claim of Greek colonists being settled by Seleucid kings in Bahrain and Qatar should not be received as outlandish.

[12] Potts 1990.
[13] Texeidor 1993, 291–293.
[14] Naveh 1995.
[15] Which probably happened during the rule of Seleucus II, but it is not a settled subject. Strootman 2018, 129.
[16] Nodelman 1960; Schuol 2000; Kosmin 2013. The history of the Kingdom of Characene has undergone some changes since the work of Nodelman, best reflected on that of Schuol.
[17] Robin 1974.
[18] Salles 1987, 81.
[19] Salles 1987, 82.
[20] Martinez-Sève 2014 offers a good description of this distant Greek settlement.

Hence, if we believe that there is enough proof of Seleucid, or Greek, influence in the area, a question will quickly appear. Why would the kings show any interest in colonizing and controlling the coast? After all, Arabian land was not especially fertile, as it is not nowadays. It is true that the Romans used to believe that Arabia, especially what they called the *Arabia Felix*, was an incredibly wealthy region. The Ptolemies in Egypt, and previous, native Pharaohs seemed to agree with this idea, for they built some port cities in the Red Sea that mainly traded with the Arabian Peninsula. Furthermore, even the Bible talks about the riches of the Kingdom of Saba, believed to have been located in modern-day Arabia. However, this richness did not come out of the ground,[21] in a literal sense.

Arabia, simply put, played a pivotal role in the Indian Ocean Trade, and both the Ptolemies and Roman merchants knew how profitable this trade route could be for them. The kings probably knew of its importance, too, and knew that there was a profit to be made from taxing and controlling said trade.

Antiochus III must have believed in this idea of a wealthy Arabia. Surely, he knew that the mainland is too hot and the deserts too prevalent to make agriculture an important part of its economy, yet he got a mighty bounty during his naval expedition of 205 BCE. Incense, silver and many other luxurious goods were given to the king in exchange for peace. Likewise, Antiochus must have known, as we know nowadays, that Arabia was an important trade node during ancient times,[22] having been so since the Sumerian times. Strabo claimed that, in fact, Gerrhaeans were amongst the wealthiest people in the world.[23] Even for the Portuguese, centuries after the Seleucid Empire had finally disappeared, Arabia played a key role in its Indian trade, with Hormuz, which had been a pirates' lair for centuries by then, being a relatively important city and fortress.

Seleucids were probably as aware of its importance to trade as their rivals in Egypt knew, and may have taken steps towards making sure they had an edge against them. The previously mentioned expedition led by a Numenius, a Seleucid *strategos* of the Characenian satrapy who probably, as said, was named just to ensure Seleucid control of the area, before its independence, Antiochus' expedition and the mysterious invasion by Demetrius that appears in an undated diary, all are proof of the keen interest these Greek kings showed in trying to control the coast.

Some specialists have claimed that there probably was a standing Seleucid fleet in the area,[24] which might have been that employed by these kings and governors during their rules. In this case, these were the troops Numenius led in his battles against the Persians. Of course, these kings also knew about how poor and unprofitable for agriculture the rest of Arabia was, and probably never saw any profit in trying to control the whole peninsula. By the dominance of some key fortresses and outposts, they might have thought, they assured that trade continuously went from India to modern-day Iraq and Kuwait, passing by these settlements, which were theirs, and could, in this manner, profit from their existence.

How the Seleucids ruled over the Gulf

In general terms, we do not know much about Seleucid administration and laws in their easternmost satrapies, which contrast with what we know about their relations with Greek cities in Asia Minor, despite the publication of new papers and monographies dealing with the subject since the Seleucid

[21] Although Diodorus talked about a fertile, rich area of Arabia. (Diod. 19, 94–100). One should keep in mind, though, that Diodorus lived and wrote his *Bibliotheca* centuries after the Seleucid Empire had disappeared, during the reign of Augustus. This might have been a common misconception for the ancient historians, for Strabo makes a similar claim, stating that the lands of the Sabaeans were fertile (16, 4, 19).

[22] Although this wealth was fleeting at times. Hoyland 2001, 107.

[23] Strabo 16, 4, 19.

[24] Kosmin 2013, 68.

'revolution' started by Amélie Kurht and Susan Sherwin-White in the 1980s and 1990s.[25] Nevertheless, it is still possible to try to define some basic facts about how the Seleucid administration exerted its rule over the gulf.

One of the facts that we can take for granted is that Seleucids largely relied upon local elites whenever possible,[26] and that satraps and local-level administrations had a large degree of independence. For example, a religious decree by Antiochus III, naming someone called Nikanor, high priest, went through the hands of at least four other people before finally being official and coming into effect. Either way, it would be possible to try to recreate some sort of big picture scheme of how the administration could have been.

As already mentioned, there was a position called *strategos* of the Erythrean Sea, alongside one called *Of Tylos and the Islands*, being Tylos, which is believed to be modern Qatar, of some relevance, for its name is included within the title. It is likely that either both were really the same post, which is one possibility, or that at least two different satrapies existed in the area, one centred around the Persian coast, including what would be the satrapy of Persis and its coast, that is, that of the Erythrean Sea, and one which covered the Islands and the Arabian coast.

There is also another possible *Strategos* who exerted some amount of power over the trade and the area, which is the *Strategos* mentioned previously, and later king, of Characene. A Strategos was not only a civil leader simply in charge of ruling the satrapy as a modern governor would, but it was a figure closer to that of a Roman governor. They were expected to lead an army and to command their troops when the king called them to fight on his side.[27] Of course, this gave them a large share of power, and we must not be surprised by *strategos* trying to usurp the crown or just declaring their independence when they thought themselves strong enough to impose their wills on weaker kings. In fact, despite Bengtson's[28] claims of a reform after the *Anabasis* which made all the *Strategoi* equal, our sources, according to some,[29] do not always support the idea of *Strategoi* having the same powers in the various satrapies of the empire.

However, we know that the so-called *Fratarakas* and the kingdom of Characene enjoyed a large degree of autonomy,[30] which is not surprising when we take into account how decentralized the Seleucid Empire was, and that the southern Mesopotamian kingdom would, one day, rule over these satrapies once the Seleucid Empire had started to fade away.[31]

Could they have had some control over the area before all this happened? Probably, but they certainly shared their power with the Seleucid officers sent by the kings, especially if Greek colonies were created in some of the islands, such as Failaka. What we are certain of, though, is that the Characenian kings later tried to enforce their rule on the islands and Gulf, and probably inherited a relatively strong Seleucid administration that had existed even before the first of its kings tried to gain independence.

Alongside the *strategos*, there are also some mentions of some other administrative and military posts, such as that of *eparchos*, which might have been a title given to regional governors, with no military command,[32] and might have been similar to that of *Strategos*. It may also be true that their districts,

[25] Sherwin-White and Kuhrt 1993.
[26] Chrubasik 2016, 23–25. There the author delves into the power held by so-called local dynasts.
[27] Capdetrey 2007, 288–289.
[28] Bengtson 1944, 143–158.
[29] Kosmin 2013, 64.
[30] They held the title of *Karanos*, which are believed to have been local military leaders. Engels 2018, 179–180.
[31] Nodelman 1960; Schuol 2000.
[32] Capdetrey 2007, 230.

called *Eparchias*, were smaller in size compared to the satrapies that the *strategos* had inherited from Persian times.

Conclusions

To summarise, archaeologists have found enough Greek remains in the area to believe that Greek communities had been formed in some areas along the coast, especially at strategic points or on islands. Whether they were settled by the Seleucid monarchs or these were simply Greek merchants trying to profit off the important Indian trade which when through the Gulf to reach Charax, a well-known Seleucid settlement by the sea, in modern-day Kuwait, can be disputed.

Nonetheless, the literary evidence demonstrates that the Seleucids proved that they were somewhat interested in controlling this profitable trade and, thus, the whole region. Due to the low population of the region at the time, there was no need for a strong military presence in the area and, therefore, military colonies like the ones funded by the Seleucids in Asia Minor, Mesopotamia and Persia would not have been needed. This is an inconvenient fact, for the finding of such a settlement would greatly support the argument defended in this paper.

Nonetheless, as stated, there are reasons to believe that the Seleucids kept some kind of military presence in the area, considering that they were able to organize a fleet to defeat the so-called Persians during the reign of either Antiochus III or Antiochus IV, and that Demetrius led an expedition against some tribes sometime after both of them.

In any case, some questions will largely remain either unanswered or with an unsatisfying explanation. The Seleucid administration will, more than likely, remain largely unknown and it will surely seem byzantine unless new inscriptions are found. For now, all we know is that an *Eparchos* and a *Strategos* post both existed, the former taking care of smaller areas and districts, with the *Strategos* commanding the local garrisons and fleets and, in general, keeping the area under control.

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Identity and Interaction at Togolok 1 in the Murghab Region (Southern Turkmenistan) during the Bronze Age

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Abstract

The present paper investigates the material culture of Togolok 1 in the Murghab region (Southern Turkmenistan) during the latest phases of occupation by a semi-mobile community between the final stage of the 3rd millennium and the 2nd millennium BCE. In the last decades, archaeological research in the Murghab region has focused on the scattered semi-mobile occupations and their economic trends during the Late Bronze Age. The semi-mobile community in Togolok 1 presents a remarkable material culture among the semi-mobile excavated contexts in the Murghab region. Although archaeological evidence in Togolok suggests a semi-mobile identity, the overall morphological and iconographical analysis of small objects shows strong cultural associations with the sedentary BMAC (Bactro-Margiana Archaeological Complex) communities. Moreover, the association with sedentary communities is consistent with the economic activities, which suggest a constant interplay between pastoralism and farming. Therefore, we propose that the community settled in Togolok 1 was reshaped by the intense economic and cultural interaction with the neighbouring BMAC communities.

Keywords

Bronze Age, Murghab, Central Asia, BMAC, Mobile Pastoralism

Introduction

The historical region of Margiana was strategically located along the main trade routes of Central Asia. The long-distance cultural and trade exchange between the *Bactro-Margiana Archaeological Complex* (BMAC) and neighboring regions can be traced back as far as the 3rd millennium BCE and possibly earlier.[1] The second half of the 3rd millennium BCE marked a period characterized by the emergence of several urban centers in the Murghab region with increasingly hierarchical systems.[2] Intensive craft productions based on the transformation of metals, such as gold and silver, elephant ivory, and semi-precious stone materials point to local as well as long-distance trade among the main urban centers

[1] Hiebert 1994; Salvatori 2004; Salvatori and Tosi 2008; Sarianidi *et al.* 2012; Winkelmann 2013.
[2] Sarianidi 1990a; Salvatori 2008.

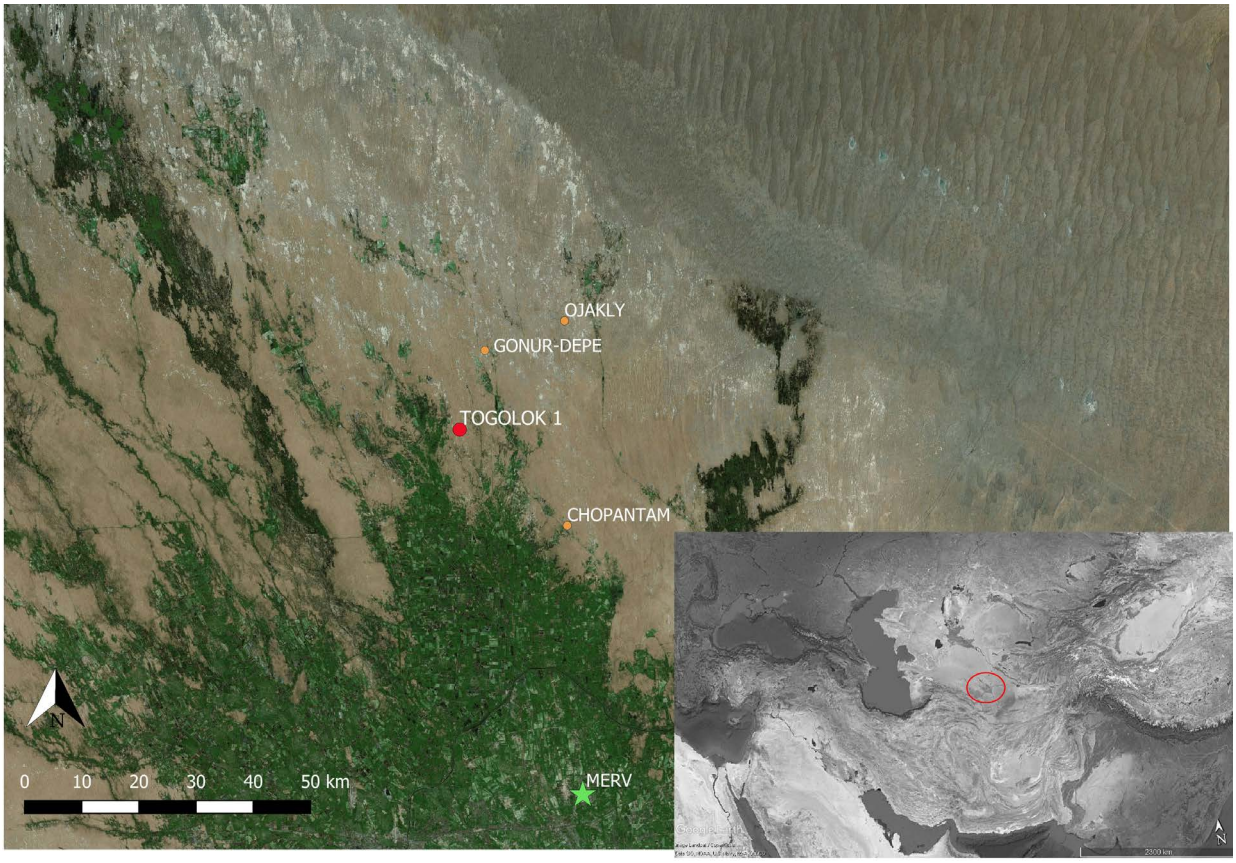

Figure 1: *Location of Togolok 1 in the Murghab region (Southern Turkmenistan). With yellow dots the Middle Bronze Age urban site of Gonur-Depe and the semi-mobile sites of Ojakly and Chopantam (basemap: LANDSAT 8). In the red circle (small image) the Murghab alluvial fan (basemap: © Google Earth).*

of the Murghab and neighboring regions.[3] During this period, most BMAC sites were not distant from the main branches of the ancient Murghab inner delta to facilitate water exploitation for agricultural production.[4] However, the Late and Final Bronze Age (*c.* 1950–1300 BCE) marked a decisive shift in the distribution of settlements. Along with large urban settlements, small to very small settlements (> 1 ha) started to emerge across the territory. These increasing numbers of small-scale settlements have been interpreted as social-economic response to a transformed political system.[5] However, one cannot rule out they also represent a response to a different land and agricultural exploitation. Likewise, some of these small scattered settlements, often located in proximity with the large BMAC urban centers, present a large percentage of handmade pottery and a clear, distinct, ware type production which has been labeled by various authors as 'steppe ceramic', 'Andronovo pottery' or 'Incised Coarse Ware (ICW)'.[6] This different material culture has traditionally been associated with the presence of small communities of mobile and semi-mobile pastoralists with a distinctive tradition.[7] Nonetheless, although a distinction among sedentary farmers and semi-mobile communities emerge in the Murghab, the economy of the latest often falls into a grey area, which suggests a degree of economic variability rather than a clear dichotomy with BMAC farmers.

[3] Rossi Osmida 2011; Sarianidi 2007; Frenez 2018.
[4] Rouse and Cerasetti 2017; Spengler *et al.* 2014.
[5] Salvatori 2008.
[6] Kuz'mina and Lyapin 1984; Sarianidi 1975; Cattani 2008a.
[7] Cattani 2008a; Rouse and Cerasetti 2014.

The recent excavations in 2014 and 2015 at Togolok 1 (**Figure 1**) present new evidence for the analysis of the economic diversification and the possible cultural adaptability of the local semi-mobile community. In the present contribution, we focus on the material culture and how the stylistic and typological analysis of these objects can possibly disentangle the current narrative between semi-mobile pastoralism and sedentary farmers. The broader aim is to contribute to further interpret the complex economic and cultural patterns that shaped the different communities in the Murghab region during the end of the 3rd and 2nd millennium BCE. (RA)

Togolok 1: trench excavation

The site of Togolok 1 is located in the northeastern portion of the Murghab inner delta (UTM 41N 412161.95 4219112.78), approximately 11 kilometers south-west of the most extensively excavated Bronze Age site of Gonur-depe. The settlement of Togolok 1 is composed of two mounds. The small mound on the south was extensively excavated by V. I. Sarianidi, who identified a so-called shrine dated to the mid-2nd millennium BCE.[8] On the north, the main mound is currently under investigation by the Togolok Archaeological Project (TAP).[9] However, V. I. Sarianidi already investigated it in the 1980s with a test trench that dated the site to the Middle and Late Bronze Age (*c.* 2400–1500 BCE).[10] In 2014, the TAP team opened a new test trench in the center of the upper part of the main mound. The excavation identified three occupation phases. On the southwestern part of the trench, the three occupation phases were characterized by pits, large fireplaces with significant remains of animal bones, and artificial mud platforms with the presence of several post holes (**Figure 2**). This area has been interpreted as a 'living area,' which was most likely part of a system comprising lightweight structures, such as shelters, with the use of poles that likely supported roofs. In the northeastern part of the trench, the phases were almost characterized by a thick organic deposit rich in carbonized seeds, charcoal, sheep and goat dung identified in relation to the presence of post holes and fireplaces. The presence of this massive deposit combined with the discovery of post-holes suggested that the area was possibly used as an enclosure for livestock, similar to the modern enclosure that can still be observed in the Murghab.[11] The second and the third phase of occupation of the trench have been dated with C14 analysis. Two C14 dating from the second phase of occupation (SU 127) show as the layer can be dated between the almost latest stage of the Middle Bronze Age and the Late Bronze Age (3420 ± 45 BP → 1880–1620 BCE (95.4%) and 3581± 27 BP → 2026–1826 BCE (95.4%) → 1986–1879 BCE (80.3%)) which seems consistent with C14 dating from the third phase of occupation of the trench (SU 552) (3554 ± 21 BP → 1961–1778 BCE (95.4%) → 1961–1873 BCE (82.8%)).[12]

[8] Sarianidi 1990b.

[9] The *Togolok Archaeological Project* (TAP) is directed by Dr Barbara Cerasetti (ISMEO) and Dr. Maurizio Cattani (University of Bologna).

[10] Sarianidi 1990a.

[11] For a more exhaustive description of the excavation see Cerasetti *et al.* Forthcoming; Arciero and Forni 2018.

[12] The first radiocarbon date (3420 ± 45 BP → 1880–1620 BCE) was converted into calendar years by using the software OxCal Ver. 3.5 based on the 2013 atmospheric dataset (Reimer *et al.* 2013, 1869–1887). The analyses were made by CEDAD – CEntro di DAtazione e Diagnostica, Dipartimento di Ingegneria dell'Innovazione, Università del Salento (Italy) and were funded by the Volkswagen and Mellon Foundations, Fellowship for Research in the Humanities for research in Germany, Grant for 2015–2016, PI Spengler. The second radiocarbon dating (3581± 27 BP → 2026–1826 BCE (95.4%) → 1986–1879 BCE (80.3%)) was converted into calendar years by using the software OxCal Ver. 4.4, based on the 2020 atmospheric dataset (Reimer *et al.* 2020, 725–757). The analyses were processed by Scottish Universities Environmental Research Centre–SUERC of the University of Glasgow and were funded by the Max Planck Institute for the Science of Human History. The third radiocarbon dating (3554 ± 21 BP → 1961–1778 BCE (95.4%) → 1961–1873 BCE (82.8%)) was converted into calendar years by using the software OxCal Ver. 4.3.2 based on the 2013 atmospheric dataset (Reimer *et al.* 2013, 1869–1887). The analyses were processed by the Research Laboratory for Archaeology and the History of Art of the University of Oxford and were funded through ERC grant: Fruits of Eurasia: Domestication and Dispersal (FEDD), European Research Council Starting Grant (851102).

Figure 2: *(1) View of the Togolok 1 excavation during the 2015 field campaign; (2) The excavation allowed to identify a semi-mobile occupation with the presence of fireplaces with significant remains of animal bones; (3) organic deposits rich in carbonized seeds, charcoal and sheep/goat dung detected in the second occupation phase in the northeastern sector of the trench; (4) artificial platform with post holes, found in the third occupation phase of the living area in the southwestern sector of the trench (Photographs by the authors).*

The preliminary analysis of the zooarchaeological remains from Togolok 1 point towards a pastoral economy.[13] The total amount of analyzed bones suggests a substantial component of sheep and goats (60%) and a relatively small number of pigs and cattle bones (20% and 12%, respectively). Additionally, the discovery of a fragment of a distal metapod of an adult dog likely suggests the use of livestock guardian dogs. Despite the considerable number of sheep and goats, the preliminary analysis of the botanical assemblage shows a significant presence of domesticated crops such as cereals, and edible fruits.[14] Among the cereals, barley is the prominent grain, followed by wheat.[15] Remarkably, the archaeobotanical analyses also found pulses as well as fruits, such as *Prunus* stones (apricots or plums) and grapes (*Vitis vinifera*).[16]

The first excavation by Sarianidi showed as Togolok 1 was a BMAC urban center. However, the evidence from the present stratigraphic excavation of the trench suggest that on its final stage, the mound was

[13] De Grossi Mazzorin 2016.
[14] The preliminary archaeobotanical analysis have been carried out by Dr. R. Spengler (Max Planck Institute – Jena) and Dr. M.L. Carra (University of Bologna).
[15] Cerasetti *et al.* 2019,70.
[16] Cerasetti *et al.* 2019,70.

likely inhabited by a group of semi-mobile community, widely attested in the Murghab during the Late Bronze Age.[17] This happened most likely when the area had been almost abandoned, perhaps due to reduced water resources unable to support intensive agriculture.[18] Although part of the botanical remains identified in Togolok trench could be the result of exchanges with local BMAC farmers, their ubiquitous presence in similar excavated contexts in the Murghab, such as Ojakly and Chopantam, and the presence of millet attested only in semi-mobile contexts, suggests as agriculture might have been practiced by the Togolok community.[19] Semi-mobility or seasonal-occupation economies can take different forms and complex degrees;[20] however, although details cannot be entirely grasped in the Murghab based on the current available data, the present data from Togolok 1 suggests as the local community experienced a constant interplay between agricultural and pastoral economies and interaction with BMAC farmers.[21] Likewise, the analysis of the materials culture, on which the present paper aims to focus, equally suggests a high degree of interaction with BMAC counterparts that possibly led to shared cultural aspects. (RA)

The latest occupation phases of Togolok 1 and its material culture

The first half of the 2nd millennium BCE is characterized by the presence of semi-mobile pastoralists in the Murghab region, generally attested by their specific material culture and the seasonality of their occupations.[22] Yet, the analysis of material culture from the Togolok 1 trench enhanced our understanding of this complex period and are crucial to better define the interaction between the semi-mobile community and BMAC farmers in Togolok 1. The pottery assemblages recovered in 2014 and 2015 can be divided into two broad fabric groups, the fine and coarse ware. Both fabric groups can be dated back to the first half of the 2nd millennium BCE.[23] In the assemblage, there is a predominance (two-thirds of the total) of the wheel-shaped fine pottery commonly associated with BMAC culture.[24] The potsherds from the Togolok 1 fine ware assemblage were parts of small and large vessels, goblets, bowls, cups, and large plates. Various types of handmade coarse ware, including grog (chamotte) complete the ceramic assemblage. In Togolok 1, handmade coarse ware includes big pots, goblets, bowls, and cups. The regular parallel lines on both the outer and inner surfaces led to the conclusion that these vessels were finished using the wheel.[25] This pottery typology was documented in sedentary as well as pastoralists contexts. However, the high percentage of handmade compared to wheel-shaped coarse ware represents one of the key factors, among others, in identifying such occupation in the Murghab area.[26] At the urban center of Gonur-depe, coarse ware comprises only 1.5 to 4 % of the ceramic assemblage from the deep sounding.[27]In the Late Bronze Age mobile pastoralist site of Ojakly, however, the overwhelming majority of pottery assemblage (roughly 85–90 %) is represented by the coarse ware. [28] In Togolok 1 trench, although the lower amount of handmade coarse ware compared to the wheel-shaped fine ware contrasts with other semi-mobile contexts excavated in the Murghab region, there is a high proportion of coarse ware compared to BMAC sedentary sites. [29] As consistently seen in materials recovered in Togolok 1, the present preliminary analysis of pottery assemblage suggests that the composition of the

[17] Cattani 2008a; Rouse and Cerasetti 2014.
[18] Cremaschi 1998.
[19] Spengler *et al.* 2018.
[20] Bernbeck 2008, 48.
[21] Rouse and Cerasetti 2018.
[22] Cattani 2008a; Cattani 2008b; Rouse and Cerasetti 2014.
[23] See Luneau section in the article Cerasetti *et al.* forthcoming.
[24] See Luneau section in the article Cerasetti *et al.* forthcoming; Luneau 2021a.
[25] See Luneau in Cerasetti *et al.* forthcoming.
[26] Rouse and Cerasetti 2014, 35.
[27] Hiebert 1994, 61.
[28] Rouse and Cerasetti 2014, 39–43.
[29] Cattani 2008a, 143; Hiebert 1994, 61; Luneau 2021b, 501; Rouse and Cerasetti 2014, 39–43.

Figure 3: *Small finds from Togolok 1 trench: (1) red stone/goethite vessel fragment; (2) terracotta flat violin-shape female figurine fragment; (3) copper alloy openwork compartmented stamp seal fragments; (4) chlorite stamp seal (Photographs by authors). (5) Terracotta flat violin-shape figurine from Gonur-tepe (after Luneau and Shirazi 2020, fig. 3.1).*

ceramic assemblage in use at Togolok 1 was probably influenced by the sedentary BMAC communities with a possible interplay of material traditions.[30]

This influence also seems to be consistent with other materials found during the trench excavation. In the first campaign in 2014, the bottom of a fine-grained dark red stone from the second occupation phase was found in an organic deposit in the area interpreted as a livestock enclosure (**Figure 3.1**). The production of semi-precious stone vessels, using drills and chisels, had been characteristic of the Kopet-dagh region since the Early Bronze Age (c. 2800–2400 BCE).[31] Specifically, fine vessels were chiseled from alabaster or marble-like stone, black and green chlorite, steatite, limestone, agate, and lapis lazuli.[32] In the Murghab region, these artifacts have been found in sedentary settlements dating back to the Middle and Late Bronze Age. The absence of easily accessible raw materials in this region, as well as the location of these objects within rich grave goods in the Gonur necropolis, might support the interpretation of stone vessels as elite items.[33] The discovery of this artifact in a semi-mobile context might be connected to trade and intensified exchange activities with BMAC communities.

The discovery in the 2015 field campaign of anthropomorphic terracotta figurines and amulet/stamp-seals further testify a close interaction with BMAC counterparts. A burnt head of terracotta figurine was identified in the second occupation phase of the 'living area' (**Figure 3.2**). Unfortunately, due to the high fragmentation of the head, it is difficult to identify the specific type of terracotta anthropomorphic figurines. Based on the chevron pattern on the elongated neck, it may belong to the flat violin-shape

[30] Cerasetti *et al.* forthcoming.
[31] Kircho 1981, 99.
[32] Hiebert 1994, 148–150; Masimov 1981, 213; Masimov *et al.* 1998, 35–36.
[33] Hiebert 1994, 148; Sarianidi 2007, 111–113.

female figurine type.[34] Indeed, this motif appears almost exclusively in female specimens and probably represents a series of highly stylized necklaces.[35] The figurine has a characteristically beak-like nose, although the typically trapezoidal headdress (usually interpreted as a tiara) has not been preserved in the present burnt head. These figures often have two drilled holes through which a string or a ring might pass, allowing for suspension. This type is emblematic of the Murghab region and the Kopet-dagh foothills during the second half of the Middle Bronze Age (c. 2200–1950 BCE) (**Figure 3.3**).[36] Flat violin-shape female figurines are documented in the excavations carried out in the sedentary settlements of Altyn-depe in the Kopet-dagh, and Adji Kui 1 and 9, Gonur North and its necropolis in the Murghab.[37] In addition, a recent analysis of figurines discovered by the AMMD (The Archaeological Map of the Murghab Delta Project) and TAP between 1990 and 2015, placed these objects in twelve more settlements located in the western, southern, and eastern sectors of the central Murghab region, including Togolok 1, showing their large distribution.[38] Because of the context of these discoveries and the stylistic parallels with specimens from Altyn-depe, terracotta figurines are one of the discriminating factors used to date the BMAC settlements to the Middle Bronze Age.[39] As the production of this type of anthropomorphic figurine came to an abrupt halt at the end of this period, the finding of one terracotta flat violin-shape female figurine from a context that largely spans into a Late Bronze Age chronology in Togolok 1 is certainly worth noting.[40]

The function of terracotta flat violin-shaped female figurines is open to interpretation. Considering their limited length (*c.* 10 cm), general thickness (between 0.5 and 1.5 cm), and probable suspension as pendants or as objects displayed in domestic or public contexts, these figurines might have held apotropaic significance.[41] Although simple aesthetic value cannot be ruled out, these figurines could have had multiple uses in the domestic context and different meanings. The emphasis on broad hips, breasts, and the pubic triangle may have symbolized fertility. However, a further interpretation of the significance of these female figurines is provided by the glyptic. The beak-like nose and open arms, or spread-out wings, reflect an ornitomorphic aspect of Iranian and Bactrian compartmented metal seals between the late 3rd and early 2nd millennium BCE, which has often been interpreted as a celestial raptor or Iranian goddess.[42] This iconography is related to the cultural and religious *koinè*, that stretched from the Iranian plateau to the Baluchistan (across Southern Turkmenistan, Southern Uzbekistan, and Afghanistan) between late 3rd and early 2nd millennium BCE.[43] In addition, the different contexts of discovery are a crucial element for the interpretation of these artifacts and their use. At the current state of research in the Murghab region, anthropomorphic figurines were identified in craft and residential areas, in waste deposits, as well as in ritual and funerary contexts.[44] Most likely, such aspect denotes a function that was not specifically related to only ritual or ceremonial events. Conversely, these artifacts might have also been used daily as apotropaic objects. However, the presence of a terracotta figurine in the Togolok 1 context further strengthens the close interconnection of the semi-mobile community within the BMAC cultural sphere.

[34] Luneau and Shirazi 2020, 159–160; Masson and Sarianidi 1973; Rossi Osmida 2007, 68–75; Sarianidi 2007, 68–70.
[35] Forni 2018, 12.
[36] Antonova and Sarianidi 1990, 5–24; Masson and Sarianidi 1973.
[37] Masson 1988; Masson and Sarianidi 1973; Rossi-Osmida 2007, 68–75; Salvatori 2002, 106–179; Sarianidi 2007, 68–75.
[38] Salvatori and Tosi 2008; Forni 2018, 9–20.
[39] Masimov *et al.* 1998, 34; Masson 1988, 92–93; Salvatori 2002, 107–113.
[40] Masimov *et al.* 1998, 34.
[41] Luneau and Shirazi 2020, 165–167.
[42] Winkelmann 2007.
[43] Winkelmann 2014, 299.
[44] Rossi Osmida 2007, 68–75; Sarianidi 2007, 68–70; Sarianidi and Dubova 2014, 106–107.

The presence of seals also supports this cultural and economic interaction. The importance of these artifacts derives from their elaborate combination of stylistic details, technological knowledge, and symbolic meanings as a direct expression of the related culture and society. However, regarding the use of the seals, this aspect is poorly documented in the Murghab. Evidence of an administrative use of the seals, represented by seal impressions on pottery, cretulae, and bullae, were only documented in Gonur North and Taip 1.[45] In addition, three more wheel-shaped fine pottery fragments with seal impressions were collected on the surface during the surveys carried out at the Togolok area between 2009 and 2014. Despite their limited number, the findings of impressed seals represent possible evidence of an emerging hierarchy and control system in the Murghab region between the Middle and Late Bronze Age.[46] However, a stylistic detail seems to indicate a possible further use of these artifacts. In fact, the presence of a perforated handle or a hole drilled through the longitudinal axis is characteristic of almost all the type of seals attributed to the BMAC culture.[47] The hypothesis that a string could be passed through the hole, allowing the objects to be suspended as a pendant, suggests a possible symbolic or apotropaic value, particularly in the case of the seals depicting complex iconographies such as hybrid figures combining man and animals. This hypothesis might be consistent with the presence of 112 seals inside 109 burials of the Necropolis of Gonur.[48] Interestingly, more than a third of the total amount of seals were found at the waist of the dead, while one-fifth of the total was discovered at the neck, wrist, and head.[49]

In Togolok 1 trench, three stamp-seals belonging to as many types were found. The first stamp-seal was identified on the surface of the site during the preliminary surface activities. It consists of two fragments of a copper-based openwork compartmented stamp-seal (**Figure 3.4**). The artifact is marked by a notched profile and geometric design. Fragment of stamp-seal similar in style and decoration from the excavation of Room 512 in the so-called Fire Temple of Gonur North allow interpreting the central element of the geometric motif as a possible bird-like shape figure.[50] The second seal is a chlorite stamp found in the second occupation phase in the trench's western area interpreted as a livestock enclosure (**Figure 3.5**). This artifact is circular with a wavy profile with traces of a suspension loop on the back. A circular hole drilled in the center of the artifact is the only decorative element. Considering the extreme simplicity of the figurative motif, the present seal is possibly an unfinished product. The third specimen is a black chlorite amulet/stamp-seal found in the second phase of occupation of the same area (**Figure 4**). This double-sided artifact has a quadrangular shape and a decoration engraved on both sides. Moreover, there is a string hole drilled through its longitudinal axis (**Figure 4.1**).

These features are typical of the Murghab style of seals; in fact, this seal type has been identified almost exclusively in the Murghab region, in particular from the Late Bronze Age sites of Gonur South and Togolok 21.[51] According to Salvatori, the chronology reference of this typology is univocal. Quadrangular amulet/stamp seals may be dated to the first centuries of the 2nd millennium BCE with a possible further extension to the last century of the 3rd millennium BCE. This chronology reference is consistent with radiocarbon dating of the second occupation phase of the trench.[52] Engraved on one side of the seal, there is a figure with humanoid face and a snake-shaped body, while on the other side, there is a bird surrounded by two snakes. Unfortunately, the bird side presents concretions that were impossible to remove in the field and impeded a clear reading (**Figure 4.2A–2B**). However, the animal

[45] Sarianidi 1998, 23; Masimov and Salvatori 2008, 106–107.
[46] Hiebert 1994, 152.
[47] Sarianidi 1998.
[48] Sarianidi 2007, 99–108.
[49] Sarianidi 2007, 99.
[50] Sarianidi 1998, 284–285, fig. 1566.
[51] Salvatori 2000, 19; Sarianidi 1981.
[52] Salvatori 2000, 130–138.

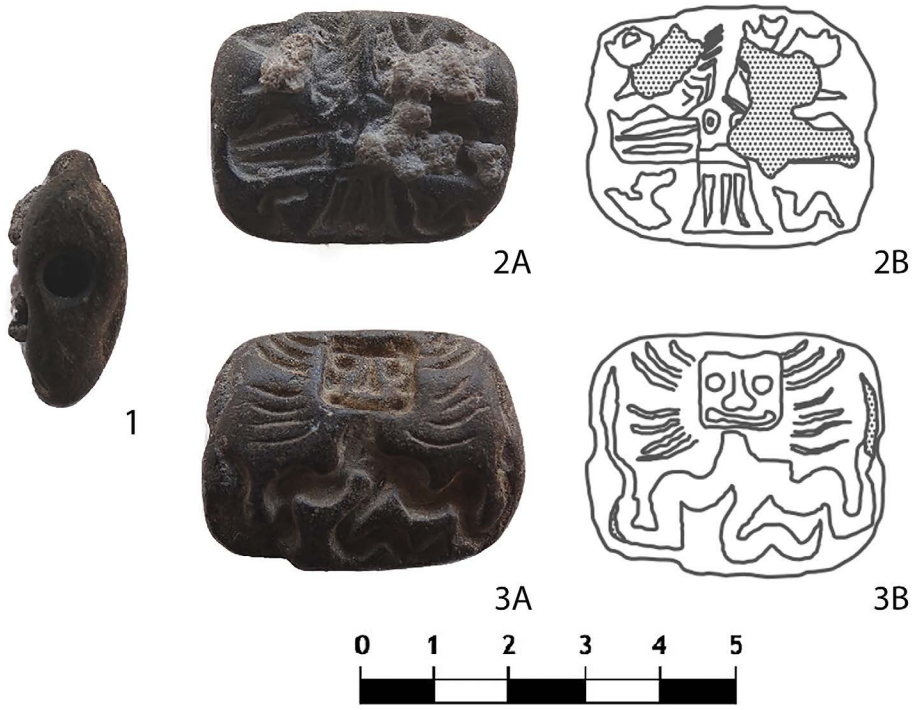

Figure 4: *Black chlorite amulet/stamp-seal discovered at Togolok 1 trench. The artifact is marked by a quadrangular shape and by a string hole drilled through the longitudinal axis (1). The engraved decoration represent a bird of prey with possible female features surrounded by two snakes located between her wings on one side (2A-2B) and a humanoid face with a serpentine body on the other (3A-3B) (Photographs and drawings by authors).*

is characterized by outspread wings and a tail that evokes those of birds of prey, possibly representing short-toed eagles (*Circaetus gallicus*).[53] The snakes are depicted between the wings of the bird of prey: two short tails are recognizable beneath the wings, while the heads are visible in the upper part of the seal, distinguished by wide-open jaws. Depictions of snakes in the wings, in the beaks, or between the claws, are a typical iconography of the BMAC (**Figure 5.1**).[54] This representation probably suggests a conflict between these two animals, perhaps linked to the contrast between the celestial and chthonic spheres. Interestingly, the body of the bird of prey presents two small circular elements, which have no comparisons in the birds of prey iconography. Considering their shape, dimension, and position, these two small circular features seem to recall the breasts of the terracotta flat violin-shaped female figurines and thus might indicate a female figure. Similarly, the face can be related to those of the terracotta figurines, as it is placed in frontal view, in relief, and has a pronounced ornitomorphic nose. Although the head is difficult to interpret, the representation of a possible breast on the body of the figure has no comparisons in the BMAC bird of prey iconography. The other side of the amulet/stamp-seal shows a particular iconography of BMAC seals with a humanoid face above three winding snakes (**Figure 4.3A–3B**).

At the present state of research, the only possible parallels of this specific iconography in the prehistoric Bactro-Margiana area are the decorations on stone stamp-seals from private collections (**Figure 5.2–**

[53] Forni 2019, 64–65.

[54] Sarianidi 1998, 43–45.

Figure 5: *Iconographic parallels of amulet/stamp-seal from Togolok 1 (Figure 4) with Late Bronze Age Bactrian and Margian seals: (1) modern impression of a black chlorite amulet/stamp-seal from Gonur South (after Sarianidi 1998, 300–301, fig. 1646.2); (2) modern impression of a stone stamp seal from private collection (after Sarianidi 1998, 234–235, fig. 1235); (3) modern impression of a stone stamp seal from private collection (after Sarianidi 1998, 234–235, fig. 1236); (4–5) modern impressions of a stone amulet/stamp-seal from private collection (after Sarianidi 1998, 170–171, Figs. 905.1–905.2); (6) copper alloy amulet/stamp seal formerly from Kovacs Collection (after Winkelmann 2016, 296, fig. 4, photo by Renée Kovacs); (7) man with snake arms on a Transelamite cylinder seal from Jalalabad (Ascalone 2008, fig. 1; drawing after Winkelmann 2014, fig. 4.1).*

3).[55] The anthropomorphic features of goggled eyes, flared nostrils, swollen cheeks, wild hair, and beard can be related to characters from Bactrian stamp-seals dated between the Middle and Late Bronze Age (**Figure 5.4**).[56] This figure is usually portrayed as a fusion between man and animal with snakes-like arms and interpreted as 'Snake-man' (**Figure 5.5–6**).[57] The 'snake-man' has two thin bovine horns that protrude from the ears. Wavy lines arise from the broad shoulders, representing two small wings. The lower body and legs are depicted in a kneeling posture in the left profile.[58] Sarianidi interpreted this figure as Kersaspa, a later Iranian mythological hero who is described in the Avestā as 'savage', 'ferocious' and 'disgusting'.[59] Azarpay identifies the 'snake-man monster as a prototype of the Zoroastrian demonic figure of Aži Dahāka, whose full name is explained as 'snake-man' or 'hominoid serpent'.[60] This latter is described as the creator of evil and thus antagonist of the Mazdayasnian religion.[61] Winkelmann interpreted this character as a hybrid of man and feline, which appeared in the Near Eastern tradition since the 5th millennium BCE.[62] Furthermore, Amiet compared the face of this figure to the apotropaic masks of Humbaba in Syrian-Mesopotamian art dated to the early 2nd millennium BCE.[63] Humbaba is a monstrous giant mentioned in the Epic of Gilgamesh, which is characterized by paws of a lion and a body covered in thorny scales; feet with claws of a vulture and horns of a bull on his head; his tail and phallus each end in a snake's head.[64] In any case, the wide use of snakes in different representative models, including the 'snake-man', seems to be a peculiar iconography of Southeastern Iran dating back to the mid-3rd millennium BCE.[65] A man characterized by snakes uprising from his arms is attested in at least four Transelamite seals dated to the second half of the 3rd millennium BCE, three of which from private

[55] Sarianidi 1998, 43–45, e.g. figs. 886.1, 889.1, 938.1–2; Winkelmann 2016, 296.
[56] Azarpay 1991, 1–10; Sarianidi 1998,171, figs. 904.1–907.2.
[57] Azarpay 1991.
[58] Azarpay 1991, 3; Winkelmann 2016, 295.
[59] Sarianidi 2007, 176–177.
[60] Azarpay 1991, 6.
[61] Skjærvø *et al.* 2000, 191–205.
[62] Winkelmann 2016, 303.
[63] Amiet 1990, 157–180.
[64] Burckhardt 1991.
[65] Ascalone 2008, 258.

collections and one from a survey carried out at Jalalabad in the Fars region (FIG. 5: 7).[66] Considering morphology, iconography, style, and epigraphic signs, according to Ascalone, the Jalalabad seal was probably realized by 'Transelamite' itinerant engravers during the third quarter of the 3rd millennium BCE and represents the evidence of imported material from the Kerman region to the Persepolis plain.[67] According to Winkelmann, the presence of the 'snake-man' also in the BMAC area seems to be one of the affinities between the BMAC and the Kerman figurative repertoire, revealing the cultural and religious *koinè*, that stretched from the Iranian plateau to Baluchistan, between late 3rd and early 2nd millennium BCE.[68]

All in all, the present analysis of the objects found at the semi-mobile context of Togolok 1, but pertaining to the elaborate system of symbols, iconographies, and meanings of the BMAC cultural sphere, suggest as in Togolok 1 the semi-mobile community was likely reshaped by a complex system of interaction with BMAC farmers. (LF)

Conclusions

The excavation of the latest occupation phases of Togolok 1 provided data crucial for understanding the complex cultural and economic variability of the Murghab communities between the final stage of the Middle Bronze Age and Late Bronze Age. The absence of any permanent structure in the trench excavation of Togolok 1, suggests that the community partially inhabited the settlement, likely on a seasonal basis, when the area became nearly depopulated at the turn of Late Bronze Age. The latest phases of occupation are characterized by the presence of fireplaces and artificial platforms with the presence of post holes, which were probably used to support lightweight structures. However, the present evidence of semi-mobile or seasonal occupation seems to contrast the classic narrative of occupation by specialized pastoralists whose main economy was based on animal husbandry and secondary products. Although the zooarchaeological data indicate that their economy was partially related to animal husbandry, the large amount of botanical remains argues for an integrated system comprising agricultural activities and interaction with BMAC farmers.

The analysis of the materials from Togolok 1 supports this idea of a high degree of contacts and interchange that diverges from the classic dichotomy between farmers and pastoralists. Pottery, terracotta figurines, stamp-seals, and stone vessels associated with BMAC culture in the present context are all strong indicators of an interchange economic pattern that possibly hide a crucial influence, if not integration, with the BMAC cultural aspects. However, Togolok might represent a specific case, and caution must be used as the limited data available from other semi-mobile excavated sites in the Murghab. Indeed, the assemblage from the trench shows a prominence of fine ware compared to handmade coarse pottery, the latter being the main pottery type in the excavated semi-mobile settlements in the Murghab region.[69] In contrast, the percentage of handmade coarse pottery is significantly higher in the present trench compared to sedentary sites, such as Gonur-depe.[70] Likely, the semi-mobile community living in Togolok 1 might have been strongly influenced by sedentary farmers regarding pottery production. However, future analysis might shed further light on the crucial unresolved questions about the function and fabrication of the coarse ware in the Bronze Age period in the Murghab region.

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[66] The term Transelamite was introduced in 1986 by Amiet to define the material culture produced in the area between the Kerman region and the western portion of Baluchista, see Amiet 1986. For the figure discovered in Jalalabad see Ascalone 2008, 258, figs. 9c, 9d; Francfort 2010, 71–73. Winkelmann 2014, fig. 4.1.

[67] Ascalone 2008, 261.

[68] Winkelmann 2014, 299.

[69] Cattani 2008b; Rouse and Cerasetti 2014.

[70] See Luneau in Cerasetti *et al.* forthcoming.

Nevertheless, this influence seems to be strengthened by the presence of terracotta figurines and stamp-seals in particular, showing a possible reinforced interconnection between the BMAC people and the semi-mobile community in the region. Although these objects might simply be viewed as the result of intensified economic exchange, one cannot rule out their strong cultural significance. The chlorite amulet/stamp-seal and the burnt head of a terracotta figurine may have been used on a daily basis as apotropaic pendants or during rituals, suggesting possible shared cultural values among the semi-mobile people inhabiting Togolok 1. Therefore, although with caution also for the limited area of excavation, we can suggest that their cultural significance was likely part of a possible early cultural integration process in Togolok 1.[71] While the spectrum of mixed agropastoralist economies is evident across semi-mobile sites excavated in the Murghab region (including Togolok 1), the cultural materials from the present excavation suggest a further high degree of interaction with the BMAC sedentary communities. This degree of interaction could possibly go beyond the ordinary exchange of materials in Togolok 1, and hide more complex cultural processes.

In conclusion, the analyses of data from the first two years of excavation at Togolok 1 contribute towards disentangling the complex socioeconomic patterns of the semi-mobile communities living in the Murghab region during the Bronze Age. In particular, the material culture of the semi-mobile community of Togolok 1 seems to present a distinctly localized and high degree of cultural interaction with their sedentary BMAC counterparts. However, additional research is required for a meaningful interpretation of the factors that driven semi-mobile communities to consciously select different economic and cultural alternatives. Only through further investigation of the oft-overlooked semi-mobile settlements in the Murghab region can we advance our understanding of the different economic patterns that shaped such communities during the Late Bronze Age. (RA)

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[71] Cerasetti 2021, 490.

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The Structure of the Urartian Territory as Seen through the Distribution of Inscriptions

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Abstract

This paper aims to analyse the territory of the Urartian state in two ways: examining the physical extent of the land controlled by the Urartian rulers on one hand, and considering the way they exercised their control on the other. The starting point of the analyses is the way the Urartian territory is typically presented in academic literature. The paper discusses the way a territory can be defined, looking at what Urartian cultural elements can be used for such purposes. This contribution is focused on the distribution of the rock carved inscriptions, using maps created in GIS, which are used as the basis for the interpretation of the data. The inscriptions are used as markers for the presence of the Urartian state, and they support the idea of a segmentary state.

Keywords

Urartu, Inscriptions, GIS, Territory, Strategies

Introduction

The state of Urartu came to prominence in the Ancient Near East during the 9th century BCE, under the rule of Sarduri I. The formation process of the Urartian state is not clear, but we know it developed from a series of small chiefdoms spread across the Armenian Plateau.[1] From the shores of Lake Van the state quickly expanded towards the east and north, and also towards the west. We can trace the expansion of Urartu into new territories by the inscriptions left on monumental stelae, on cliff faces and built into structures.

The way the Urartian state was organised, and especially the issue of centralisation, is an ongoing academic debate. Earlier studies, heavily influenced by the text of the inscriptions, see Urartu as a centralised state.[2] Boris Piotrovsky, who directed the excavation of Karmir Blur, wrote that 'the extensions of Urartian territory was accompanied by a strengthening of central authority, the emergence of a ruling class, the creation of a system of administration of the various regions, and the establishment of a pantheon of gods'.[3] In the second volume published on the early excavations at Altıntepe, Tahsin Özguç describes how 'the state was governed by a feudal system, in which employees appointed by central government had every power'.[4] However, at around the same time, discussing about the nature of the Van region, Charles Burney notes how the mountainous terrain separated each district from the

[1] Salvini 1967, 80.
[2] Melikišvili 1951.
[3] Piotrovsky 1969, 66.
[4] Özgüç 1969, 59.

next, and 'made close-knit centralized government hard enough to enforce at any time and impossible in the winter'.[5]

Integrating landscape and social studies, and with the increase in reliable archaeological data, a more complex system was recognised. In his recent book, Ali Çifçi views the first period of the state, leading up to the end of the 8th century BCE, as having neither a centralised nor a decentralised administration of the territory. The author concludes there was no centralised model to be imposed, but the administration was organised around the specific needs of a certain region.[6] A similar conclusion is reached by Rachel Cohen, in her dissertation on the relationship between natural landscapes and the built environment in the Urartian state, who summarised that 'how Urartian sites negotiated imperial and local traditions varied by region'.[7]

The nature of the Urartian state, and the different state of research in the modern nation states that share what was once its territory, make it difficult to reconstruct with any certainty the internal organisation and the functioning processes of the ancient state. Also, in order to attempt such reconstructions, it is fundamental to define the territory in question. The present research will attempt to shed some light on this topic.

This contribution aims to take a step back and look at a single class of archaeological data and its distribution, and analyse what is available to us, even if this leaves gaps in the interpretation. This article presents a small part of an ongoing research into Urartian inscriptions. Whilst the full research looks at distribution of different types of inscriptions (rock carved, on metal artefacts and clay items), the present contribution brings to attention only a part of the rock carved inscriptions. The final research also integrates the inscription distribution with other types of data (the location of fortresses and the location of temples for example), in order to provide a better interpretation of the results, and it discusses the territories which are traditionally considered Urartian, but lack inscriptions.[8]

The data considered on this occasion comprises the Urartian rock carved inscriptions commissioned up to and during the reign of Sarduri II (*c.* 756–730 BCE), which is an arbitrary break. Nevertheless, the data is equivalent to approximately the first century of the state's existence, the period of aggressive expansions, and its growing influence in the political scene of the Ancient Near East, and it stops a few decades before Sargon's famous 8th campaign, which marked a threshold in the history of Urartu.

Urartu came to prominence under Sarduri I (*c.* 840–830 BCE), who founded a new capital on top of Van Kalesi. Urartu quickly expanded from the eastern shores of Lake Van. Under Minua (*c.* 810–785/780 BCE) the Urmia plain was brought under Urartian control, whilst his son, Argisthi I (*c.* 798/780–756), incorporated territories north of the Araxes. Sarduri II initially consolidated Urartu's territories, pursuing campaigns in the Lake Sevan area and in North Syria, but had to confront a resurgent Assyria, whom, under Tiglath-Pileser III, is said to have laid siege on the Urartian capital.[9] The conflict between Urartu and Assyria culminates in 714 BCE, when Sargon II marched through Urartian territories and destroyed the Muşaşir temple, centre of the Urartian religion.

[5] Burney and Lang 1971, 128.
[6] Çifçi 2017.
[7] Cohen 2018, 477.
[8] Another necessary step, which is not covered in this contribution, is to compare the distribution of the different categories of inscriptions. It would be important to see the relations between the various aspects of Urartian ideology and how they influence the distribution of certain types of inscriptions.
[9] Burney and Lang 1971, 148.

Without going into the details of Sargon's account,[10] which has a certain degree of propaganda to it, it is hard to overlook what follows this moment. It is hard to quantify the direct impact Sargon's campaign had. Nevertheless, Urartu is seen to take a step back from the international scene and undergoes a restructuring process, effects of which are clear in the first half of the 7th century BCE, during the reign of Rusa son of Argisthi. Settlement and infrastructure projects flourish again during his rule and we see evidence of an administrative system which was absent before.

The territory of Urartu

Traditionally, Urartu is described as encompassing an area that stretches from the sources of the Euphrates to the Urmia Lake, and from the Upper Tigris to Lake Sevan. Most of the published maps show a contiguous territory within those borders.[11] Establishing the borders of ancient states is often problematic, even more so in the case of Urartu, where archaeological excavations are focused on the central fortresses, and both the quality and quantity of surveys differ between the various regions. This issue is reflected in recently published maps, were there are no borders drawn, just the major sites shown on the map.[12]

What is not always emphasised is the mutability of the territory controlled by the Urartian kings, especially prior to the end of the 8th century BCE. Each generation saw new military campaigns, often resulting in annexed territories, and this diachronic element is often underrepresented.

Reinhard Bernbeck introduced the notion of Urartu as 'a segmentary state', but it did not have an immediate impact.[13] In the future, with hopefully more data from diversified excavations and surveys, it could be possible to apply Parkers' 'continuum of boundary dynamics' to the Urartian territory.[14] If we consider it to have been a segmentary state, then we can start to talk about a frontier around each Urartian cluster, with different political, geographical, cultural and economic dynamics within each cluster.

It is necessary to mention that by the term Urartian, this paper understands the culture produced by the Urartian state, through its ruling elite, not a homogeneous, widespread ethnic or linguistical group. It builds on Paul Zimansky's conclusion that 'Urartu was remarkable for creating and maintaining political unity under a ruling ethos. We have come to think of it as something else — a uniform culture — precisely because our understanding from on high has not penetrated below the cloud level of that ethos'.[15]

How can we define an Urartian territory? As Zimansky has already noted, 'defining political entities with archaeological evidence is generally a thorny problem, but in the case of Urartu it is less acute than it might be: royal inscriptions [...] are direct indicators of state control'.[16]

It is difficult to use other archaeological evidence for this purpose. The famous red burnished pottery, called 'Toprakkale ware' by Burney, which is the most distinguishable in the Urartian ceramic assemblage, can be misleading.[17] Kroll estimates that 95% of the sherds found in Urartian sites are

[10] See Zimansky 1990 for a discussion on the content of Sargon's letter to the god Assur.
[11] Bonzano 2019, 292–294; Piotrovsky 1969, end plate.
[12] Çifçi 2017, 16.
[13] Bernbeck 2004.
[14] Parker 2002, 374.
[15] Zimansky 1995, 111.
[16] Zimansky 1985, 10.
[17] Burney 1957, 42.

simple, undecorated wares.[18] At the same time, defining sites as Urartian based only on the finding of red burnished pottery during surveys alone can be inaccurate without sufficient contextual data from excavations.

There are building techniques and architectural elements that are typically Urartian and are easy to recognise in the major excavated fortresses like Çavuştepe, Kayalidere, Kef Kalesi, Anzaf, Argistihinili, Erebuni, and also the later sites such as Bastam, Ayanis, Toprakkale, and Karmir Blur. However, here we are dealing with government installations, and they represent only a small part of the total number of fortresses associated with the Urartian state. The function of most fortresses and their Urartian character are hard to identify, either due to a lack of modern excavations, or due to their state of preservation.

Unfortunately, we do not have enough knowledge of either Urartian settlement networks or domestic architecture to look for them as markers of Urartian influence. On the other hand, Urartian craftsmen are praised for their metalworking skills, and we have an impressive range of exceptional bronze items that testify it. These artefacts are the most iconic symbol of Urartian material culture. However, many of these objects are unprovenanced items, and the rest come from the few stratigraphically excavated sites. They are therefore not suitable for a distribution analysis and give us little insight into the territory of the state.

Rock carved inscriptions and their distribution

Urartian rock inscriptions are found on building blocks, stelae, or in rock niches. They are very formulaic and celebrate the kings' achievements. With the exception of the two known inscriptions commissioned during the reign of Sarduri I, all the other inscriptions mention Haldi, the head of the Urartian pantheon. The kings do everything in the name of Haldi, and through the power of Haldi at the same time. The deeds mentioned in the inscriptions range from constructing various building, to founding fortresses, conducting military campaigns, building irrigation works and planting orchards.

We cannot know how many people spoke Urartian, but there is no evidence for a widespread use of the language. It also disappeared, at least from the written record, with the collapse of the Urartian state. Igor M. Diakonoff identified only 20 Hurro-Urartian cognates in Old Armenian.[19] It is also important to highlight the fact that the inscriptions are written in the cuneiform script, which was introduced to the Van region, and subsequently to the conquered territories, by the Urartian rulers. It is therefore unlikely that many people could have read the inscriptions. There is also the matter of public access to some of the inscriptions, particularly those inside citadels.

Nevertheless, the inscriptions communicate a message through their physical presence, not just through the text on them. They are often in prominent places in the landscape, deliberately chosen. They would have been recognised as markers of authority, commissioned by the rulers from Van, and part of their policy.

Methodology of research

This research makes use of Mirjo Salvini's corpus of inscriptions.[20] Only the inscriptions with secure provenance are taken into account, and as mentioned beforehand, it looks at the distribution of inscriptions up to Sarduri II (**Figure 1**). Duplicate inscriptions found at the same location were also excluded, therefore a total of 142 are considered in the present research. A database was compiled,

[18] Kroll 1976, 62.
[19] Diakonoff 1985.
[20] Salvini 2008.

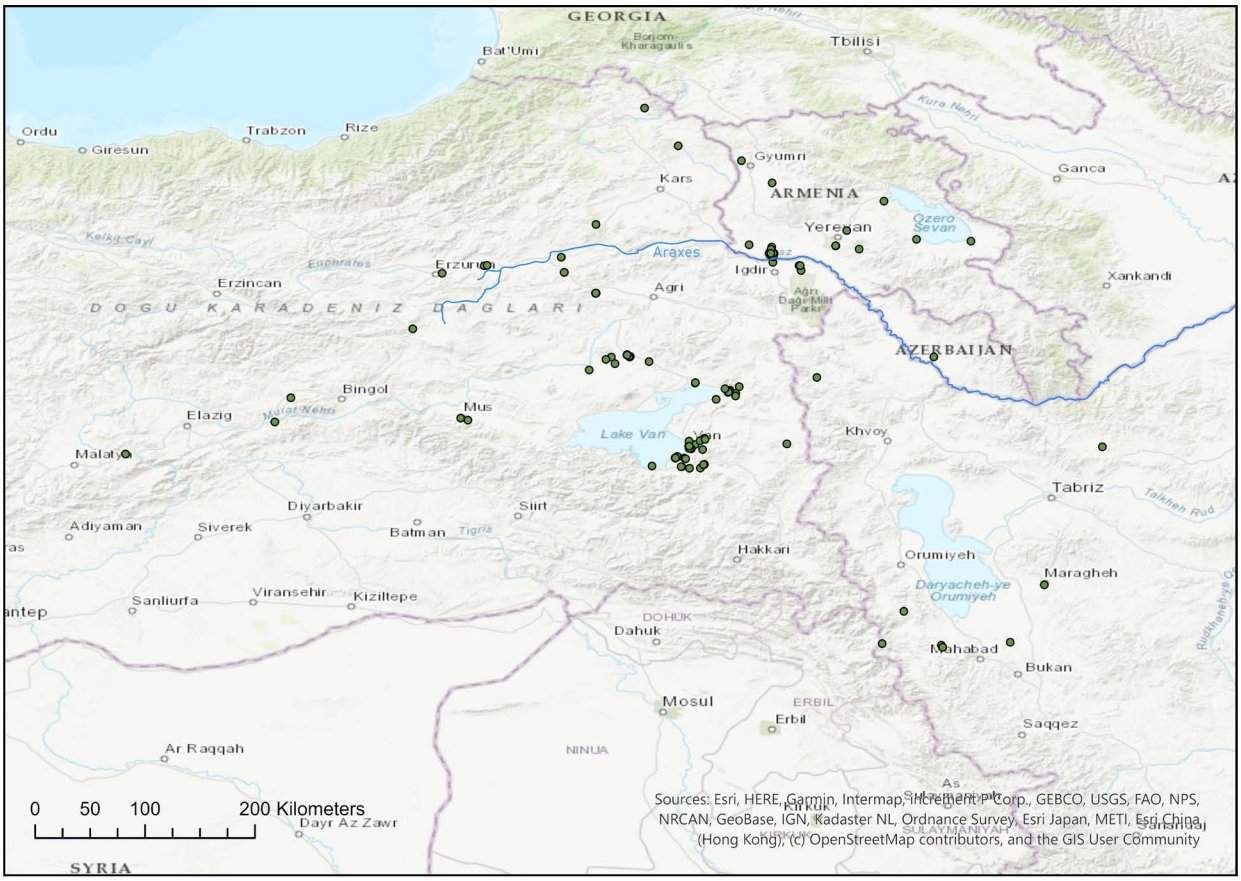

Figure 1: *Distribution of the Urartian rock cut inscriptions, up to Sarduri II.*

containing the original location of the inscriptions, and information regarding their content, chronology, and the surface they are carved on, among other details.

This article presents the distribution of inscriptions categorised by their content into military, economic, religious and fortress foundation inscriptions. Not all of the inscriptions are legible enough to be assigned to any of the categories, or are not specific enough, while some fall into multiple categories and are represented on several maps. A heat map was also created, to highlight the areas with a high concentration of inscriptions, and the areas with single ones. The different categories created are shown on top of the heat map. The maps also contain some of the major Urartian sites, excluding the 7th century ones.

The military category comprises inscriptions that mention military campaigns, including the annals of Argišti I and Sarduri II, both carved on the slopes of Van Kalesi. The economic and infrastructure inscriptions feature the construction of irrigation facilities (canals, cisterns, fountains), the establishment of vineyards and orchards, and the building of storage facilities and stables. The religious inscriptions mention the building of temples, contain god lists, and celebrate pilgrimages to Haldi's temple in Muṣaṣir, outside Urartian territory. The last category created is formed by the inscriptions that mention the creation of new fortresses.

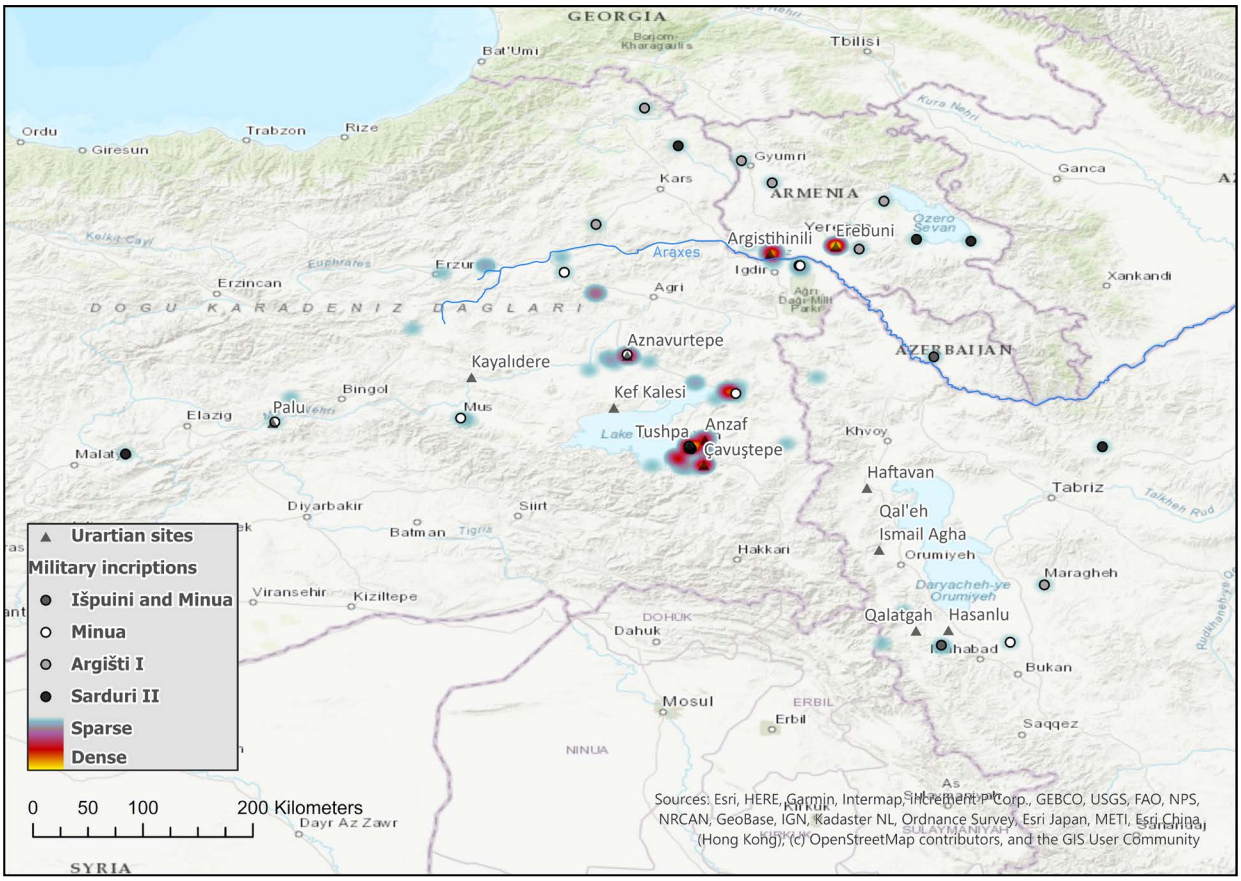

Figure 2: *Distribution of the military inscriptions and heat map of all inscriptions considered.*

Military inscriptions

For the military inscriptions (**Figure 2**), it was decided to divide them chronologically, based on the ruler that they commemorate. From these inscriptions it is clear in which ways the state wanted to expand. The earliest military campaigns are recorded during the reign of Išpuini, and they both mention Minua, his son. These inscriptions are found east of Van, one just to the south of Lake Urmia, and one far to the north of it, in the area that will be dominated by Bastam during the reign of Rusa II.

Minua, once he succeeded his father, continued campaigning south of Lake Urmia, but focused on securing the northern shores of Lake Van, and ventured west along the Murat river. He also reached the Araxes to the north, setting the groundwork for his son Argišti's campaigns. The Araxes still has an important geo-political value, representing the modern border between Armenia and Turkey.

Argišti I crossed the Araxes and conquered the valley, and also pursued campaigns further to the north. His successor, Sarduri II, carried campaigns in all the directions the state spread, reaching further east and west than his predecessors, whilst maintaining control over the northern territories.

Some of the territories where military inscriptions are found became hotspots of Urartian activity, like the northern shores of Lake Van and the Araxes Valley, and to some degree the Murat Valley. The remainder of the military inscriptions form the outer edges of the total distribution. These are often isolated inscriptions, spread further away from the Urartian centres. However, the campaigns fought in these areas do not seem to have been followed by the annexation of those territories.

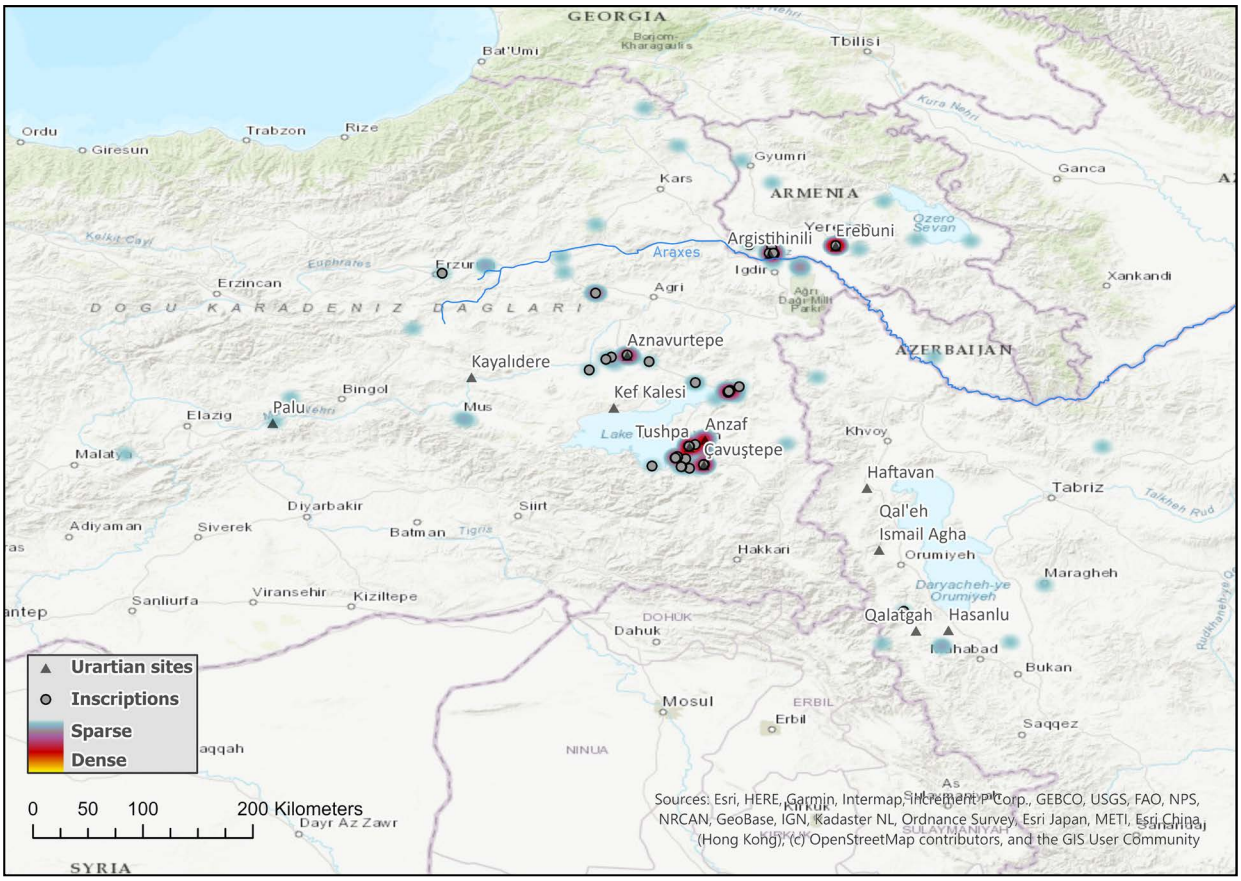

Figure 3: *Distribution of the economy and infrastructure inscriptions and heat map of all inscriptions considered.*

Economy and infrastructure

The inscriptions in this category reflect investments by the Urartian state in developing certain areas that they directly controlled. They all concentrated around Lake Van and in the Araxes Valley, with the exception of one in the Erzurum Plain, one from Pirabat, and one to the south-east, close to Lake Urmia (**Figure 3**).

The inscriptions highlight the efforts the Urartian rulers went to in order to improve agricultural productivity, through an extensive canal network, and to create storage facilities for the higher yields generated by their infrastructural works.

The inscriptions likely reflect only a part of the infrastructure actually built by the Urartian state. Through his archaeological surveys, Oktay Belli identified over 100 dams, reservoirs and canals in Eastern Anatolia, which he classified as Urartian.[21] However, as Çifçi and Greaves point out, we need to be cautious in ascribing them to the Urartian period.[22] The smaller canals are more likely to be built through the efforts of local communities, not by a central authority, even if they were constructed during the Urartian period.

If we go back to the inscriptions, we need to take into account an inherent research bias; there are likely to be other major centres yet to be excavated, which could add other territories to this map.

[21] Belli 1994; 2001.

[22] Çifçi and Greaves 2013, 201.

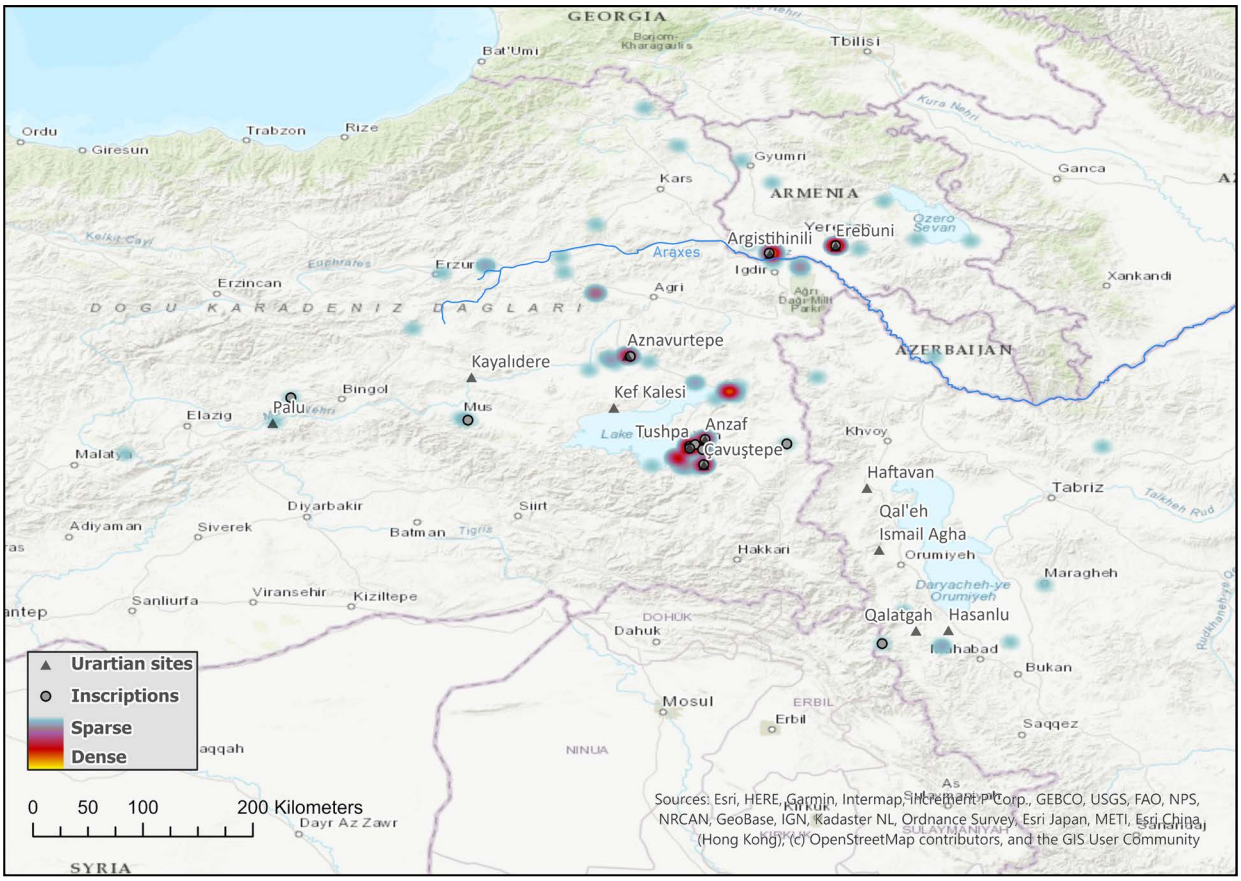

Figure 4: *Distribution of the religious inscriptions and heat map of all inscriptions considered.*

Nevertheless, with the information we have at present, we can see that the Urartian state invested major resources in developing the eastern and northern shores of Lake Van, and the Araxes Valley.

The fact that the same developments did not occur in other areas does not automatically mean that they were not under the direct control of the state, but it does at least reflect different strategies to control those territories, strategies that did not involve major building projects worthy of commemoration with a royal inscription.[23]

Religious inscriptions

The image of the distribution of religious inscriptions is even more likely to suffer from an incomplete dataset caused by excavation bias, as they tend to be found inside major Urartian centres, of which few have been excavated. The religious inscriptions are rarely found isolated in the landscape, as opposed to military or infrastructure inscriptions.

It is therefore not surprising to find them concentrated on the eastern shores of Lake Van, and in the Araxes Valley, plus one from Aznavurtepe, and two further west along the Murat River (**Figure 4**).

[23] An example of this is the area around Lake Urmia, which has a higher agricultural potential compared to the Urartian heartland around Lake Van and therefore does not require the same investment in agricultural infrastructure. For a more detailed discussion on the Urartian economy, a careful analysis of the geographical characteristics of each area would be required, overlapped with any other evidence of an Urartian presence. Nevertheless, that is not the subject of this contribution, which is merely to look at what we can infer from the distribution of inscriptions.

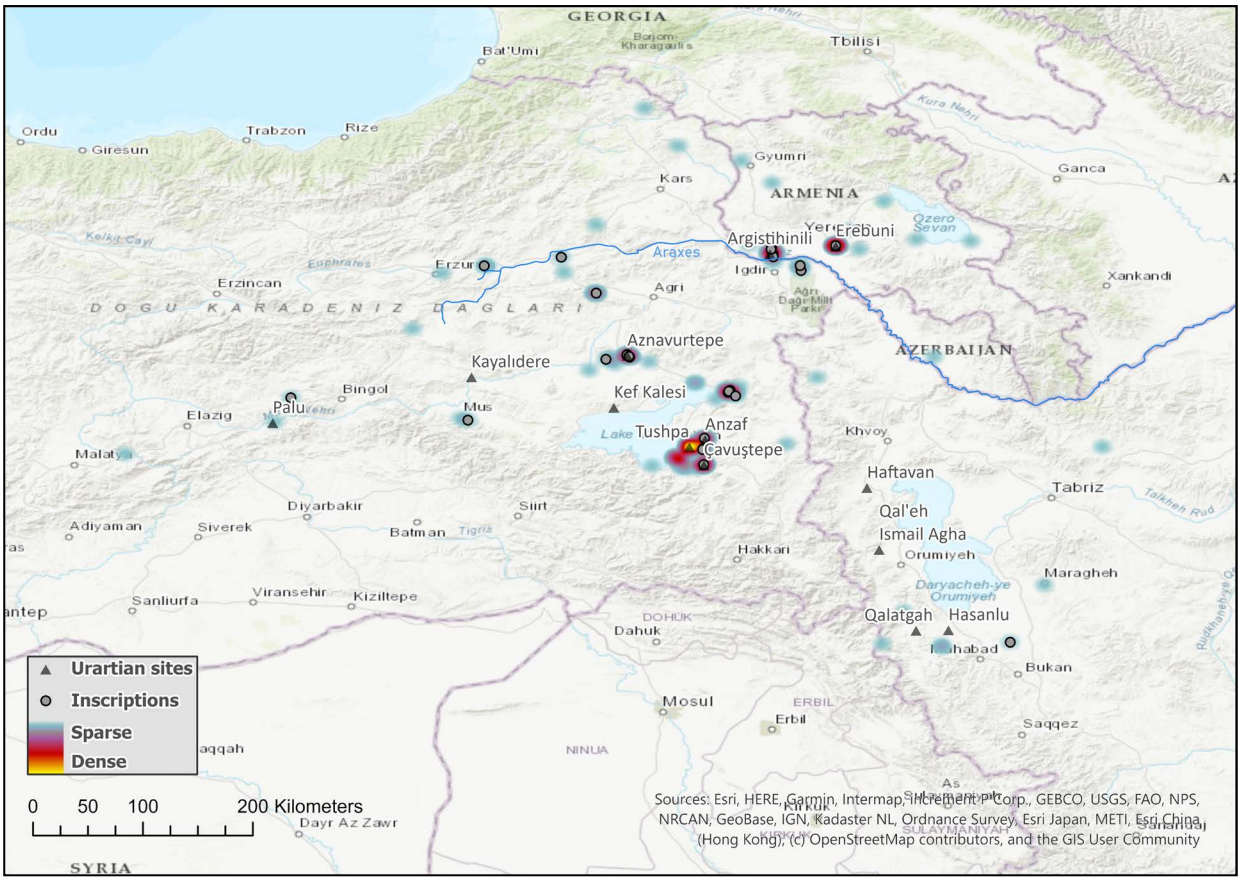

Figure 5: *Distribution of the fortress inscriptions and heat map of all inscriptions considered.*

The religious inscriptions found south-east of Van is the famous Kelishin Stele, which records a pilgrimage undertaken by Išpuini, together with his son and heir Minua, to the Haldi temple in Muṣaṣir.

Foundation of fortresses

The distribution of inscriptions that mention the construction of new fortresses overlaps with the combined distribution of economic and religious inscriptions (**Figure 5**). The only areas where fortress inscriptions are present, but economic ones are not, are the southern edge of the Araxes Valley, the area between Ezrurum and Pirabat, and the area east of Hasanlu. Interestingly, these inscriptions are all commissioned under Minua, and we also have military inscriptions of his campaigns in those areas.

Minua reached the southern edge of the Araxes valley, without crossing the river. Considering his campaigns were only the first step in the annexation of the valley, we might expect to find some form of Urartian centre there. Inscriptions tell of the foundation of Minuahinili, and there are several Iron Age fortresses identified in the area, but none have been excavated as yet.[24] Therefore, it possible to find in the future economic inscriptions from the Urartian centres located on the slopes of Mount Ararat, creating a similar pattern to what we see happening north of the Araxes later on.

[24] Özfirat 2017; 2018.

Conclusions

If we look at the distribution of all the inscriptions under consideration in this article, we can see how they were not evenly distributed. Rather, they are concentrated on the eastern shore of Lake Van, in the area of Patnos and in the Araxes Valley, with lower numbers coming from along the Murat River, Erzurum plain and the south of Urmia Lake. Only military inscriptions are spread further out.

All the areas with a high frequency of inscriptions have in common the high agricultural potential, especially when compared to the surrounding areas. The Murat River and Lake Urmia, both areas with known Urartian presence, are also very fertile lands. Nevertheless, with the possible exception of the different areas around Lake Van, the territories where Urartian rulers committed their resources seem disconnected from one another. A natural reason for this is the geography of the Urartian heartland, with high mountains and narrow valleys. The consequence of this natural setting is a barren landscape, unsuited to large sedentary communities, resulting in pockets of activity focused on the areas with high agricultural potential.

Raffaele Biscione argued that Urartian rulers did not aim for a true military network, but intended to assert control over a previously existing system of socio-political complexity.[25] The new Urartian rulers therefore reused the existing socio-political structures, rather than imposing one of its own. Biscione analysed the areas of Lake Urmia and Lake Sevan. Here we do not see an established Urartian presence reflected in the inscriptions and this may have been intentionally not to disturb the existing social-political structures.[26] We cannot exclude a similar scenario in those areas with less complex structures, inhabited by semi-nomadic or transhumant communities. These are the barren areas that separate the fertile zones of intense Urartian activity from one another.

The resulting Urartian state, i.e. what was controlled and subject directly to its rulers, was a segmentary territory, inserted into a network of different socio-political structures. It is very likely that the latter are tied to the Urartian state in ways we cannot reconstruct at the moment, but we must acknowledge that there were different control strategies in use at the same time, and we might need to reassess our definitions of Urartian state and culture.

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[25] Biscione 2002.

[26] Some areas, like the one around Lake Sevan for example, are not discussed in detail because they are not central to the topic at hand, which is the distribution of inscriptions. Although the shores of Sevan hold fewer inscriptions, we know it was an area of interest for Urartian rulers, therefore hinting at different state mechanics, which do not involve large projects and the commission of inscriptions. For a fuller understanding of the structure of the Urartian state different data and approaches need to be integrated, however, the aim of this article is to illustrate some preliminary results of the research on the distribution of inscriptions.

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Do I Know You? Points of Contact between Northern and Central/Southern Mesopotamian Ceramic Traditions in the 2nd Millennium BC

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Abstract

During the 2nd millennium BC, the Central/Southern and Northern Mesopotamian areas could be identified as two vast, but very different, macro pottery regions. To the north, the ceramic tradition evidences the wide expansion of painted pottery, such as *Khabur Ware*, both in the Middle Bronze Age (MBA) and at the beginning of the Late Bronze Age (LBA), and *Nuzi Ware* in the LBA. In contrast, along the Diyala River, one notes a 'proper' Babylonian ceramic tradition as outlined by Armstrong and Gasche in 2014; it is strongly characterized by the presence of plain pottery. The focus of this contribution is to highlight points of contact between the two areas through the analysis of common pottery types and by observing when vessels, which normally belong to foreign cultural traditions, appear in local contexts.

Keywords

2nd Millennium BC, Pottery, Macro and Micro Pottery Regions, Interactions

Introduction

The movement of ideas and widespread social rituals and practices may be the cause of the vast distribution of pottery shapes over a great area. Though the correlation between shape and function is not straightforward and unambiguous, in some cases contextual and circumstantial factors may indicate a narrow range of interpretive possibilities.[1] This is particularly true considering the domain related to pottery related to food and beverage consumption.[2] The way of eating and drinking is representative of a culture, conservative and transmitted through time. The act of consuming food and drink together is the basis of social relations in many ancient and modern societies and the sharing of meals is a way to mediate in social and political life.[3]

The Mesopotamian society always attributed great importance to banquets and feasting and the material traces can be found in the archaeological record, iconographic evidence, and textual data.[4]

The wide diffusion of some vessels related to food and beverage may reflect the community's traditions even on a large scale, and hint for the wide spread of social practices.[5] Thus, although people from different areas, belonging to different political entities and using different tools, instruments, and

[1] Rice 1987.
[2] Skibo 2013; Duistermaat 2008, 432.
[3] Mintz and Du Bois 2002; Dietler 1990, 2006; Dietler and Hayden 2001.
[4] Ellison 1978; Milano 1994; Bottéro 2004; Head 2013; Benati 2019.
[5] McMahon *et al.* 2009, 175.

technology, may recognizes one another by sharing common practices for developing social, political and economic relations.

The main purpose of this analysis is to investigate what kind of interactions might subtends the sharing of peculiar types of vessels between different pottery regions identified in 2nd millennium BC Mesopotamia.

Mesopotamian archaeological evidence indicates the existence of two 'macro pottery regions' during the 2nd millennium BC; they are defined by the distribution of particular sets of vessels with similar morphological and stylistic traits. The first macro-region corresponds to Northern Mesopotamia, where the ceramic tradition reflects the widespread expansion of *Khabur Ware* in a time span that encompasses the MBA (*c.* 2000–1500 BC) and the beginning of the LBA (*c.* 1500–1300 BC).[6] This region also roughly corresponds to the area of production of *Nuzi Ware*, typical pottery dating from the 16th to the beginning of the 13th century BC.[7] In contrast, in Southern and Central Mesopotamia, a macro pottery region also known as 'Babylonia', a different kind of black painted ware appeared, characterised by geometric motives exclusively present on the following types: bowls with low carination, deep bowls with sinuous profile and ring base, necked bottles with ovoid body and ovoid to globular jars with short neck, and dating to the first half of the 2nd millennium BC.[8] In general, during the MBA/LBA in Southern and Central Mesopotamia, the bulk of pottery artefacts is unpainted.[9]

Thus, each macro pottery region is characterised by a general homogeneity, but at the same time many local variants occur within each regional area; thus, there are what could be termed 'micro pottery regions' within each 'macro' region (**Figure 1**). This phenomenon of smaller spatial 'units' may be due to: the use of local raw materials; the transmission of traditional know-how; and the influence exerted by extra-regional traditions, both in terms of the style of pottery production and in the ways in which the vessels were used when consuming food and drink. The first indicator of the local variability to define a 'micro-region' is the use of local row materials to produce vessel usually widespread in the 'macro-region', that is the case of *Nuzi Ware* and of the pottery assemblage of Tell Yelkhi, which seems to be entirely locally-made. The second indicator is the high percentage of some types in one area in comparison to the 'macro-region', that is, i.e. the high number of the MBA cylindrical cups and of the

[6] The term *Khabur Ware* was coined by Sir Max Mallowan, indicating a type of wheel-thrown production characterized by painted monochrome decoration with mainly geometric and naturalistic motives, widespread in Northern Mesopotamia and including many regions of modern Syria and Iraq, during the first half of and mid-2nd millennium BC (ca. 2000–1400 BC) (Mallowan 1937, 102–104; Oguchi 1997, 2006). Palmisano pointed out that the main distribution zone in the 20th and 19th centuries BC and at the time of the kingdoms of Shamshi-Adad I and Ishme-Dagan (18th century BC) corresponds to the area around Assur, the plain south of Jebel Sinjar, and the northeastern Jazirah to the Tigris, while the secondary zone also includes Central and Southeastern Anatolia, Northwestern Syria and Upper Mesopotamia as far as Northwestern Iran (Palmisano 2012; Palmisano 2018, 46–48).

[7] The so-called *Nuzi Ware* is a pottery production that traditionally spread out in an arc-shaped area, which extended from the Amuq Plain in the west to the Zab basin in the east between the 16th and the second quarter of the 13th century BC (Oguchi 2014, 223–224). The term was proposed by Sir Max Mallowan in 1946, indicating a pottery production characterized by white paintings of geometric, vegetal and zoomorphic patterns on black or red painted stripes (Mallowan 1946, 132; Stein 1984, 23).

[8] The typology of 2nd millennium BC painted decorations in Southern Mesopotamia is presented by Ayoub 1982, 15–19. The shapes here mentioned correspond to Armstrong and Gasche's types $21A_{1\&2,}$ $30A_2$, $150A_2$, $155B_2$, 160A and $165A_2$-B (Armstrong and Gasche 2014).

[9] Quoting the description outlined by Van As and Jacobs, 'technologically speaking, the pottery studied is not a highly sophisticated product. It has all the characteristics of fast-produced, standardized, handmade and wheel-made consumer ware. In general, it is not decorated and is of a relatively uniform pale buff colour. The potters used the available alluvial clay without much preparation [...]. In order to improve the clay's cohesive strength, the potter added fibrous organic materials [...] in general, the same manufacturing techniques were used in all locations included in the research project. Chronologically, there are no large changes in the technological pottery tradition during the 2nd millennium BC' Van As and Jacobs 2014, 93. See also Armstrong 2017.

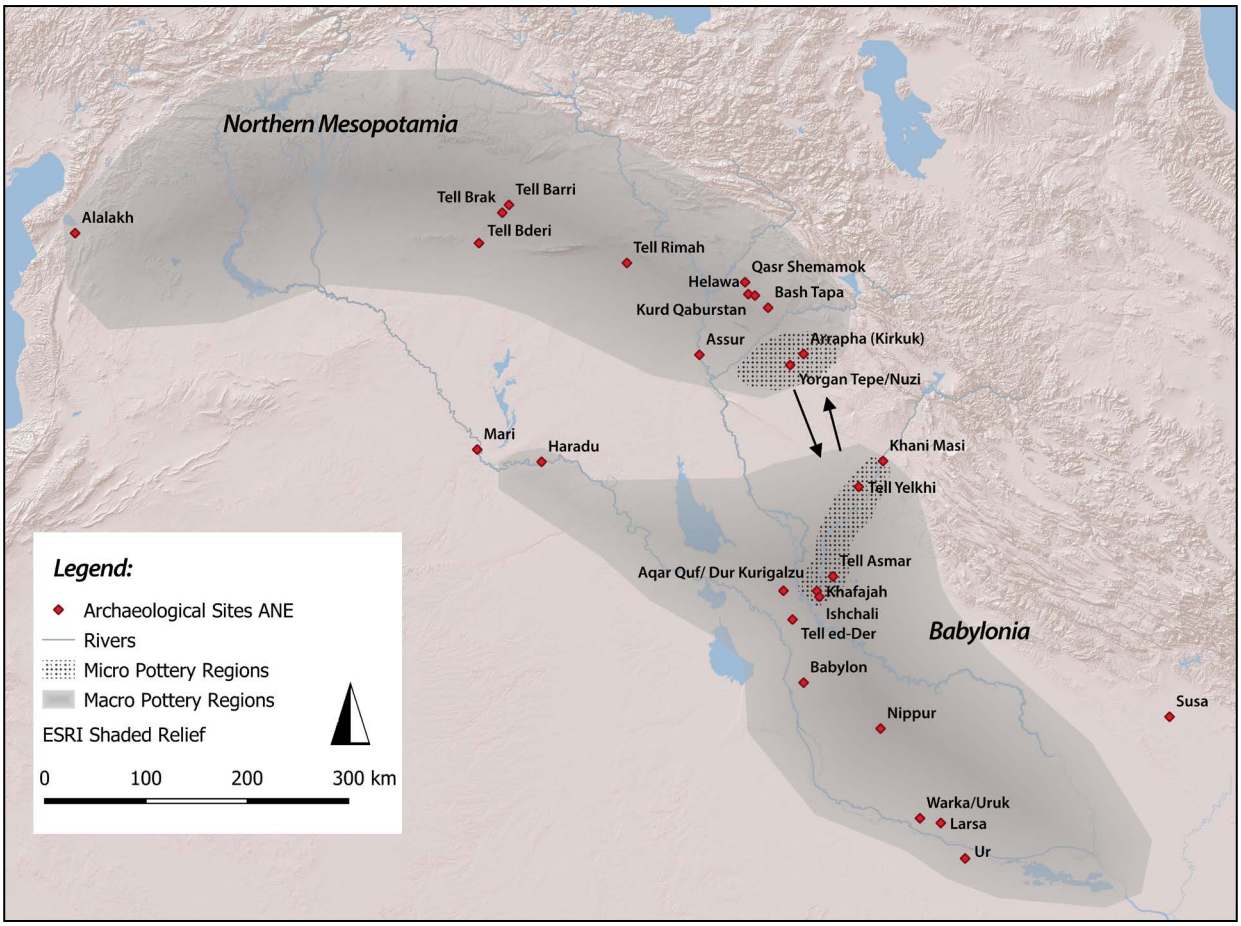

Figure 1: *Estimated extension of the macro and micro pottery regions discussed in the text. The extension of Northern Mesopotamian macro pottery region corresponds to the area of distribution of Khabur Ware and Nuzi Ware as proposed by Oguchi 2014, figs 1, 3. The Babylonian macro pottery region consists of the areas discussed by Armstrong and Gasche 2014. Map elaborated by the author (QGIS). Base map: ESRI Shaded Relief ©.*

MBA-LBA globular goblets in the Diyala Region in comparison with the other Babylonian contexts. In contrast, the absence or very scanty recurrence of peculiar shapes characterizing the 'macro-region' can be significant to recognize a local cluster. For example, on the one side, the recurrence of the red-edge bowls, typical of the LBA I contexts in the Jazirah and Northwestern Mesopotamia, gradually decreases from north-west towards south-east. On the other side, the painted bowls with low carination typical of the Southern Mesopotamia, seems absent in the Diyala Region.

This chapter is focused on the various types of interactions that existed between the Middle Diyala zone and the Yorgan Tepe/Nuzi area. They are two micro pottery regions respectively located within the 'macro regions' of Babylonia and Northern Mesopotamia. The two areas, located about 140 km apart, are situated between the Djebel Hamrin Mountains (to the west) and the foothills of the Zagros Mountains (to the east) (**Figure 2**). As regards the 2nd millennium BC, some comparisons have already been noted between the ceramic assemblages of the Diyala and the pottery from Yorgan Tepe/Nuzi.[10] They may

[10] Yaseen has found comparisons between the pottery dating to the transitional 'Akkad-Hurrian' period at Yorgan Tepe and the cylindrical cups, necked ovoid jars with convex and ring bases, conical bowls with carinated rims and the ovoid vats with convex bases from Tell Halawa (Yaseen 1995, 42–66). Moreover, various shapes dating to the MBA from Tell Yelkhi have been compared by Gabutti to similar types from Nuzi, while Valtz has identified an exemplar of a *Grey Ware* carinated bowl with a

indicate that cultural and human interaction took place also between people living in distinct areas, which had a different socio-political and cultural background.

The aim of this paper is to pinpoint the types of vessels that the two sets of pottery have in common. Therefore, it is an attempt to understand why some pottery types were present in both regions, although the spatial limits of the 'macro regions' appear to be well defined. Excluding the possibility of the influence exerted by one area over the other being associated with the imposition of power by political institutions, it is possible to hypothesise that:

a. the potters of one area spread their know-how to the other area; and
b. these two different regions shared certain categories of shapes in connection with shared social practices linked with the way food and beverages were consumed.

The Diyala Region moving towards Babylonia

The Middle Diyala area provides the largest amount of the data dating to the 2nd millennium BC used to define the Diyala micro pottery region. The preliminary reports and the more extensive studies carried out on the pottery from the Hamrin Dam area, where many archaeological digs were carried out at the end of the 1970s and beginning of the 1980s, provide the points of reference for the identification of chronological attributes and cultural traits in the northern Diyala, and in the area between the Tigris and the Zagros Mountains.

The main source of material as regards the Middle Diyala remains Tell Yelkhi, a site of about 3 hectares in the centre of the Hamrin Dam area, excavated from 1977 to 1980 by an Italian team from the *Centro Ricerche Archeologiche e Scavi per il Medio Oriente e l'Asia* in Turin.[11] The 2nd millennium BC pottery of Tell Yelkhi was exhaustively discussed by Gabutti and Valtz, who found comparisons with other regional and extra-regional contexts, enabling one to postulate that the inhabitants of Tell Yelkhi were part of a large-scale network of interactions with the people, culture and traditions of other sites within a wide radius, from the River Khabur to the Persian Gulf.[12]

The second source providing compelling archaeological material components dating to the first half of the 2nd millennium BC is Tell Halawa, a 5 ha site located about 10 km north of Yelkhi; it enjoyed a lengthy period of occupation during the MBA.[13]

In the Hamrin Dam area, the other site that has revealed an occupation sequence that straddles the MBA/LBA period is Ahmed Al-Mughir (2.5 ha) located in the northern sector of the region. Although the architecture and material culture have only been partially investigated, it has provided a corpus of

high base and some morphological traits of the globular cups as arising out of Nuzi models (Gabutti 2002–2003, 100–101; Valtz 2002–2003, 274).

[11] This site saw considerable occupation from the 3rd to the second half of the 2nd millennium BC. The main investigations at Tell Yelkhi were carried out in Area A (top of the mound, open area) and in Area B (a trench on the eastern side 30×10 m wide). As regards the 2nd millennium BC occupation, it corresponds to Levels 6a-5 (Isin-Larsa), Levels 4–3 (Old Babylonian), Level 2 (Old Babylonian-Kassite transitional) and Level 1 (Kassite). Bergamini 1984.

[12] As discussed by Gabutti, the pottery material from Tell Yelkhi, dating to the Isin-Larsa and Old Babylonian Periods (Middle Bronze Age), find comparison with the repertoires from the other sites in the Hamrin and in the Lower Diyala. Moreover, the closest parallels are with the Southern Mesopotamian and Euphrates contexts and, less frequently, with the material from sites in Northern Mesopotamia, the Khabur area, Elam and the Gulf (Gabutti 2002–2003, 87). According to Valtz, the pottery assemblage from Levels 2 and 1 has strong affinity with the typical Kassite repertoire, but there are clear references to the Elamite and Hurrian cultural horizons, especially as regards the material from Level 2 (Valtz 2002–2003, 274).

[13] Yaseen 1995.

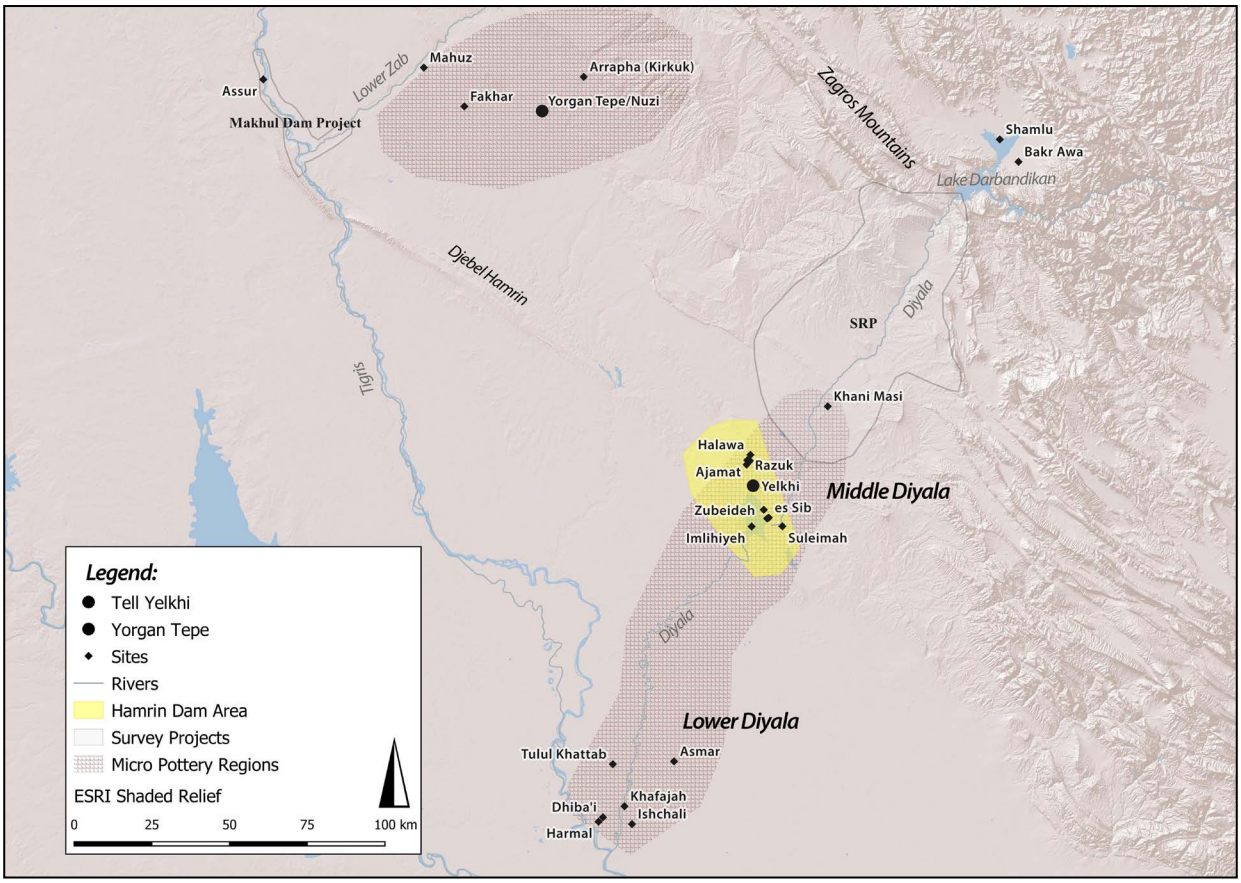

Figure 2: *Estimated extension of the micro pottery regions, the sites and the geographical setting discussed in the text. The areas of the Makḥūl Dam Project and of the Sirwan Regional Project (SRP) have been drawn by the author after Mühl and Sulaiman 2011, pl. XXV and Glatz and Casana 2016, fig. 1. Map elaborated by the author (QGIS). Base map: ESRI Shaded Relief ©.*

pottery that is sufficiently abundant to represent the third source needed in order to define the local ceramic horizon for the entire period under consideration.[14]

Among the other sites in the Hamrin Dam area, none has a continuous period of occupation covering the time span between the first and second half of the 2nd millennium BC.[15] Thus, including Tell Yelkhi and Ahmed Al-Mughir, 15 sites have substantial or sporadic occupation during the MBA, and only 7 during the LBA.[16] This confirms the trend of decline in the density of settlement and in the degree of urbanisation in the Diyala region as previously outlined by Adams.[17]

Recent archaeological investigation in the area between Kanaquin and Darbandikhan, along the Diyala River as far as Darbandikhan Lake, has recorded an opposite tendency in the settlement pattern in the

[14] Eidem 1981; Armstrong 1981.

[15] The excavations at Tell Zaiwiyeh, carried out by the SBAH during 1977 and 1978, revealed that the main substantial occupation of the site dated to the MBA, but Level II could be dated to the LBA. Unfortunately, due to the rapid flooding of the site in the southern sector of the Hamrin basin, and the poor preservation of the architecture, it was not possible to provide a more precise chronological and functional interpretation of the settlement (Al-Rawi 1979, 458; Yaseen 1995, 14).

[16] MBA, Tell Halawa, Ahmed Al-Mughir, Tell Razuk, Keith Genj, Abu Qasim, Tell Hassan, Tell Yelkhi, Abu Husaini, Tell Oweisat, Tell Ababrah, Tell es-Sib, Tell Haddad, Tell Songor, Tell Suleimeh and Tell Zaiwiyah. LBA, Tell Ajamat, Ahmed Al-Mughir, Tell Yelkhi, Tell Kesaran, Tell Imlihiyeh, Tell Zubeideh and Tell Zaiwiyeh. Oselini 2019, 692; Oselini 2018, 392, fig. 2, see also Killik 1988, figs 6, 7.

[17] Adams 1965, 53, 54.

second half of the 2nd millennium BC. In fact, a large number of sites of different size and possibly different function, amongst which are Khani Masi and Tepe Kalan and mainly dating to the second half of the 2nd millennium BC, were spread out across the plain area about 25 km north of the Hamrin Dam area, while their number declines towards the Zagros.[18]

The Diyala Region is traditionally considered peripheral to the Mesopotamian Alluvium, and so the pottery from this area belongs to the Babylonian pottery region based on morphological, stylistic and technological associations.[19] The pottery assemblage dating to the 2nd millennium BC from the Lower Diyala and the Hamrin Dam areas have recently been analysed together from a regional perspective by using the archaeological sequence of Tell Yelkhi as the relative chronological reference. Taking into consideration the associations between the occurrence of pottery types and the stratigraphic sequence, three different ceramic phases for the 2nd millennium BC have been identified. Each phase consists of groups of diagnostic pottery types and corresponds to the subdivision between MB I (*c.* 2000–1750 BC), MB II (*c.* 1750–1550 BC) and the LBA (*c.* 1550–1250/1200 BC).[20]

During the MBA, there are strong similarities between the pottery from the Middle Diyala and the Lower Diyala repertoires, and so the areas of the Lower and Middle Diyala together can be viewed as an unvarying traditional ceramic cluster. In particular, as regards the MB I and II phases, the Hamrin Dam area (Middle Diyala) belongs to the same micro pottery region as the Lower Diyala Basin, and so it includes the sites of Tell Harmal, Tell Dhiba'i, Khafajah, Ishchali and Tell Asmar (**Figure 2**).[21]

As regards the LBA, a period in which there was only sporadic occupation in the Lower Diyala, some compelling parallels have been identified between the ceramic material from Tell Yelkhi, Tell Khesaran, Tell Ajamat, Ahmed Al-Mughir, Tell Imlihiyeh and Tell Zubeideh and the Kassite pottery from Southern Mesopotamia.[22] Moreover, the architecture and pottery assemblage from Khani Masi, recently discussed by Glatz *et al.* (2019), indicate that the Middle Diyala Region was undoubtedly interconnected with the Babylonian region.[23]

The Left Bank of the Lower Zab River moving towards Northern Mesopotamia

The site of Yorgan Tepe is about 140 km away from the Tell Yelkhi area to the north-west, and about 40 km south of the left bank of the Lower Zab river. Excavations here were carried out between 1925

[18] Glatz and Casana 2016, 143; Glatz *et al.* 2019, 445, 446.

[19] Armstrong and Gasche 2014.

[20] The three ceramic phases identified are based on the archaeological stratigraphy of Tell Yelkhi, MB I corresponds to Levels VIa-V, MB II to Levels IV-III and, LBA to Levels II-I. Although Level II may possibly correspond to the earlier phase of the LBA and it was expected to be a separate ceramic phase from Level I, it was impossible to distinguish it due to the absence of sufficient data and the lack of coeval materials in the area. The presence of some diagnostic MBA I (Isin-Larsa) and II (Old Babylonian) pottery types and others from the Late Bronze Age (Kassite) assemblages of Southern Mesopotamia enables one to confirm the chronological attribution of the three phases and to assume that the Diyala Region was part of the Babylonian ceramic region. Oselini 2017.

[21] The sharing of common pottery types between the Lower Diyala and the Hamrin basin during the MBA -the LBA in the Lower Diyala is so far underrepresented- might be the mirror of a unique 'micro-region' within the Babylonian area. Unfortunately, data about the manufacturing technique, the usage of raw materials, the implication of peculiar fashioning methods between the two areas are not, thus far, available to confirm the homogeneity provided by the observation of morphological characteristics. The types in common are: cylindrical cups with low carination, globular goblets, small globular jars, small jars with an S-shaped profile, medium size jars with globular or elliptic bodies. Oselini 2019, 700–702.

[22] Valtz 2002–2003, 274–276; Armstrong 1981, 154–155; Bohemer and Dämmer 1985, 12–19, 46–54.

[23] The data from the survey carried out by the Sirwan Regional Project indicates a change in the repertoire moving from the Middle Diyala region towards the Zagros Mountains. In fact, the material from the foothills of the Zagros is more similar to the Northern Mesopotamian and Iranian repertoires. This phenomenon has been interpreted as indicating greater interaction between the Middle Diyala area and Kassite Babylonia, as compared to the contact the Upper Diyala area had with the Kassites. (Glatz *et al.* 2019, 445–447).

and 1931 by an American archaeological expedition.[24] The site was occupied from the late 5th to the 2nd millennium BC, and was reoccupied in the Parthian and Sasanian periods.[25] Knowledge of the MBA settlement is limited to the architectural Phase F of the temple, to the Stratum IV of the excavation in the northwestern and southeastern sectors of the site and to the level IIa of Pit L4. The Phases B-E of the temple and the Stratum III of the excavation area correspond to the early Mitannian period (MBA-LBA transitional). The substantial occupation phase of the site corresponds to Stratum II of the dwelling area, to the temple A and to Level I of Pit L4. Thanks to the archives, it is dated to a time-span from *c.* 1500 to 1340 BCE.[26] During this period, the town was known as 'Nuzi', an important outpost in the administrative district of Arrapha (modern Kirkuk), which was, at that time, an Assyrian territory under the influence of the Mitannian State. According to the textual data, Nuzi was mainly an agricultural and farming centre, also famous for producing bricks. The extension of Nuzi's commercial trade included many territories in the area ruled by the Mitanni and others under Babylonian and Assyrian control, as well as the tribes living in the Zagros Mountains.[27]

The ceramic assemblage of Yorgan Tepe/Nuzi is typical to Northern Mesopotamia due to the presence of the black-on-buff painted jars belonging to the *Khabur Ware* assemblage from the earlier 2nd millennium BC repertoire.[28] Moreover, the LBA deposits at Nuzi have yielded the first examples ever discovered of white-on-black and white-on-red painted jars, cups and goblets, which therefore have been denominated *Nuzi Ware*.[29]

The early 2nd millennium BC settlement pattern in the Yorgan Tepe area is still hard to define and most of the available data relate to the second half of the 2nd millennium BC. According to the information available thus far, at both Tell Fakhar and Tell Mahuz, which are respectively about 25 km west and 40 km north-west of Yorgan Tepe, south of the Lower Zab and both occupied during the LBA, *Nuzi Ware* is absent.[30]

To the west, the area of confluence between the Lower Zab and the Tigris was recently investigated by the *Directorate of Antiquities and Heritage of Baghdad* (Makḥūl Dam Project). The investigation revealed that during the 2nd millennium BC the region was characterised by the increase in satellite settlements in parallel with the development of the Assyrian territorial state.[31] The ceramic assemblage gathered in this area includes the main diagnostic indicators of the LBA Northern Mesopotamia pottery region, that is, the presence of 'younger' *Khabur Ware* and *Nuzi Ware*.[32]

Therefore, examples of *Khabur Ware* and *Nuzi Ware* are usually found along the Tigris, in the sites on the right bank of the Lower Zab, and follow a decreasing presence in the outskirts of Yorgan Tepe/Nuzi, except for Nuzi itself. This becomes much more evident in the Diyala Region, where both *Khabur Ware* and *Nuzi Ware* are absent.

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[24] Excavations at Yorgan Tepe were supported by the Fogg Art Museum, the Harvard Semitic Museum and the American Schools of Oriental Research (ASOR), in collaboration with the Iraq Museum of Baghdad (Starr 1939).

[25] Stein 1998–2001.

[26] Novák 2005: 391–392.

[27] Maidman 1995, 934–935.

[28] Starr 1939, pl. 70.

[29] Starr 1939, pls 69: A; 78: P-X; 79: A-BB.

[30] For Tell Fakhar see Al-Khalesi 1970; 1977; Kolinski 2002; for Tell Mahuz see Mühl 2013, 228.

[31] The archaeological fieldwork in this area consisted of surveys and excavations carried out before the realisation of the Maḥūl Dam, projected to be completed in 2007 by the Iraqi government. The beginning of the Third Gulf War prevented the realisation of this dam. Mühl and Sulaiman 2011, 378.

[32] For example, at Tell al-Namil, Tell al-Nūl, Tell al-Ḥukna, Tell al-Ḏahab, Tell Farḥa, Tell Hanas and Tell Akraḥ (see Mühl 2013, pls 56: 2–3; 76: 10–13; 78: 1–6; 86; 2–5; 94: 4; 96: 7–14; 98: 5–7, 10–13).

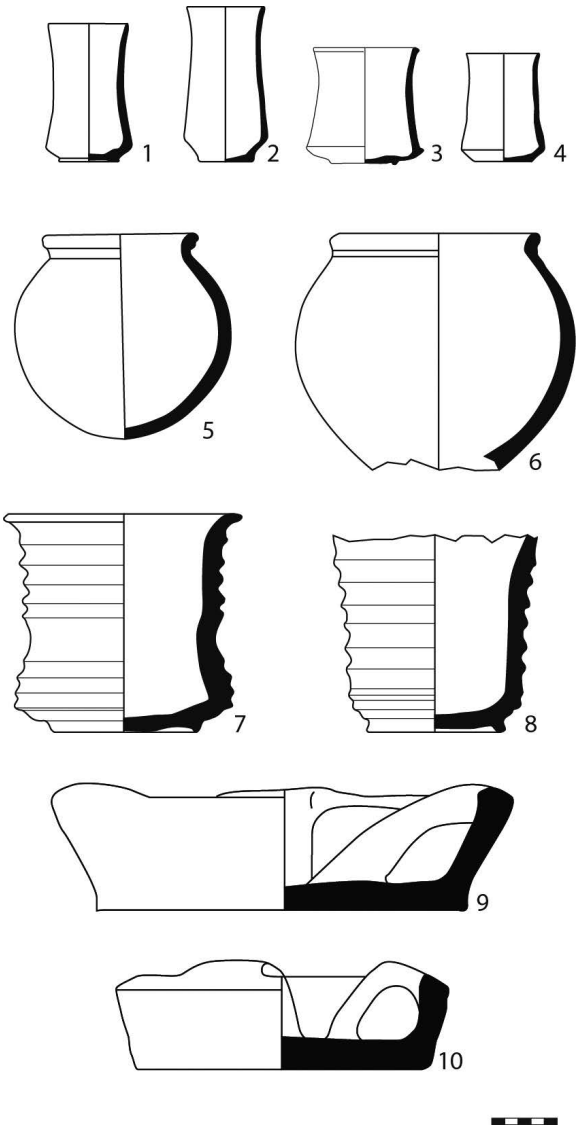

Figure 3: *The pottery types shared between the Diyala Region and Yorgan Tepe in the MBA discussed in the text. Drawings by the author after Starr 1939, Delougaz 1952 and Gabutti 2002–2003.*

ID	Shape	Site	Stratigraphy (Locus, Level)	Date	Reference
1	Cylindrical Cup	Yorgan Tepe	N120, Pav. IV–V	MB I–II	Starr 1939, pl. 63: A
2	Cylindrical Cup	Khafajah	Kh.VIII 181-B, Larsa period	MB I	Delougaz 1952, pl. 153: B.237.200
3	Cylindrical Cup	Yorgan Tepe	Pit L4, Pav. IIb	EB final–MB	Starr 1939, pl. 62: t
4	Cylindrical Cup	Yelkhi	B51/26, Level 5	MB I	Gabutti 2002–03, pl. 61: 15
5	Pot	Yorgan Tepe	–	–	Starr 1939, pl. 72: C
6	Pot	Yelkhi	B11/1, Level 3b	MB II	Gabutti 2002–03, pl. 126: 5
7	Ribbed Vessel	Yorgan Tepe	H60, Stratum II - intrusive?	MB	Starr 1939, pl. 74: D
8	Ribbed Vessel	Yelkhi	B37, Level 6a	MB I	Gabutti 2002–03, pl. 133: 3
9	Brazier	Yelkhi	B12/2, Level 3a	MB II	Gabutti 2002–03, pl. 129: 8
10	Brazier	Yorgan Tepe	Shil. 45	LB I	Starr 1939, pl. 93: B

Table 1: *Table of pottery types shown in Figure 3.*

This decreasing presence of painted Northern Mesopotamian vessels south of the Lower Zab may indicate that the southern border of the Northern Mesopotamia macro pottery region may possibly be in the area between Yorgan Tepe and the Diyala.

Discussion: the points of contact between the two areas

This section of the paper focuses on the types of pottery typical to the northern confines of Babylonia, which gradually spread beyond the border and gained a place in the pottery assemblages of Northern Mesopotamia.

The pottery assemblage dating to the very beginning and first half of the 2nd millennium BC at Yorgan Tepe only includes a few forms that are also typical to the Diyala up until the first half of the 2nd millennium BC (MBA), that is, the cylindrical cups with a low carination (**Figure 3.1–4**), the rounded cooking pots (**Figure 3.5–6),** the ribbed vessels (**Figure 3.7–8**) and the so-called 'braziers' (**Figure 3.9–10**). Except for the cylindrical cups with a low carination (discussed further on), the other shapes are used over a long period of time and so are already known in the Diyala Region from the 3rd millennium BC onwards. These three shapes are tied to domestic activities, for instance food processing, and have a low incidence in the repertoire.[33] Unfortunately, further interpretations are not possible as regards how these vessels became so widely diffused throughout the territory. Considering that the earlier centuries of the 2nd millennium BC are less widely known as regards the area of Yorgan Tepe, and that the available data indicate few shared types of vessels, it is not possible to carry out an in-depth investigation into the types of the interactions between the two areas during this period.

Regarding the second half of the 2nd millennium BC (LBA), thanks to the larger amount of data available, it is possible to draw attention to a different scenario. Among the undecorated pottery shapes from Stratum II at Nuzi, many parallels with the Diyala Region can be identified. They include contemporaneous pottery types and shapes that were in use since the MBA (**Figure 4**). The points of similarity indicating contact between the Diyala Region and Yorgan Tepe in the LBA are mainly related to tableware and drinking vessels, that is, the cylindrical cups, the globular goblets, the goblets with a flat base and the carinated bowls with a high foot. These shapes can all be related to the function of serving liquids because of their small-to-medium size and their capability to be grabbed by hands.[34] However, the carinated bowls can contain also solid or semi-liquid food easily accessible thanks to the open mouth.[35] Thus, beyond their morphological traits, they could also reflect the sharing of social practices. In fact, social anthropology and archaeology recognise the importance of food in demonstrating and maintaining social relations, while the circulation of food-related items may reflect the sharing of a similar tradition in the consumption of food and beverages.[36]

Cylindrical cups (Figure 4.1–15)

This shape appears in a large variety of types, which include simple cylindrical cups with a flat or disk base, cylindrical cups with a low carination and cups with slightly concave profiles (**Figure 4.1–11**). It corresponds to a variety of the so-called 'grain measures', a type of vessel that is also characterised

[33] The few examples of pots and 'braziers' from Yorgan Tepe (**Figure 3.7, 10**) are typical early 2nd millennium BC shapes, however their stratigraphic attribution is uncertain. In fact, the 'brazier' is related to Room 45 of the House of Shilwi-Teshub which is normally dated to the 15th century BC (Starr 1939, 339; 1937, pl. 93: A-B).

[34] The capacity of the vessels here discussed have been calculated using the Pot_Utility Application, and it varies from 5 cl to 20–30 cl. Only the biggest exemplars of carinated cups, namely the 'grain-measures' can reach 1 l of capacity.

[35] The morphological parameters to isolate the drinking vessels follow the guidelines proposed for the Middle Assyrian pottery of Sabi Abyad. Duistermaat 2008: 432–33, 439.

[36] Haaland 2007, 169.

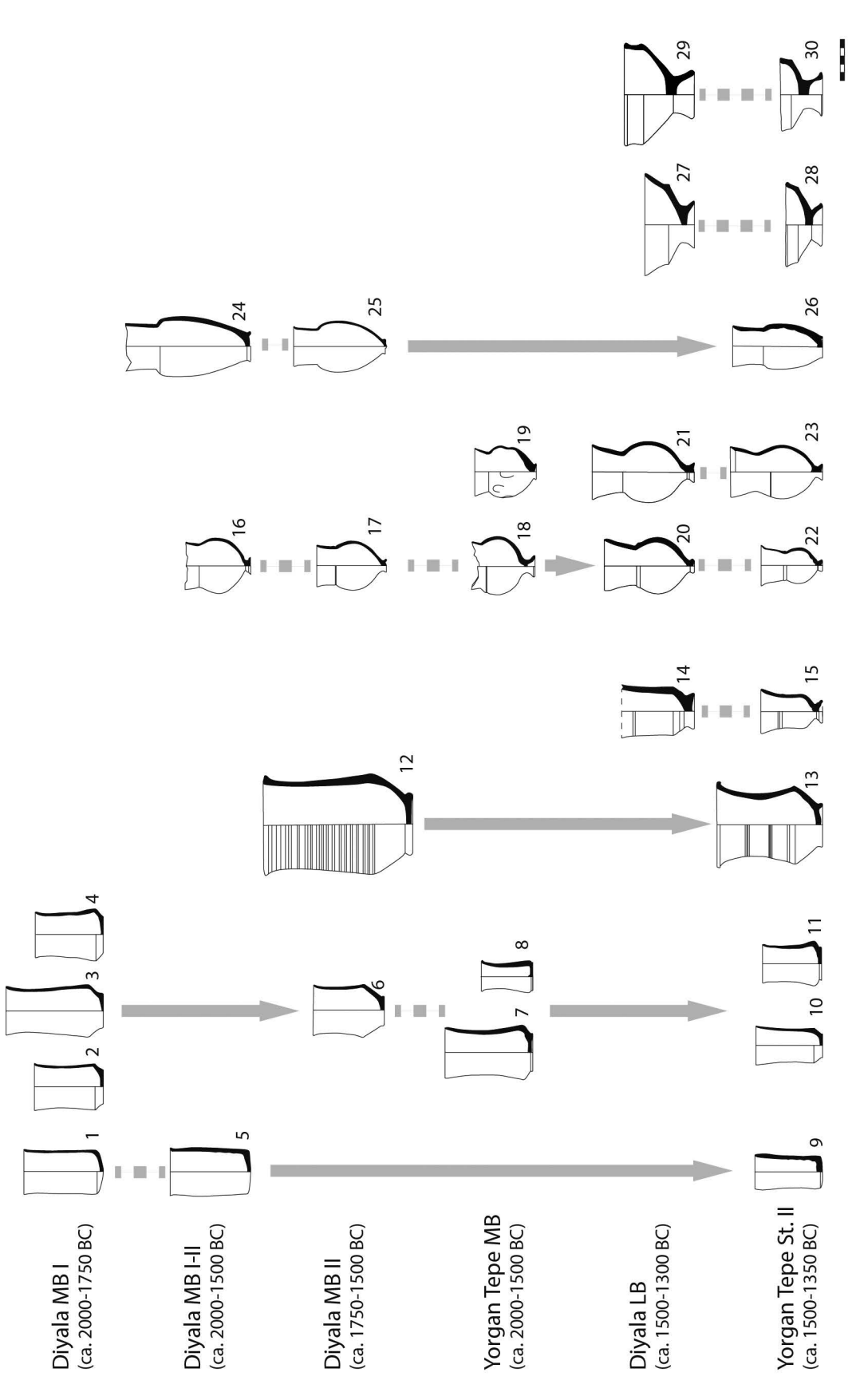

Figure 4: *The pottery types shared between the Diyala Region and Yorgan Tepe during the MBA and the LBA discussed in the text. 'YT' means Yorgan Tepe. Drawings by the author after Starr 1939, Delougaz 1952, Gabutti 2002–2003 and Valtz 2002–2003.*

ID	Shape	Site	Stratigraphy (Locus, Level)	Date	Reference
1	Cylindrical Cup	Yelkhi	B70, Level 5c	MB I	Gabutti 2002–03, pl. 60: 7
2	Cylindrical Cup	Yelkhi	B68/60, Level 5c	MB I	Gabutti 2002–03, pl. 61: 19
3	Cylindrical Cup	Khafajah	Kh.VIII 181-B, Larsa period	MB I	Delougaz 1952, pl. 153: B.237.200
4	Cylindrical Cup	Yelkhi	B51/26, Level 5	MB I	Gabutti 2002–03, pl. 61: 15
5	Cylindrical Cup	Yelkhi	B48, Level 5b	MB I-II	Gabutti 2002–03, pl. 60: 20
6	Cylindrical Cup	Yelkhi	B18/4, Level 4a/3b	MB II	Gabutti 2002–03, pl. 62: 5
7	Cylindrical Cup	Yorgan Tepe	L4, Pav. IIB	MB I-II	Starr 1939, pl. 62: S
8	Cylindrical Cup	Yorgan Tepe	N120, Pav. IV-V	MB I-II	Starr 1939, pl. 63: A
9	Cylindrical Cup	Yorgan Tepe	S110, Stratum II	LB I	Starr 1939, pl. 76: R
10	Cylindrical Cup	Yorgan Tepe	Zigi 30, Stratum II	LB I	Starr 1939, pl. 76: K
11	Cylindrical Cup	Yorgan Tepe	L4, Stratum III	LB I	Starr 1939, pl. 76: J
12	Cylindrical Cup	Yelkhi	A28/1, Level 3a	MB II	Gabutti 2002–03, pl. 64: 1
13	Cylindrical Cup	Yorgan Tepe	P471, Stratum II	LB I	Starr 1939, pl. 73: H
14	Cylindrical Cup	Yelkhi	A104B, Level 1c	LB I	Valtz 2002–03, pl. 147: 3
15	Cylindrical Cup	Yorgan Tepe	N171, Stratum II	LB I	Starr 1939, pl. 76: X
16	Globular Goblet	Yelkhi	Level 3b	MB I-II	Gabutti 2002–03, pl. 70: 13
17	Globular Goblet	Khafajah	Kh.VIII 218-B, Old Bab. period	MB II	Delougaz 1952, pl. 160: B.556.720
18	Globular Goblet	Yorgan Tepe	G29, Temple F	MB I-II	Starr 1939, pl. 62: K
19	Globular Goblet	Yorgan Tepe	D15, Stratum III	MB I-II	Starr 1939, pl. 78: G
20	Globular Goblet	Yelkhi	Grave067, Level 2/1	LB	Valtz 2002–03, pl. 149: 3
21	Globular Goblet	Yelkhi	A001, Level 1b	LB	Valtz 2002–03, pl. 149: 16
22	Globular Goblet	Yorgan Tepe	W3 Kiln, Stratum II	LB I	Starr 1939, pl. 78: C
23	Globular Goblet	Yorgan Tepe	F1, Stratum II	LB I	Starr 1939, pl. 78: O
24	Goblet	Yelkhi	B11/1, Level 4a/4b	MB I-II	Gabutti 2002–03, pl. 69: 8
25	Goblet	Khafajah	Kh.VIII 217-B, Old Bab. period	MB II	Delougaz 1952, pl. 159: B.547.320
26	Goblet	Yorgan Tepe	S307, Stratum II	LB I	Starr 1939, pl. 78: N
27	Carinated Bowl	Yelkhi	A001, Level 1c	LB	Valtz 2002–03, pl. 142: 25
28	Carinated Bowl	Yorgan Tepe	L7, Stratum II	LB I	Starr 1939, pl. 89: T
29	Carinated Bowl	Yelkhi	A005, 1c	LB	Valtz 2002–03, pl. 142: 19
30	Carinated Bowl	Yorgan Tepe	S104, Stratum II	LB I	Starr 1939, pl. 90: K

Table 2: *Table of pottery types shown in Figure 4.*

by different kinds of decoration and was attributed to the measurement of cereals by Mallowan (**Figure 4.12–13**).[37]

Cylindrical cups are very common in the early 2nd millennium BC levels at Yelkhi, Halawa, Keith Genj and Tell Oweissat; they are also frequent at Asmar, Khafajah, Ishchali and Dhiba'i and occur in many variants.[38] Further, at Yelkhi and Halawa, this shape represents one of the most recurrent types within

[37] For the definition of the 'grain measures', their chronological attribution and their geographical distribution, see Mallowan 1946, 148–150.

[38] Yelkhi (Gabutti 2002–2003, pls 60–62; 64–65); Halawa (Yaseen 1995, pls 56–63); Keith Genj (Wilson-Briggs *et al.* 1984, pl. V, 3–8); Tell Oweissat (Jakob-Rost *et al.* 1982, 83, Abb. 30–32; 1983, Abb. 10, 13–14); Asmar, Khafajah, Ischali (Delougaz 1952, B.236.200a-c; B.236.300; B.237.100; B.237.200; B.246.200a, b; B.247.200); Dhiba'i (Mustafa 1949, pl. IV, 1, 5, 7; pl. V, 19).

the MBA assemblages and is associated with storage and kitchen contexts. According to Armstrong and Gasche, this shape is typical to Northern Babylonia, and only some scattered examples have been found in southern contexts, usually as grave goods. It appears that the wide diffusion of cylindrical cups in Northern Mesopotamia has only been attested to since the middle of the 2nd millennium BC onwards, and in the Middle Euphrates area since the 17th century BC.[39]

Two examples of an unpainted cylindrical cup with a low carination were found in Stratum III at Yorgan Tepe (MBA) (**Figure 4.7–8**).[40] They are characterised by a flat base and find strong comparison with contemporaneous cups from the Middle and Lower Diyala (**Figure 4.1–6**). In general, this shape is mostly found in the Stratum II assemblage at Yorgan Tepe, which dates to the LBA; like the examples from Stratum III, this shape is undecorated (**Figure 4.9–11**).[41]

Considering the high frequency of cylindrical cups with a low carination found in the Hamrin Dam area in the early centuries of the 2nd millennium BC and the later diffusion of this shape in Northern Mesopotamian repertoires, it seems reasonable to suppose that this type entered Yorgan Tepe by way of the Diyala Region.

The so called 'footed cups' are typical of the LBA at Yorgan Tepe; they are considered a variation of the 'cylindrical cups' (**Figure 4.14–15**). They are cylindrical vessels characterised by a bell-shaped base, rather than a simple flat base. Their shape and size suggest their interpretation as drinking vessels for 'special' liquids.[42] Very similar cups are to be found in the LBA levels at Tell Yelkhi and at Tell Zubeideh (Level I),[43] while they are uncommon in the Babylonian LBA repertoires, indicating that their range of 'diffusion' was limited to the area between the Middle Diyala and Nuzi.

Globular goblets (Figure 4.16–23)

Globular goblets are drinking vessels characterised by a high, flaring neck, globular body and a narrow cylindrical or disk base. In prior publications, they have also been identified as 'shouldered beakers or cups'.[44]

Globular goblets are frequently present in Northern Mesopotamia beginning in the MBA and enduring until the beginning of the LBA.[45] They are only present in Southern Mesopotamia and in the Elamite region from the second half of the 2nd millennium BC.

Unpainted globular goblets from Tell Rimah, on the right bank of the Tigris, were common in the archaeological levels dating to the kingdoms of Shamshi Adad and Hammurabi (Site C, Level 6 and Temple, Level 3),[46] and they appear in Nuzi in the so-called 'Ga.Sur to Nuzi transition period' (**Figure 4.18–19**).[47] Northern Mesopotamian globular goblets are usually painted with black or red stripes, and

[39] Armstrong and Gasche 2014, 34–35.
[40] Starr 1939, pls 62: S; 63: A.
[41] Starr 1939, pls 73: H; 76: C, D, E, I-R.
[42] Starr 1939, 392–393; 1937, pl. 76, W-EE.
[43] For Tell Yelkhi see Valtz 2002–2003: pl. 147: 3, 7–8; For Tell Zubeideh see Bohemer and Dämmer 1985, pl. 132, 446–447.
[44] Nuzi, 'Shouldered cups' (Starr 1939, 393); Tell Rimah, Tell Brak and Tell Barri, 'Shouldered beakers' (Postgate *et al.* 1997, 70; Oates *et al.* 1997, 61–79; D'Agostino and Coppini 2014).
[45] McMahon and Frane associated the cups and fine ware beakers of Chagar Bazar, Phase III (early 2nd millennium BC) to the shouldered beakers and shouldered cups from Tell Rimah and Tell Brak, interpreting them as drinking vessels. McMahon *et al.* 2009, 184–185.
[46] Postgate *et al.* 1997, 70; Oates *et al.* 1997, 65.
[47] Starr 1939, 393, 394; Starr 1939, pl. 62: K, M, O.

are present from the middle of the 2nd millennium BC[48] until the end of the 13th century BC.[49] However, in contrast to the other contemporaneous Northern Mesopotamian goblets, the LBA examples from Nuzi are all unpainted (**Figure 4.22–23**). Moreover, some of them are named 'dimpled beakers' due to the peculiar impressed decoration on their bodies (**Figure 4.19**).[50] According to Starr, the globular goblets found at Nuzi are varied and of high-quality. They were found in large quantities throughout the excavated area and have been interpreted as drinking vessels.[51]

The earlier examples of globular goblets from Tell Yelkhi were found in Levels 4 and 3b, which date to the Old Babylonian Period (MB II), and there is an increase in their numbers in the LBA, Levels II and I (**Figure 4.16, 20–21**).[52] They never appear with painted decoration. As regards the morphology of their bases, the earlier examples are very similar to those found at Nuzi and attributed to the transition period. The LBA globular goblets from Tell Yelkhi belong to Armstrong and Gasche's so-called 'Diyala cups' group.[53] In fact, they are typical to the Diyala region, from Khafajah (**Figure 4.17**) and Tell Dhiba'i to the other sites in the Hamrin (Tell Ahmed Al-Mughir, Tell Imlihiyeh, Tell Zubeidi), to the Upper Diyala (Khani Masi), and finally the area of the Lake Darbandikhan (Gird-i Shamlu and Bakr Awa).[54] The first studies carried out on the pottery from Dur Samsu-Iluna (Khafajah Mound B) and Tell Dhiba'i remark on the similarities between the globular goblets found in the mid-2nd millennium BC levels of these sites, and the typical globular cups from Nuzi, Stratum II.[55]

Globular goblets from Tell Yelkhi occur in great quantities, especially in the LBA levels. They are characterised by very pure clay with rare, very fine inclusions, and their surfaces are smoothed or self-slipped, with traces of turning. In comparison with the other shapes, more attention to detail appears to have been paid to the manufacturing process by the ancient potters.[56]

Despite the wide diffusion of this type of vessel throughout Mesopotamian region, it is interesting to note that the earlier examples from Tell Rimah, Nuzi, Khafajah (Dur Samsu-Iluna) and Tell Yelkhi are contemporaneous, and with the increase in their presence of this type in LBA contexts, the whole Diyala zone always has unpainted examples, as is the case at Nuzi.

Goblets with a ring base (Figure 4.24–26)

The goblets with a ring base are characterised by an oval body and a high, cylindrical neck with a flaring rim. They differ from the other goblets because of their wider ring bases. This shape is uncommon in the pottery assemblages of the 2nd millennium BC. Finds from the Diyala were found at Tell Asmar,

[48] Tell Rimah, the late Old Babylonian levels of the Kitchen, Level 6a (Postgate *et al.* 1997, 70).

[49] Pfälzner 2007, 248.

[50] Starr 1939, pls 77; 78: A-O.

[51] Starr 1939, 394.

[52] For the Old Babylonian period, see Gabutti 2002–2003, pl. 70, 1,2, 13; pl. 71, 11; For the LBA levels see Valtz 2002–2003, pls. 148–150.

[53] Regarding the typology proposed for Babylonia by Armstrong and Gasche in 2014, they have pinned down six groups pertaining to this shape and have isolated a seventh group called the 'Diyala cups' (Groups 195 A_2, 195 B_1, 195 B_2, 205 A_1, 205 A_2, 210 A_2). Moreover, Armstrong and Gasche's Groups 170 B_1 and 170 B_2 also fall into this type, representing the earlier variety of this shape in the Babylonian area. In my opinion, all these examples must be considered as belonging to one singular type, which can be subdivided into various 'sub-types' according to morphological and technological variations. Armstrong and Gasche 2014, 58, 59, pl. 90, 1–11; pls. 94–95; pl. 96,1–9.

[54] Khafajah (Delougaz 1952, B.556.720; B.576.720a, b; B.656.720); Dhiba'i (Mustafa 1949, pl. IV, 2) Ahmed Al-Mughir (Armstrong 1981, pl. 114, 41–45); Tell Imlihiyeh and Tell Zubeidi (Bohemer and Dämmer 1985, pl. 109, 79–85; pl. 129, 357–370b; pl. 130); Khani Masi (Glatz *et al.* 2019, pl. 9, 11–14); Gird-i Shamlu and Bakr Awa (Mühl 2013, pl. 90, 5–7; pl. 92, 14–17).

[55] Delougaz 1952, 123, 150, pl. 132.

[56] Valtz 2002–2003, 267. A first-hand examination has been carried out by the author of sampled examples recorded at the Centro Scavi Torino.

Khafajah Mound C, and Tell Yelkhi, and they date to the MBA (**Figure 4.24–25**).[57] All those from Yorgan Tepe were found in the levels attributed to the Nuzi period (LBA) (**Figure 4.26**).[58] Starr considered the few examples related to this shape as a variant of the globular goblets and interpreted them as drinking vessels.[59] The goblets with a ring base found at Tell Yelkhi were not only found in funerary contexts, but were also found in domestic contexts. Thus, they formed part of the repertoire used in everyday life.

The area of diffusion of the goblets with a ring base seems to be limited to the triangular area between the lower Diyala, the Hamrin and Yorgan Tepe, and, as in the case of the cylindrical cups, it is possibly that they could be linked to a prototype used in the Diyala zone during the first half of the 2nd millennium BC; it was introduced to the site of Nuzi in the mid-2nd millennium BC as a variant of the drinking vessel.

Carinated bowls (Figure 4.27–30)

Carinated bowls are one of the most typical shapes to spread all over Mesopotamia in the second half of the 2nd millennium BC.[60] Generally, they have a buff, pale yellow or pinkish colour, a flat or ring base, and the size of their carination varies. Their function is related to the consumption of food and beverages. In this regard, Baffi, for instance, suggests that their function might possibly be related to beer consumption, considering beer a dense rather than liquid element.[61]

The Northern Mesopotamian repertoire presents some peculiar characteristics as regards carinated bowls. Amongst these characteristics is the occurrence of grey-coloured fabric used to make them and the presence of a high foot. In fact, the burnished *Grey Ware* carinated bowls found in the area of Northern Mesopotamia reappear in various places, including Nuzi, Tell Rimah and in the Khabur region from the end of the Old Babylonian period (MB II) onwards;[62] they are extremely rare finds in the Babylonian region. The presence of an accentuated ring base forming a high foot is also typical to Northern Mesopotamia, but does not seem to appear amongst the carinated bowls of the south. At Nuzi, a wide variety of carinated bowls with a high foot appear, with both short and tall examples. Moreover, the grey colour and the high foot never occur together, and only the 'common ware' bowls developed a high foot (**Figure 4.28, 30**).[63]

The bulk of the carinated bowls from the Hamrin fits in well with the description of the 'Kassite carinated bowls' of the Babylonian tradition. However, two types from Tell Yelkhi (Levels Ia–c) are comparable with the high-footed carinated bowls typical to Nuzi. The first type is characterised by bowls with a sharp carination and by tall and everted walls above the carination, with a high concave

[57] Asmar, Khafajah (Delougaz 1952, B.527.340, B.547.320); Gabutti pointed out that the goblets with a ring base, found at Tell Yelkhi and dating to the MBA, could be interpreted as a local shape as their closest comparisons are limited to the Hamrin Dam area (Gabutti 2002–2003, 91, pls 69: 7–13; 70: 1–10).

[58] Starr 1939, pl. 78: K-N.

[59] Starr 1939, 394.

[60] The so-called 'Kassite carinated bowls' are a very common and standardized shape, spread throughout the entire Babylonian area without great variations, see Armstrong and Gasche 2014, 28, type $20H_1$. Carinated bowls, found in Northern Mesopotamia and dating to the mid- and late 2nd millennium BC, have been recovered in abundance; for instance at Tell Brak (Oates *et al.* 1997, pl. 181: 1–6); Tell Rimah (Postgate *et al.* 1997, pls 28–33); Tell Bderi (Pfälzner 1995, pls 68–71: a-d, 77), Assur (Beuger 2014) and in the Erbil Plain, where late 2nd millennium BC levels have been uncovered, i.e. Qasr Shemamok (Masetti-Rouault and Calini 2016, 212, fig. 8), Kurd Qaburstan (Schwartz *et al.* 2017: pl. 28: 8–15), Bash Tapa (Mas 2015, 183, pls 7, 9).

[61] Baffi Guardata 1994, 280.

[62] For Nuzi, see Starr 1939, 401–404; Starr 1939, pls 91: B-W; 92; for Tell Rimah, see Postgate, Oates and Oates 1997, 55, pl. 41; for a re-appraisal of the *Grey Ware* bowls in the Khabur region see Pfälzner 1995, 241, 249–250, pl. IV: 43–52. *Grey Ware* carinated bowls have been also recently found north of the Lower Zab, for instance at Helawa (Oselini 2020, fig. 5: 13) and in the Nineveh area (Coppini 2020, 102). Many *Grey Ware* bowls types have been identified at Chagar Bazar in the early 2nd millennium BC levels, indicating the long tradition of using *Grey Ware* in Northern Mesopotamia. McMahon *et al.* 2009: 180–181.

[63] Starr 1939, 400, pls 89: Q-BB; 90: A-H, J-K.

ring base and like the similar examples from Nuzi, they are made of the same fabric as *Simple Ware* (**Figure 4.27**).[64] The second is a *Grey Ware* carinated bowl with a high foot, which could be considered an *unicum* (**Figure 4.29**).[65] At first, this bowl was interpreted as a possible import,[66] but the archaeometric evaluations carried out on the ceramic material from Tell Yelkhi reveal that the sample taken from the *Grey Ware* carinated bowl with a high foot does not differ from the other samples tested, neither from a chemical nor mineralogical point of view.[67] According to this analysis, it is possible to hypothesis that from having an awareness of Northern Mesopotamian tradition, this awareness influenced local potters who created a hybrid shape. Tell Yelkhi represents one of the rare cases where it is possible to find typical Northern Mesopotamian characteristics in the Babylonian region and, although the production of carinated bowls was probably local, this shape clearly testifies to the phenomenon of the influence exerted by a different pottery tradition on a local one.

Conclusion

The identification of three ceramics phases in the Diyala region has made it possible to draw parallels between the various pottery vessels found at Yorgan Tepe/Nuzi, and to understand that there were some types in common during the MBA and LBA. Moreover, the parallels that can be drawn between Nuzi Stratum II and some types from the Diyala region, in use since the MBA, may testify to the sharing of some long-standing traditions.

The presence of two separate macro pottery regions in Northern and Central/Southern Mesopotamia is a matter of fact. However, local components may highlight clusters that represent micro pottery regions with local peculiarities.

The micro pottery region of Yorgan Tepe/Nuzi belongs to the Northern Mesopotamian, though it has local distinctiveness, which in part overlaps with Southern Mesopotamian shapes, such as the cylindrical cups, the goblets with a ring base and the undecorated globular goblets, which are also characterised by a dimpled decoration. This particular decoration is found in high numbers at Nuzi, but is a rare find everywhere else.

On the other hand, the micro pottery region of the Diyala is well-defined. The sites in the Lower Diyala and in the Hamrin Dam area are characterised by local variations that distinguish them as making up a singular local cluster within the region of Babylonia. The high frequency of cylindrical cups in the domestic deposits dating to the first half of the 2nd millennium BC, and the occurrence of globular goblets from the MBA onwards are two of the most evident peculiarities.

The analyses presented indicate that the interactions between the two neighbouring micro pottery regions of Nuzi and the Diyala must be related to the pottery shapes with a drinking function; especially as the cylindrical cups and the goblets appear in a great quantity in both areas, mostly in domestic deposits. The cylindrical cups are typical of the Middle Diyala in the early 2nd millennium BC and gradually spread to Nuzi, becoming frequent in the LBA deposits. Slightly different is the case of the *Grey Ware* carinated bowls, which are rarely found at Tell Yelkhi, although they are frequently found in Northern Mesopotamian contexts, together with the more common *Simple Ware* carinated bowls. It is still hard to determine whether the grey colour of the fabric is associated with food consumption or, rather, if it is just a stylistic choice without functional implications.

[64] Valtz 2002–2003, pl. 142: 25, 27–39.
[65] Valtz 2002–2003, pl. 142: 9. A further small fragment of *Grey Ware* carinated bowl from Tell Yelkhi is presented in Oselini 2016, pl. 1: 1.
[66] Valtz 2002–2003, 266.
[67] Turco *et al.*, in prep.

By observing the points of contact between the two regions, it could be assumed that the interconnection between the pottery assemblages could be related not only to the transmission of morphological traits, but also to the sharing of common social practices linked to the use of vessels for drinking. Religious and secular rituals linked to the act of drinking are attested to in Syrian and Mesopotamian iconography dating to the 3rd and 1st millennia BC, indicating that drinking vessels, such as cups, were constantly in use.[68] Unfortunately, any iconographic data for the region relating to the 2nd millennium BC are still unknown.[69] People, in fact, use to drink and have food together not just for satisfy their basic needs, but mainly as an occasion to create complicity and to build relationships. For example, feasts and banquets for celebrating a marriage are a social act where people meet and interact. Beyond the event itself, a wedding involves a series of preliminary meetings between the involved families where the exchange of gifts and goods is discussed, creating often, a real system of political relations and economic subsistence.[70] Although it is complex to reconstruct precise aspects of ordinary people's life from the available sources (textual and iconographic), it cannot be excluded that these encounters took place through events such as banquets or shared meals. Of great interest is that such communal practices embodied by the analysed vessels seem to be emphasised between cultural enclaves belonging to two political and cultural spheres — Assyria and Babylonia — that were increasingly diversifying throughout the 2nd millennium BC.[71] Precisely at a time when Assyria and Babylonia were gradually being formed as two diverse state entities, certain elements of the ceramic repertoire related to the performance of acts such as drinking and eating in a ceremonial feasting context seem to indicate elements of homogenisation or cross-cultural similarities.

The large number of drinking vessels found in the area between Nuzi and the Diyala highlight that the borders of the ceramic regions were not completely sealed, and that they were in fact permeable as regards the circulation of shapes and possibly sensible to the sharing of common traditions.

Further investigations into the spatial distribution of those vessels, possibly accomplished with fresh data from other contexts in the zone in the Lower Zab, together with technological and residual analyses carried out on new finds, could be useful in order to delve deeper into this interesting conundrum. Finally, it should not be excluded that a survey carried out in the area between the Middle Diyala and Yorgan Tepe could reveal many other contexts testifying to the presence of a group of sites that formed a corridor linking one area to the other.

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[68] Pinnock 1994.

[69] The unique 're-figuration' of a god in drinking attitude, holding a cup, was identified by Porada in the seal impression Nr. 895 from Nuzi (Porada 1947, 82). Ellison identified drinking cups for wine in the Isin-Larsa and Old Babylonian iconography of the presentation scenes of worshippers (Ellison 1978, 231).

[70] Greengus 1966; for the description of the various elements of a marriage in Old Babylonian period see Steele 2007, 300–302; for the description of the banquet organized in honour of *The Marriage of Sud* see Bottéro 2004, 100–101.

[71] Galther 2007.

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Deconstructing Supportive *Korai:* Denoting Karyatids as *Agalmata* of Khthonie, Ge-Earth Goddess

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Her soft flesh is surrounded by thin bark; her hair turned into leaves, her arms into branches; her feet, once swift, stick by clinging roots; her crown became the treetop; her sheen alone remains apart; remained nothing in the world, but beauty fresh and green.[1]

Abstract

This study attempts to re-examine karyatids,[2] so-called 'supportive *korai*' that bear the image of a female figure called Kore that was shaped like a woman statue in the place of columns. These female-figured supports were used as both ornaments and load-bearing elements in buildings within votivary or funerary contexts of sacred spaces. Their meaning is still debated among scholars, and there is no consistent interpretation of them due to the scant information. That is why this study chases their precursors in Egypt and relatively Cypriot peers. These Hathoric columns, as they are called, were mainly found at funerary temple complexes and temples dedicated particularly to the goddess Hathor of whom the columns bore the face and included symbolic khthonic elements associated with her. Re-examination of all available evidence suggests that karyatids might carry *agalmata* [3]of Earth/Vegetation Goddess, Khthonie,[4] and their design grew out of an adopted khthonic cult from ancient Egypt.

Keywords

Hathoric Columns, Karyatids, *Korai*, *Agalmata***,** Khthonie

Introduction

In the 1st century BC, the Roman writer Vitruvius, in his treatise *De Architectura* called the female-figured columns as karyatids and narrated a myth about them to explain their meaning and function as load-bearers. He described them as 'the enslaved and humiliated women of Karyae who bear the burden

[1] Ov. Met. 1.549.62; Gowers 2005, 337.

[2] The ancient Greek words such as καρυατιδες and χθωνίη starting with initial letters χ and κ are translated into English as karyatid and khthonie or khthonic using the letter k instead of c letter.

[3] The inscription on the architrave of the Knidian treasury, ([Κνίδιοι] τόν θησαυρόν τόνδε και τάγάλμα[τα Άπόλλωνι] Πυθίωι [άνέθεν] δεκάτ[αν άπό τώμ πολεμί]ων) refers to the karyatids as 'agalmata' (statues) dedicated to Apollo Pythios (Salviat 1977, 35). The ancient Greek term agalmata is the plural form of the word agalma. The author uses the term agalmata in the place of divine cult images rather than votive statues because two karyatids are displayed in front of the pronaos of a small *in-antis* temple so-called 'Knidian treasury building', and they bear distinguished divine attributes.

[4] Liddell and Scott 1883, 1727; Kirk and Raven 1964, 60; the term Khthonie (χθονίη from χθων) is an epithet given to a khthonic goddess known as Mother Earth or Mother of the Gods (Earth/Vegetation goddess) and is associated with the other goddesses who bear khthonic features and maternal nurture, namely Ge/Gaia, Rhea, Kybele, Artemis, Demeter, Aphrodite, Hecate, etc. (HH 30. 1; Eur. Hec. 59; Eur. Hel.31; Hdt. 6. 134).

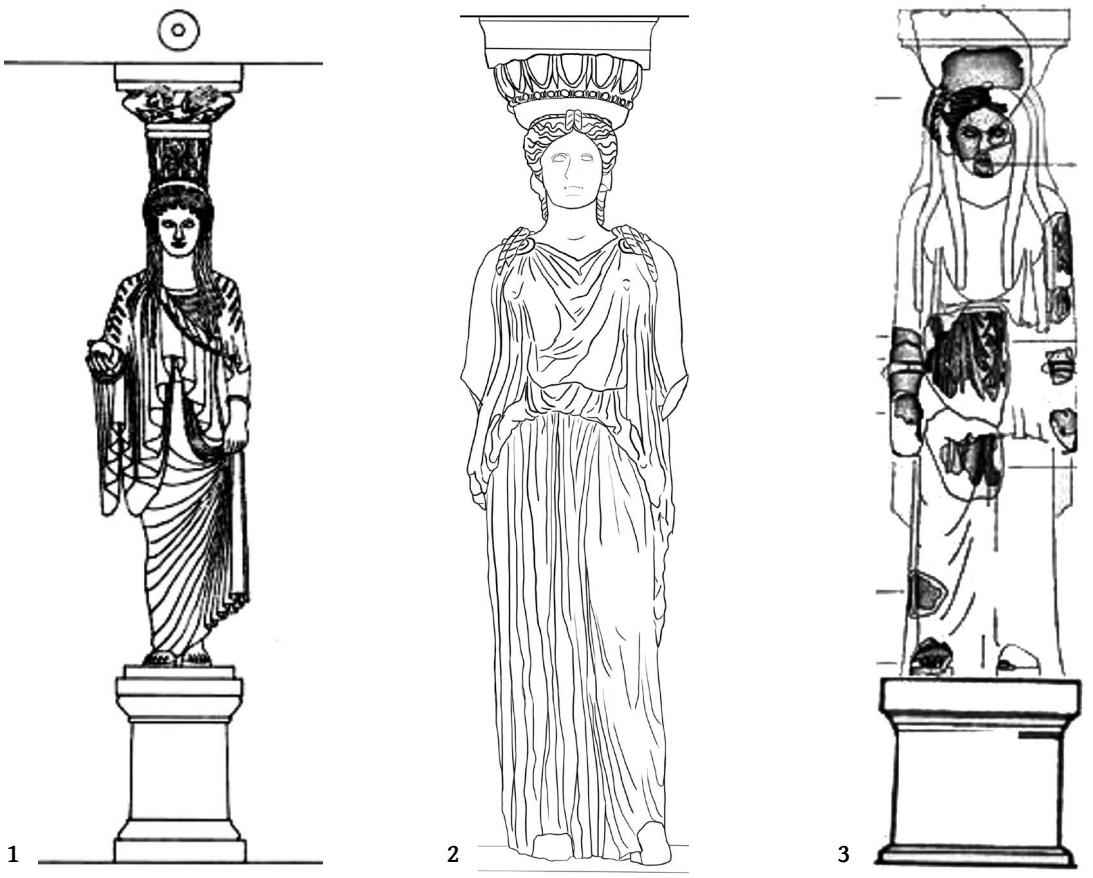

Figure 1.1–3: *Karyatids. 1. Siphnian karyatid, Delphi (adapted from Daux and Hansen 1987). 2. Kekrops' heroon, Athens (drawing of British Museum, no: 1816.0610.128). 3. Perikles' heroon, Limyra (adapted from Borchhardt 1976).*

of embarrassment'.[5] However, later in the 2nd century AD, karyatids are related to Artemis Karyatis and her cult in Athenaeus' book the *Deipnosophists*. It was compiled from the writings of the earlier ancient writers, namely Pratinas and Lynceus.[6] Besides, in Pausanias's book, 'Description of Greece' dated to the 2nd century AD, the name Karyatis is attributed both to Artemis and a walnut tree.[7] Modern scholars do not commonly accept their interpretations and mostly approve the literary impersonations such as priestesses, temple attendants, and divine mythological figures associated with nature.[8] They also use those interpretations to define archaic *korai*, sculpted female figures found in Attic funerary monuments. Thanks to the archaeological excavations, the textual and epigraphic evidence coming from the Erechtheion temple complex located on the Athenian acropolis, unveils the true face of the karyatids. The Erechtheion accounts regarding the construction work inventory verify their name as *korai*, supporting the southeastern porch known as Kekrops' *heroon.*[9] Besides, the earliest surviving literature refers to Kore as a female deity like Persephone, Athena, or Aphrodite,[10] and non-supportive *Korai* confirm this identification discovered in votivary and funerary contexts since most of them bear

[5] Vitr. I.5.

[6] Corso 2004, 164–165; Pratinas Lyr.4; Edmonds 1927, 52; Ath. vi. 241d/e). They refer to karyatids as Maenads, followers of Dionysos who sing and dance in honor of the goddess Artemis Karyatis, as the priestesses (καρυατιδες) of Artemis or the dancing Spartan women (παρθένοι) at the festivals dedicated to the goddess.

[7] Paus.3.10.7; Paus.3.18.10.

[8] Dillon 2003, 56; Borchhardt 1999, 47; Scholl 1995, 205; Lesk 2004, 108.

[9] IG i³, 474. 86; IG i² 3.ED: 509.

[10] Hes. Th.1; Hes. Theog. 913; Hes. Th. 173; Hom. h. 2.56.

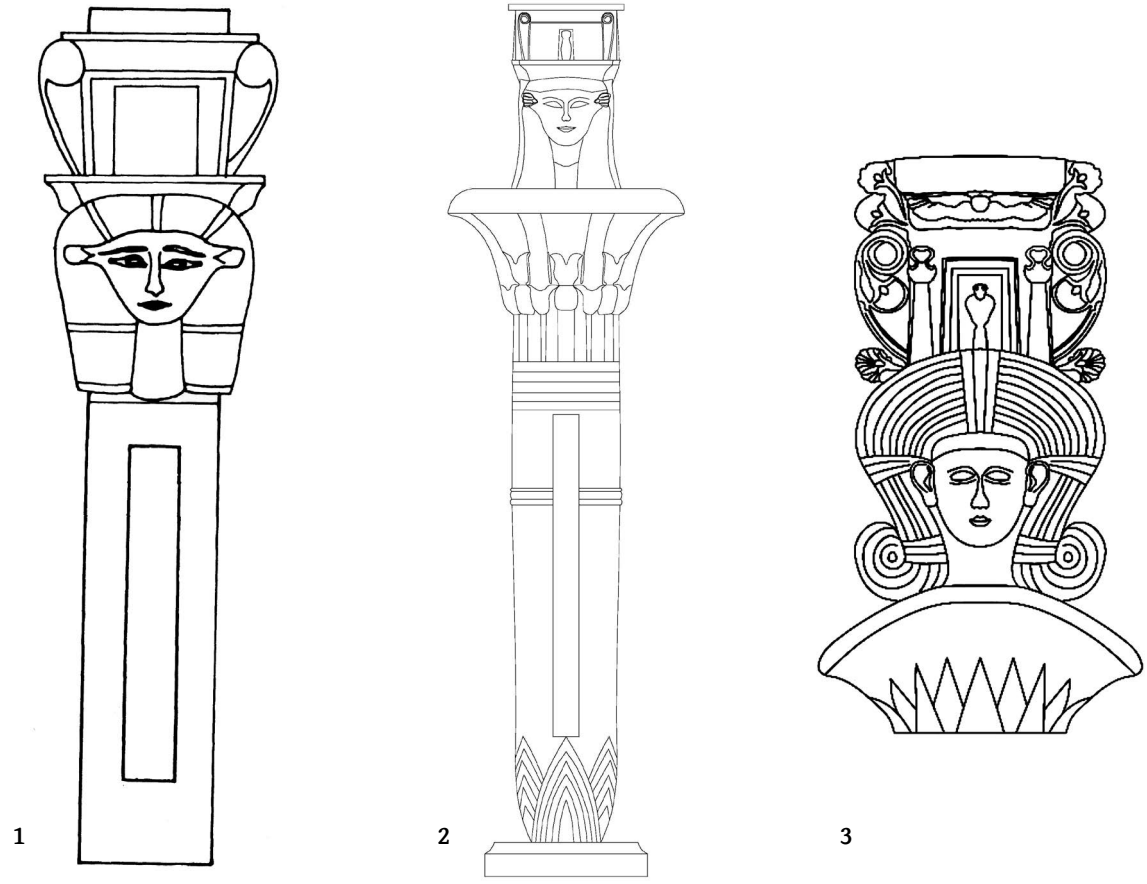

Figure 2.1–3: *Hathoric supports, Egypt and Cyprus. 1. Hathor temple, Deir el-Bahri (Bernhauer 2005). 2. Hathor-headed composite column, Philae (Drawing by Adil Kasapseçkin). 3. Kition (Drawing by Adil Kasapseçkin).*

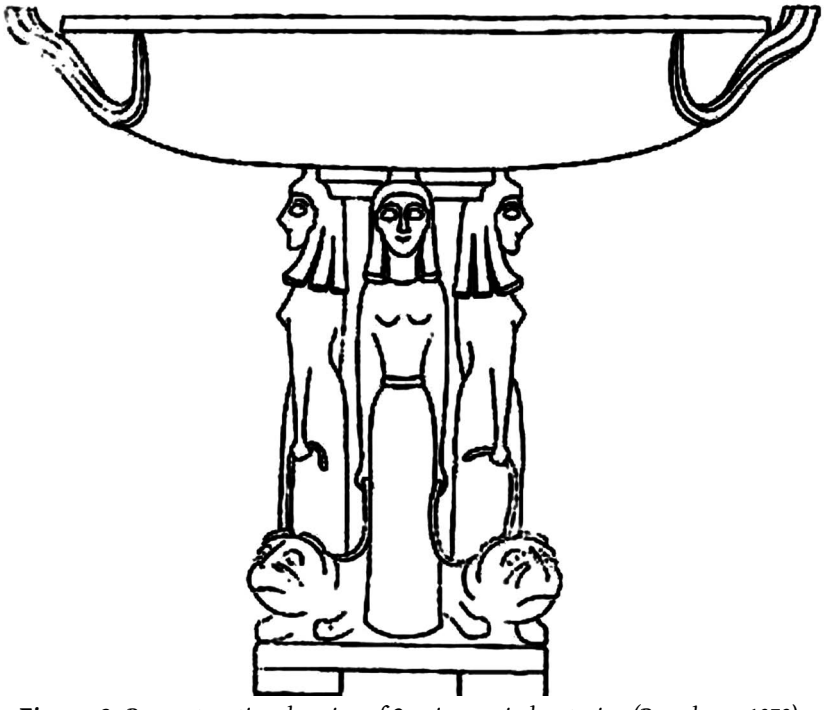

Figure 3: *Reconstruction drawing of Samian perirrhanterion (Boardman 1978).*

goddess attributes.[11] Modern scholars continue to propose new interpretations of supportive *korai,* particularly considering the narrations of the ancient literary sources written about the Erechtheion, Parthenon, and other remarkable buildings on Athenian acropolis. A small number of karyatids used as architectural supports in a few buildings limit giving acceptable answers and proposing valid assumptions (**Figure 1.1–3**). That is why this study broadens its research of karyatids and examines their precursors in the Eastern Mediterranean. Hathoric supports found in Egypt and Cyprus are used as parameters and paradigms to re-interpret karyatids besides all other strands of evidence (**Figure 2.1–3**). They could provide a solid assumption about their identity and manifest an Egyptian link. A connection between the Hathoric capitals, those seen in Cyprus in the 6th century BC, and the Hellenic karyatids of the Archaic and Classical periods did occur, however.[12] Evidence comes from the details of the imagery, use of their contexts, and socio-cultural situations. These details contain motifs that refer to khthonic cults, a type of religious practice followed in these different cultures.

Objectively, one cannot deny that detecting far-reaching and precise symbolic meanings from mute architectural morphology is difficult and risky. Besides, it is possible to borrow a form without borrowing its meaning. However, when a selected number of female-figured supports are deconstructed, compared, and examined together with the interpretations of their spatial and architectural contexts, it is understood that their architectural morphology is not mute. Therefore, this study adopts a multi-disciplinary approach using the tools of semiotics, iconographical/iconological analysis, and contextual analysis. It attempts to re-interpret karyatids based on the research-generated catalog of the female-figured supports used in ancient architecture starting from the 2nd millennium BC to the early Hellenistic period.[13] Karyatid and Hathoric column samples are selected considering their distinctive and unique characteristics and providence of rich iconographic elements seen on their capitals. The designated supports are dismantled into their components. Their motifs are examined and spelled out, drawing analogies from other strands of evidence on the visual level. In this way, the hidden and unseen meanings of the motifs related to the khthonic themes are disclosed. Lastly, the imagery evidence correlated with the contextual evidence and socio-cultural situations is set into a framework to explain the karyatid theme.

Defining and placing karyatids

When Vitruvius introduced the karyatid term and described its usage in his manual for the architects, karyatids became one of the most popular elements of architectural embellishments throughout the Roman period. Most of them did not have supportive functions except a few examples.[14] However, their khthonic meanings continued as they were mostly used in funeral contexts.[15] Karyatids dated before the Hellenistic period were discovered very few in Anatolia and mainland Greece (**Figure 6.1–4**). The first sculpted female's body detected as a single example and supposedly utilized as architectural support was discovered at Tell Halaf in the 9th century BC. The female figure represents a goddess called Hebat/Ishtar in ancient Near Eastern belief. *The Hilani* building adorned with colossal divine figures as supports were used in a sacred space where the royal cult rituals were performed. These rituals were also related to the worship of a vegetation goddess.[16] Besides that, *the Hilani* building is also considered to be a royal

[11] Karakasi 2003, 38.
[12] Kuban 2008.
[13] Çonka 2018, 29.
[14] Mylonas 1961, 159; Palagia 2016, 217. Two karyatids dated to the 1st century BC were found on the inner propylaea of the sanctuary of Demeter and Kore at Eleusis in Greece. The other six karyatids came from the propylon of the sanctuary of Demeter Triopion dated to the 2nd century AD.
[15] King 1998, 287.
[16] Gilibert 2011, 124.

Figure 4: *Karyatid-style thymiaterion. Nicosia Museum, 600–575 BC (photo by Sevil Çonka).*

1

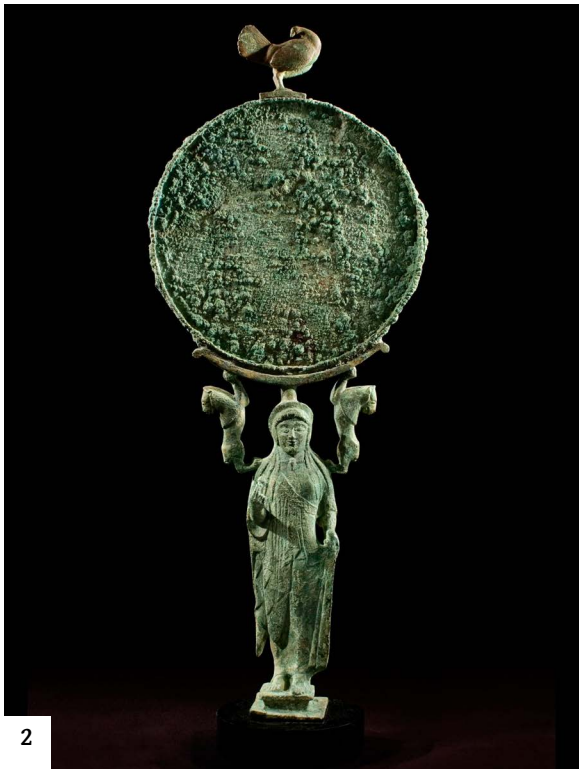

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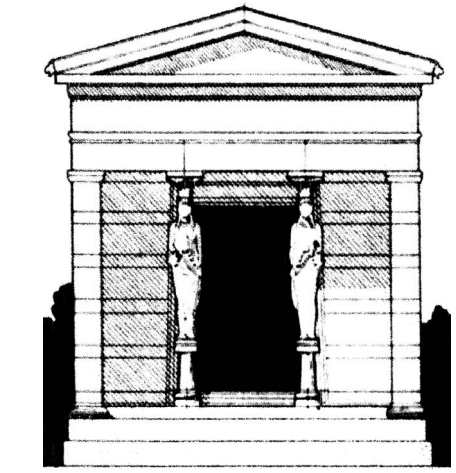
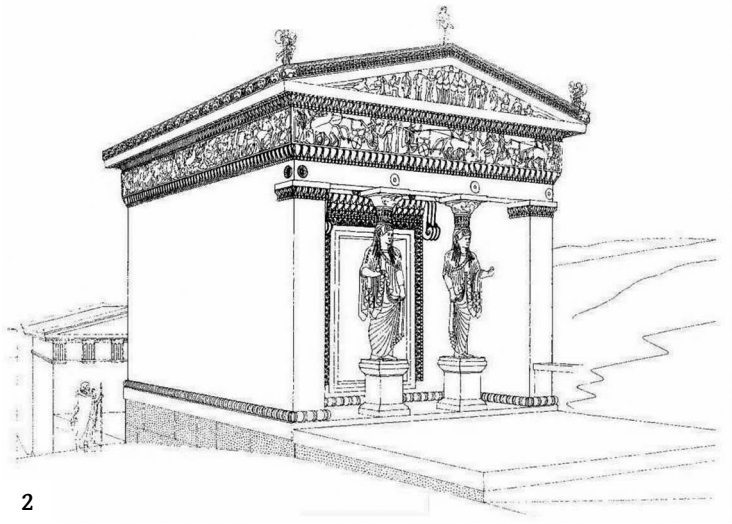
Figure 5.1–2: *Late Archaic mirror karyatids (Metropolitan Museum, no. 38.11.3 and Phoenix Ancient Art, reference no: 15182).*



1 Cnidus



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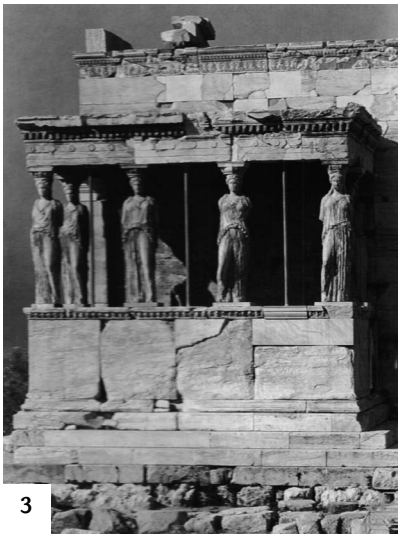

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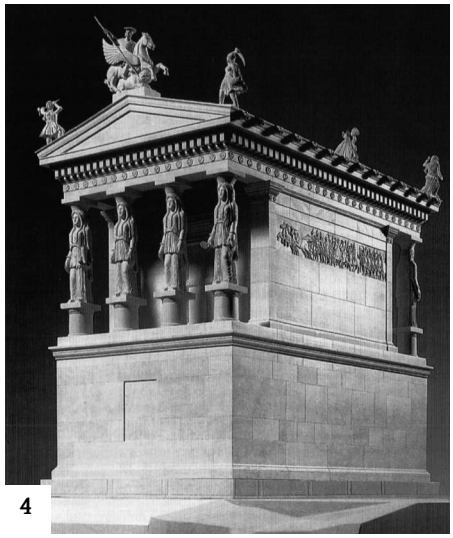


4

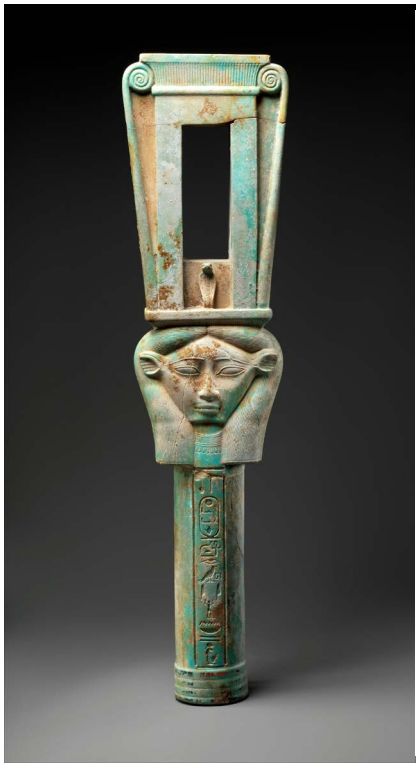
Figure 6.1–4: *Reconstruction drawings of the Knidian and Siphnian treasury buildings (Dinsmoor 1913; Daux and Hansen 1987) 3. Kekrops'heroon (Scholl 1995) 4. Reconstruction of Perikles' heroon (Borchhardt 1976).*

mausoleum.[17] Later, in Greece (at Rhodes, Samos, etc.), the earliest karyatids made on a small scale were seen on the *perirrhanteria* of the 7th century BC (**Figure 3**). Their usage and display with lions might have been inspired by the Tell Halaf karyatid, since it is considered a precursor for them. *Perirrhanteria* karyatids were used as votive water-bearers besides their function as load-bearers. Sturgeon proposes that the *perirrhanterion korai* might represent the protector goddess of nature and animals known as Artemis, the *Potnia Theron/Khthon* (Πότνια χθών/khthonic goddess in Eur. Hec. 59).[18] They might have also inspired the Greek karyatids later made on monumental scales. Besides *perirrhanteria*, other small findings such as karyatid-style *thymiaterions* (**Figure 4**) and mirror handles recalling their Egyptian and Near Eastern predecessors (**Figure 5.1–2**) found mostly in funerary contexts can be counted as well.[19] The earliest usage of karyatids on a monumental scale is seen at Meydancıkkale (ancient Kirshu) in Southern Anatolia. The lower torsos of two female statues in Cypro-Ionian style, dated to the 1st quarter of the 6th century BC, were discovered in the *heroon*'s entrance dedicated to the king Appuashu of

[17] Gilibert 2011, 53.

[18] Sturgeon 1987, 23–25.

[19] Banou and Bournias 2014, 124–125; Congdon 1981, 12.



(Left to right) **Figure 7:** *Hathoric sistrum (Metropolitan museum no: 17.190.1959).* **Figure 8:** *The hieroglyphic writing of Bat's name (Rashed 2010).* **Figure 9:** *Hathoric mirror (Metropolitan Museum, no: 36.3.13).*

the Prindunu. The reconstructed plan of the *heroon* suggests that two karyatids carried the porch of the *heroon*.[20] The well-known karyatids are found at Delphi in the pronaos of *in-antis* megaron planned buildings called 'treasure houses' of the Knidians and Sipnians dated to 565–550/530–525 BC (**Figure 6.1–2**). The buildings built in Ionian order were established adjacent to the sacred way in the sanctuary of Apollo. Although the word 'thêsauroi' used by the ancient writers refer to both '*naoi*', shrines, and '*oikos*' houses, modern scholars prefer to interpret them only as 'treasury houses' that contain offerings dedicated to Gods, and not as sacred at all.[21] Yet, the function of the buildings is still controversial among scholars. The other notable karyatids come from the top of the Athenian acropolis. Six of them are found on the marble parapet of the 'south portico' of the Erechtheion temple called Kekrops' *heroon* kiosk/Kekropium dated to the 5th century BC (**Figure 6.3**). The Erechtheion temple was named after the legendary Athenian king Erechtheus (earth-born), father of Kekrops and son of Gaia, the Earth-goddess.[22] It was built in Ionian style where various cults were worshipped, notably on the foundation of the old Athena temple dated to the 6th century BC.[23] In Anatolia at Limyra, half a century after the Kekrops' *heroon*, karyatids were discovered in the Perikle's *heroon* porticos dated to the 4th century BC (**Figure 6.4**). The temple-like *heroon* was built in an amphiprostyle plan, similar to the Nike temple on Athenian Acropolis, and its front view recalls Kekrops' *heroon* kiosk.

[20] Davesne and Laroche-Traunecker 1998, 64.
[21] Neer 2001, 274; Dyer 1905, 30.
[22] Hom. II. 2.546; Paus. 1.5.3.
[23] Lesk 2004, 30.

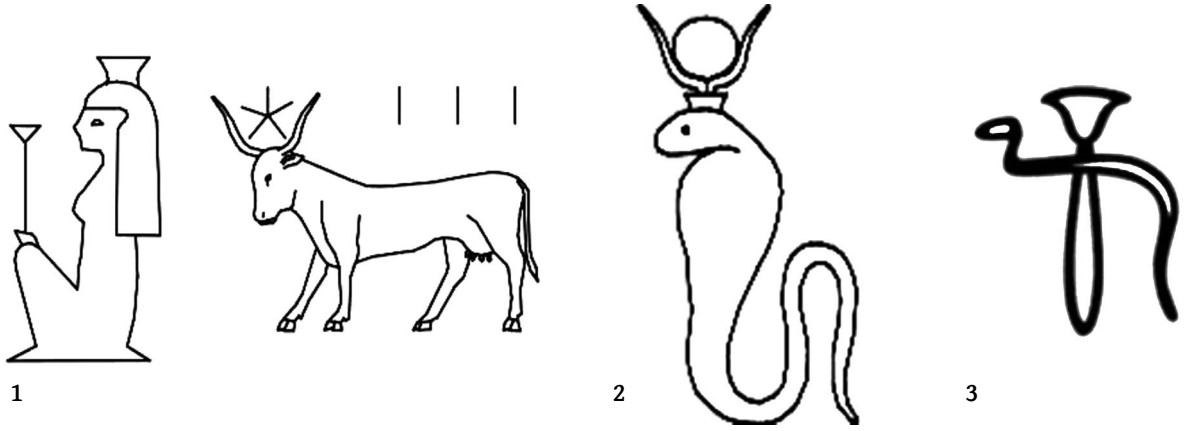


Figure 10.1–3: *The hieroglyphic writings of Hathor/Wadjet names (Richter 2012; Vomberg and Witthuhn 2008).*

Egyptian precursors

The first female-figured columns made of stone are used in Egyptian architecture in the 2nd millennium BC. Hathoric columns as called, mainly appeared during the reign of the female Pharoah called Hatchepsut in the 15th century BC. They continued to be used during different times and through the Roman period. Those over-life-sized supports are usually called Hathoric or naos-sistrum columns (**Figure 2.1**).[24] The columns' whole appearance takes the form of a sistrum (**Figure 7**), a cultic musical instrument first made from papyrus reeds and used as a hand percussion in rituals and festivals.[25] The sistrums are considered incarnations of Hathor and the cow goddess Bat (**Figure 8**), whom she associated with.[26] Hathoric sistrums have similar forms with other ritual objects called Hathoric mirrors, of which rounded mirrors replace the *naos* elements (**Figure 9**). Hathoric columns are either crowned by a two-sided capital replaced on Hathor's head or by a composite capital consists of a papyrus umbel and a four-sided crowned Hathor head (see **Figure 2.2**). The two-sided Hathoric column capitals are composed of *kalathos* and *naos* elements. Hathoric columns bear one of the canonic depictions of Hathor, a hybrid form of a female visage with cow's ears and with her tresses in the form of a bundle of reeds. In the ancient Egyptian belief system and mythology, Hathor was a primordial mother goddess known as the creator of all the gods and associated with other gods and goddesses, primarily with Bat, Isis and Wadjet (cobra goddess).[27] The hieroglyphic signs of Hathor's names reveal her various representations (**Figure 10.1–3**). Among Hathor's distinctive attributes, crowns worn on her head and a papyrus staff held in one of her hands came into prominence. Being a goddess of all gods, she is mostly recognized to symbolize the underworld (protector of the deceased, earth, nature, minerals), sun, sky, abundance, rebirth, fertility, music, and dance.[28] Egyptianized Hathor-headed supports discovered in Cyprus appeared roughly the same time as the Delphian karyatids dated to the 2nd quarter of the 6th century BC. Unlike the Egyptian ones, their column shafts were mainly absent. However, some depictions found on a Hathoric capital from Kition (see **Figure 2.3**), on funerary steles from Salamis and Memphis, and funerary votive mirrors might refer to their architectural usages and positions.[29] The canonic image of Hathor has been replaced by the local Cypriot and Phoenician goddess known as Aphrodite/Astarte (**Figure 11**). They are formed in Cypriot-Ionian style and ornamented with ancient Egyptian and ancient Near Eastern motifs, particularly under the Phoenicians' artistic/cultural influence. Besides, Hathoric

[24] Arnold 2006, 103.
[25] Ayad 2009, 37.
[26] Richter 2005, 153; Elwart 2011, 46.
[27] Plut. De Iside 56; Richter 2012, 62.
[28] Lesko 1999, 8; Buhl 1947, 80; Richter 2012, 51.
[29] Çonka 2018, 74.

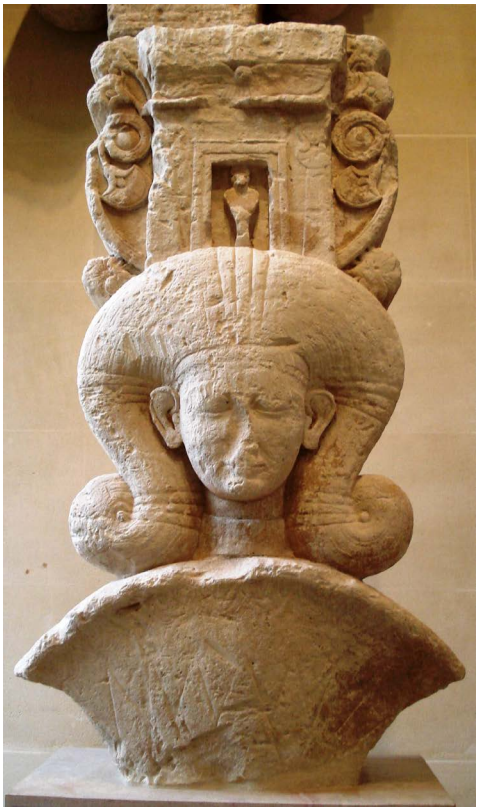


Figure 11: *Cypriot Hathoric capital, Kition (Louvre museum, no: AM93).*

columns are generally found at the temples or funerary temple complexes dedicated to divine kingship, dead and alive kings/queens that are also considered divine immortals.[30]

Setting as Khthonic and Khthonie

In this study, the term khthonic derived from the ancient Greek word χθων refers to the earth's elements, which generally connotate death, netherworld, the afterlife, re-birth, vegetation, and fertility concepts. Those khthonic concepts are recognized as the aspects of the cosmos' creative force. They are personified in myths as both male and female deities' powers but significantly associated with female creativity. It might suggest that ancient writers and philosophers used the female body/spirit as a metaphor to explain their cosmogonical thinking. Earth is personified as a female deity, so-called Ge/Gaia, identified with the underworld, the dead, or the earth's generative processes (vegetation/fertility) that maintain the cosmos in balance.[31] One of her significant personifications takes place in Pherecydes of Syros' writings in the first half of the 6th century BC. He wrote a cosmogonic myth narrating a cosmic marriage (*hieros gamos*) between Earth (Khthonie/χθονίη) and Heaven (Zas/Zeus/Δῖος).[32] After the marriage, Zeus gives Khthonie a woven robe of Earth, and she transforms into Ge emerging as a tree.[33] In this context, Khthonie-Ge being an Earth and a tree goddess, unites Heaven and Earth, and the name Khthonie is given as an epithet to various earth /vegetation goddesses. Pherecydes of Syros might have been inspired by the Ionian philosopher Anaximander's cosmic imagery that described the

[30] Çonka 2018, 92.
[31] Bakola 2019, 118.
[32] Kirk and Raven 1964, 60; Hahn 2001, 50.
[33] Cusack 2011, 40.

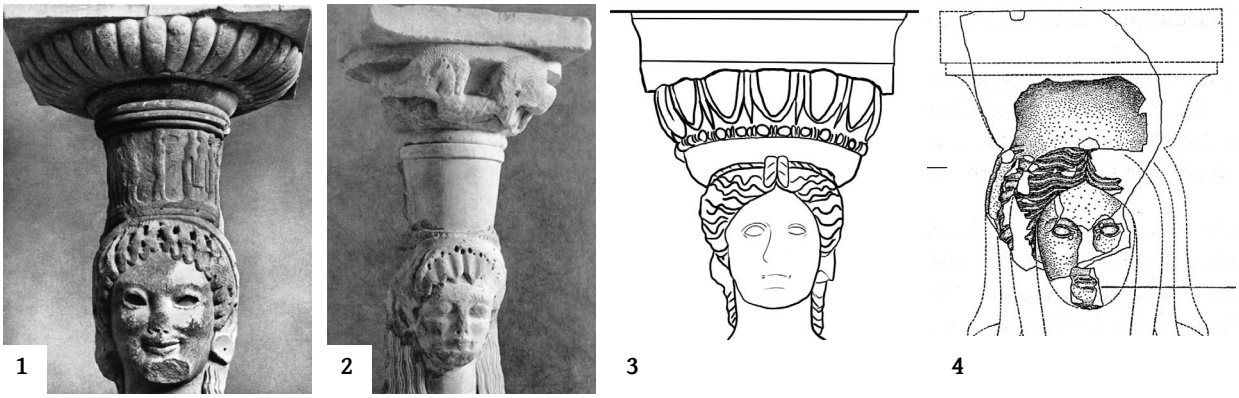


Figure 12: *Karyatid crowns as capitals, 1–2. Delphian karyatids (Çonka 2018), 3. Athenian karyatid (adapted from Figure 1.2), 4. Limyran karyatid (adapted from Figure 1.3).*

Earth-Ge (Gaia) as a floating entity positioned in the middle of the cosmos.[34] Anaximander defined the Earth as flat in shape like a column's cylindrical drum in the center of the Universe, and described the fire growing around the Earth like the bark around a tree.[35] Besides, he considered the Earth as an area where one lives and connected it to the human world. According to Presocratics' thought, Earth becomes an *oikoumenê* (inhabited region/cultivated land), leaving its former khthonic associations.[36] Thus, the growth of the polis starts. It is understood from above that land cultivation is metaphorically related to the unification of Earth and Heaven (cosmogony of the solar system) by an axis, an allegorical pillar/solstice marker used to appoint agricultural cycles. The early Ionian philosophy generated from the Near Eastern and Egyptian cosmologies seems to have influenced Pherecydes of Syros' narration of cosmogonical myth. A similar narration is observed on the Hathoric columns as architectural embellishments. For example, some Hathor temples were built oriented towards the rising of Sirius, coinciding with the winter solstice.[37] The columns bear khthonic motifs related to fertility, re-birth, dead, and after-life (deification of living kings) concepts. Goddess Hathor's association with the papyrus plant, her being a celestial cow to carry the sun to heaven, is depicted on the Hathoric capitals. The emergence of Hathor from a plant/tree and her association with a tree goddess is also mentioned in the Old Kingdom inscriptions and the New Kingdom's Book of the Dead (funerary literature).[38] In ancient Egyptian mythology, Hathor/Nut and the ancestral spirits afterlife are believed to have lived in the great tree of the sky.[39]

Setting imagery evidence

Karyatids' heads and draped bodies correspond to column shafts, and their crown replace the column capitals, so-called karyatid capitals (**Figure 12.1–4**). The capitals consist of a crown, and an abacus on the very top, respectively.

Karyatid capitals

Karyatid crowns take the entire form of a *kalathos*, the coiled or woven basket/cup (**Figure 13.1–4**). In this study, the term '*kalathos/kalathoi*' is used to describe both the actual forms of cups used to carry libations (food, wool, flowers, and other ingredients used in daily life, rituals, and funerary ceremonies)

[34] Purves 2010, 108.
[35] Couprie 2011, 174.
[36] Purves 2010, 108.
[37] Ruggles 2003, 491.
[38] Faulkner 1978, 6.
[39] Lesko 1999, 87; Assmann 2005, 129.

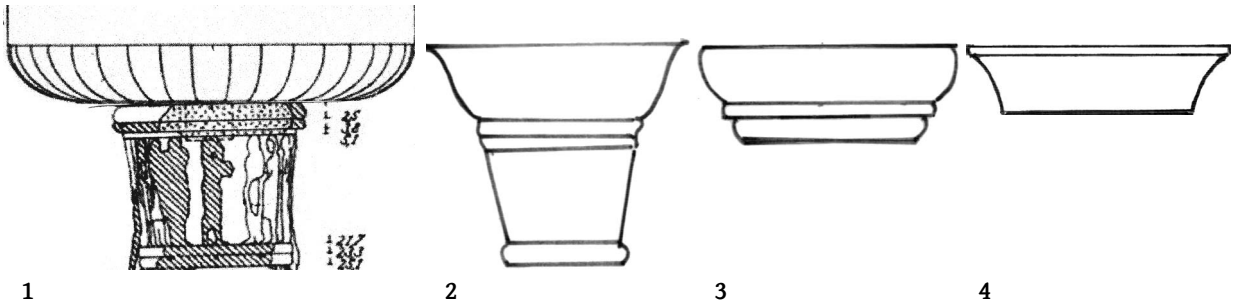
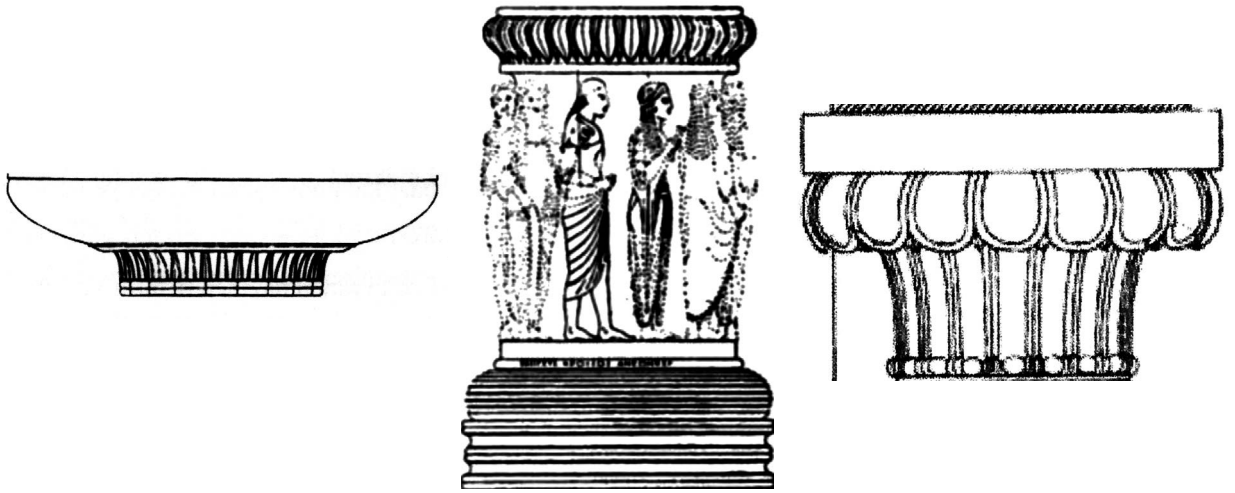


Figure 13.1–4: *Kalathos crowns of the Delphian, Athenian and Limyran karyatids (adapted from Daux and Hansen 1987; drawings by Sevil Çonka 2018).*

Figure 14. *Metaponto, 5th century BC (Metaponto museum, Italy).*



(Left to right) **Figure 15:** *Doric column capital with leaf-patterned neck, Artemis Knakeatis temple, Tegea (adapted from Wesenberg 1971).* **Figure 16:** *Columna caelata from the archaic temple of Artemis at Ephesus (Dinsmoor 1950).* **Figure 17:** *Klazomenian treasury, 6th century BC, Delphi (Dinsmoor 1913).*

Figure 18.1–2: *Karyatid capitals, 1. Amphipolis heroon (Chugg 2014), 2. Athens (Palagia 2016)*

and the crowns of karyatids. The form of the *kalathoi* differs from each other by having a shallow or a deep body flaring upwards, forming convex or concave profiles (**Figure 14**). The *kalathoi* on Knidian and Athenian karyatids' heads have echinus mouths, which are ornamented with either rib/leaf or Ionic kymation patterns. It is suggested that they correspond to the Doric or Ionic columns' echinus elements (**Figure 15**).[40] The cylindrical bases of the Knidian and Siphnian karyatids' *kalathoi* decorated with high reliefs show similarity with the Ionian sculptured column-drums found at the archaic temple of Artemis in Ephesus.[41] This resemblance is more evident when the sculptured column drums (*columna caelata*) are proposed to be placed under the Ionian capitals as column necks (**Figure 16**).[42] The early sixth century BC in Ionia was important to examine various architectural inventions such as column drums, the so-called Earth-drum in Anaximander's poetic prose. He placed the Earth-column drum like the celestial axis between Heaven and Earth.[43] That might also explain why Pausanias called the crowns of Athena, Aphrodite, and Hera as polos (πόλος), which means axis or pole.[44] These analogies look accurate when one thinks of the early forms of Doric and Ionic column capitals and columns with floral capitals reflecting Egyptian palm capitals (**Figure 17**). They reflect vegetal decorations looking as if they were stylized and geometrized tree-canopy/plant-crown shapes replaced by the stone column capitals. Yet, the crown, which is carved from a single piece of stone and takes the actual *kalathos* shape can be also seen from the Limyran karyatids found at Perikles' heroon and later period examples found in the Amphipolis *heroon*, in Athens and at the sanctuary of Demeter in Rome (**Figure 18.1–2**).

A similar case can be observed on Hathoric columns (**Figures 19** and **20.1–4**). The right and left sides of the Hathor's crowns are either decorated with papyrus plants or forms of a quarter part of the papyrus umbels (**Figure 20.4**). The Hathor heads look as if they replaced the lower part of the papyrus umbels emerging from the papyrus bundles (see **Figure 20.3–4**). On the front and back facades of the Hathoric column capitals found in Egypt, Hathor occurs as wearing one of her traditional crowns formed like a

[40] Jones 2014, 168 and 195.
[41] Picard and De La Coste-Messelière 1927, 4.
[42] Bammer and Muss 1996, 49–57.
[43] Hahn 2001, 158.
[44] Paus.7.5.9; 2.10.4; 2.17.4.

Figure 19: *Hathoric column capital (Von Merklin 1962).*

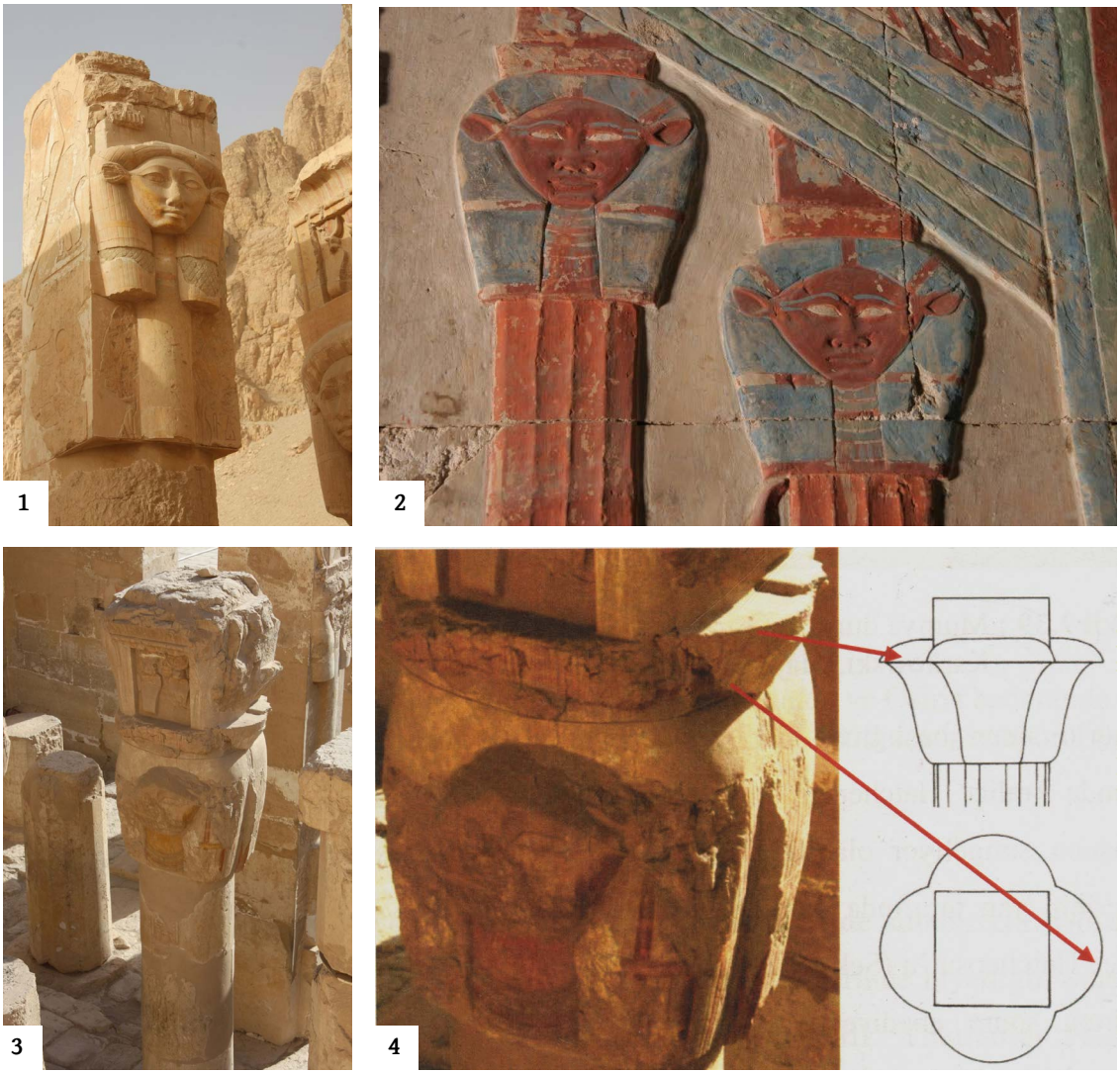
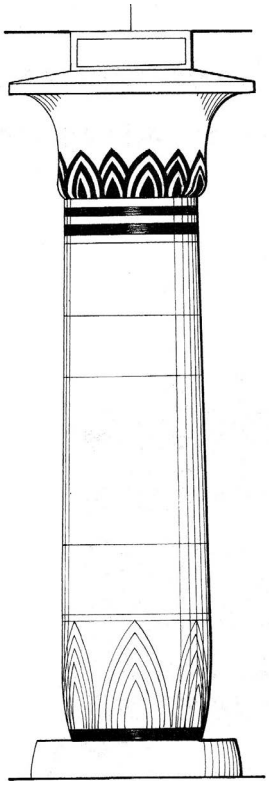


Figure 20.1–4: *Hathoric pillar and column (Çonka 2018, photos: courtesy of Z.E. Szafranski). 1–2. Hathoric pillar depictions 3. Hathoric column 4. Front and side views of the kalathos sections formed out of papyrus umbel (detail of Figure 20.3).*



(Left to right) **Figure 21:** *Papyrus column (Arnold 2003).*
Figure 22: *Naos model, 13th century BC (Turin museum, no: C.2446 CC BY 2.0 IT).*

truncated cone with concave profiles on top of her head (see **Figure 19**). It takes place on all Egyptian Hathoric columns, almost on all Hathoric sistrums and Hathoric mirrors, but not on the Cypriot ones since a complete form of papyrus umbel is used as a part of the capital form. Since the crown has a cup form with a splayed-out rim that sits on the head of a goddess, scholars, using the ancient Greek term, call it *kalathos.*[45] Its usage might be due to the lack of ancient Egyptian terminology and its widespread use in the ancient Mediterranean basin. According to Bernhauer, Hathor's *kalathos* keeps its traditional form from when it was first carved as an alto-relievo on Hathoric pillars (see **Figure 20.2**).[46] Hathor's *kalathos* has incised vertical lines like papyrus umbels, which correspond to stylized papyrus flower pedicles or crown leaves. The earliest papyrus pillars dated to the 3rd millennium BC might indicate the origin of the Hathoric column types.[47] Their capitals took the stylized papyrus umbels, whereas their shafts replaced the papyrus bundles (**Figure 21**). Another analogy can also be derived from the architectural element shaping the Hathor crown's upper part placed on her *kalathos* (see **Figure 19**). It is the architectural narration of the mythical Heaven carried on the crowned head of Hathor. It is called *naos,* another ancient Greek term used by scholars of ancient Egyptian and Classical archaeology and architecture.[48] As an ancient Egyptian hieroglyph sign, it symbolizes the rectangular-shaped cult room/cella or temple found stationary or portable (placed on a boat-shaped sledge) inside the temple and funerary-temple complexes.[49] The *naoi* also represent the tombs, of which sides are flanked either by papyrus plants or Hathoric columns since they carry the pharaohs' dead bodies (**Figure 22**).

[45] Bernhauer 2000, 26.
[46] Bernhauer, pers. comm.
[47] El-Shahawy 2005, 32.
[48] Bernhauer 2005, 7; Russmann and James 2001, 212–213.
[49] El-Shahawy 2005, 31–33.

Figure 23: *Sveshtari Heroon (Grudeva 2015).*

Crown motifs

Karyatid crowns having *kalathos* forms and being depicted with high relief leaf/rib or lesbos kymation patterns and figural motifs propose khthonic meanings, which can be deducted from the following theme contents. The Knidian karyatid crown's figural motifs are interpreted as Apollo's arrival and Hermes's procession, accompanied by Nymphai and Kharites.[50] On the other hand, the Siphnian karyatid's crown represents two different themes. The crown's lower panel scene is interpreted as the abduction of a Nympha by a satyr. The abduction scene is associated with a ritual dedicated to Dionysus, including sacrificing an animal or a spring festival like Anthesteria celebrated at Dionysos' rebirth/re-arrival.[51] The metaphoric meaning of the 'abduction scene' is related to the fertility concept symbolizing water and earth reunion like a marriage[52] that would point out Dionysos' khthonic aspect like Osiris.[53] The crown's upper panel has a scene of animal figures that shows a deer attacked by two lions. It might be related to divine epic victories or the heroes' graves. Similar depictions are observed at the temple of Athena on the Athenian acropolis, Apollo's temple at Delphi, and Lycian tombs found at Xanthos in Southern Anatolia.

Apart from the *kalathos* and *naos* elements on Hathor crowns, other different motifs reflecting the similar khthonic aspects of the karyatid crowns can also be seen. The motifs associated with rebirth, afterlife, fertility, divine power, and ancestral protection include cobras crowned with sun-disks, double volutes (cow horns/papyrus reeds), and standing mummy figures (Osiris/Hatchepsut).[54] Also, Cypriot Hathoric capitals dated to the 6th century BC include Egyptianized Near Eastern khthonic motifs such as sphinxes and tree of life motifs.

[50] Cooper 1992, 21.
[51] Themelis 1992, 45.
[52] Britt 2007: 56.
[53] Harrison 1966, 35; van Hoorn 1951, 24.
[54] Lesko 1999, 69; Richter 2005, 85; Çonka 2018, 49.

Female Heads

Karyatid heads represent the *Korai* with oval-shaped faces reflected the sculptural style of their period when they were carved. The archaic smile seen on the Delphi karyatids is almost absent on the Athenian and Limyran karyatids dated to the Classical period. The Knidian karyatid's face remarkably recalls Artemis' head found at the temple of Apollo. They all have long and curly hair with different styles. Delphi karyatids differ from the others by having wreaths on their heads with applique embellishments and rosette earrings. Rosette earrings and archaic smile are also seen on early Cypriot Hathoric heads as they are formed in the Egyptianized Cypriot-Ionian style. Similar rosette motifs associated with funerary contexts are also seen on the Cypriot Hathoric capitals' *naos*-shaped crowns, the Siphnian treasury building's architrave, Kekrops' and Perikles' *heroons.*

Karyatid shafts

Karyatids which replace the column shafts, represent a standing draped woman (wearing Ionic khiton, peplos, or both) body with one leg forward. They are supposed to carry libation objects like *phialai* and *rhyta* with one or two of their hands, as seen on the Limyran karyatids, and be associated with funerary ceremonies. The female body replaces the tree trunk in the karyatid order similar to Hathor's embodiment in a bundle of papyrus reeds. Their folded garments look like fluted columns or bundles. Another evidence comes from a Hellenistic tomb found at Sveshtari in Bulgaria.[55] Karyatids' crowned heads and torsos engaged to the tomb walls are depicted as emerging from plant crowns (**Figure 23**).

Contextual evidence and socio-cultural dimensions

In Greece and Anatolia, karyatids are discovered in votivary and funerary contexts similar to those of the Egyptian Hathoric supports. They are either found at *heroon* buildings dedicated to the dead kings (royal cults), legendary or lived heroes/heroines, ancestral cults, and 'treasury houses.' They were all set up in the entrance of the buildings where they adorn the facades. The buildings at Delphi and Athens are also located in sacred contexts of temple complexes where various divine/ancestral cultic rituals and festivals occur. At Delphi, *in-antis* megaron planned 'treasury houses' are situated on processional routes. The frieze, sculpture, and architrave remains of the buildings depicting heroic/epic and mythological themes point out their khthonic aspects. That might indicate that the buildings were not just treasury storages but also had khthonic cult roles. The archaeological and literary evidence points out that the Delphi people worshipped Gaia, the Earth goddess, before Apollo's cult.[56] She was known as Python/Pythia, the serpent, another epithet given to the khthonic goddess Gaia/Kore.[57] The Pythian games' so-called after the serpent's name, were first celebrated as Delphi's funeral games.[58] Other than the Pythian Games, one can also count festivals and rituals associated with spring and Apollo's arrival, fruit harvest, honoring Apollo and heroes, and commemorating Dionysos and ancestral souls.

Furthermore, in Athens, Kekrops' *heroon* located in the temple of Erechtheion also reveals significant cultic and khthonic meanings. It is considered a notable ritual place dedicated to earth-born/khthonic half man and half snake legendary founders (Kekrops and Erechtheus/Erichthonios) of Athens. It is situated on the processional route facing the Parthenon and close to the shrine of

[55] Grudeva 2015, 92.
[56] Hesiod Catalogues Frag 40/A; Pind. P.10.27.
[57] Apollod. 1.6.3.
[58] Fontenrose 1959, 453.

Figure 24: *Reconstruction of frieze on base of Athena Parthenos statue (Connelly 1996).*

the heroine Pandrosos, where Athena's sacred olive tree was supposedly located.[59] Kekrops' *heroon* kiosk is interpreted as a cultic space used by the priestesses and priests, particularly during the Panathenaia festival's rituals.[60] The building accounts of Erechtheion mentions the attendants who washed and cleaned the ancient image (*to archaion agalma*) but do not talk about its exact location.[61] The Panathenaia festival held in August was dedicated to Athena Polias and the Athenians' political unity and living/legendary ancestral cults. The festival included songs, dances, processions, contests, chariot-racing, and competitions in which olive-branch wreaths were given as prizes.[62] The festival's highlight was a new robe presented to Athena as an allegorical celebration of fertility connected with the agricultural cycles.[63] The presentation of the new robe and its mythical narration of celebration by the deities (the creation of Pandora/Anesidora) is also seen on the friezes of Parthenon and the statue base of Athena Parthenos (**Figure 24**).[64] Athena girdles and dresses Pandora in a silver robe and puts a crown of gold upon her head with lovely garlands, flowers of new-grown herbs.[65] She is identified as the Earth/Ge-goddess who sends up gifts in the Kore form.[66] In addition, the dedication of a robe to a goddess as an object of the cult also took place in the temple of Artemis Brauronia[67] in Athens and in the temple of Artemis Khitone[68] in Miletos.

Conclusion

All lines of imagery and contextual evidence pulled together with socio-cultural dimensions come to an apparent conclusion, which should not be considered an end in itself, but as the beginning of a discussion. It suggests that karyatids might carry the divine image(*agalma*) of an Earth/Vegetation Goddess, Khthonie, and their design grew out of an adopted khthonic cult from ancient Egypt. That can be regarded as a common faith (a religious *koine*) that flourished out of an adopted cult in ancient Egypt and transmitted to the West through an architectural language by the Ionians and Phoenicians via Cyprus. In this respect, the khthonic term can be presumed an identifiable vocabulary of their

[59] Paus. 1.27.2.
[60] Scholl 1995, 191–195.
[61] Harris 1995, 206.
[62] Harris 1995, 8.
[63] Hå land 2004, 161.
[64] Connelly 1996, 74.
[65] Hes. WD. 60; Hes. Th.573; Hå land 2004, 168.
[66] Harrison 1966, 281.
[67] Paus. 1.23.7.
[68] Call. H.3. 225–227.

architectural language. The religious *koine* points out a tree cult associated with the fertility of the Earth. The trees/reed bundles and eventually supportive stone columns used as an axis allegorically between the Earth and Heaven function as solstice and equinox markers tied to the agricultural cycles. The tree emerging from the earth transforms into a beautiful young woman, a draped female figure called Kore who carries a *kalathos* crown on her head shaped out of a stylized tree/plant canopy form in cosmogonical myths of the West. Then, she becomes a bearer of the Cosmos responsible for the regeneration of the Earth and a divine guardian to protect royal families, legendary/real ancestral cults, and cities' prosperity.

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From Athirat to Aphrodite. The Feminine Side of the Sea in the Late Bronze and Early Iron Age Eastern Mediterranean

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Abstract

This paper explores the feminine side of the sea in the Eastern Mediterranean cults. It focuses on the transmission of common traits of the sea goddesses between the Levant and the Aegean in the Late Bronze and Early Iron Ages, and on cultural hybridization resulting from the encounter of their individual traditions. Aspects taken into account will be the goddesses' individual characteristics as extrapolated from autochthonous material, the way they relate to the sea, to maritime activities, and to ritual practices. Material culture, iconography and the textual sources will be combined to gain a picture of these 'ladies of the sea' with a special attention for elements of cultural contamination. The topic will be dealt with from a diachronic perspective with comparative goals. This paper will highlight what appears to be the shared features of marine goddesses in the area and period under examination, and what instead can be considered specific to each goddess in her representativeness of the sea within her specific cultural framework.

Keywords

Sea Goddesses, Mediterranean, Athirat, Aphrodite, Posidaeia

Introduction[1]

Many ancient marine cultures conceptualized the sea through its identification with a personified god or goddess. While the awe-inspiring sea was in all cases something to be revered,[2] the direction this deification process took depended in large part on the relationship between the people and their sea, whether the latter was seen as a menace or as a benign entity, as treacherous or fructiferous, or all of it at once. In the Eastern Mediterranean and the Aegean, both male and female gods appear to be associated to the sea. In this paper, I consider four cases where the sea became associated to female deities, whose similarities in representation and cult practice may derive from a similar conceptualization of certain aspects of the marine element. This does not aim to be an exhaustive analysis of all maritime goddesses of the Eastern Mediterranean Late Bronze and Early Iron Ages: the case studies were selected to highlight features that may have been shared, transferred and hybridised across the basin. The goddesses included in this study are the most relevant for this period, displaying a strong marine characterization:

[1] This paper stems from the author's dissertation project 'Evolving concepts of seascapes and marine fauna in the Eastern Mediterranean during the Bronze Age', written within the framework of RTG 1876 of Mainz University 'Early Concepts of Humans and Nature: Universal, Specific, Interchanged', funded by the German Research Foundation <https://www.grk-konzepte-mensch-natur.uni-mainz.de/>.

[2] This includes both the worship of the sea as a divine natural element without personification, and as an anthropomorphic god. For further reading on the subject of personification of natural elements see Borghetti *et al.* in preparation.

the Ugaritic Athirat, the Minoan seafaring goddess, the evasive Posidaeia from Pylos and the earliest aspects of the Cypriot Aphrodite.

The chronologic focus of this study ranges from the 15th century to the 11th century BCE. Nevertheless, cultural phenomena such as the conceptualization of deities involve processes that develop in the *longue durée* and the evidence presented will at times exceed the proposed temporal margins (**Table 1**). The information available on the different deities, both in quantity and quality, is far from uniform, and there are considerable gaps in our knowledge of the marine cults of this period. However, in this long-term perspective, even with scattered sources of different type, it is still possible to gain an informative picture.

I will first discuss their characteristics within their individual tradition through an overview of the literary sources, the archaeological and the iconographical material. An overarching analysis will follow the individual presentation of the goddesses. Commonalities will thus be highlighted in search for evidence of cultural contamination, or instead for proof of the parallel development of analogous conceptualizations, to conclude with some general considerations on the conceptualization of the sea through the metaphor of the 'marine goddess'.

The goddesses

Athirat

The Ugaritic Athirat is among the Mediterranean Bronze Age deities with the strongest marine association and a long and sometimes inconsistent cultic tradition. Her main centres of worship were Ugarit, Tyre, and Sidon. She is also known from the Southern Levant under the name Ašerah[3] and as Ašertu from Hittite sources.[4]

The principal source of information on Athirat is certainly the Ugaritic Baal Cycle.[5] The myth, divided in three main episodes (Baal and Yamm KTU 1.3.I–II, the House of Baal KTU 1.3.III–1.4.VII, Baal and Mot KTU 1.4.VIII–1.6.VI), narrates the change of the guard from the old gods to the new, and the storm god Baal's rise as the new king of the Ugaritic pantheon, defeating two main antagonists: Yamm, the Sea, and Mot, Death. Within this cycle, Athirat plays an important role in the section about the confrontation between Baal and Yamm. In this part of the epic, El and Athirat, the old royal couple, are to designate the successor to El's throne by allowing him to build a palace on Mount Ṣapōn (classical Mount Casius), the home of the gods. The two main contenders are Baal, whose descent is not entirely clear in the epic, and Yamm, one of the 70 sons of Athirat and (presumably) El. Baal eventually defeats and kills Yamm, but he still cannot build his house on Mount Ṣapōn until he obtains El's permission, and the only way to get it, is to win Athirat's favour and have her intercede for him. After showing her due respect, she brings his plea to El who allows the Storm God to build his house, thus becoming the new head of the pantheon.[6]

The most straightforward connection between Athirat and the sea is expressed by the formula *rbt.aṯrt. ym*, normalized in *rabītu Athirat yammī*, that can be translated as Lady Athirat of the Sea,[7] with which she is addressed 19 times throughout the epic.[8] The designation contains some key aspects of her

[3] In the Southern Levant, the cult of Ašerah continued long after the end of the Bronze Age. Kletter 1996, 80–81; Binger 1997; Keel 1998, 38.

[4] CTH 342. Pecchioli Daddi and Polvani 1990, 25.

[5] The tablets, discovered in 1928 at Ugarit, are variably dated between the mid. 14th to the late 13th century BCE, but the content of the epic is probably several centuries more ancient. Smith 1994, 7.

[6] For further reading on the Ugaritic Baal Cycle see Smith 1994; Smith and Pitard 2009.

[7] On the dispute concerning the translation of *rbt.aṯrt.ym*, see Smith and Pitard 2009, 404–406.

[8] Binger 1997.

characterization. The epithet *rabītu* – Lady/Queen – positions her at the highest tiers of the Ugaritic pantheon as the consort of El, mother of the second generation of gods and legitimator of kingship.[9] In regard to the second part of the formula, *yammī* is the genitive form of *yamm*, the sea, thus translatable as 'of the sea,' which shows a self-explanatory maritime connotation of the goddess.[10] This relationship is supported by more than this expression. Athirat is in fact the mother of Yamm, the personified sea god, and her abode seems to be located by the seashore.[11]

Additionally, her servant Qodesh wa Amrur is addressed as *dgy.rbt.aṯrt.ym* — the 'fisherman of Lady Athirat of the sea'.[12] In the course of the episode where Baal and Anat visit Athirat to ask for her support, the fisherman is instructed to 'cast a net into/onto the divine Yamm'. This act can be either interpreted as the metaphor for Athirat's control over Yamm, since casting a net is a common ancient Near Eastern literary *topos* for restraining marine monsters, or as the order to catch fish in preparation for a banquet, which is also a common element in the stories of gods arriving at other deities' homes.[13] The indirect mention of fish, with their connotation of abundance and fertility,[14] can also be related to Athirat's own fertility — the goddess being the mother *par excellence*.[15]

In contrast with the prominence of Athirat within the mythological literature, there is very little material evidence that can be securely related to her. There is a frustrating uncertainty on the iconographic representations of this goddess as the archaeological record has yielded no image or figurine that can be identified with Athirat with certainty.[16] Therefore, one must allow for some degree of speculation when dealing with the iconographical material concerning Athirat. Some of the arguments concerning a possible identification often draw from information available on Ašerah, who is generally accepted as the Canaanite version of Athirat.[17] Similarly, most agree that the two also likely shared important aspects concerning the cult and the iconography, albeit with some local differences.[18] A key element over which there is some consensus is the association of Ašerah with a sacred tree.[19] Recurrent iconographic motifs appearing alone or combined that some associate with this goddess are:[20]

- the goddess holding branches/with branches growing from her body;
- worshippers flanking the tree/naked goddess;
- rampant goats flanking the tree/pudenda;

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[9] Smith and Pitard 2009, 405–408. It is in this role that we encounter Athirat in another epic, the Story of Keret. Her relationship with the marine element here is not as explicit. Here she is called *aṯrt ṣrm wlilt ṣdynm,* Athirat of the Two Tyres (Tyre and Sidon) goddess of the Sidonians. Her connection with the sea might be seen in the strong maritime inclination of both cities. Parker 1989.

[10] Smith 1994; Smith and Pitard 2009. Contra Binger 1997.

[11] KTU 1.4.II. Smith and Pitard 2009, 440–459.

[12] KTU 1.4.II.9–11 and KTU 1.4.II.29–36.

[13] Smith and Pitard 2009, 453.

[14] Simoons 1994, 266.

[15] Connected to the concept of fertility we find that of Athirat's active sexuality. In KTU 1.4.II. 3–11. Translation by Mark Smith and Wayne Pitard: '(3–4) She took her spindle [in her hand], an exalted spindle in her right hand. (5–7) As for her robe, the covering of her skin, she conveyed her garment into the sea, Her double-robe into the rivers. (8–9) She set a jar on the fire, a pot on top of the coals, (10–11) She would exalt Bull El the Beneficent, honour the Creator of Creatures'. Wiggins (1993) interprets the exalted spindle as a sexual metaphor, supported by the act of exalting 'Bull El' a few lines later (contra Smith and Pitard 2009, 441–442).

[16] Wiggins 1993; Cornelius 2014, 88.

[17] Van der Toorn *et al.* 1999, 104; Smith and Pitard 2009, 405.

[18] Dever 2005; Smith and Pitard 2009, 405.

[19] Hestrin 1987; Keel 1998, 20–46; Dever 2005, 228. For an extensive overview on the relationship between tree symbolism, pudenda and goddess see Keel 1998. This sacred tree has been arguably identified with the bottom part of the Judean Pillar Figurines (Darby 2014, 160; contra, Kletter 1996, 77).

[20] Hestrin 1988; Kletter 1996; Keel 1998; Dever 2005; Keel and Ühlinger 2010.

Figure 1: *Painted LB IIB jar from Tell el-Far'a (Southern Palestine) with fish and caprids flanking the sacred tree (after Keel 1998, fig. 39).*

- the fish flanking the tree or naked goddess (more rarely the fish are under the tree);
- occasionally birds/doves next to the tree.

If we accept these markers as identifiers also for the Ugaritic Athirat, some iconographic material may come from a series of MB IIA Old Syrian seals, with the tree or the naked goddess flanked by goats and/or fish, sometimes accompanied by birds.[21] A series of metal pendants dating from the MB IIB to the LB IIB, prevalently known from Tell el-Ajjul (south of Gaza) and Ugarit, show a naked woman holding branches in both hands[22] or a woman's head, frontally depicted, with sketched breasts and navel, a highly accentuated pubic triangle and often a tree or branch growing from the navel or above the pudenda.[23] Worshippers or goats flanking the tree/naked goddess are also a recurrent theme on scarabs and cylinder seals from Ugarit and Palestine.[24] The tree flanked by goats and fish is nicely exemplified by a painted LB IIB jar from Tell el-Far'a, today about 20 km inland, with two lines connecting the tree, here a date palm, with the fish (**Figure 1**). The general interpretation for these motifs is that the goddess sustains life, as much on land as in the sea and in the sky.[25]

More complex is to assess the meaning of similar motifs on Mycenaean imports at Ugarit. On the lid of an ivory pyxis of Mycenaean manufacture, a goddess sitting on a mountain, holds a branch in each arm and feeds two rampant goats.[26] On at least two fragmentary Mycenaean-style kraters, fish sacrifices are offered on altars with objects which could be interpreted as a heavily stylised palm at their centres.[27] In both examples, the style is certainly Mycenaean, yet they show clear Near Eastern influences in the composition of the scenes:[28] the gesture of the goddess on the pyxis strongly reminds that on the above-mentioned Syrian seals and pendants, while the worship in front of a tree-like object is a common theme in the Levant.[29]

[21] Keel 1998, 22 fig. 11–13.
[22] Schaeffer 1929, Pl. LIV.2.
[23] Schaeffer 1937, Pl XVIII; 1938, fig. 48.11.
[24] Group of steatite seals in the British Museum, nr. EA66165.
[25] Keel 1998, 31.
[26] Ugarit, Tomb III. Schaeffer 1929, Pl. LVI; Keel 1998, 31.
[27] On the possible interpretation of these objects as palms, see Langdon 1988.
[28] Barnett 1982, 30; Langdon 1988.
[29] However, the specific offer of fish to a tree only finds a parallel in a LC IIB bronze stand from Cyprus. Discussed below.

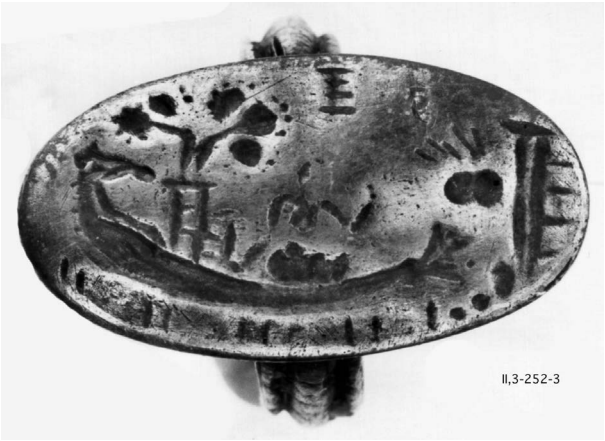

Figure 2: *Gold Ring from Mochlos showing the goddess sitting at the bow of a sea craft, with the sacred tree emerging from the altar located at the stern. Archaeological Museum of Heraklion, inv. HMEm 259, ID: CMS-II.3-252 (lost/stolen)(permanent identifier: arachne.dainst.org/entity/2501435).*

The Cretan seafaring goddess and Posidaeia

Moving the discussion to the Aegean material, the so-called Cretan seafaring goddess is most frequently represented on seal stones and signet rings. Despite the many representations, there is of yet no certain correlation between this figure and the names of goddesses known from Linear B tablets – however, the analysis of its iconography might lead to advance some tentative hypothesis. The representations pertinent to the present study can be broadly grouped in three main 'themes' which may be found alone or combined together:[30]

- the goddess on a boat/ship;
- the goddess on the shore overlooking marine activities;
- a tree-altar and/or the baetyl and the goddess.

In the first case the goddess is alone in a ship or boat on which is collocated an altar. In some instances, a tree can be seen emerging from/enclosed by the altar,[31] or growing at the centre of the craft as the ship's mast (**Figure 2**).[32] This motif has been interpreted as a form of patronage over maritime ventures.[33] This is more clearly the case for the second theme, where the goddess overlooks a maritime scene, ensuring safe navigation though her control over the forces of the sea. In the gold seal ring from the Ashmolean Museum,[34] the goddess is standing behind a male figure – possibly a ruler or a god – saluting the departure/arrival of the ship with a full set of rowers. Floating on top of the rowers is another female divine figure and the branches and trunk of a tree can be seen in the background.

The sacred tree is at the centre of at least two scenes of worship by the sea, on the so-called Ring of Minos (**Figure 3**) and on the Griffin Warrior Ring n. 2 (**Figure 4**). In both cases the tree is depicted growing out of the temple/altar with the goddess overlooking the action. On the Ring of Minos, there is an overlap of the tree worship (here performed by two naked figures) and of the goddess on the boat themes, with the deity – recognizable by her garment – appearing twice, on the boat and sitting on

[30] Dimopoulou and Rethemiotakis 2004.
[31] E.g. Gold Ring from tomb at Mochlos.
[32] E.g. impression of a seal in serpentine from Makriyalos, Ierapetra.
[33] Berg 2011.
[34] Ashmolean Museum, inv. Nr. AN1938.1120.

Figure 3: *Ring of Minos, from Knossos, LM IB/IIA. Archaeological Museum of Heraklion, inv. 1700 (<https://commons.wikimedia.org/wiki/File:Ring_of_Minos_archmus_Heraklion.jpg> Accessed: 16 February 2020).*

Figure 4: *Griffin Warrior Ring n.2, from Pylos, LM IB/IIA (Courtesy of the Department of Classics, University of Cincinnati).*

the stairs of a building (possibly her temple?). On the second ring, the boat theme is missing, but great care is taken to highlight the maritime significance of the scene with an unequivocal depiction of the seashore on the bezel and by the elaborate seashell decoration of the band.[35] On a gold ring from Tholos A at Phourni-Archanes,[36] the goddess stands between the same tree-altar and a baetly, both being object of worship by two smaller human figures. A large baetly is at the centre of the representation on an amygdaloid seal from East Crete, where the large stone is inside a structure covered by a conical roof.[37] Archaeologically, a baetyl was incorporated in an altar at the Kephala Vasiliki sanctuary in use from the Late Minoan to the Protogeometric period (*c.* 16th–10th century BCE), while other large stones of diverse shapes were found in Mallia, Ayios Georghios, Lasithi and Gournia, suggesting that in Crete, both the tree and the baetyl could stand as the simulacrum of the goddess.[38]

Returning to the Griffin Warrior Ring n. 2, the realization technique and the iconographic motives of are by all means Minoan, but the object was found in a very rich, undisturbed tomb at Pylos, in mainland Greece, together with three other gold rings of similarly Minoan manufacture. We know from Davis and Stocker, the excavators, that the arrangement of the grave goods was all but random.[39] Concerning the rings, the excavators believe that the 'objects buried with the Griffin Warrior were chosen so as to interact with the iconography of the rings', implying that a symbolic value was being attached to the rings and their scenes. Therefore, it would be reasonable to suppose that the marine deity on the bezel of ring n. 2 must have been relevant for the deceased and within Pylian warrior aristocracy.

Interestingly, from Pylos comes the single attestation of the extremely evasive Posidaeia. This name is only attested in tablet PY Tn 316, containing a list of offers to be presented to a series of goddesses and gods during the month of *Plowistos* (?). In the text we are also presented with the order in which

[35] Davis and Stocker 2016.
[36] Heraklion Museum, inv. Nr. AE 989.
[37] Evans 1928, 132; Zeman 2008.
[38] La Rosa 2001, 222; Zeman 2008.
[39] Davis and Stocker 2016.

the offers are to be presented, starting with the chief goddess, *Potnia*, on line 3, followed on line 4 by *Manassa* and *Posidaeia*.[40] From the available information we can suppose with some degree of accuracy that *Potnia* is a goddess of fertility, of animals and possibly of crops. On *Manassa* we have no information at all. On Posidaeia the situation is not much better. The knowledge on Posidaeia is tragically scarce and most speculation derive from her name being the female equivalent of the well-known Greek god of the Sea, Poseidon.[41] Thus, the only piece of information we can gather from PY Tn 316 is that a feminine counterpart of Poseidon was worshipped at Pylos, that she possibly occupied an important role in the local pantheon, as she appears in the top three receivers of offers, and that she may have had a marine aspect.

A connection between Minoan cults and Pylos may be found in the verses of the Homeric Hymn to Apollo, where the Cretans from Knossos who eventually established the Delian cult of Apollo, are said to have been bound to 'sandy-soiled Pylos', before being permanently detoured into the god's service at Delos.[42] This hymn is regarded as an attestation to a Minoan origin of cult practices which took root in mainland Greece and would find a continuation in historical times. In the same way, it is thus possible that religious traditions connected to the worship of the Cretan seafaring goddess may have also found fertile ground in Pylos.

It is impossible to name the figure on ring n. 2 in its original Minoan context and the name Posidaeia in fact is not attested in any Cretan tablet. Nevertheless, considering the Minoan-Pylian cultic connections as well as the maritime aspects of the Cretan sea goddess and Posidaeia, I want to address the possibility that, in the understanding of the Pylian warrior elite, the Cretan sea goddess on the bezel and the Posidaeia in PY Tn 316 might have been considered the same entity. Such an identification however, remains speculative at best as the two pieces of evidence are almost two centuries apart.

Aphrodite — Wanassa

The last goddess in this overview is the Paphian Aphrodite. While she is best known from Greek mythology, the roots of her cult should be looked for in Bronze Age Cyprus. Centuries long tradition and the syncretism between indigenous and foreign deities partly obscured the original, Cypriot component of the cult, and the elements of contact prior to its Hellenization.[43]

Epigraphically, the name 'Aphrodite' is not attested until the end of the 4th century BCE.[44] Before then, inscriptions refer to this deity through other epithets such as *theos* (goddess)[45] and (*w*)*anassa* (the sovereign/queen).[46] Michael Astour proposed an etymological explanation for Alashiya, the LBA toponym for Cyprus,[47] based on the Hurrian alla(i)+si+(iy)a, which translates in 'pertaining to the lady/ queen', further equating the Hurrian term to the Linear B Greek a-na-sa-se<ἄναξ.[48] Bernard Knapp argues that the particle -se forms nominal abstracts whilst -i(y)/ i(y)a actually indicate the Hurrian possessive

[40] Mathioudaki 2003–2004.
[41] Palaima 1999.
[42] Hom.*Apo.* 393–399, 470–475.
[43] For a review of the topic, see Budin 2004; Sugimoto 2014.
[44] Karageorghis 1997; 2005, 40–42; Papantoniou and Morris 2014; Iacovou 2019a.
[45] Budin 2014. Other names such as Kypris (she of Cyprus) and Paphia (she of Paphos) are also attested: in the Odyssey, Homer mentions the temple at Paphos as dedicated to Aphrodite (Hom.Od. 8.363), while in the Iliad he names the same goddess Kypris (Hom.Il. 5.330). In this paper, to differentiate the Hellenic goddess from the Late Bronze and Iron Age one, I will use the name Aphrodite for the first and Wanassa for the second, although it is indeed difficult and not always possible to separate them.
[46] Karageorghis 2005, 41.
[47] The toponym Alashiya is frequently attested in the Amarna Letters (*c.* 1350–1330 BCE) in reference to Cyprus. Rainey 2015, 17.
[48] Astour 1964, 242.

pronominal suffix, and thus that Astour's suggested interpretation should be modified as 'her ladyship/queenship.' According to this etymological reconstruction, Cyprus was already designated as the land of the *wanassa* in the LBA.[49] For simplicity, I will use Wanassa to refer to the Bronze Age goddess, and to Aphrodite for the classical one.

While there is no available written evidence from Cyprus prior to the Iron Age,[50] it is clear that the cult of Wanassa/Aphrodite predates the Hellenization of the island by several centuries and enjoyed a very long continuity from the LBA (and possibly earlier)[51] to the 4th century CE.[52] The oldest shrine certainly dedicated to the goddess was the temple complex at Palaepaphos,[53] where Sanctuary I was in use from the 13th century BCE until the 2nd century CE.[54] The temple consisted of a roofed section and an open-air courtyard.[55] Later Greek sources often associate Aphrodite and her temples with sacred trees that were located within the sacred precinct.[56] Among the Bronze Age finds, there are votive deposits of female figurines, the majority of which depict a naked woman with enhanced sexual features, holding her breasts in the so-called 'Astarte gesture' (**Figure 5**). The iconography of these figures shows the influence of Near Eastern and Levantine art in regard to the enlarged pubic triangle and the gesture, while the flat head and the small ears seem closer to Mycenaean types.[57] While there are undoubtable iconographical contaminations from both the Levant and the Aegean, a fertility cult associated to a goddess was already present in Cyprus long before the consolidation of cultural exchanges with the mainland.[58]

Already upon the establishment of the Paphian cult, a crucial factor was the relationship between Wanassa, kingship and the sea. The wealth of the city derived from its role as a maritime gateway for the export of copper, and it is not a chance that smelting activities were likely carried out within the sacred precinct.[59] Studies on the environ of the sanctuary by the Palaepaphos Urban Landscape Project (PULP) revealed that during the Bronze Age and until the mid-1st millennium BCE, the *temenos* was integrated within the urban context of the city, and was built in a much tighter visual and functional relationship to the harbour than the contemporary landscape suggests:[60] the temple of Wanassa, located on a low plateau today *c*. 100 m above sea level, dominated the lagoon and all incoming/outgoing marine traffic,

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[49] Knapp 1996, 7.

[50] Cypro-Minoan script appeared on the island already in the Late Bronze Age. However, the language has not yet been deciphered. Ferrara 2012.

[51] Maier 1975.

[52] Paganism slowly disappeared from the island in the course of the 4th century CE: by this time, the old sanctuaries where no longer supported by public money and when a series of earthquakes destroyed the Paphian sanctuary, no effort was made to rebuild it. Deligiannakis 2018.

[53] From its foundation in the 17th century BCE to the mid-1st millennium BCE, the area was the centre of the city kingdom of Paphos. Sometime around the 4th century BCE, likely due to the silting of its harbour, the city lost its economic relevance and both the port and the role of capital were moved ca 20 km west to Nea-Paphos, now known as Paphos, and the former capital hence became known as Palaepaphos (Old Paphos).

[54] Maier 1975; Maier and Karageorghis 1984; Budin 2003, 171; Eckert 2016.

[55] Maier 1975.

[56] Hom.*Aph*.58–59 (transl. Eveyn-White 1914, 411): 'She [Aphrodite] went to Kypros, to Paphos, where her precinct is and fragrant altar, and passed into her sweet-smelling temple'. Athenaeus, Deipnosophistae 3.84c (transl. Gulick 1929, 363): 'Eriphos in the Meliboia: "A: And here are the pomegranates. B: How nice they are! A: Ay, for they say this was the one and only tree that Aphrodite planted in Kypros."' Ovid, Metamorphoses 10. 644–648 (transl. Miller 1916, 111): 'There is a field, the natives call it the field of Tamasus, the richest portion of the Cyprian land, which in ancient times men set apart to me [Aphrodite's] and bade my temples be enriched with this. Within this field there stands a tree gleaming with golden leaves and its branches crackle with the same bright gold.'

[57] Leibundgut Wieland and Frey-Asche 2011, 17.

[58] Budin 2014.

[59] Megaw 1951, 13; Iacovou 2012, 66.

[60] The temple is today *c*. 1800 m from the shore and there is no safe anchorage suitable for a harbour within several kilometres. Tectonic uplifting and silting have obliterated the ancient coastline, which — according to the PULP study — would have

Figure 5: *Terracotta 'flat-head' votive figurine from Cyprus, H. 21.79 cm, LC II. MET Museum, Cesnola Collection, accession nr. 74.51.15490 (CC BY 4.0).*

while at the same time being in a visual relationship with the palace and the other seats of power within the city.[61] The sanctuary at Palaepaphos is not an isolated case. The closest parallel is represented by Temple 1 at Kition, which was founded around the same time, was similarly located in the proximity of the harbour[62] and featured copper workshops within the precinct.[63]

included a sheltered lagoon deep enough for ships extending up to the mouth of the *Loures* stream, right below the slopes of the plateau where the sanctuary is located. Iacovou 2019b.

[61] Maier and Karageorghis 1984. Epigraphic evidence from the Iron Age city kingdom of Paphos highlights the importance attributed by the rulers to their double role as kings and priests: in fact, their very legitimisation as kings depended on them being priests, claiming a descendance from her legendary high priest, Kinyras. Iacovou 2019b.

[62] Currently the temple at Kition *Kathari* is located almost 1 km from the sea, but geoarchaeological evidence and the presence of ship sheds at Kition *Bamboula,* less than 300 m south of the temple walls, indicates that the waterfront must have been much closer than it is today. Goiran and Morhange 2001. Overall, the island counts over 20 cult places dedicated to this goddess dating at least to the Iron Age, which are found in coastal locations and near anchorages. Eckert 2016.

[63] Webb 1999, 64.

Concerning the mythological dimension of the Cypriot goddess, there is no direct Late Bronze Age source to draw from and the earliest evidence comes from Hesiod's Theogony, composed sometime between the mid-8th and mid-7th century BCE. As noted by several scholars, the Theogony holds striking similarities with the Hurrian 'Song of Kumarbi,' known from Hittite translations dating to the 14th–13th century BCE.[64] In the latter, the god Kumarbi castrates Anu with a bite and becomes pregnant with powerful new deities. The birth of Aphrodite as described in verses 188 to 201 of the Theogony presents a similar motif: Cronos, after severing the genitals of Uranus, throws them into the sea: the foam resulting from this mixture of blood, semen and seawater floats across the Aegean and the Mediterranean to come ashore in the form of the goddess at the beach of Petra tou Romiou, near Palaepaphos. While the birth of Aphrodite in the Theogony follows the overall narrative of the Hurrite myth (i.e., the castration theme and the birth of the next generation of gods), the role of the sea represents an innovation compared to the Song of Kumarbi. It is possible that the stress on the key role played by the sea in Aphrodite's birth reflected the importance of the marine element in the Bronze Age cult of the Cypriot goddess. This maritime connotation perdured well into historical times, as classical authors insisted on the proximity of Aphrodite's temples and the sea,[65] and a number of epithets connect her with navigation.[66]

While there are countless representations of Aphrodite, it is difficult to identify her Bronze Age predecessor with any certainty. The flathead terracotta figurines may indeed represent the goddess, but any attribution remains uncertain. The so-called Bomford figurine, dated to the LC IIC/IIIA (1250–1100 BCE), probably from Enkomi, is a good candidate.[67] The standing goddess has a flat head, the face shows the details of the eyes, the nose and the mouth. She is naked, safe for a long necklace, with prominent breasts and a clearly delineated pubic triangle, her hands are positioned just below the breast, overall, reminding of the flathead figurines. Finally, and most interestingly, her feet are resting on an oxhide ingot, implying a very tight connection with the copper industry as is the case with the Paphian goddess.[68]

It is possible to propose a tentative association between the goddess and the sacred tree (as it is also suggested by classical sources)[69] based on a LC IIC/IIIA rectangular bronze stand from Cyprus, probably from Kourion. Here a tree is depicted once on each side, seemingly as the receiver of different offers: in the first scene, a man carries cloth-like items over his shoulder to the tree; in the next, another one brings an oxhide ingot; in the third, a seated man plays the harp in front of the tree; in the fourth, a man brings fish to the tree. I agree with Keel in the identification of this tree with the goddess,[70] especially in light of her relation with metalwork and the sea, represented by the ingot bearer and the fish offering respectively.

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[64] Güterbock 1948, 123–134; Pecchioli Daddi and Polvani 1990, 115–116; van Dongen 2011.

[65] Strab. 14.6.3: 'Palaipaphos [in Kypros], which last is situated at about ten stadia above the sea, has a mooring-place, and an ancient temple of Aphrodite Paphia. Then [beyond that] to the promontory Zephyria, with a landing-place, and to another, Arsinoe, which likewise has a landing-place and a temple and a sacred precinct. And at a little distance from the sea is Hierokepis. Then to Paphos, which was founded by Agapenor, and has both a harbor and well-built temples. It is sixty stadia distant from Palaiphaphos by land; and on this road men together with women, who also assemble here from the other cities, hold an annual procession to Palaipaphos. Then [beyond that] to a city, Soloi, with a harbour and a river and a temple of Aphrodite and Isis.' Paus. 8.5.2: 'After the capture of Troy the storm that overtook the Greeks on their return home carried Agapenor and the Arkadian fleet to Kypros, and so Agapenor became the founder of Paphos, and built the sanctuary of Aphrodite at Palaipaphos (Old Paphos). Up to that time the goddess had been worshipped by the Kyprians in the district called Golgoi'. Apul.*Met.*11. 218 ff: 'You [Aphrodite] are venerated at the wave-lapped shrine of Paphos'.

[66] E.g. *euploia* (of the smooth sailing), *pontia* (of the open sea), *epilimena* (of the harbour), *pelagia* (of the coast). Demetriou 2010.

[67] Catling 1961, 19–20; Webb 1999, 232. There are at least three more bronze figurines from Cyprus that show very similar features. However, the bases are missing and it impossible to say whether they were also standing on an ingot. Meneghetti 2020

[68] Papantoniou 2013.

[69] See above footnote 52.

[70] Keel 1998, 40.

Figure 6: *Conical stone from the Sanctuary of Aphrodite at Paphos. (Photo by Wojciech Biegun).*

Maier, who directed the excavations of the sanctuary, convincingly argues that at Palaepaphos the deity was represented by the large conical baetyl found there, rather than by an anthropomorphic statue (**Figure 6**).[71] Large stones found at sanctuaries at Enkomi and Kition might have served a similar purpose.[72]

The origins of the use of the baetyl in Cyprus are still a matter of debate – both the Levant and the Aegean presenting numerous examples of aniconic cults. Baetyls are known from Early Bronze Age and Middle Bronze Age contexts in Anatolia, the Levant and Syria,[73] as well as from Iron Age Phoenicia, the use of which was then exported to the many colonies in the Central and Western Mediterranean. As for possible Aegean origins of the Paphian aniconism, Katarzyna Zeman pointed out the many similarities between the cult in Paphos and the worship of large stones in Minoan Crete, which is known both

[71] Maier 1975, 79; Zeman 2008, 61. According to Roman sources dating to the last centuries of activity of the temple, the simulacrum of the goddess was a large stone. Tacitus (56–120 CE) describes the goddess was embodied by a conical stone (Tac. *Hist.* II.3), and such a stone is found depicted on Roman coins between the 1st and the 3rd century CE, with the baetyl at the centre of a temple. Depending on the coinage, the stone is either flanked by two stars, or a crescent and a star are depicted on top of the temple.

[72] Maier 1975, 79. Kition was also a centre for the cult of Aphrodite.

[73] E.g. at Mari, Ishtrarat Temple (Early Bronze Age) and Tel Gezer, High Place (Middle Bronze Age).

archaeologically and iconographically.[74] In particular, it is a recurrent theme on Late Minoan signet rings or seals, where it can also appear in association with the tree and/or the seafaring goddess.[75] This brings to the suggestion that both the tree and the baetyl may represent the seafaring goddess in Crete and Wanassa in Cyprus.

Discussion

As already evident in the course of this brief excursus over the four-sea goddess, there are more than a few recurrent features (**Table 2**), and it is not always clear whether these shared traits developed independently or if they result from cultural exchange and hybridization.

In their quality of marine deities, unsurprisingly, the seashore ritual features in different forms in all four case studies. Similarly, the power over the sea and navigation is clearly expressed in three out of four instances, with doubts whether the Pylian Posidaeia possessed similar prerogatives as the better-known Poseidon. On the other hand, fish and marine life seem to appear as a motif only in connection with Athirat and Wanassa. Unfortunately, the only clear mythological texts at our disposal are those from Ugarit, and it is difficult to ascertain whether myths connecting the other goddesses to the sea existed. In light of later texts, this was probably the case for the Cypriot goddess.

Other than the aspects directly related with the sea, the single most prominent recurring element is the association of the sea goddess with a tree cult, which is attested with various degrees of reliability in Ugarit, Crete, Pylos and Cyprus. The inclusion of a large stone or baetyl in the cult are only known relatively to the Cretan and Cypriot goddesses. Even though baetyls are indeed present in Near Eastern cults, this does not appear to be the case for Athirat, while there is no information in this regard for Posidaeia. Nakedness and the enhanced pubic triangle are a frequent motif associated with Athirat and Wanassa, but absent in the other two cases. Likewise, evidence concerning the goddess' role in the legitimization of kingship is only common to Athirat and Wanassa.

While Athirat and Wanassa are both legitimators of kingship, they do so in different ways. For both goddesses, their relationship with the sea defines and is defined by their relationship with the rulers of Ugarit and Paphos. The wealth of both cities largely depended on their participation in the Eastern Mediterranean trade network, and so did the stability of the royal household. With the fate of both city and stable succession depending on the flourishing of maritime trade, both were under the tutelage of the same deity. The legitimising role of the Paphian goddess in securing kingship is similar to that of Athirat as *rabītu*. Nevertheless, the two concepts of *rabītu* and *wanassa* present substantial differences. Within Ugaritic and Canaanite context, the human *rabītu* had the institutionalised role of choosing the heir among suitable candidates, in a position comparable to that of a queen mother, of which Athirat was the mythological archetype. On the other hand, in Cyprus, the *wanassa* stood alone as the sovereign, and legitimisation to rulership came through being the first among those in her service. Around the 13th century, contacts between Paphos and Ugarit must have been frequent, and it cannot be excluded that the idea of a *rabitu* protecting the royal succession as much as the safety of ships travelled to Cyprus together with Ugaritic merchants (or vice versa). However, the conceptual divergences between *rabitu* and *wanassa* rather suggest that the two originated independently and only came to a superficial resemblance due to the contextual similarities in which they developed.

This does not seem to be the case with the baetyl cult. While it is still debated whether aniconism was introduced to Cyprus from the Aegean, the close association of the baetyl with the sea goddess and the sacred tree does betray a similar conceptualization of these three distinct elements. Unfortunately, in

[74] Zeman 2008.

[75] E.g. ring from Phourni-Archanes and amygdaloid seal from East Crete. Discussed above.

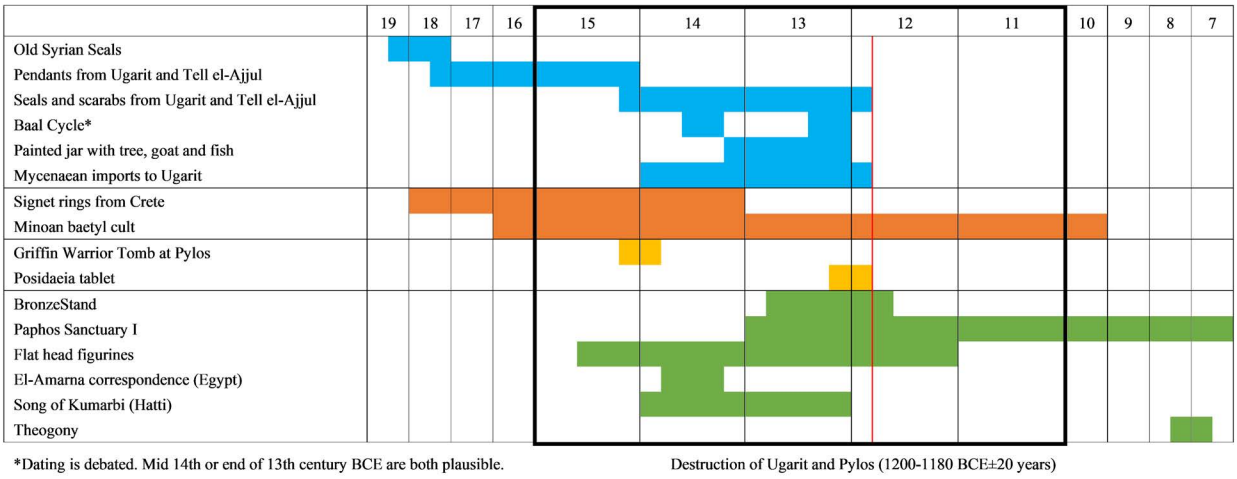

Table 1: *Chronological distribution of the evidence. In blue the evidence found in the Syro-Levantine area; in orange from Crete; in grey from the Greek mainland (Pylos); in green from Cyprus plus the tablets from El-Amarna and Havttuša, and Hesiod's Theogony. Dates are in centuries BCE.*

	Athirat	**Cretan goddess**	**Posidaeia**	**Wanassa**
Seashore ritual	Baal Cycle (KTU 1.4.II. 3-9)	Ring of Minos; Griffin Warrior Ring 2	Griffin Warrior Ring 2 (?)	Sanctuary locations
Power over the sea	Baal Cycle (KTU 1.4.II.29-36)	Ashmolean Ring; Ring from Mochlos	Feminine form of Poseidon (?)	visual/spatial relation between sanctuary and harbour
Fish and fish offers	Baal Cycle (KTU 1.3.VI.9-11; 1.4.II.29-36); Old Syrian seals; painted jar from Tell el Far'a; Myc. Imports (?)			Bronze stand from Kourion
Mythological connection with the sea	Baal Cycle (mother of the Sea God, Yamm)			(later evidence) Theogony
Tree cult	Old Syrian seals; gold pendants, seals and scarabs from Ugarit and TeA; Myc. Imports (?)	Ring of Minos; Ring from Phourni; Griffin Warrior Ring 2	Griffin Warrior Ring 2 (?)	Bronze stand from Kourion; sacred tree in temenos (?)
Baetyl cult		Ring from Phourni; amygdaloid seal from East Crete		Baetyl from Paphos
Nakedness/ Pudenda	Old Syrian seals; gold pendants, seals and scarabs from Ugarit and TeA			"Flat-head" figurines
Legitimization of kingship	*rabitu*			king=high priest; *wanassa*

Table 2: *Summary of the features of each goddess.*

the absence of further evidence, it is impossible to ascertain exactly which concepts did the baetyls in Crete and Paphos convey, other than functioning as simulacra of the sea goddess(-es).

Much more can be said in regard to the tree as living image of the deity. The tree-goddess has a very long tradition in the Ancient Near East and Egypt, and it is generally accepted that the tree stands as a living metaphor of the goddess as a giver of life.[76] The association of the tree with the sea may at first appear less straightforward: why would a tree stand for a marine goddess? The connection is to be seen in the way the aspect(s) of the sea that the goddess embodies are conceptualized. In other words, what aspects of the sea are thus represented if we have the equation sacred tree=sea goddess? It seems to me that the sea embodied by the tree can only be a nurturing force. This is in stark opposition with other conceptualisations of the sea as voracious and dangerous – such as the case of the Ugaritic sea god, Yamm. This life-giving power is well represented by the Minoan seafaring goddess, who at the same time fructifies the land and guards over seafarers. Athirat is the mother of the gods and patron of the fishermen according to the texts, and is shown growing branches out of her own body, or – in tree form – feeding goats, birds and fish. Her nakedness and the accent on the pudenda serve to further stress her role as the life-giver. The nakedness of the Cypriot figurines is somewhat different from the naked goddess of the Levant and should be understood in continuity with earlier fertility and motherhood cults. In fact, while for Athirat there is an iconographic interchangeability between tree, pudenda and naked goddess, this does not happen in Cyprus as there is no direct association between nakedness and the tree. While at Ugarit the fertility of the land and of the sea are the binding theme for the tree and the goddess, in Cyprus the sea goddess presides to a more generic concept of prosperity, which includes the fertility of the land as much as the copper industry. While at Ugarit there is an identity between tree and goddess, at Paphos the tree-goddess association is looser and the primordial notions of fertility of both the tree and the naked goddess become secondary to that of Wanassa, patron of the wealth of the island.

The majority of common traits can be explained in terms of concept-development under similar affordances, which is probably the case for the existence of seashore rituals, the display of power of the sea, and the role as legitimator of kingship for both Athirat and Wanassa. Differently, the baetyl cult betrays similarities that imply the transfer of concepts from the Minoan to the Cypriot world in as much as the association of the baetyl with the sea goddess was perceived as central to the cult. Finally, the best case for concept transfer and hybridization is represented by the recurrent presence of the sacred tree in connection with the sea goddess. In the case studies here presented, the sea goddess was associated with the tree in representing always similar conceptualizations of the 'sea as a provider of life'. While the connection is clear, the concept of 'sea as a provider of life' could have produced a variety of outcomes, both in terms of divine embodiments, metaphors and representations. It is not possible to pinpoint the origin of this conceptual configuration, yet it is evident that it results from the centuries-long exchange of ideas that criss-crossed the Mediterranean. The development of each individual goddess followed an own tradition pertaining to an own cultural context. Nevertheless, their trajectories were also inevitably entangled and destined to influence one another in the *longue durée* within one overarching Mediterranean tradition of a maternal sea who protects the seafarer and fills the fishermen's nets.

[76] For an overview on this topic, see Keel 1998.

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Messengers and Envoys within Egyptian-Hittite Relationships*

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Abstract

Several documents from Egypt and Ḫatti (especially the Amarna letters and the Egyptian-Hittite correspondence) mention envoys and messengers in charge of diplomatic contacts between the two countries. Cuneiform and hieroglyphic transcriptions of Egyptian names at Ugarit hint at an actual presence (in Ugarit and Karkemish) of officials coming from Egypt or, at least, carrying Egyptian names. Furthermore, some Hittite envoys present clear Egyptian names, e.g. Amanmašu, Mizramuwa, and Wašmuarianaḫta. This paper aims at providing an overview of the documentation quoting names of messengers, pinpointing a brief prosopography of these officials, and offering an insight on these functionaries, investigating their role within the 'Great Powers' Club' in connecting Egypt and Ḫatti during the Late Bronze Age.

Keywords

Egyptian-Hittite Relations, Messengers, Amarna Letters, Egyptian-Hittite Correspondence, Glyptic

Introduction

In the spirit of this conference (session 'Crossing Boundaries: Connectivity and Interactions'), aiming at broadening the horizons of our research, I would like to bridge two rivers representing two distant countries:[1] the Nile and the Kızılırmak (ancient Maraššantiya/Halys), the latter geographically defining the core territory of Ḫattuša; these rivers symbolically stand for the Egyptian and the Hittite civilisations. The present contribution tackles the problems of the identification and the role of messengers appointed for official communications between these two lands, aiming at better investigating the identity and purposes of messengers attested in the Amarna letters,[2] the Egyptian-Hittite correspondence,[3] and on glyptic, during a timespan covering *c.* 1260–1220 BC, defining the various dynamics involving messengers.

'Messengers' and 'diplomats' as *ante-litteram* bureaucrats

The very definition and concept of 'diplomats' are slippery, as in the case of any interpretation of ancient words. 'Diplomats are the primary [...] practitioners of diplomacy. They are specialists in carrying messages and negotiating adjustments in relations and the resolution of quarrels between states and peoples. Their weapons are words, backed by the power of the state or organization they represent'.[4] These concepts can be fairly superimposed on the Ancient Near Eastern mindset;[5] with regard to messengers, F. Breyer advanced the possibility of dividing them into three categories, describing their proper functions:

* I acknowledge Jonah Lynch for his proofreading.

1 According to Singer† 2013, 165, the distance between Piramesse and Ḫattuša was *c.* 1300 km.

2 Schniedewind and Cochavi-Rainey 2015.

3 Edel 1994; Cordani 2017.

4 Marks and Freeman 2020. Similarly Breyer 2010, 272, with a reference to the 1815 'Wiener Reglement' and the 1818 'Aachener Protokoll'.

5 Liverani 2001a; on messengers and 'ambassadors': Liverani 2001a, 71–78.

'messenger' ('Botschafter'), 'envoy' ('Gesandte'), and 'merchants' ('Geschäftsträger').[6] A first important step in the analysis of diplomacy during the Amarna Age can be retrieved in a paper of Y. Lynn Holmes, describing the different terminology used in various Near Eastern languages and in Egyptian to define messengers.[7] Remarkable contributions on the topic have been presented by J. Mynářová,[8] and further considerations on messengers and diplomats can be found in some works of S. Roth, who specifically focuses on the period of the Egyptian-Hittite correspondence.[9] The specific topic of the Egyptian-Hittite diplomatic contacts has been delt with by S. de Martino and M. Pallavidini, both describing the basic features of Hittite diplomacy and its 'specialists' responsible for the relations with Egypt.[10]

Designations

Messengers and diplomats are defined with various designations/'titles', mainly describing and characterising their specific role:[11]

messengers: ^{LÚ}*ḫalugatalla*, DUMU.KIN = *MĀR ŠIPRI*;
ambassadors: ^{LÚ}*ṬEMU*;
knights: ^{LÚ}*PITḪALLU*;
lords: *išḫa-*/EN/*BĒLU*;
superintendent: ^{LÚ}*MAḪRU/ŠAKIN*;
physicians: ^{LÚ}A.ZU(-*Ú*) = ^{LÚ}*ASÛ*(*M*);
heralds: LÚ ^{GIŠ}PA.

On some instances, officials' names can also occur without a specific designation of a determined function.

Messengers

Messengers are defined by different Sumerian, Akkadian, and Hittite terms: ^{LÚ}*ḫalugatalla* (Hittite, 'messenger');[12] *pišena-* (Hittite, lit. 'man, male person', 'messenger?'), not used for Egyptian envoys;[13] DUMU.KIN (Sumerian) = *MĀR ŠIPRI* (Akkadian), lit. 'son of the message', i.e. 'messenger, envoy, agent, deputy'.[14] The equivalent Egyptian term can be recognised in the words *jn.w/wpw.ty*, and *ḥww.ty*.[15] **Table 1** briefly lists in alphabetical order the names of the main Hittite and Egyptian messengers attested in the aforementioned sources:[16]

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[6] Breyer 2010, 272.
[7] Lynn Holmes 1975.
[8] Cohen and Westbrook 2000; Mynářová 2009; Mynářová 2011.
[9] Roth 2005; Roth 2006.
[10] De Martino 2016; Pallavidini 2016; Cordani 2017.
[11] On Egyptian-Hittite relations: Breyer 2010, 262–277; De Pietri 2016 (specifically on Karkemish); De Pietri 2019. About diplomats: De Vos 2008; Freu 2004; Hoffner 2009, 53–55; Lynn Holmes 1975; De Martino 2016; Roth 2005; Singer† 2013. For a further analysis on these (and other) designations: Tarawneh 2011.
[12] Pecchioli Daddi 1982, 110–111; HED III (H) 46; HEG I (A–H) 136–137; HH 37; HW^2 III (Ḫ) 83; Kloekhorst 2008, 275–276; Otten 1969, 18 (n. 4), 30 discussing a possible equation with the term ^{LÚ}*ṬEMU*.
[13] Pecchioli Daddi 1982, 115; CHD (P) 323–328; Güterbock 1957, 355 ('messenger??'); HEG II (P) 622–623; HH 130, 132; HW 170 ('Bote??'); Kloekhorst 2008, 670, 677.
[14] Pecchioli Daddi 1982, 120–122; ePSD2: <http://oracc.org/epsd2/o0032058> (Sumerian: kiŋgia); AHw II (M–S) 616; CAD X (M1) 260–265 (Akkadian); HZL no. 237.
[15] Wb I 91, 304 and Wb III 44, respectively. On 'messengers' in Akkadian and Egyptian: Freu 2004, 118–122. It is noteworthy to remark (as already noticed in Brinker 2011, 91) that this equivalence is confirmed by the hieratic colophon of EA 27, where the two messengers of the Mittanian king Tušratta, Pirissi and Tulubri (defined as DUMU.KIN.MEŠ = *mārī šiprim* in the cuneiform Akkadian text), are both here referred to as *j/wpw.ty* (see Schniedewind and Cochavi-Rainey 2015, 294–295, 1366).
[16] Documents ordered according to CTH as in HPM; I mention here only names attested in Amarna letters and Egyptian-Hittite correspondence: a more complete list can be found in Hagenbuchner 1989, 21–23 and Hoffner 2009, 54–55.

Names*	NH, NH-S†	Documents‡	Attestations§
...]-pitta	/	KUB III 24 + KUB III 59	1
[Anija]	[70]¶	KUB III 62	1
Beḫašdu	969	KBo VIII 16	1
Ḫattušaziti	347	KBo XXVIII 51	1
Iršappa	[468]	VBoT 1 = EA 31	1
Kulazita/i	611	KUB III 34	1
[Manamasu]	[45]	RS 17.28; sealing Mora 1987, IX 2.1 (= SHS² UG4)	1
[Māni/lí-[...]**	[744]	KUB III 22	1
Mairia	/	NBC 3934	1
[Maniya]	[744]	KBo XXVIII 21 and 22; KBo XXVIII 8; KBo XXVIII 23; KBo XXVIII 14; KBo XXVIII 2; KBo I 21	**6**
Mašnijalli	781	KBo XXVIII 5 (+) 6	1
[Naḫḫa]	[842]	KUB III 34; KBo VIII 16	2
[Pariamaḫu]	[938]	KUB III 67	1
[Pa/iriḫnawa]	[1011]	KBo XXVIII 21 and 22; KBo XXVIII 23; KBo I 29 + 335/o; KBo XXVIII 46 = Bo 77/17; 762/b + 1647/c = KUB XXXIV 2; 17/f = KBo XXVIII 47; KUB III 51	**8**
[*P*]*āpu*	/	KBo XXVIII 51	1
Piḫašdu	/	KUB XXI 38 ('ambassador'); maybe the same as Piqašta/i?	1
Piqašta/i	969	KUB III 37 + KBo I 17; KUB III 66 + W. 24; maybe the same as Piḫašdu?	2
[Ri/eamašiya]	[1067]	KBo XXVIII 21 and 22; KBo XXVIII 23; KBo XXVIII 14; KBo I 21	**4**
[Ri/eamašši]††	[1066]	KBo XXVIII 8; KBo VIII 13	2
Tilitešub	1327	KBo XXVIII 21 and 22; KBo XXVIII 8; KBo XXVIII 23; KBo XXVIII 13 + ABoT 59; KBo XXVIII 14	**5**
[Tuttu]	[1391]	NBC 3934	1
[Zinapa]	[1545]	KBo XXVIII 21 and 22; KBo XXVIII 23; KBo XXVIII 14	3
Zitwalla/i	1563	KUB III 34	1
Zūwā	1577	KBo VII 11; KUB III 61	2

* Edel 1994. Most-quoted names are **bolded**. Names for whom the identification with precise messengers is still not so well recognizable are in *italic*. Here and in the following tables, names in [...] are Egyptian.
† Cf. RO and HPN.
‡ For the content of these texts, see HPM-K.
§ The no. of attestations refers to the actual number of documents in which the name is mentioned: documents where the name is reported more than once are considered as one entry.
¶ Nos in [...] stand for names of non-Hittite origin.
** = Maniya.
†† On this name: Breyer 2010, 242, referring to a passage in the Egyptian-Hittite correspondence mentioning him as a 'second rank' messenger, *wpw.ty-sn[.nw]*, a term compared to the Akkadian *šanû* (AHw III (S-Z) 1165).

Table 1: *List of the Egyptian and Hittite messengers mentioned in this paper (alphabetical order).*

The most quoted messenger is Pa/iriḫnawa cited in eight documents. Possibly, he was one of the envoys in charge for the dispatchment of the treaty between Egypt and Ḫatti (the 'Silver Tablet');[17] unfortunately, the *lacunae* occurring in the passage mentioning the names does not support this hypothesis. Moreover, he is mentioned as a ^{LÚ}ŠU.GI, 'the oldest', in a letter sent by Ramses II to Ḫattušili III, regarding the rescue of Urḫi-Tešub (KBo I 19, Vs. 16' = KBo I 15, Rs. 16').[18] The name of this messenger has an Egyptian origin and archaeologists have proposed to identify his actual tomb in Egypt, at Saqqara (Bub. I.16), with the grave of  *Nṯr.wy-ms* (Netjerwymes), treasurer and great steward at Memphis during the reign of Ramses II; he also bears the additional name of  *P3-rḫ-ꜥn* (Pareḫan = Pa/iriḫnawa), and is defined on a relief as  *wpw.ty-*[*nswt*][19] *r ḫ3s.t nb.t*, '(royal) messenger in every foreign land'.[20] Another person is said to have been sent by the Hittite king to the pharaoh: W[ašmuar]ianaḫta, 'palace official of the king', quoted together with the messenger Piqašti in KUB III 66 Vs. 14–15:[21]

Vs.

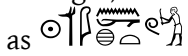
14 *um-ma-a a-nu-ma* ^{I}***U[a-aš-mu-a-r]i-a-na-aḫ-ta*** ^{LÚ}**SUKKAL LUGAL**

15 *qà-du* ^{LÚ}DUMU *šip-ri* [*ša* KUR *Ḫa-at-*]*ti* ^{I}*Pí-qa-aš-ti it-tal-ku-ni*

Vs.

14 Thus (speak): 'Now, **W[ašmuar]ianaḫta, the palace official of the king**

15 together with the messenger [of the land of Ḫat]ti, Piqašti, came to me'.[22]

Despite Wašmuarianaḫta is here not qualified as a 'messenger', with the specific term ^{LÚ}*ḫalugatalla/pišena-*/DUMU.KIN(*-ri*), we can suppose that his role and function could be assimilated to that of a messenger (but maybe with a higher degree of authority, due to the presence of the 'title' ^{LÚ}SUKKAL LUGAL), also because he is mentioned together with the ^{LÚ}DUMU *ŠIP-RI* [*ŠA* KUR *Ḫa-at-*]*ti* ^{I}*Pí-qa-aš-ti*, clearly a messenger. The name of this official is of surely Egyptian origin, as already noted by Ranke;[23] as suggested by Edel,[24] the original name could be reconstructed as  *Wsr-m3ꜥ.t-rꜥ-nḫt* (Wesermaatreneḫet, 'Ramses II is strong').[25] Sometimes, messengers are mentioned without reporting their proper names (**Table 2**):

[17] Mentions of Pariḫnawa in the Egyptian-Hittite correspondence: Edel 1994, II, 364; about the possible mention of this messenger in the text of the 'Silver Treaty': Zivie 2006, 71 and fig. 8 (*contra* Edel 1997).

[18] Edel 1994, I, 58–65, no. 24.

[19] For *wpw.ty-*[*nswt*], probably to be read here even if in *lacuna*: Wb. I 304.9; cf. Gardiner 1968, vol. 1, 91.

[20] Zivie 2002; Zivie 2006, 72, figs 1–2; 74, fig. 3; 75, figs 4A–B; cf. Zivie 2007. The same name, spelled *P3-rḫ-nw*(*3*), is also mentioned on a stela at the British Museum (BM EA 555: stela of Khabekhnet, from Deir el-Medineh, TT 2; see Zivie 2006, 76, fig. 6). About Pariḫnawa: Edel 1976, 79; Singer 1999, 674. For the reading of the name: Ranke 1923, 133–134.

[21] Edel 1994, I, 170–173, no. 72, F4. Relevant words or passages are **bolded**. This and all the following translations are mine: original translations are referenced to in notes.

[22] Edel 1994, I, 170–173, no. 72, F4.

[23] Ranke 1923, 137–138.

[24] Edel 1976, 95.

[25] PN 85, no. 16.

Document	Passages
KBo I 10	Rs. 55, 71: DUMU(*MĀR*) *ŠIP-RI ŠA* LUGAL(*ŠAR*) KUR(*MĀT*) *MI-IṢ-RI-I* 'Messenger of the king of the land of Egypt'.
KUB III 63	Rs. 7: DUMU.M[EŠ.KIN-*IA*] [...] DUMU.MEŠ.KIN *ŠA* NIN-*IA* 'My messengers [...], the messengers of my sister'.
KUB III 69	Vs. 9: DUMU.KIN-*RI* 'The messenger'.

Table 2: *Passages reporting messengers quoted without a proper name.*

Ambassadors

In the Hittite texts it is also attested the Akkadian term ^{LÚ}*ṬEMU*, usually translated as 'envoy, ambassador'.[26] The 'title' is used once to qualify the Egyptian ambassador Ḫani (KBo V 6 III 44: *ŠA* ^{URU}*mi-iz-ri-wa-aš-ši* ^{LÚ}***ṬE$_4$-MU*** ^{m}*ḫa-a-ni-is*),[27] who accompanied the chamberlain Ḫattusaziti, in his coming back from Egypt after having met the Egyptian queen Ankhesenamun who asked for a Hittite husband (the '*daḫamunzu* affaire').[28] There are two more texts (KBo V 6 III 9 and KUB XXI 38 Rs. 20'–24')[29] quoting Egyptian ambassadors, $^{LÚ.MEŠ}$*ṬE$_4$-ME* (unfortunately without mentioning their proper names).

Knights

The Akkadian term ^{LÚ}*PITḪALLU*,[30] translated as 'knight' (or maybe, more properly, 'report rider')[31] is used to qualify only one (unnamed) Egyptian envoy, in a passage (KUB XXI 38 Rs. 18', 21')[32] where he is quoted together with other ambassadors:

18' [*ḫal-*]*ki-iš* NU.GÀL *nu-ua-ta ku-e-da-ni me-e-ḫu-ni* $^{LÚ.MEŠ}$*ṬE$_4$-ME an-da ú-e-mi-ia‹-an›-zi nu-ua-mu-kán* ŠEŠ-*IA* ^{LÚ}***PÍT-ḪAL-LI*** *pa-ra-a* [*na-a-ú*]

'At the time when (my) messengers meet you, my brother should send me a **(report) rider**'.[33]

[...]

21' (Erasing) EGIR-*pa-ma nu-un-tar-aš* ^{LÚ}***PÍT-ḪA[L-LI***-*KA Ú-UL*] *u-it* ^{LÚ}*ṬE$_4$-MU-ia Ú-UL ú-it*

'But [your] **(report) rid[er** did not] return immediately, and no messenger came'.[34]

Lords

In at least one attestation, another word is used to define a specific envoy: the Hittite term *i/ešḫa-* (Sumerian EN and Akkadian *BĒLU*) could refer to a particular high-ranked messenger, in this case an

[26] Pecchioli Daddi 1982, 142–144; Otten 1969, 18.
[27] Del Monte 2008, 89.
[28] Del Monte 2008, 119.
[29] CTH 40: Deeds of Šuppiluliuma (Del Monte 2008, 112–113). CTH 176: Letter of Puduḫepa to Ramses II (Edel 1994, I, 216–223, no. 105, L2).
[30] Pecchioli Daddi 1982, 141–142; AHw II (M–S) 858; CAD XII (P) 335–337 (*PĒTḪALLU*).
[31] This peculiar messenger could be maybe assimilated to the 'rapid courier' (*kallū*) in Liverani 2001b; cf. AHw I (A–L), 426 ('Eil-, Schnellbote') and CAD VIII (K), 83–84 ('messenger').
[32] CTH 176: Letter of Puduḫepa to Ramses II (Edel 1994, I, 216–223, no. 105, L2).
[33] Edel 1994, I, 216–217.
[34] Edel 1994, I, 218–219.

ambassador because of the 'title' ^{LÚ}*ṬEMU*.[35] In the corpus of the Egyptian-Hittite correspondence the 'title' is used to qualify the Egyptian messenger Ḫani, already quoted about the '*daḫamunzu* affaire' in KBo V 6 III 44 (= XIV 12 III 26 = XIV 12 IV 13):[36]

1E$_3$24 *ma-aḫ-ḫa-an-ma ḫa-me-eš-ḫa-an-za ki-ša-*[*at*]

1E$_3$25 *nu* $^{m.giš}$PA-LÚ-*iš IŠ-TU* KUR ^{uru}*mi-iz-r*[*i* EGIR-*pa ti-it*]

ŠA KUR ^{uru}*mi-iz-ri-ia-aš-ši* ^{lú}*ṬE*$_4$*-MU* ^{m}*ḫa-a-ni-is* ***BE-LU*** *kat-ta-an ú-it*

[1A44 *ŠA* ^{uru}*mi-iz-ri-wa-aš-ši* ^{lú}*ṬE*$_4$*-MU* ^{m}*ḫa-a-ni-is* ***BE-LU***]

1E$_3$26 *ŠA* [K]UR ^{uru}*mi-iz-ri-ia-*$^{⌜}$*aš*$^{⌝}$*-ši* $^{[l]ú}$*ṬE*$_4$*-MU* ^{m}[

'When spring came, Hattusaziti [returned] from Egypt and with him came the **lord** Hani, envoy of Egypt'.[37]

The personality of this Egyptian messenger has already been well described by Del Monte;[38] his name is also listed in Laroche's onomastic and discussed by Edel, Freu, and Güterbock.[39] Edel's comment about the profile of the messenger is remarkable, since he interprets the 'title' *BĒLU* as a military high rank official;[40] furthermore, this Ḫani would be the same person mentioned in some Amarna letters.[41] The name could be derived from the Egyptian  *Ḥnj* (Hani).[42]

Superintendents

Another 'title' attested to qualify Egyptian ambassadors in Hittite texts is ^{LÚ}*MAḪRU/ŠAKIN*, usually translated as 'superintendent/governor';[43] it is attributed to three Egyptian messengers (**Table 3**):

Name	NH, NH-S*	Documents	Type of document
[^{m}A-taḫ-x[... = Ataḫmašši]	[1603]	KUB III 57 Rs. 8†	Letter of Ramses II to Puduḫepa
[^{m}L/Ieya]	[693]	KUB III 34 Vs. 14‡	Letter of Ramses II to Ḫattušili III
[^{m}Suta]	[1195]	KUB III 57 Rs. 2§	Letter of Ramses II to Puduḫepa

* Cf. RO and HPN.

† Edel 1994, I, 144–145, no. 55, E22.

‡ Edel 1994, I, 181–185, no. 78, H3.

§ Edel 1994, I, 144–145, no. 55, E22.

Table 3: *The three Egyptian 'superintendents' mentioned in the Egyptian-Hittite correspondence.*

[35] Imparati 1975; Pecchioli Daddi 1982, 477–495; HED II (E–I) 385–390; HEG II (I–K) 372–377; HH 63; HW^2 II (E) 114; Kloekhorst 2008, 390.

[36] The text here reported is the *partitura* (1E$_3$25–26 = 1A44) in Del Monte 2008, 118.

[37] Del Monte 2008, 119.

[38] Del Monte 2008, 119, n. 62; for the name, cf. Ranke 1910, 9.

[39] NH 57, no. 270; Edel 1948, 13; Freu 2004, 75–79; Güterbock 1956, 122.

[40] Edel 1948, 13.

[41] Albright 1946, 11, no. 9. For Egyptian spelling of Semitic and Hittite names: Schneider 1992, 428–479.

[42] PN 229, no. 28. This the suggestion in Albright 1946, 11, no. 9; cf. Edel 1948, 13, identifying the Ḫani of the '*daḫamunzu* affaire' with the Ḫani mentioned in the Amarna letters. Otherwise, if we consider them as two different individuals, we ought also to take in consideration the names PN 229, nos 29 and 30:  *Ḥnj*? and *Ḥny*.

[43] Pecchioli Daddi 1982, 450–451.

Physicians

A peculiar class of envoys coming from the Egyptian court, often treated and considered just as 'royal gifts', is surely that of physicians.[44] These envoys sometimes present the second, complementary 'title' of 'scribe' (LÚDUB.SAR). Some physicians are quoted in the Egyptian-Hittite correspondence: among them the most famous is surely Pariamaḫu,[45] the physician sent by Ramses II to Kurunta of Tarḫuntašša, whose name is attested in three letters of the Egyptian-Hittite correspondence: KUB III 66 Rs. 4 (from Ramses II to Puduḫepa);[46] KUB III 67 Vs. 12, Rs. 6, 8, 10 (from Ramses II to Ḫattušili III or Tutḫaliya IV);[47] NBC 3934 Rs. 8, 13, 18 (from Ramses II to Ḫattušili III).[48]

Heralds

On one instance (KUB XIV 1 Rs. 51–52),[49] an envoy named Zuwa carries the specific 'title' LÚ GIŠPA, i.e. 'herald' (lit., 'the man with the stick/sceptre'):[50]

51 *ka-ru-ú li-in-ki-iš-ki-it nu* X *ZI*[*-IM-DI* ANŠ]U.KÚR.RA.ḪI.A II × C ZAB.MEŠ-*ya A-NA* ^{I}*Zu-wa-a* **LÚ GIŠPA** *tar-*[*na-aḫ-ḫu-un* . . . . .]

52 [LÚ]KÚR-*ya ŠÁ-PAL* URU*Ma-ra-a-šá a-a*[*r-áš na-áš-*]*ta* ^{I}*Zu-wa-an* **LÚ GIŠPA** *ku-e-nir A-NA* [. . .]

51 'And I left (?) 10 horses [harnessed] and 200 foot soldiers to Zuwaš, the **scepterman**, [and sent him?].

52 'And the enemy got as far as Marāša [when] they struck Zuwaš, the **scepterman**; the [...]'.

Envoys mentioned without a specific 'title'

A final problem regards the envoys quoted in the documents without a specific 'title'. One clear example is that of Kalbaya,[51] mentioned in EA 32. In this letter, sent by the king of Arzawa to the pharaoh, the Anatolian king complains about the communication carried by the messenger Kalbaya. Despite the lack of a precise 'title',[52] it seems that on some occasions it was possible that the recipient of a delegation did not trust the word of the messenger in charge, and asked for a second more official confirmation of the content, with the specification that the text be on a tablet,[53] and in Hittite,[54] thus directly verifiable by the Arzawaean king.[55] This episode could reveal a veiled glimpse of what might have happened on some

[44] Pecchioli Daddi 1982, 119–120; Edel 1976; De Pietri and Urzì 2021, 115–118.
[45] Edel 1976, 90; De Pietri and Urzì 2021, 118–119.
[46] Edel 1994, I, 170–173, no. 72, F4.
[47] Edel 1994, I, 170–171, no. 71, F3.
[48] Edel 1994, I, 52–57, no. 22, D3.
[49] CTH 147: Indictment of Madduwatta by Arnuwanda I; Goetze 1928, 30–33.
[50] Pecchioli Daddi 1982, 177.
[51] Marizza 2007, 144.
[52] Possibly, the same Kalbaya quoted as 'ambassador' on l. 11: '*IŠ-TU* LÚ*ṬE-MI-YA*'.
[53] EA 31, ll. 12–12: *na-i ku-u-un-na-mu me-mi-an ṭup-pí-az* / EGIR-*pa ḫa-at-ra-a-i*.
[54] EA 31, ll. 24–25: DUB.ḪI.A[*-ká*]*n ku-e ú-da-an-zi* / *nu ne-eš-*[*u*]*m*^{I}*-ni-li ḫa-at-ri-eš-ki*.
[55] A similar request for a written confirmation is attested (either as a literary *topos* or as an actual event) in the later 'Report of Wenamun' (see Brinker 2011, 91–92): the king of Byblos Tjekker-Baal is surprised that Wenamun lacks a letter of credentials, similarly to what is said e.g. in the earlier EA 30, EA 39, or EA 40 (where various kings require a 'passport' or a 'safe-conduct' for their messengers).

occasions: that the messenger did not refer the precise content of the message or even changed it for some diplomatic or betraying purposes.

Possible 'colleagues' (i.e. 'cliques of envoys')

On many occasions, envoys are mentioned together with other possible 'colleagues', i.e. groups of messengers travelling together.[56] I provide here a table (**Table 4**) summarising the occurrences of such groups of 'colleagues': the second column displays the name of the messenger, while the third lists the names of his 'colleagues'.

This table exemplifies how messengers were appointed for diplomatic missions together with specific 'colleagues' who formed a kind of semi-fixed 'cliques'. In other words, it happened that the same messengers were part of the same diplomatic mission: e.g. Maniya is frequently attested together with Ri/eamašiya, while Naḫḫa is often mentioned along with Ziwtalla/i and Kulazita/i. From the analysis of the names, three possible 'patterns' seem to be obtained: a) messenger with Egyptian names associated to envoys with non-Egyptian names ('mixed pattern', e.g. 'case' E.2[57]); b) only messengers with Egyptian names ('Egyptian pattern', e.g. 'cases' D = O and H.2); c) only messengers with non-Egyptian names ('non-Egyptian pattern', e.g. 'case' B = I). Probably, the presence in the same diplomatic mission of both Egyptian and non-Egyptian messengers was intended to render communication more effective and easier, due to the presence of both Egyptian and Akkadian/Hittite native-speaker messengers.

Hittite officials with Egyptian names

Besides Wašmuarianaḫta (see *supra*) and Manamasu (see *infra*), at least another of the aforementioned officials presents a name partially of Egyptian origin:[58] Mizramuwa, literally 'the strength (i.e. the strong man) of Egypt'.[59] It is remarkable that the name 'Egypt' was used to define people not directly coming from the Nile Valley, but also subdued indigenous dwelling in the Egyptian possessions in Syro-Palestine.[60] Therefore, a proper name compound with the toponym 'Egypt' could also meaning not a native Egyptian but, more probably, a person born in Syria and connected, for an unknown reason, to the Nile land. Probably, people born in this area were chosen as messengers because they were native bilingual. A second possible official bearing an Egyptian name is Tuttu, mentioned in KBo III 43 Ro 10 and NBC 3934 Ro 28.[61] The name has been recognized as Egyptian by Albright and Goetze, but with some remarks (the latter author recalls that 'Tuttuš' is also a typical Hittite name).[62] A similar Egyptian name could perhaps be reconnected to PN 383, no. 23:  , *Tt*.[63] Despite the scarcity of information, it is clear that some Hittite messengers carried Egyptian names or maybe 'Egyptian nicknames' connecting them to Egypt: they could have been either people of Egyptian (or Syro-Palestine) origin or individuals involved in some way with the Egyptian court.

The peculiar case of Manamasu/Amanmašu

A peculiar case is presented in this paragraph: beside the cuneiform documentation, a seal impression from Ugarit, datable to the 13th century BC, quotes Manamasu/Amanmašu, an official of king Tili-

[56] Sometimes, for instance, messengers were accompanied by interpreters: this is the case of the messenger Mane and the interpreter Ḫane (EA 21).

[57] 'Cases' are here expressed by mean of the LETTER in column 1 and the number of 'groups' in column 3.

[58] De Pietri 2015, 342–344, 413–417.

[59] NH 119–120, no. 811; NH-S 27, no. 811; Parker 2013, 18.

[60] NH 274.

[61] NH 192–193, no. 1391.

[62] Albright 1946, 22, no. 62; Goetze 1943, 250, no. 5; van den Hout 1995, 169–172; Mora 2006, 140–141.

[63] Cf. PN 379, nos 15–17.

‘Case letter’	Name*	‘Colleagues’†
A	Beḫašdu	[Naḫḫa]‡
B	Ḫattušaziti	[*P*]*āpu*§
C	Kulazita/i	[Naḫḫa]; Zitwalla/i¶
D	[Mairia]	[Tuttu]**
E	[Maniya]	1) / †† 2) [Pa/iriḫnawa]; [Ri/eamašiya]; Tilitešub; Zinapa‡‡ 3) [Ri/eamašši]; Tilitešub§§
F	*Mašnijalli*	/ ¶¶
G	[Naḫḫa]	1) Beḫašdu *** 2) Kulazita/i; Zitwalla/i†††
H	[Pa/iriḫnawa]	1) / ‡‡‡ 2) [Ri/eamašši]§§§ 3) [Maniya]; [Ri/eamašiya]; Tilitešub; Zinapa¶¶¶
I	[*P*]*āpu*	Ḫattušaziti
L	[Ri/eamašiya]	1) [Maniya]**** 2) [Maniya]; Tilitešub; Zinapa†††† 3) [Maniya]; [Pa/iriḫnawa]; Tilitešub; Zinapa‡‡‡‡
M	[Ri/eamašši]	1) [Pa/iriḫnawa]§§§§ 2) [Maniya]; Tilitešub¶¶¶¶
N	Tilitešub	1) / ***** 2) [Maniya]; [Ri/eamašiya]; Zinapa††††† 3) [Maniya]; [Pa/iriḫnawa]; [Ri/eamašiya]; Zinapa‡‡‡‡‡
O	[Tuttu]	[Mairia]§§§§§
P	Zinapa	1) [Maniya]; [Ri/eamašiya]; Tilitešub¶¶¶¶¶ 2) [Maniya]; [Pa/iriḫnawa]; [Ri/eamašiya]; Tilitešub******
Q	Zitwalla/i	Kulazita/i; [Naḫḫa]††††††

* For the reference to NH and NH-S see *supra*. As in previous tables, names in [...] are Egyptian.

† The numbers in the right-column refer to various ‘groups’, quoted on different instances. The sign / indicates that the messenger is attested alone in the document. Sources (according to HPM-K) are displayed in notes.

‡ KBo VIII 16.

§ KBo XXVIII 51.

¶ KUB III 34.

** NBC 3934.

†† KBo XXVIII 2.

‡‡ KBo XXVIII 21+22; KBo XXVIII 23.

§§ KBo XXVIII 8.

¶¶ KBo XXVIII 5 (+) 6.

*** KBo VIII 16.

††† KUB III 34.

‡‡‡ KUB III 51; KUB XXXIV 2; KBo XXVIII 46; KBo XXVIII 47.

§§§ KBo VIII 13.

¶¶¶ KBo XXVIII 21+22; KBo XXVIII 23.

**** KBo I 21.

†††† KBo XXVIII 14.

‡‡‡‡ KBo XXVIII 21+22; KBo XXVIII 23.

§§§§ KBo VIII 13.

¶¶¶¶ KBo XXVIII 8.

***** KBo XXVIII 13 + ABoT 59.

††††† KBo XXVIII 14.

‡‡‡‡‡ KBo XXVIII 21+22; KBo XXVIII 23.

§§§§§ NBC 3934.

¶¶¶¶¶ KBo XXVIII 14.

****** KBo XXVIII 21+22; KBo XXVIII 23.

†††††† KUB III 34.

Table 4: *Reconstruction of possible ‘cliques of envoys’.*

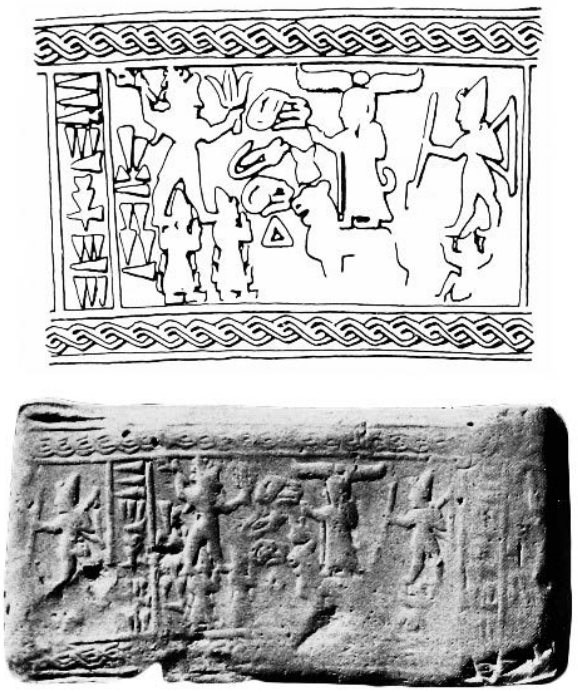


Figure 1: *drawing and picture of the sealings of Manamasu on clay tablet RS 17.28(76) = UG 4, from Ugarit/Ras Shamra (after Ugar. III, 50, figs 68–69).*

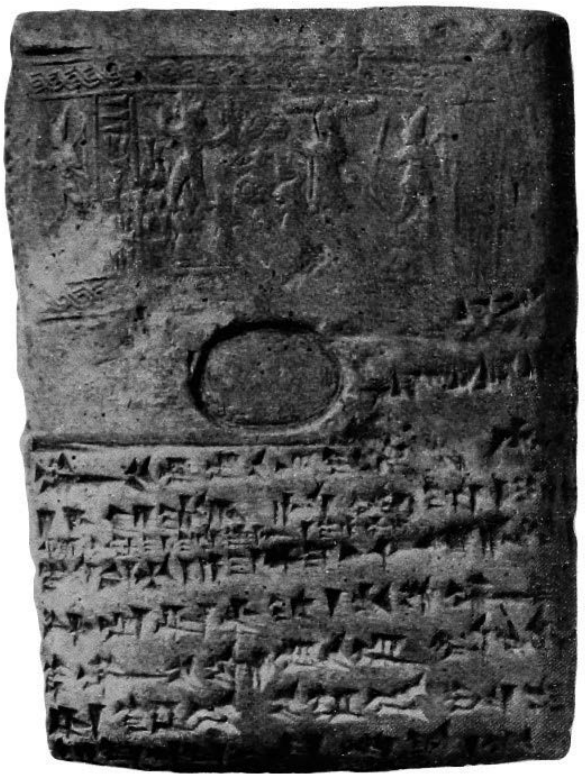
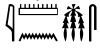


Figure 2: *clay tablet RS 17.28(76) = UG 4, from Ugarit/Ras Shamra (after Ugar. III, 48, fig. 66).*

Šarruma of Karkemish, whose name is surely of Egyptian origin. The case is defined as 'peculiar' because this is the only Egyptian name attested on Anatolian glyptic of the 2nd millennium BC, thus far.[64]

The cylinder seal impression (**Figure 1**) is stamped on a clay tablet (RS 17.28(76) = UG 4; **Figure 2**) and measures 7 cm length.[65] The inscription is flanked, on the upper and lower sides, by a band decorated with a twisted motive. Inside this decoration there is a cuneiform inscription on two vertical registers: ^{NA4}KIŠIB ^{I}*A-ma-an-ma-š*[*u*], 'seal of Amanmašu'. Between two figures, there are some Anatolian hieroglyphic signs, spelling the name *Ma-na-ma-su*. The name of Manamasu/Amanmašu,[66] as already noted by Albright,[67] is Egyptian and can be reconnected to PN 29, no. 8 as  , *Jmn-ms* (Amanmasu, 'Amon is born'). C. Mora has already stated the importance of the seal impression of Manamasu, joined by another sealing on the same tablet quoting the name Lat-^{D}KUR, both officials at Ugarit on behalf of the king of Karkemiš Tili-Šarruma.[68] Despite the tablet regards a transaction between the kings of Karkemiš and Ugarit,[69] and so there is no evidence of direct Egyptian-Hittite relationships, it is remarkable to find the cuneiform and hieroglyphic transcription of a name of clear Egyptian origin at Ugarit, a city that was for long

[64] Mora 1987, 220, no. IX 2.1. For the possibility of another Egyptian name (Tuttu) on glyptic: Mora 1987, 220, no. IIIb 3.3.

[65] Description of the tablet, its text, and the seal impression in PRU IV, I, 109–110 (text IV E 6); cuneiform transcription in PRU IV, II, Pl. II; image of the tablet, the sealing, and its drawing in Ugar. III, 42–50, figs 66–69. For a discussion about the name of the owner, see Ugar. III, 142–147.

[66] NH 29, no. 45.

[67] Albright 1946, 10, no. 3.

[68] Mora 1987, 221, no. IX 2.2.

[69] Mora 1987, 241, n. 8.

time under the Anatolian sphere of influence: it could also be a proof of the actual presence at Ugarit of personnel directly coming from Egypt or, at least, carrying Egyptian names. This fact stresses the importance of Ugarit as an important harbour for the Egyptian and North-Syrian trades.

Conclusions

Just to define and trace some preliminary conclusions: people in charge of contacts between Egypt and Ḫatti are qualified with different 'titles': messengers (LÚ*ḫalugatalla*, DUMU.KIN = *MĀR ŠIPRI*); envoys, ambassadors (LÚ*ṬEMU*); knights (LÚ*PITḪALLU*); lords (*išḫa-*/EN/*BĒLU*); superintendent/governor (LÚ*MAḪRU/ŠAKIN*); physicians (LÚA.ZU(-*ú*) = LÚ*ASÛ*(*M*)); heralds (LÚ GIŠPA). Furthermore, personal names are sometimes attested without any 'title'; in other instances, 'titles' are mentioned without reference to a specific proper name. In the documentation analysed in this paper, the most quoted envoy is certainly Pa/iriḫnawa (quoted in eight documents). Sometimes 'cliques' or 'groups' of messengers can be retraced, probably referring to specific diplomatic missions. Moreover, the etymology of some personal names can support a specific Egyptian, Hittite, Luwian, or Hurrian origin of the messengers. Eventually, the sealing of Manamasu/Amanmašu from Ugarit attests the presence of Hittite or Syrian officials carrying names of clear Egyptian origin. In a few words, the documentation here presented offers a 'cosmopolitan' and 'international' landscape for the activities of these diplomats, connecting Egypt to the Hittite Empire in Anatolia and Northern Syria. Once again, our modern (and fictional) borders have been broken.

Abbreviations

ABoT = Balkan, K. 1948. *Ankara Arkeoloji Müzesinde Bulunan Boğazköy Tabletleri*. İstanbul: Milli Eğitim Basımevi.

AHw = von Soden, W. 1965–1981. *Akkadisches Handwörterbuch.* Wiesbaden: Harrassowitz.

Bo = Number of tablets from Boğazköy.

CAD = M.T. Roth (ed. in chief) 1964–. *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*. Chicago: Oriental Institute.

CHD = P.M. Goedegebuure, H.G. Güterbock, H.A. Hoffner, Th.P.J. van den Hout (eds) 1980–. *The Hittite Dictionary of the Oriental Institute of the University of Chicago*. Chicago: Oriental Institute.

CTH = Laroche, E. 1971. *Catalogue des textes hittites*. Paris: Klincksieck.

EA = El-Amarna letters: see mainly *infra* Schniedewind and Cochavi-Rainey 2015.

ePSD2 = electronic Pennsylvania Sumerian Dictionary, 2.0, viewed on 10 June 2021, <http://oracc.museum.upenn.edu/epsd2/>.

HED = Puhvel, J. 1984–2017. *Hittite Etymological Dictionary*. Berlin-New York: de Gruyter.

HEG = Tischler, J. 1983. *Hethitisches etymologisches Glossar*. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.

HH = Tischler, J. 2001. *Hethitisches Handwörterbuch*. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.

HPM = *Hethitologie Portal Mainz*, viewed on 10 June 2021, <https://www.hethport.uni-wuerzburg.de/HPM/index.php>.

HPM-K = Košak, S. *Konkordanz der hethitischen Keilschrifttafeln*, viewed on 10 June 2021, <https://www.hethport.uni-wuerzburg.de/hetkonk/hetkonk_abfrageF.php>.

HPN = Marizza, M. and M. Cammarosano. *Hittite Personal Names*, viewed on 10 June 2021, <https://cuneiform.neocities.org/HPN/start.html>.

HW = Friedrich, J. 1952–1954. *Hethitisches Wörterbuch*. Heidelberg: Carl Winter Universitätsverlag.

HW^2 = Friedrich, J., A. Kammenhuber, I. Hofmann 1975–1984. *Hethitisches Wörterbuch. Zweite völlig neubearbeitete Auflage auf der Grundlage der edierten hethitischen Texte*. Heidelberg: Carl Winter Universitätsverlag.

HZL = Rüster, C. and E. Neu 1989. *Hethitisches Zeichenlexikon*. Wiesbaden: Harrassowitz.

KBo = *Keilschrifttexte aus Boghazköy*. Leipzig: J.C. Hinrichs'sche Buchhandlung (1916–1923), Berlin: Gebr. Mann Verlag (1954–).

KUB = *Keilschrifturkunden aus Boghazköy*. Berlin: Vorderasiatische Abteilung der Staatlichen Museen (1921–).

NBC = Number of tablets in the Nies Babylonian Collection.

NH = Laroche, E. 1966. *Les noms des Hittites*. Paris: Klincksieck.

NH-S = Laroche, E. 1981. Les noms des Hittites : Supplément. *Hethitica* 4: 3–58.

PN = Ranke, H. 1935. *Die ägyptischen Personennamen. Band I: Verzeichnis der Namen*. Glückstadt: Augustin.

PRU IV = Nougayrol, J. 1956. *Le palais royal d'Ugarit 4 : textes accadiens des Archives Sud (Archives internationales)*. Paris: Imprimerie nationale; Klincksieck.

RO = Trémouille, M.-C. *Répertoire onomastique*, viewed on 10 June 2021, <https://www.hethport.uni-wuerzburg.de/hetonom/ONOMASTIdata.html>.

RS = Number of tablets from Ras Shamra/Ugarit.

SHS^2 = Boysan-Dietrich, N., M. Marazzi, C. Mora, H. Nowicki 2009. *Sammlung hieroglyphischer Siegel, Band I: Vorarbeiten. 2., revidierte und ergänzte Auflage zusammengestellt von M. Marazzi*. Wiesbaden: Harrassowitz.

UG = Number of seals/sealings from Ugarit/Ras Shamra.

Ugar. III = Schaeffer, C.F.A. 1956. *Sceaux et cylindres hittites, épée gravée du cartouche de Mineptah, tablettes chypro-minoennes et autres découvertes nouvelles de Ras-Shamra*. Paris: Librairie Geuthner.

VBoT = Götze, A. (ed.) 1930. *Verstreute Boghazköi-Texte*. Marburg: Lahn.

Wb. = Erman, A. and H. Grapow 1971. *Wörterbuch der ägyptischen Sprache*. Berlin: Akademie Verlag.

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Deportation Policies in Egypt's Late Bronze Age Empire, 1500–1300 BCE

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Abstract

This contribution outlines the role that deportation policies played in internal and international affairs during the heyday of Egypt's empire in the Late Bronze Age — the first half of the so-called New Kingdom (*c.* 1550–1069 BCE), the Eighteenth Dynasty. The main source of deportees, as captives, was war, while inter-state treaties and vassal obligations appear as another means to acquire people from abroad. While the contribution also looks at the utilization of the deportees in the Egyptian economy, the focus is on the interaction between Egypt and its vassals in the Levant. These were obliged to provide the Egyptian state with workers on a regular basis. Additionally, different regional approaches of Egyptian deportation policies within the Levant are discussed and embedded in the wider geography of the empire. Quantifiable information allows to assess the impact of Egyptian deportation policies, especially over the longue durée, and the interplay between the deporting and deported social classes.

Keywords

Deportation, Foreigners, Governance, Late Bronze Age, Political Economy

Introduction and historical backdrop

In the past five years, numerous studies have been released on the representation, ethnicity, or the (violent) treatment of foreigners in ancient Egypt, mainly covering the Egyptian Middle and New kingdoms.[1] The political and socio-economic aspects of foreigners have been understudied by comparison. This contribution is thus an attempt at closing this research gap by introducing the political economy of Egyptian deportations during the Late Bronze Age, what Egyptologists commonly refer to as the New Kingdom (*c.* 1550–1069 BCE), and a challenge to the trope that the Egyptian exploitation of foreign labour was marginal at best. The focus here is on the formative period of Egypt's deportation policies, the Eighteenth Dynasty (*c.* 1550–1290 BCE) and the interaction between the Egyptian government and those of the Levantine states at the time.

The Late Bronze Age was the time of Egypt's greatest territorial expansion. During the preceding Second Intermediate Period (*c.* 1650–1550 BCE), the Nile Delta on the Mediterranean Coast of Egypt was home and seat of the Hyksos, whose precise origin in West Asia remains elusive.[2] This group had divided the Egyptian territory among several vassals,[3] the most noteworthy of which was in Upper

[1] These are published and (as yet) unpublished works: Janzen 2013; Baines 2016; Saretta 2016; Anthony 2017; Valerio 2017; Matić 2019.

[2] See Schneider 1998, 150.

[3] Note that the terms 'patronage' (Pfoh 2009) and 'subordination' circulate in more recent literature as the term 'vassal' supposedly connoted medieval European feudalism (Pfoh 2016, 3–4). In my opinion, such an association is down to the individual researcher and not a necessary consequence of working on Late Bronze Age international relations. It is also possible to liken

Egypt concentrating around the former Egyptian capital of Thebes.[4] Precisely that vassal started a war to reclaim the country for itself around 1560 BCE. Subsequently expelling the Hyksos in the North and re-establishing control over the entire Egypt, the Egyptian elites turned their eyes south toward Nubia, which had previously aligned with the Hyksos in a bid to defeat and divide the Theban state among both powers.[5] The Egyptians managed to conquer and occupy the bigger part of the region in a series of military campaigns and establish a system of colonial rule.[6] After the colonization of Nubia after *c.* 1500 BCE, the Egyptian administration shifted its focus to the North. The Megiddo campaign in the 1450s BCE led to the vassalization of the southern half of the Levantine states.[7] The Levant would serve as the battleground and buffer zone for the regional great powers of Egypt, the Hittites, and Mitanni for the next two hundred years.[8] In the subsequent two centuries, the region would experience what came to be known as the Late Bronze Age collapse, the causes of which are not completely understood.[9] While the state of Egypt endured, it lost its possessions in the Levant and Nubia, and the ruling Egyptian elite was replaced with a Libyan elite.[10]

State of research

The relative lack in the literature hints at a certain potential for research on the deportation policies in pharaonic Egypt, especially in comparison with Assyrian polices, which are even of interest to political science for the contextualization of the development of historical and contemporary migration policies.[11] Previously, there has been only one major study on forced resettlements in ancient Egyptian history,[12] limited to Egyptian history until the end of the Middle Kingdom in 1650 BCE, though, and thus leaving out the richest dataset of later times. Other authors have touched on Egyptian deportations in a passing manner, mostly in discussions of great power struggle and the regional policies in the Southern Levant.[13] The latter aspect has been of interest more to Assyriologists than Egyptologists themselves. Egyptian deportations also feature more indirectly in the literature in the shape of the enslavement of foreigners and other related unfree labour practices in pharaonic Egypt.[14] Such works highlight that deportations and forced labour are part of the same nexus in Egyptian political economy.[15] The recently emerging complex of travel in ancient Egypt is yet to tackle deportation and other forms of forced migration, treating travel and migration as a result of the agency of individuals instead.[16] Conversely, a recent attempt has been made to connect forced migration in Late Bronze Age Egypt generally with the field of (forced) migration studies.[17] The little existing literature on the subject at the very least demonstrates that there is an multidisciplinary interest that can be nurtured in the future, linking

Egypt's approach to subordinating Southern Levantine rulers to the practice of entertaining (Roman) *client states*, (modern) *puppet states*, or *princely states* (as used to describe the relationship between the British Empire and rulers in the British Raj) (see Langer 2013, 109). These terms refer to the same complex of unequal relationships between two parties and are variations of the same concept (on the tension between concept and term, see Frank 2017, 7).

4 See Ryholt 1997, 293–307; on that period, see generally Bourriau 2000.

5 See Zibelius-Chen 1988, 64; Redford 1995, 130; Davies 2003, 6.

6 See Török 2009, 157–181; Langer 2013, 98–103.

7 See Murnane 2000; Redford 2003, 1–51, 202–209; Langer 2013, 103–109.

8 See e.g. James 2000; Bryce 2005, 154–189.

9 See e.g. Cline 2014.

10 See Kitchen 1986, 243–257; Spalinger 2005, 271–275.

11 As e.g. in Wong 2015.

12 Gundlach 1994.

13 Most importantly, see Helck 1971, 342–350; Ahituv 1978; Schulman 1982; Na'aman 1988; Feucht 1990a; Feucht 1990b; Hoffmeier 2004.

14 E.g. Bakir 1952; Bußmann 2014.

15 See also Langer 2020c.

16 Unless banishment as a legal sanction of criminal behaviour or the flight of slaves are thematized, as in e.g. Köpp-Junk 2015, 217–222, 235.

17 Langer 2017.

Egyptology and Near Eastern Studies as well as political science in the guise of (forced) migration studies and International Relations.

Evidence and methods

A broad understanding of deportation enables the analysis of premodern instances, while the contemporary deportation regimes are usually at the centre of deportation research. Therefore, deportation is understood here as the forcible transfer of individuals or groups of people by a government from one place to another, which corresponds with working definitions in political science.[18] This broad conceptualization covers a wide range of differentiated policies on part of the Egyptian government, while research on contemporary deportations focus on their guise as transfers out of nation-states and related legislation as well as their identity-related consequences.[19] Conversely, premodern deportations rather aimed at acquiring people from abroad than moving them out.[20]

As any coercion factor is effectively undetectable in material culture, i.e. both objects and remains of settlements, and depictions of war captives paraded before the Egyptian king offer no viable clues about their political economic significance either the historical analysis has to rely on textual sources. The main sources are thus records that offer insights into Egyptian foreign policy, international correspondence, or administrative texts. Apart from the Amarna correspondence and Kumidi letters, most are of Egyptian origin.[21] The Egyptian records are mostly collected in the historical inscriptions of the Eighteenth Dynasty,[22] with those of the Ramesside period and the Egyptian-Hittite correspondence offering information on the later New Kingdom, here only touched in brief.[23] Purely rhetorical inscriptions, such as inscriptions on obelisks, that simply praise the Egyptian king's military might and dominion over the world whilst lacking any historical detail are not suitable for the analysis.[24]

Categorizing the varied Egyptian material by their social origins results in three distinct groups: royal texts emanating from the immediate surroundings of the king and his court; autobiographies of officials; and administrative texts such as lists of the landholdings and the temple workforce or exchanges between officials about the day-to-day management of state institutions. Although the first two primarily commemorate the actors, they still seek to convey information truthfully and are thus suitable for a historical analysis.[25]

The resulting dataset is fragmentary character, and in that very consistent, a condition reinforced by various geographic and temporal biases.[26] Most of the royal sources, for instance, came from the administrative and ideological centre of Thebes, while the bulk of the autobiographies were inscribed in Upper Egypt, known for its numerous tombs of officials connected with Theban governance. Similarly, the vast majority of the diplomatic letters was found in Amarna and solely composed during the Amarna period (1352–1336 BCE), covering roughly a generation. Conversely royal inscriptions primarily originated in the mid-Eighteenth Dynasty and the administrations of Thutmosis III and his son, Amenhotep II (1479–1425 BCE and 1427–1400 BCE, respectively); at the time the Egyptian army

[18] See Wong 2015, 69.

[19] See e.g. Ellermann 2009; De Genova and Peutz 2010; Wong 2015.

[20] For a detailed discussion of the term and concept, its applicability for premodern contexts, and surrounding scholarly and lay discourses, see Langer 2021, 17–28.

[21] For the most recent edition of the Amarna correspondence, see Schniedewind and Cochavi-Rainey 2015; for the Kumidi letters, see e.g. Hachmann 2012.

[22] Sethe 1906–1909; Helck 1955–1958.

[23] Kitchen 1975–2014; Edel 1994.

[24] For details on the source material, see Langer 2021, 82–100.

[25] See Popko 2006, 139–140; Schneider 2014.

[26] For the entire dataset, see Langer 2021, 101–239; see also Langer 2020a; 2020b; 2020c.

	Original		*Projection*[a)]	
	Cases	**Deportees**	**Cases**[b)]	**Deportees**
Ahmose (1550–1525)	6	23	6	23
Amenhotep I (1525–1504)	1	4	4	4
Thutmosis I (1504–1492)	3	3+x	23	625+x
Thutmosis II (1492–1479)	1	1+x	27	812+x
Hatshepsut (1473–1458)	1	1	41	1241
Thutmosis III (1479–1425)	34	8110+x	80	16,009+x
Amenhotep II (1425–1400)	3	102,491+x	80	114,708+x
Thutmosis IV (1400–1390)	3	n/a	32	4700
Amenhotep III (1390–1352)	7	30,791+x	116	48,178+x
Akhenaten (1352–1336)	14	544+x	66	8532+x
Smenkhkare (1336–1334)	0	0	9	1410
Tutankhamun (1333–1325)	1	n/a	26	4229
Ay (1325–1319)	0	0	12	1880
Horemheb (1319–1295)	0	0	72	11,278
Total	74	141,968+x	597	213,629+x

Note: [a)] Standard deviation not considered here, the figures thus represent a middle estimate; [b)] Egyptian way of counting cases adopted, i.e. 3 cases per year for deliveries from the Levant and Lower and Upper Nubia.

Table 1: *Juxtaposition of the original and projected Eighteenth Dynasty deportation datasets displayed by reign. Source of the data: Langer 2021.*

took the field regularly. The time up to Thutmosis III is marked by detailed autobiographies, while information from royal sources is otherwise lacking. This fragmentation is also reflected in the preserved quantifications of war captives: royal texts or autobiographies give numbers in just more than half of the attested wars, and these quantifications are not always complete. Despite everything, compared with Assyrian numbers, there is no indication that the much smaller Egyptian figures were in any way exaggerated or subsequently altered.[27]

[27] On Assyrian quantifications generally, see De Odorico 1995.

The fragmentary preservation of the records can be offset to a certain degree by using a virtual dataset, though. This is possible since Thutmosis III's records offer information missing from other reigns: annual deliveries of people (and other goods) from the holdings in Nubia and vassals in the Southern Levant initiated after the Egyptian victory over Canaanite forces in the battle of Megiddo, which set the scene for the Egyptian dominance over the area.[28] Indeed, evidence suggests that the Nubian deliveries had been in place since Thutmosis I (1504–1492 BCE) when his army defeated Kerma in Nubia.[29] Such a prior intake of Nubians would consequently be invisible in the records. Similarly, it seems counterintuitive to assume that the deliveries initiated under and mentioned by Thutmosis III ceased after the 42nd year of his reign simply because the corresponding records were placed in the temple of Amun at Karnak that same year. Rather, they certainly outlived his reign and probably only ceased once the Southern Levant slipped from Egypt's grasp toward the end of the Ramesside period — the assumption here being that such deliveries are visible after Thutmosis III's reign only in the Amarna correspondence, where several people are attested to have been sent to the Egyptian court from Levantine vassals, or when a system that was operating smoothly otherwise encountered irregularities. Thutmosis III's relatively detailed information made it possible to extrapolate a virtual dataset for the entire New Kingdom, projecting an annual average influx of *c.* 400 Levantines and 70 Nubians (Tab. 1). Combining qualitative and quantitative approaches in this way enabled the identification of Egypt's deportation supply chain and assess its socioeconomic and demographic impacts.

Political economy of Egyptian deportation policies

General picture: quantity, supply chain, impact, and composition

The Eighteenth Dynasty was the time of Egypt's greatest military activity and territorial expansion. This fact is reflected in its deportation policies. By its end around the year 1300 BCE, at least 142,000 people had been deported. The bulk of the deportees came from the Levant (*c.* 44 %), North Syria (*c.* 25 %), and Nubia (*c.* 22 %), combining for over 90 % of the deportees (**Figure 1**). The extrapolated dataset, in turn, suggests at least 213,000 deportees, assigning greater weight to annual deliveries by comparison with the original dataset. The additional intake from the Levant and Nubia increases the share of both regions correspondingly. The fragmentary source material suggests that the better part of the deportees was moved mid-dynasty between the reigns of Thutmosis III and Amenhotep III (1390–1352 BCE). Mitanni and their North Syrian subjects were targeted only under Thutmosis III and Amenhotep II, perhaps to make a statement not to further encroach on Egyptian territory from the North.[30]

The supply chain reveals two distinct deportation mechanisms employed by the Egyptian government, represented by the Egyptian military and the Nubian administration and Levantine actors. The military was the most effective deporter and moved between 65 % (extrapolated) and 98 % (original) of the deportees. Such wartime deportations probably had the most direct impact on the targeted populations and regions as well as the greatest benefit to Egypt, but also depended on armed conflict and were hence a rather irregular means to acquire people from abroad. Indeed, these deportations largely subsided in the Ramesside period and only reignited in confrontations with nomadic groups from Libya and Sea Peoples — peace was thus detrimental to any agenda of procuring people and would have deprived the Egyptians of a potential resource. Conversely, peacetime deportations from the Southern Levant and occupied Nubia were regular and independent of armed conflict — although they were its consequence — and can be considered as structural deportations.

[28] On the deliveries, see e.g. Liverani 1990, 255–266; Liverani 2001, 180–182.
[29] Sethe 1906, 70.1–6; see also Spalinger 2006, 351–352.
[30] See Redford 1995, 162–165.

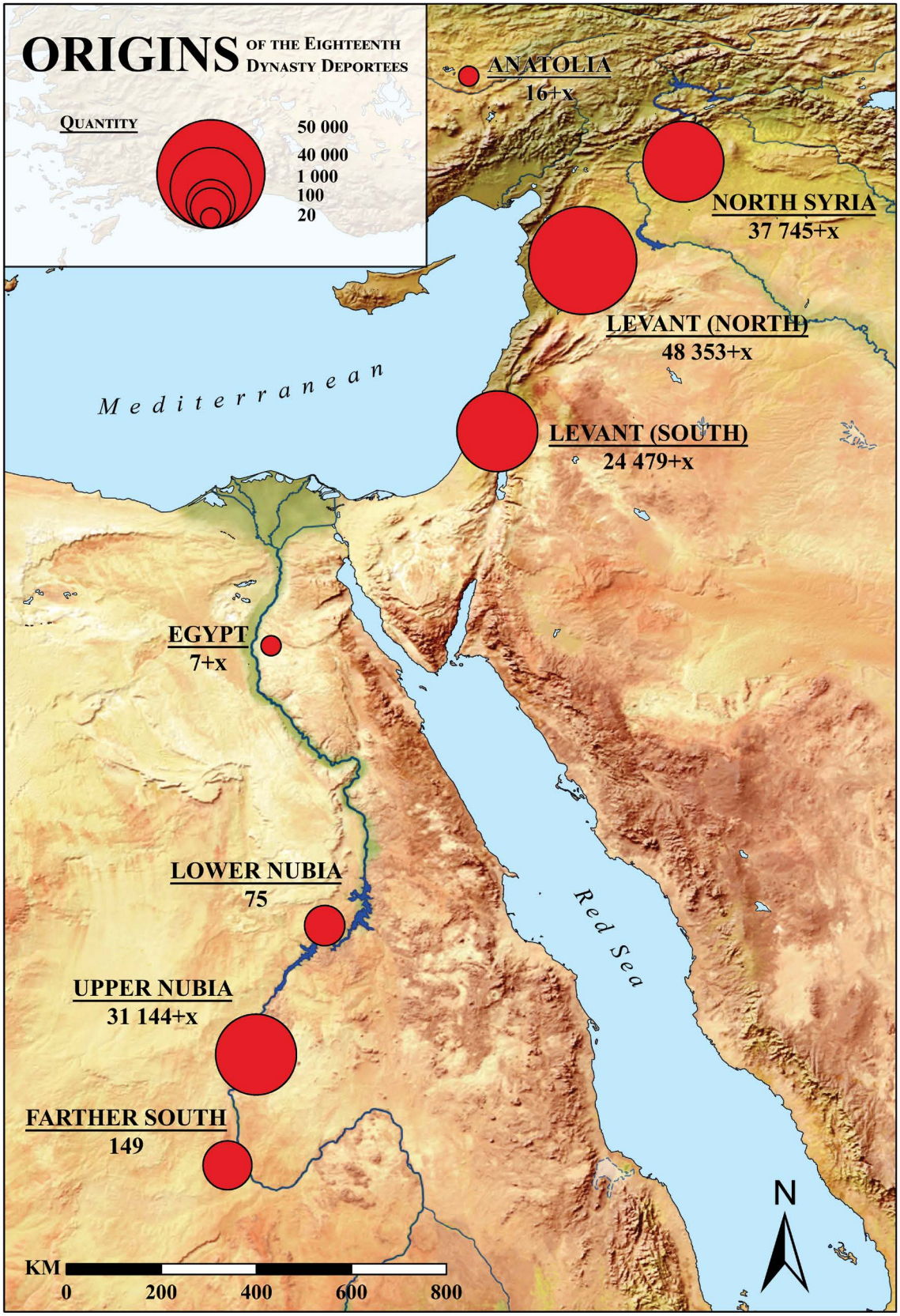

Figure 1: *Distribution of the Eighteenth Dynasty Deportees. © C. Langer. Source of the data: Langer 2021. Note: Egypt itself was the target of deportations in the wake of the war between Thebes and the Hyksos and their Egyptian allies in the North.*

Apart from providing corvée workers to cultivate the Jezreel Valley, under Egyptian control with its garrison in Beth Shan since the battle of Megiddo, the Levantine vassals had to deliver people to Egypt itself as well. They delivered an average 400 people on an annual basis. The Egyptian administration in Nubia under control of the King's Son of Kush, or Viceroy of Kush, sent the annual average of 70 deportees to Egypt proper. The data extrapolations suggest that these structural deportations brought in 35 % of the deportees and made up 96 % of the total Eighteenth Dynasty deportation cases. This means that most deportations took place within the Egyptian empire, comprising a formal empire in Egypt proper and Nubia and an informal empire in the Levant largely maintained by vassals.[31] This distinction is echoed in the deportation policies: Egypt conducted deportations in the area directly under its control while the vassals executed them in their part, albeit on directive of their Egyptian overlord. By comparison, the share of deportations resulting from relations of the Egyptian royal court with those of the Mitanni or Hittites is miniscule; in these much rarer instances, deportees were transferred as part of diplomatic marriage arrangements.[32]

The king himself nominally received the deportees to then allocate them to various institutions in Egypt. Here, two sectors stand out: temples and private estates, both of which apparently stood to gain the most from the transfer of deportees as workers. The temples of the New Kingdom were not only ideological centres but also important factors in the Egyptian economy, especially around Thebes and Memphis. They cultivated vast agricultural lands and thus accounted for a fair share of Egypt's food security.[33] Assigned to temples throughout Egypt and Nubia, the deportees were primarily used in agriculture, yet also animal husbandry, food processing, and textiles production.[34] One should expect similar agricultural occupations on private estates, albeit on a much smaller scale and with the addition of domestic servitude. Per their social status, the deportees were personally bound to the deities residing in the temples or the estate owners, probably for life.[35] In essence, it is therefore legitimate to speak of an Egyptian-style slavery in this context.

Of course, this influx of people due to wartime and peacetime deportations and their integration into the economy had certain effects on Egypt, linking economic and demographic effects. The Egyptian population grew from 1.8 million to 2.9 million between 1550 and 1250 BCE, with 2.2 million around the time of Thutmosis III, according to Butzer's estimate.[36] Irrespective of the relatively sizable population, the workforce needed to feed the entire country did probably not exceed 300,000 to 400,000 workers.[37] Structural deportations of 470 people annually would have thus added 0.02 % to the population; Thutmosis III's wartime transfer of *c.* 8000 people would have increased it by another 0.4 %. The much smaller workforce would have increased by about 2 % using the same values. This influx might have made possible the expansion of the New Kingdom temple economy, e.g. by cultivating new land, or the gradual replacement of the native with a migrant workforce while maintaining the same output, to ease labour burdens at least in temples or the provision of sustenance for the country.[38]

Socio-politically speaking, these policies may have manufactured a diverse Egyptian society, depending on the degree to which an interaction between Egyptians and the deportees and their descendants was possible. Deportees assigned to temples were apparently housed in segregated and guarded settlements, which makes an interaction between the wider Egyptian population and the deportee

[31] See Langer 2013, 98–109.
[32] An example is the marriage of Ramesses II with a Hittite princess, see e.g. Beckman 1996, 125–129.
[33] See Papazian 2012, 81–82.
[34] See Eichler 2000, 98.
[35] See Römer 2017, 82.
[36] See Butzer 1976, 85, fig. 13.
[37] See Warburton 2016, 203–204.
[38] See Haring 2013, 624–627; Morris 2018, 122.

workers improbable.[39] In the long run, i.e. over several centuries, and in combination with voluntary migrations by various groups into Egypt, the deportations may have contributed to the political power transition from Egyptian elites to Libyans at the end of the New Kingdom.

Moving from the macro-scale to the individual level, distinguished military personnel and civilian officials were awarded land and deportees by the king. The deportees went on to serve them as highly dependent workers, enabling a soldier to transition from a military to a civilian career. This made it possible for them to accumulate social prestige and material wealth from agricultural revenues and the deportees themselves, which could be bestowed to one's descendants or even loaned out and sold on. This effect was especially pronounced over several generations.[40] Such a patron may have also used the deportees to waive their own labour obligations owed to the state to consequently increase their leisure. Indeed, a recent argument considers the Egyptian population as by and large under-employed.[41] All considered, it seems reasonable to assume that the Egyptian economy came to rely more and more on foreign labour during the New Kingdom, where deportees and more voluntary migrant workers would have complemented each other. Overall, the findings suggest that the importance of foreign as well as forced labour for Egyptian society has been hitherto greatly underestimated.[42]

On the adjacent societies in Nubia and the Southern Levant, the Egyptian deportation policies consequently probably had a much grimmer impact. The estimated 590,000 inhabitants in the Southern Levant at the time were marked by only a marginal population increase, attributed to an incisive event around 1400 BCE.[43] It is enticing to correlate this with the heavy-impact deportations under Thutmosis III and his son, Amenhotep II. The structural deportations by themselves would have already resulted in a population decrease of 1.4 % over a generation of 20 years. The data extrapolations see the effect accumulate toward the end of the Late Bronze Age, which likely resulted in a disruption of economies and the demographic makeup of the region. The effects of the mid-Eighteenth Dynasty policies were probably still being felt long after, even without the structural deportations. The political fault lines resulting from this are discussed in more detail below.

By comparison, the Nubian population was much smaller and comprised roughly 220,000 people; the annual intake of Nubian deportees was thus smaller as well.[44] The population loss over 20 years amounted to 0.6 % but was offset to a certain yet unknown degree by Egyptian settler colonialism. The settler colonialist policies included the deportation of people from the Southern Levant to Nubia, among them an unspecified number of Habiru.[45]

As far as information on the composition of the deportees can be quantified, deportees from the lowest social strata comprised over 90 % while members of the West Asian and Nubian elites made up around 1 %. This corresponds to what one would expect from a premodern society.[46] Egypt's main target were apparently unskilled workers bound to perform unskilled labour, especially in agriculture; an occupation also in store for elite deportees. Conversely, the gender ratio was fairly balanced. As for the shares of different age groups, due to the volatile and ambiguous Egyptian terminology is not possible to draw any sound conclusions about the ratios of adults and children.[47]

[39] See e.g. Helck 1957, 1556.
[40] See Davies 2009, 153–154; Zingarelli 2010, 104–105; Allon and Navratilova 2017, 16.
[41] See Warburton 2016, 203–205; Warburton 2019.
[42] As have e.g. Ahituv 1978, 103; Spalinger 2005, 136.
[43] See Kennedy 2013, 573, 579, 587.
[44] See Smith 2003, 75, 195.
[45] See Schulman 1982, 315.
[46] See Trigger 2003, 153–155.
[47] See Feucht 1995, 550.

Egyptian approaches in the Levant: geographic differentiation and divide and rule

The Levant deserves special attention since the dataset points to geographic differentiation of the Egyptian deportation policies within that region. Until the reigns of Thutmosis III and Amenhotep II, the focus of the deportations lay on sites along the coast. After it lay in the mountainous hinterland, clustering around the Sea of Galilee a one- or two-days march removed from Beth Shan and its Egyptian garrison that guarded the fertile Jezreel Valley and main entry point to the Mediterranean coast from the West. This East-West break in the deportation policies in the Southern Levant coincided with the aftermath of Thutmosis III's victory in the Megiddo campaign and the initiation of structural deportations. This could also indicate regional approaches to the selection of deportees by the vassals, who were obliged to send workers to Egypt: Rather than selecting their own subjects, they might have gone with mountain-dwelling Habiru, whom they regarded as an inconvenience anyway.[48] There was similarly a North-South distinction. The correspondence from Amarna and Kumidi indicate that the vassals in Lebanon and further to the north were exempt from the annual deliveries of people, and that these rather applied to the southern vassals. Amurru, for example, had to deport individuals from its territory to Egypt only when the Egyptian king specifically requested for precisely these people to be handed over to him.[49] In respect to its deportation policies, Egypt apparently set up a tripartite administration in its informal Levantine empire. The resources of the North were arguably exhausted to a lesser degree to ensure it remained a formidable buffer zone for Egypt against the great powers in the north, i.e. Mitanni and Hatti.

These policies possibly took advantage of and aggravated already existing fault lines among the southern vassals, especially under the impression of increasing demographic and economic pressure. The Egyptians allowed inter-vassal competition over resources and political power, where the control of the local populations was possibly a flashpoint.[50] Hard to trace in the preserved records, two Amarna letters offer insights into the rivalry over the control of people.[51] There, the ruler of Jerusalem, Abdi-Ḫeba, addresses the Egyptian, Akhenaten, and laments the earlier raids on his caravan by an adjacent vassal, Milkilu of Gezer. The caravan carrying deliveries bound for Egypt, including an unknown quantity of people, was captured by Gezer forces. Abdi-Ḫeba claimed that he was unable to send any further deliveries because of Milkilu's activities, but had one assembled later and delivered by local Egyptian forces. These exchanges imply that vassals could have attacked and captured each other's caravans to decrease pressure on their own resources and may have either kept the loot for themselves or sent them to Egypt instead of their own resources. In the end, it was probably inconsequential for Egypt whether the vassal's sent their own resources or whether these came from another party as long as the given vassal fulfilled his obligations as required. An increased competition among the southern vassals should have strengthened Egypt's hold over the region, and Egypt's policies may have aimed for that effect in this context. On the other hand, it is unlikely that Egypt had even a remote understanding of the long-term effects for the local communities a continual and seemingly low drain of their population over decades and centuries had, nor that it actually cared about it. Rather much more likely, Egypt aimed for short-term gain, that is a primarily material gain for the upper echelons of Egyptian society.

Concluding remarks

The findings point to several things. They most importantly flag the complexity of Egypt's Late Bronze Age deportation policies that integrated and linked both the Nubian and Levantine regions. They also reveal the fact that the impact of slavery and other forms of forced labour on the Egyptian economy

[48] See Marfoe 1979, 15.
[49] EA 162.
[50] See Marfoe 1979, 16.
[51] EA 287–288.

has been and is being greatly underestimated in the scholarship. The demographic findings suggest profound long-term changes that future scholarship could link with research on the Late Bronze Age collapse — the possibility here being that the Egyptian policies contributed to or exacerbated the challenges Levantine societies had to face at the time, which may be a question to pursue in the future. In this sense, the results also demonstrate the potential of research that links Egyptology with Near Eastern studies and migration studies.

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Session 6 —
Landscape and Geography: Human Dynamics and Perceptions

Mountains for the Gods: Mimicking Landscape with Architecture. Mesoamerican Pyramids and Mesopotamian Ziqqurats in a Cross-Cultural Examination[1]

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Abstract

Both in Mesoamerican and in Mesopotamian studies, high-temples — pyramids or ziqqurats, respectively — have been studied extensively. They have been interpreted as the houses of gods and were visible from afar, making them iconic symbols and identity builders. The argument lies in cross-cultural similarities in their meaning and function as man-made mountains in the alluvial plains of Mesopotamia and the high plains of Mesoamerica. They served as symbolic mountains, suggesting a notion of pantheism and the importance of nature and landscape in the world view of the Mesopotamians and the Mesoamericans. The construction of pyramids, whether as graves like in Egypt and the Eurasian steppes or as temples like in Mesopotamia and Mesoamerica, points to a special symbolic meaning of the mountain as a sign for eternity and continuity, the source of sustenance and the link to the underworld and/or divinity.

We will be focusing our investigation to the relationship between humans and their landscape through the medium of architecture. Some cosmological characteristics have to be fulfilled within the landscape in order to create a scenery apt for settlements where the architecture complements and mimics the landscape creating a bond and identification between the people and their environment.

Keywords

Landscape, Mountains, Pyramids, Ziqqurat, High-temple, Architecture, Mesoamerica, Mesopotamia

Preamble

This paper consists of preliminary ideas and thoughts on the similarities of the *Baukulturen* and their internal symbolism of ancient Mesopotamia and West Asia on the one side, and Mesoamerica on the other. We need to stress this point, these are not results from ongoing research, but merely hypotheses from a field of study, that we — the authors — consider worthwhile. As a first attempt to tackle this topic, a certain lack of structure and methodological clarity is present; however, we hope that we will be able to make our readers realize the importance of stepping out of one's academic frame and look beyond what is common

[1] We would like to thank the editors for accepting our somewhat controversial paper into the conference proceedings. Furthermore, we want to thank the reviewers, whose sharp comments enhanced the quality of this article immensely. All mistakes, however, remain our own.

practice. What we are presenting are our initial thoughts on a subject, that has a clear potential and should be examined further in the future.

Introduction

Two architectural forms from Mesoamerica and Mesopotamia, pyramids and ziqqurats respectively, represent in the collective memory the cultures that created them. But why did the ancient Mesopotamians and Mesoamericans construct such forms and what significance could have been attached to them?

Not only in these cultures the construction of 'high temples', temple terraces, pyramids or specifically ziqqurats formed a basic part of the architectural repertoire but also in their cosmological belief. The link and comparison between these two geographical areas has already been made at least since the second half of the twentieth century.

In 1966 Robert McC. Adams published a book with the title 'The evolution of urban society' in which he tried a comparison between the early so-called 'high-culture' of ancient Mesopotamia and the 'high-cultures' of Mesoamerica. As Adams writes:

> 'Emphasizing basic similarities in structure rather than the many acknowledged formal features by which each culture is rendered distinguishable from all others, it [this book] seeks to demonstrate that both the societies in question can usefully be regarded as variants of a single processual pattern.'[2]

This basically structuralist approach is one of the cornerstones of archaeological research, this is also observed by Smith and Pergrine in 2011, as they write:

> 'Archaeology is inherently comparative. Comparison is necessary to understand the archaeological record. [...] Comparative analysis is the only way to identify unique features of human societies.'[3]

Similarly, Reinhard Bernbeck focuses a lot of attention on the comparative aspects and structural similarities in archaeology.[4] As Adams already stressed in 1966, early civilizations such as Mesopotamia and Mesoamerica 'provide a significant example of broad regularities in human behavior'.[5] Just as Adams did, we present one such regularity, pointing to the structural similarities between early Mesopotamia from the 3rd–1st millennium BCE and Mesoamerica from 2500 BCE–1521 CE specifically in the significance of two iconic architectural forms such as the Ziqqurat and the Pyramid. Our emphasis lies on structural patterns, and under no circumstance do we point to a direct connection between both cultures, but only that in certain stages did these distinct cultures find similar answers to similar challenges. Since Adams' 1966 book, a lot has changed however, the notion of comparability between ancient Mesopotamia and Mesoamerica still has merit today, as recent publications in honor of Robert McC. Adams show.[6]

In the following paragraphs, we will present examples of ziqqurats in Mesopotamia and pyramids in Mesoamerica, with the goal of showing how these two architectural forms share many aspects on their significance albeit the temporal and special distance between them. However, this article is not an exhaustive systematic comparison between these two architectural forms, which would be the scope of a

[2] Adams 1966, 1.
[3] Smith and Pergrine 2011, 4.
[4] Bernbeck 2017, 251–322.
[5] Adams 1966, 1.
[6] Domeneci and Marchetti 2018.

Mesopotamia		Mesoamerica
BCE		CE
Old Babylonian 1700		
1900		1900
Third Dynasty of Ur 2100		1700
Dynasty of Agade 2300		1500
	CONQUEST STATES	IV
2500		III 1300 Aztec
III Early Dynastic		II
2700	MILITARISTIC POLITIES	1100 I
II		Coyotlatelco
I 2900		900
d		
3100		700 Metepec
c		Xolapan
3300		500
b	THEOCRATIC POLITIES	Tlamimilolpa
Protoliterate		300
a 3500		Miccaotli
Warka 3700		100 Tzacualli
Late ʿUbaid		CE BCE Patlachique
3900		100
		Cuicuilco

Table 1: *Comparative Chronologies between Mesopotamia and Mesoamerica (based on Adams 1966, 25) (high temples in grey, stepped ziqqurats in red).*

project. Rather, we present a first approach in pointing through this observed similarity as a topic worth considering for a more formal investigation. And therefore, we suggest looking at old topics, such as the meaning of the ziqqurats, with a new angle, like the interpretation of pyramids in Mesoamerica.

Through the consideration of three examples of Mesoamerican pyramids, as a spot sample, the context of the pyramidal structure within the site and within the surrounding landscape will be considered. Taking examples from three different cultural zones and three different temporal windows rather as random samples than to generalize all Mesoamerican cultures, is a mean to get a general conception of pyramids through areas and time but also to point to a continuum of significance for the pyramid. Regardless of other uses given to pyramids for instance, as graves, their core significance stays untouched and provides a base for a broad generalization of the pyramids to translate its meaning into other architectural forms in other times and areas, e.g., the ziqqurat.

Figure 1: *The Tower of Babel by Pieter Bruegel the Elder (1563), taken from the archives of the Kunsthistorisches Museum Wien at https://www.khm.at/objektdb/detail/323.*

Mesopotamia

Ziqqurats are the most prominent example for high or terraced temples in Mesopotamia, if not all over the world. The most renowned being the so-called 'Tower of Babel' in Babylon, which is hardly ever depicted as a real ziqqurat in art history. The prominent example of high temples or terrace temples in Mesopotamia are ziqqurats, the most renowned may be the so-called 'Tower of Babel' in ancient Babylon, which hardly ever is depicted as a 'real' ziqqurat in art history (see for example **Figure 1**).[7] In the following paragraphs a basic general picture behind such structures will be put forward, illustrating — in broad strokes — their evolution not focusing on specific case studies, as these could at this stage only be superficial.

The term ziqqurat derives from the Akkadian *ziqquratu(m)*, which in turn developed from the verb *zaqru*, meaning 'being outstanding or 'building high'. In the preceding Sumerian the term used was u_6*-nir* and *ḫur-saĝ-galam-ma*, which literally translates as 'stepped mountain' or rather 'skillfully man made mountain'.[8]

There is, however an ongoing scholarly debate about the term ziqqurat in Ancient West Asian Archaeology and what it actually describes in terms of actual architectural structures. The main reason for this discussion is the assumed difference between 'stepped' ziqqurat constructions (cf. **Figure 2**),

[7] For an account on the 'real' tower of Babylon see Schmid 1995.

[8] Waetzoldt 2005.

Figure 2: *The Ur-III Ziqqurat of Ur-Namma at Uruk-Warka/Iraq (© artefacts-berlin; Material: DAI Orient-Department).*

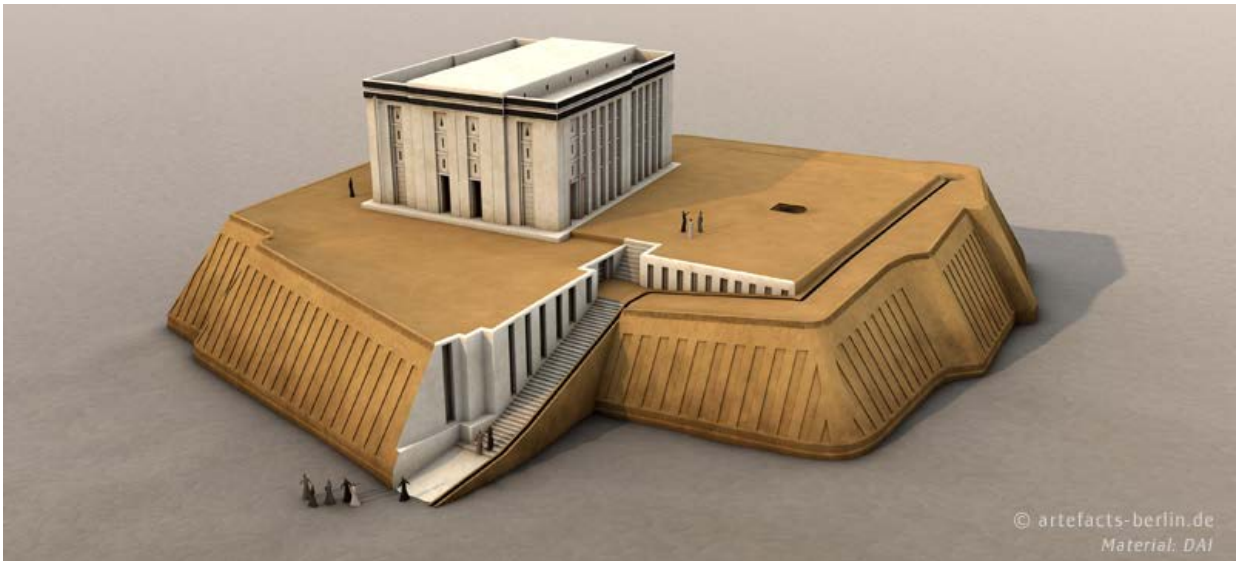

Figure 3: *The so-called White Temple on top of the so-called Anu-Ziqquart in Uruk-Warka/Iraq (© artefacts-berlin; Material: DAI Orient-Department).*

that do occur from the Ur-III (end of the 3rd millennium BCE) period onwards and so-called temple-terraces (cf. **Figure 3**) that are already known from the 'Ubaid-period (5th millennium BCE) onwards.

Probably the most noteworthy influence on the genesis of the term ziqqurat — at least in the German scholarly tradition — was Heinrich Lenzen's doctoral dissertation *Die Entwicklung der Zikkurat — von ihren Anfängen bis zur III. Dynastie von Ur*. Even though the title suggests otherwise, Lenzen argues for the Ur-III period as the 'birthplace' for what he calls 'real' ziqqurats.[9] A notion that is often repeated, among others by Barthel Hrouda who argues that the essential or real ziqqurat ('*der "eigentliche" Zikkurat*') in its

[9] Lenzen 1941.

'canonic' shape starts only in the Ur-III period, whereas everything before this development can 'only' be considered a terrace-temple construction, without all the meanings attached to the term ziqqurat.[10]

Margarete van Ess, in her doctoral dissertation, distinguishes between a '*Stufentempel*' (stepped temple) and a '*Hochtempel*' (high-temple),[11] where Peter Pfälzner on the other hand argues that stepped temples and high-temples are only different phases of the same architectural phenomenon.[12]

There is, however, another way to define what a ziqqurat is, and this is through the relationship between a high-temple and its low counterpart. Lenzen already hints towards this:

'Er (Walter Andrae) glaubt dann in dem Hochtempel auf der Zikkurat mehr das Tor sehen zu müssen, durch das der Gott vom Himmel heruntersteigt, um über die Zikkurattreppe in die irdische Wohnung des Gottes zu gelangen, wo er im Kultbild in die Erscheinung tritt.'[13]

Andrew George argues along these lines as well as he describes the two temple E_2.*sangil* (house whose top is high) and E_2.*TEMEN.AN.KI* (House, foundation platform of heaven and underworld) in Babylon as the archetypical example for the relationship between a high- and a low-temple.[14] Willfried Allinger-Csollisch follows this train of thought and sees the defining element of a ziqqurat as a functional, rather than a physical attribute. As George before him, he argues that a ziqqurat defines itself through its inherent relation of the high to its corresponding low-temple.[15] Whereas most studies of ziqqurats have been descriptive[16] or focused on the building methodology or materials,[17] others looked primarily at the political statements that were made through ziqqurats.[18] There is however, one other field of study concerning ziqqurats, that is of higher importance regarding this proposed study, and that is their visibility and perceivability by an audience.[19]

Perceiving ziqqurats as artificial mountains

It is difficult to imagine the natural landscape of (esp. southern) Mesopotamia and the ziqqurats within it. Although it has always been flat and ziqqurats would have been visible from afar, vegetation and settlement structures may have played a bigger role in their perception as we can possibly imagine. Nonetheless, it needs to be pointed out, that the ziqqurat itself would only have been visible from outside of urban structures and not from within them. Only after entering the ziqqurat courtyards the structures would have become visible again.[20] Not only in this way perceiving a ziqqurat is like the perception of a mountain within a 'city'. Their far-reaching visibility would have made them symbols for their urban settings.[21] This, could have been the reason for their representation on the city seals from the late 4th and 3rd millennia BCE.[22]

[10] Hrouda 1991.
[11] van Ess 2001, 323.
[12] Pfälzner 2008.
[13] Lenzen 1941, 4.
[14] George 1999.
[15] Allinger-Csollisch 2013.
[16] cf. e.g. Heinrich 1982; Koldewey 1911; Wooley 1939.
[17] cf. e.g. Sauvage 1998.
[18] cf. e.g. Pollock 1999; Heinz 2013.
[19] McMahon 2019; Shepperson 2015.
[20] cf. also McMahon 2109, 331–334.
[21] Shepperson 2015, 95.
[22] For a comprehensive overview on those seals, see Matthews 1993.

Nonetheless, ziqqurats where not only looked at, but also looked from, however unclear the accessibility of these structures was, it is clear that at least a small percentage of the population would have had access to the ziqqurat and its views, like what is though also of the Mesoamerican pyramidal structures that also show evidence of restricting architectural elements surrounding some of them.[23] On clear days, one would have had a view for as far as 18 km,[24] from a height, that stripes identity from anyone in the city, as they cannot be identified as individuals anymore, only as inhabitants, dwellers, or bystanders. Augusta McMahon makes clear that in a certain sense ziqqurats open a panoptical viewpoint, an attempt that is predominantly associated with control,[25] a notion that would fit very well in the Ur-III period, in which the idea of the ziqqurat was developed. A political system, that relied heavily on its administration and control of the private citizens.[26] Similar panoptic viewpoints are offered by later cultic buildings, e.g., in the minarets of mosques or clocktowers of churches. As well as natural features such as mountains or even steep hills. This relationship between built and natural spaces, will be discussed below.

The ziqqurat and its relationship with mountains

To illustrate the relationship between the artificial and natural 'high-places', ziqqurats and mountains, I would like to mention just a few examples from Mesopotamia. There are for instance the Inanna temple in Ur, which was called *ḫur-saĝ-sukud-du* meaning 'towering mountain range',[27] and the ziqqurat in Kish was called *e$_2$-ḫur-saĝ-gal-su-luh-ha-tum$_2$-ma*, with a literal meaning of 'house, tall mountain, that is suitable for cleansing rituals'.[28] The connection and the comparison with naturally occurring mountains and manmade architectural structures is apparent in all these names. Especially clear are examples, where the ziqqurat or just the temple or *cella* on its top is described and called mountain. This can be clearly seen in Andrew George's translation of the name of the Enlil-temples *cella* in Nippur as 'house, skillfully built (men-made) mountain' (*ḫur-saĝ-galam-ma*).[29] The Šamaš ziqqurat in Sippar, with its name *e$_2$-kun$_4$-an-ku-ga*, meaning 'house of the pure staircase to heaven' is just another example for the connection of height and metaphysical/divine power.

This connection, however, is not one-sided, as a passage of the Gilgamesh-epic shows, where the term ziqqurat is actually used for a natural mountain peak: *askun surquinnu ina muḫḫi zi-qur-rat sadî*,[30] which translates to 'I offered incense on the mountain peaks'.[31]

Considering the Mesopotamian landscape, with an elevation of only approx. 40 m between modern Basra and modern Baghdad, almost every building, domestic or public marks a significant elevation, but these structures by no means appear to be visible from afar, which can still be observed in modern-day Iraq. Ziqqurats on the other hand, mark such an extraordinary elevation, that they truly are visible from long distances. Driving to the ancient site of Uruk today, for example, the before mentioned Ur-Namma ziqqurat is visible more than half an hour before reaching the site by car. This is a fact that is often missed by reconstructions, that mainly show the structures from above and not from eye-level.

Mapping the ziqqurats of Mesopotamia shows clearly that the mass of them is situated in the Mesopotamian alluvial plain and their density decreases towards the mountain ranges of the Zagros to the west or the Taurus in the north, where 'real' mountains can be found (**Figure 4**).

[23] López Austin and López Luján 2009, 223–228.
[24] McMahon 2019, 334.
[25] cf. Foucault 1977.
[26] For an overview over the Ur-III period see among others: Sallaberger and Westenholz 1999.
[27] George 1993.
[28] George 1993.
[29] George 1993, 100–101.
[30] Gilgamesh XI 156.
[31] George 1993.

Figure 4: *Map of Mesopotamia showing the locations of ziqqurats and high-temples (from Butterlin 2013, 124, fig. 1).*

Mesoamerica

When the image of a pyramid is evoked, Egypt may be the first reference that comes to mind and then maybe, the Mesoamerican structures throughout North and Central America. Nevertheless, there is a fundamental difference between these two cultures, apart from their form, the greater part of Mesoamerican pyramids where rather intended as temples for ritual life rather than as mausoleums.[32] Mesoamerica (**Figure 5**) is formed by different cultures which spoke diverse languages, however they shared many cultural traits that led researchers called this area Mesoamerica.[33] As diverse its population was, Mesoamerican pyramids come in a variety of size, form and decoration throughout time and cultural areas, but just like the cultures that created them, they share common traits through the areas and time. The meaning of pyramids and their relation to the settlement and surrounding landscape seems to show a pattern that pervades through time and place. This type of structures, as we will discover, are architectural manifestations of the cosmology of their builders.

Time, space, and daily life were governed by the movement of the sun and the seasons, and ritual life was strongly tied to agricultural rhythm, rains and harvest. The movement of the stars and planets played an important role on the conception which reflected not only in the settlement but the form

[32] Even though there are examples of pyramidal structures containing burials, the great majority of Mesoamerican structures do not serve mainly this purpose, nevertheless, whether they contain or not a burial within, this does not exclude the significance of the pyramid as the primordial mountain which is the main argument of this article.

[33] Mundy 2000, xvii.

Figure 5: *Map of Mesoamerica with a general location of different cultures (Pacheco 2022, map data © Google Earth 2022).*

of the temple structures we now know as pyramids, echoing mythological narratives.[34] As ancient documents known as codices and other plastic representations of the landscape show, nature was and is to this day object of devotion in Mesoamerica.[35] The origin of the communities and ancestors are tied to primordial rivers, caves and not surprisingly to mountains. Sixteenth century nahua (Aztec) chronicles register the devotion to the mountains, such as the *Tepeilhuitl* festival or 'Mounts Festival' in which particular mountains were celebrated.[36] Even though most and the most detailed chronicles come from the nahua culture,[37] that is, the main Mexican central plains, the cultures that formed Mesoamerica shared a common basic belief system and mountains were thorough time and areas, places of devotion. In this sense, pyramidal structures through their form, are strongly tied to the landscape since they basically represent mountains.

The pyramid as the primordial mountain

In Mesoamerican cosmology, mountains are archetypical landscape forms considered sacred. As mentioned above, early colonial chroniclers identified the sacred nature of mountains and registered the offerings and sacrifices made to them and on them, as mountains were considered as gods. The

[34] Umberger 2002, 187; Schele and Guernsey Kappelman 2001, 29; Aveni *et al.* 1988.

[35] Russo 2005, 82.

[36] Russo 2005, 83.

[37] This is since the Spaniards conquered first the Aztec Empire, which had an important part of Mesoamerican under its domains or at least paying tribute. The Spanish then, set their center in the capital of the empire and from there ventured into conquering other areas, while the young Aztec nobility was being indoctrinated by the coming religious orders who saw as their task to record the culture, its language and its customs. The result being this culture as the most detailed and most registered of all the Mesoamerican cultures.

ancient Mayas called their pyramids '*wits*' which means 'mountain', while the Aztec word '*tlatepetlalilli*' is used in the Codex Florentino when referring to the same structures. The great pyramid of Cholula, an important religious center, was called *Tlachihualtépetl* or 'mount made by hand' literally embodying the concept of *altepetl* a 'water-mountain' since a spring emanated from within it, a lesser pyramid in Cholula, also captured the divine essence of a sacred mountain.[38] The relation of the Sacred Mountain to the pyramids has long been accepted and studied in the anthropological literature.[39]

However, among the mountains there were special ones, and emblematic structures such as the main temple in the Aztec city of *Tenochtitlan*, the capital of the empire at the time of the Spanish arrival, was directly linked to the *Coatepec*, the primordial mountain from the cosmology and myths throughout Mesoamerica. *Coatepec* was a main landmark in their foundation myths and also the place of the 'promised land'. The Aztecs named *Coatepec* their biggest temple in their city and a nearby mountain at its north bared the same name. In the Codex Azcatitlan, there are several images where the stepped temples are directly inside, on top or form a side of a mountain. A mountain on page 6r bears the name 'coh..huatepec' and on its top a nine story pyramid with a temple rises holding the god Huitzilopochtli dressed as a warrior.[40]

Archetypical mountains in Mesoamerica were conceived as being hollow and holding treasures, food, water and animals in its interior: the sustenance of human life on earth. Nowadays, mountains and more specifically the caves some of them bare, are the scenery for ritual life in many modern native communities. Communities gather every year at specific dates to pilgrimage to such caves bringing offerings and petition for rain and the success of their crops. Caves are portals to the insides of such archetypical forms and supernatural beings inhabiting them control the water and specifically the rainfall. Therefore, these caves and the mountain itself are also related to rain and fertility. Many communities, among them in the occidental region of the State of Morelos and the communities along the Coixtlahuaca Valley in Oaxaca, have nowadays caves and mountains named *Coatepec*. These types of rituals are carried out through the regions that formed the ancient area of Mesoamerica, which explains why there are many *Coatepec* or the like, since the communities seem to have their own local primordial location, Sacred Mountain and/or cave.[41]

The long-standing tradition of relating pyramidal structures to mountains in Mesoamerica points to the identification of this topographical feature to an archetypical and cosmological image, as afore mentioned, since mountains are a prominent part of the Mesoamerican topography. Still, Sacred Mountains were not all called *Coatepec*,[42] many mountains were considered sacred or as advocations of the Sacred Mountain. In an archaeological context, the Sacred Mountain is recreated within the site itself as a temple, a pyramid. However, the idea of the Sacred Mountain is not exclusive to Mesoamerican cosmology, it seems to be part of the cultural thought of ancient cultures. The Sacred Mountain acts as an *axis mundi* that links the heavens to the underworld while housing the place of human origin. This role as the link between the heavens and the underworld is stressed by the representation of a tree on top of the mountain, which signals not only the four directions of the world but the direct contact of the top of the tree to the heavens and its roots to the underworld. Even today, the role of this tree has been supplanted by the positioning in many native communities of a cross (its form cross form evoking directly the sacred tree) on top of important mountains, usually where peregrinations and offerings are still made, within the vicinity of the community. The Sacred Mountain has therefore seven basic cosmological functions: an *axis mundi*, a point of ascent and descent of the astral bodies, warehouse for riches, refuge for animals and plants, origin

[38] López Austin and López Luján 2009, 230; McCafferty 2001, 285.
[39] Sahagun *et al.* 2002, 107,125; López Austin and López Luján 2009, 229, 231.
[40] López Austin and López Luján 2009, 16–17; Biblioteque Nationale de France 1501–1600, folio 6r.
[41] López Austin and López Luján 2009, 15, 17; Castañeda de la Paz and van Doesburg 2008, 162–163; Medina Jaen *et al.* 2016.
[42] López Austin and López Luján 2009, 151, note that sacred places had many different names relating or referring to its function or fundamental characteristics, however Coatepec is still a prominent place name.

Figure 6: *La Venta landscape with surrounding mountains, volcano and sources for masonry (based on Tate 2008, fig 2.1, 34, points by Pacheco, map data © 2022 Google Earth).*

of mankind, source of power, authority and order, and finally, the access to the realm of the ancestors.[43] Acknowledging the relation of the pyramidal structures and their temples with the Sacred Mountain, the pivotal importance of such structures in the ritual life of the site becomes apparent. But what role plays the landscape in relation to such structures?

As afore mentioned, the pyramidal Mesoamerican structures, had a role as an *axis mundi* forming the focal point of the ritual life for the community. The settlement, the prehispanic conception of space and the visualization of the geographical surroundings, point to a conscious and cosmological election of the place of settlement[44] reinforced by symbolic and astronomical references, but most clearly, to the surrounding landscape. While the main function of a Mesoamerican pyramid is to support a temple, its form is tied not only to cosmology but strongly to the landscape. To better illustrate this, examples starting from the Preclassic (2500 BCE–300 CE) to the Postclassic (900–1520 CE)[45] will follow.

Middle Preclassic (900–300 BCE): Mound C at La Venta, Tabasco

Near the Gulf Coast of Mexico, around 900 BCE, the monumental endeavor of constructing a ceremonial center on a high ground among a swampy area had begun. This ceremonial center bears an enormous earthen mound that today measures 33 m high and is labeled Complex C (**Figure 7**). The materials for masonry and sculptures were brought from multiple distant sources (see **Figure 6**) surrounding the

[43] López Austin and López Luján 2009, 17–18, 22, 93; McCafferty 2001, 285.
[44] Bernal García and García Zambrano 2006, 62.
[45] Mendoza 2001, Table 1, 224.

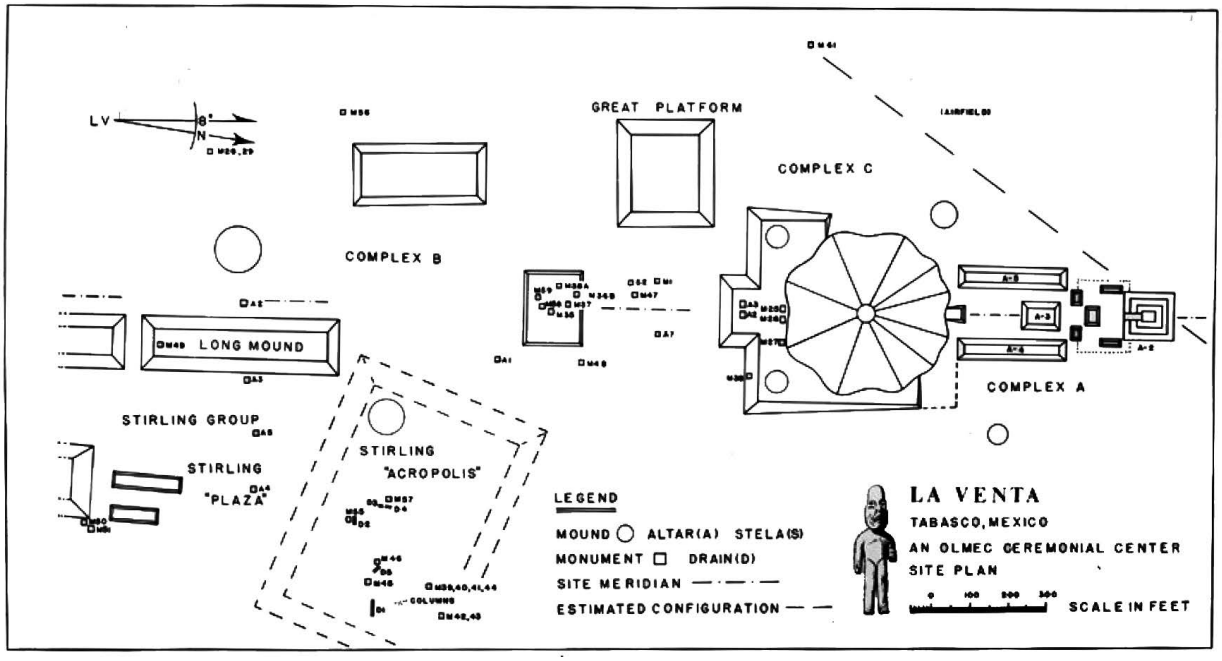

Figure 7: *Site Plan of La Venta , Olmec Ceremonial Center (1955, Reprography I.O. 'CXLVII-35', Fototeca Nacional, Instituto Nacional de Antropología e Historia, México).*

site. Complex C along with monumental sculptures and unique cached artworks that were interred since antiquity, make La Venta one of the most unique and important sites in Mesoamerica among its contemporaries.[46]

The vast territory surrounding La Venta coastal plain was dominated to the south by mountains and at least one volcano to the east (El Chichón), therefore the interpretation of this unique earthen mound as the representation of a mountain or volcano has been proposed. This huge earthen mound, maybe a precursor of the later pyramidal structures, has been identified more specifically with the Heart of the Mountain and the precursor of the Maya's First Real Mountain. Moreover, the deposition of green serpentine blocks interred as offerings in front of it, could well represent what could be the underworld's waters, portraying then a mythical cosmogram.[47]

This early mound is inspired by the landscape surrounding the region and reflects the strong cosmological ties of such topographical feature to primordial myths of origin and sustenance. Later versions, like the pyramids, had more symbolic layers: a full temple on its top, renovations that made it each time more monumental, offerings interred and as the following example, the direct connection to the underworld through a cave system beneath the structure.

Early Classic (100 BCE–650 CE[48]): The Sun Pyramid in Teotihuacan

One of modern Mexico´s most emblematic archaeological site is Teotihuacan, during the first two centuries CE, the core of its civic-ceremonial center had acquired most of its modern dimensions: an impressive area of *c.* 1.5 km^2.[49] While it is best known for its massive pyramidal structures along a traced avenue that marks

[46] Tate 2001, 137–138; 2008, 34, 35.
[47] López Austin and López Luján 2009, 230; Tate 2001, 140.
[48] Chronology of Teotihuacan based on Cowgill 2015, 10, table 1.1.
[49] Cowgill 2015, 80.

the axis of its center, little is widely known of the tunnels and caves and its surrounding landscape, that comprises an important cosmological aspect of the settlement.

Many of the tunnels found in Teotihuacan were excavated as tezontle quarries by the ancient Teotihuacans themselves during the 1st century CE. However, unlike it was expected, the core of the Sun Pyramid, the biggest of the site's structures, is the only one that is not built with the tezontle from these quarries but was made of organic soil, linking it to the more ancient Complex C of La Venta. Teotihuacan's Sun Pyramid was not only made of plain organic soil, but it contained small fragments of tuff stone with carbonized fragments of corn, beans, tomato and amaranth among other plants, so that it appears that early classic crops were scraped in order to form the core building material of the pyramid,[50] this detail will prove to be of great cosmological importance.

These fragments of crops that formed the core of the big Pyramid of the Sun also formed the basis for the nourishment of the prehispanic human settlements in Mesoamerica. Just like the later Aztec 'Mountain of Sustenance' or *tonacatepetl*, this pyramid in its core alludes directly to a mythical mountain that contained everything of significance to the prehispanic population and its nourishment. In the Mesoamerican tradition, these topographical features, contained various hollow 'entrances' or caves, were water, that was considered sacred, was accumulated. Therefore, the mythical mountain and its topographical counterpart, functioned not only as a nourishment container but also as a precious water vessel directly tied to subterranean rivers, springs and rain. As the centuries older example in Tenochtitlan, the Great Temple alludes to this more ancient tradition and shows the cosmological continuity of its significance.[51]

Besides the singular core of the pyramid, there is a special characteristic tied to this structure, there is a prehispanic tunnel that crosses the west side and finishes around the center of the pyramid in a cave with lobular form representing the inferior plane of the Mesoamerican cosmogram: the underworld.[52] This particular form recalls the origin cave of the Postclassic Aztecs Chicomoztoc widely recorded in early colonial myths (see **Figure 8**), noting the time-depth of such myths and the enduring cosmological importance of caves as topographical portals.

The landscape had a direct impact on the settlement planning and the conception of space in Mesoamerica as of Franz Tichy[53] shows in his work about the petroglyphic marks that are found in many mountains and mounds around Teotihuacan. The mountains surrounding Teotihuacan apparently were used as orientation axis marking also three of the four cardinal points. Subsequent colonial settlements as convents and churches, were in turn settled in relation to places considered of importance or sacred in prehispanic times and seem to follow this pattern. In this way, the Pyramid of the Sun is not only tied to the landscape itself and to the mythical Mountain of Sustenance, it is also linked through its cave system, partly artificially carved, to sacred water, rain and the underworld. Thus, representing at least three cosmological planes: the original emergence cave of the ancestors and the underworld, the earth plane represented by the pyramidal structure itself, alluding to the mythical mountain, and the temple on its top (now long gone) would then form the link to the heavens and the gods that were revered in it.

Late Postclassic (1200–1521 CE): The Great Temple in Tenochtitlan

Lying unnoticed below the streets of one of the biggest modern cities in the world, and just meters from the cathedral of Mexico City, are the ruins of the most important and biggest Aztec shrine: The Great

[50] Manzanilla Naim 2015, 27–29.
[51] Manzanilla Naim 2015, 28–29.
[52] Manzanilla Naim 2015, 30.
[53] Tichy 1991.

Figure 8: *Chicomoztoc, the primordial cave of origin of the ancestors (Leibsohn 2009, 107, Historia Tolteca-Chichimeca, Bibliotheque Nationale, Paris, f.5r, ms.54–58).*

Temple of Tenochtitlan. Its discovery is one of the most intriguing and most important in Mexican archaeology and up to this day, continues to startle and provide material for the reconstruction of life at the capital of the Aztec empire.

The Great Temple, which was in fact a double temple, emulates two different mythical mountains: one has been identified as the Coatepec or Serpent Mountain, central to the Mesoamerican cosmology, and the Tonacatepetl or Mountain of the Sustenance, its significance already considered. The place where the Great Temple and the city were built was considered sacred and was marked by symbols recorded

in their myths.[54] Although many other variables obviously played a role in the settlement's foundation, such as political, social, and economic factors, these were ultimately legitimized through mythological explanations. Another important feature of the Great Temple is that its location marks the physical center of the city, from which the main axes of the city were traced. The highly organized and structured use of space was evident even to the Spanish *conquistador* Cortés when he arrived at the capital in 1519. Though the city by 1524 was destroyed and its Great double Temple demolished and buried almost to its foundations, the city's original layout was somewhat kept.[55]

The great Temple can be considered the physical center of the settlement which asserted its role as *axis mundi,* this turned the temple as a portal from which it was possible to ascend to the celestial realm or descend into the underworld, and also from here the four quarters of the universe or cardinal points were partitioned, this in turn reflected in the four neighborhoods that constituted the city.[56] The myths and cosmology were not only embodied in the main Great Temple but on the whole structure of the city.

Taking this idea of the cosmological structure of the space, Umberger[57] links other structures and spaces of the city of Tenochtitlan, like basins, pools, and gardens to different aspects of the landscape. One of the shrines of the Great Temple was dedicated to Huitzilopochtli and the other one to Tlaloc, associated with the sun and rain accordingly. Through the orientation of the Great Temple, the mountain dedicated to Tlaloc located in the volcanic range east of the city, could been seen just the temple as a landscape backdrop. Moreover, the sun rising in the east, went exactly between the two shrines and continued its travel falling in front of the shrines in the west. The topographic Mount Tlaloc had a walled precinct that emulated a cave, and many more remains of ancient shrines and altars have been found in various mountains surrounding the valley, reinforcing the importance of the landscape their continued use despite the existence of the Great Temple and the fact that the surrounding landscape is an integrated part of the city itself.

The Great Temple and its ceremonial center, like other major temples elsewhere in Mesoamerica like Cholula, were cosmic centers and therefore a communication point between the different levels of the cosmos.[58]

The ancient Mesoamericans replicated and conceptualized in their urban planning as well as in single structures like pyramids, their myths, cosmology and ultimately the landscape. Certain topographical features they considered sacred, primordial or the origin of their ancestors were embodied in their temples to bridge the gap between primordial and liminal space and present time and this reality.[59] Just as Umberger[60] describes perfectly, the Mesoamericans brought into their urban centers their landscape and its natural features like mountains in the form of built structures.

Crossing paths

Comparing archaeological as well as textual evidence from ancient Mesopotamia and Mesoamerica provides an opportunity to assess similarities and differences between these early complex societies. It is, as above mentioned, that pyramids are the literal representation of an emblematic landscape feature. Moreover, this topographical feature, the mountain, gained added symbolism and significance

[54] One of these signs was an eagle on top of a cactus, which today is part of the Mexican flag, and it signaled where the Aztecs where to establish their settlement as Matos Moctezuma 1999, 206 points out.
[55] Tate 2008, 31; Matos Moctezuma 1999, 205, 206, 208; Mundy 2015, 111.
[56] Matos Moctezuma 1999, 208–210.
[57] Umberger 2002, 190.
[58] López Austin and López Luján 2009, 231, 233.
[59] Tate 2008, 31.
[60] Umberger 2002, 190.

throughout the centuries, turning from a mere topographical feature with a vantage viewpoint over valleys and the landscape, to a character in cosmological legends and origin stories. Bearing temples on its tops and playing an *axis mundi* role connecting the underworld and the heavens, much like a ziqqurat, it is noteworthy to mention that both structures emulated a mountain in both cultures. Therefore, showing how different cultures in different times turned to their landscape for inspiration in understating the cosmos and their place within it.

Based on these observations, it seems likely, that Mesopotamian ziqqurats and Mesoamerican pyramids — besides their obvious differences — did serve a similar purpose in the architectural symbolism in their respective underlying culture. The idea of high temples, whether called ziqqurat, pyramid or else, evokes the idea of getting closer to the deities themselves. Getting closer to the deities seemed to have been a concept of the physical and not metaphysical world, for the solution that the ancient Mesopotamians and Mesoamericans came up with, was to build the temples on mountain tops, and if that was not possible, on man-made terraces.

This scheme of mimicking natural phenomena is commonly known in ancient, as well as in modern architecture. Christopher Tilley states, that 'Things, places and landscapes influence us, alter our consciousness, constitute us beyond ourselves. In this sense they are not radically divorced from us.'[61] Architecture and settlements become parts of their landscape and form a built environment, that becomes a new landscape of its own. Moreover, like the 'original' — the natural — landscape, the man-made landscape gains its own meaning and even a life of its own.

As mountains, lakes, rivers, and valleys have their inherent functions, meanings and symbolism, buildings, domestic structures, temples, palaces, and public spaces take on the same, or at least similar, meanings, which is often also visible in their architectural/built representation.

The Great Mosque of Córdoba/Spain for example resembles a forest, with its hundreds of pillars (**Figure 9**). The Bahai temple in Dehli/India, resembles a Lotus flower, and takes on the same symbolic meaning (**Figure 10**). The 2008 Olympic stadium in Bejing/PR China was given the nick name 'bird's nest' (**Figure 11**). Architects in Singapore took it even further in creating a helix-shaped bridge, mimicking DNA strands (**Figure 12**), that themselves are invisible to the naked eye.

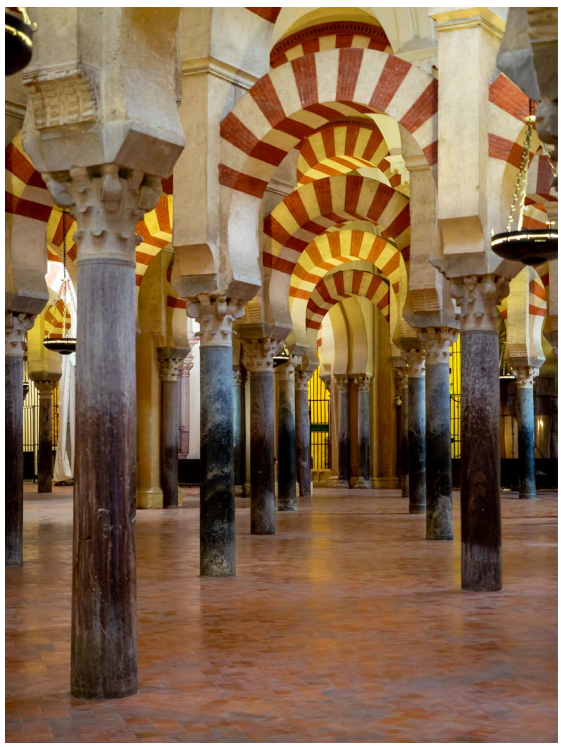

Figure 9: *The interior of the great mosque at Córdoba/Spain (Photo cc by Ajay Suresh, from https://flickr.com/photos/83136374@N05/48026694258).*

In this sense a building like a high temple or a pyramid cannot only physically, but also metaphysically take the place of a river, a lake or in this case a mountain. Some might think these modern examples of architectural extravagance are benign, but we would strongly disagree. Clearly, we do not wish to make the point, that

[61] Tilley 2004, 21.

Figure 10: *The Bahai temple in Dehli/India (Photo cc by-sa Rohan Singh Rawat, from https://commons.wikimedia.org/wiki/File:Lovely_Lotus_temple.jpg).*

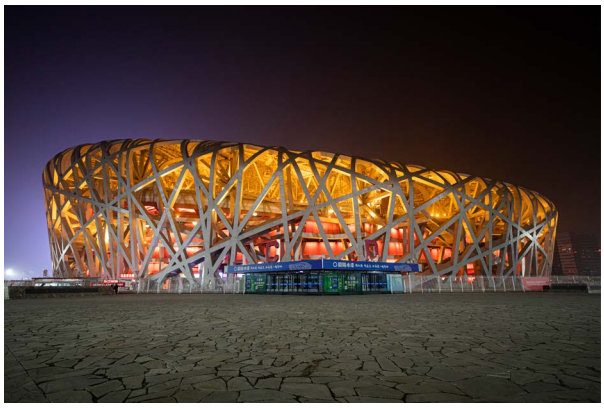

Figure 11: *The Bejing National Stadium in Bejing/China (Photo cc by-sa Arne Müseler, from https://commons.wikimedia.org/wiki/File:Beijing_national_stadium_4.jpg).*

Figure 12: *The Helix Bridge at the habour in Singapore (Photo cc by-sa Zairon, from https://commons.wikimedia.org/wiki/File:Singapore_Helix_Bridge_%26_Marina_Bay_Sands_3.jp).*

all cultures throughout are the same and that 'because we do it, they must have done it similarly', but these observations underline certain questions — questions of the connection between built and natural environment and whether there is a need to recreate missing features of landscapes with something one might call 'artificial nature'.

As we have shown, mountains can be of particular interest, because they are not only features of the natural landscape. In many cultures they hold a special significance as some sort of gateway — a bridge — between the 'underworld' and the 'heavens'. For example in Sumerian literature, the images of the 'underworld' are descriptive and the location of the 'underworld' is precisely described as 'at the foot of the mountain' (*kur-ur$_2$-ra*) or 'at the edge of the mountain' (*gaba-kur-ra*).[62] Other, later examples from Mesopotamia hint in the same direction; Babylonian ruler Nabû-apla-uṣur (658–605 BCE) for instance claims, that he started the foundation of the previously mentioned *E$_2$.TEMEN.AN.KI* in Babylon at the edge

[62] Katz 2003, 25.

of the netherworld till the peak of heaven.[63] This illustrates vividly, how not only natural mountains, but also artificial ones were associated with the underworld as well as the heavens, and where no natural mountains occurred, like in the Mesopotamian alluvial, mountains had to be built.

Comparatively speaking this bears great similarities between Mesopotamian and Mesoamerican thought. Looking for an example at the so-called Moon-Pyramid of Teotihuacan, one does find the resemblance with the Cerro Gordo mountain behind it striking. Nevertheless, a comprehensive and scientifically sound methodology, that goes beyond pure analogy would have to be developed within a grander research topic or project of this sort. Monica L. Smith exemplifies in her studies of the so-called Middle Class in the urban environment, how different cultures, traditions, or societies[64] can be compared and studied under a central focal point,[65] whereas the above-mentioned Adams, as this paper preliminarily focusses on analogies as well as dissimilarities between Mesopotamia and Mesoamerica. A criticism that we — and all other scholars should — take to heart. However, it seems clear, that ideas and concepts of symbolism and built space crossed paths, if only in an epistemological way.

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[63] VAB 4, 60, I, 36–39; see also George 1999.

[64] We are using this rather vague terminology at this point, as we do not want to engage in an ongoing discussion of all the above-mentioned terms.

[65] Smith 2018, esp. 307–314.

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Beyond Dimorphic Chiefdom. An Alternative View of the Site Distribution during the Early Iron Age in the Southern Levant

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Abstract

Spatial studies on Southern Levant region propose a settlement distribution model organized through small groups, around the end of the 2nd millennium BC. This layout, recognized on almost the whole area and characterized by the concentration of several settlements around a pivotal site, is usually associated to the presence of more organized societies, known as dimorphic or complex chiefdoms. A renewed territorial analysis, however, carried out through this paper, recently indicated a different aligned distribution that follows the wadis fluvial articulation. This analysis is supported both by a multidisciplinary approach integrating the latest records from archaeological surveys and a functional settlements study obtained by a comprehensive exam of finds.

This paper focuses on the newfound pattern and aims at investigating possible reasons and environmental variables that led to its formation. It, furthermore, examines the potential outcomes deriving from the adoption of this distribution trend, such as the increase of the regional interconnections and the establishing of a new inner organization.

Keywords

Early Iron Age, Settlement Pattern, *Wadis*, Run-off, Dry Farming

Premise

The following study examines the Southern Levant settlement pattern during the Early Iron Age, period corresponding in absolute terms between *c.* 1200 and 960 BC.[1]

Despite the great interest in these areas, largely due to their centrality in the biblical narrative and the phenomenon of Israel ethnogenesis,[2] the Early Iron Age was considered for a long time as Dark Age, a non-urban interlude subordinated to the great expansion of the 10th century BC.[3] Nevertheless, this excursus aims at underlining the key role and the dynamism played by this intermediate period, restored over time up to be indispensable for the understanding of subsequent socio-political dynamics. The following paragraphs represent an extract from a wider PhD research whose purpose has been to shed light on new arising settlement trends adopted in the aftermath of the Late Bronze Age crisis. A careful both qualitative and quantitative analysis of the sites, to be carried out with the study of the environmental feature, constitutes the basis of the research and it is to be considered as fundamental in order to understand the deeper and less evident connections.[4]

[1] Mazar and Bronk-Ramsey 2010; Nigro 2014.
[2] Liverani 2005; 2007, 661–664; Finkelstein 2007, 43, 51; Mazar 2007.
[3] de Miroschedji 2009, 118; 2013, 193; Nigro 2014, 262.
[4] Tamburrini 2019.

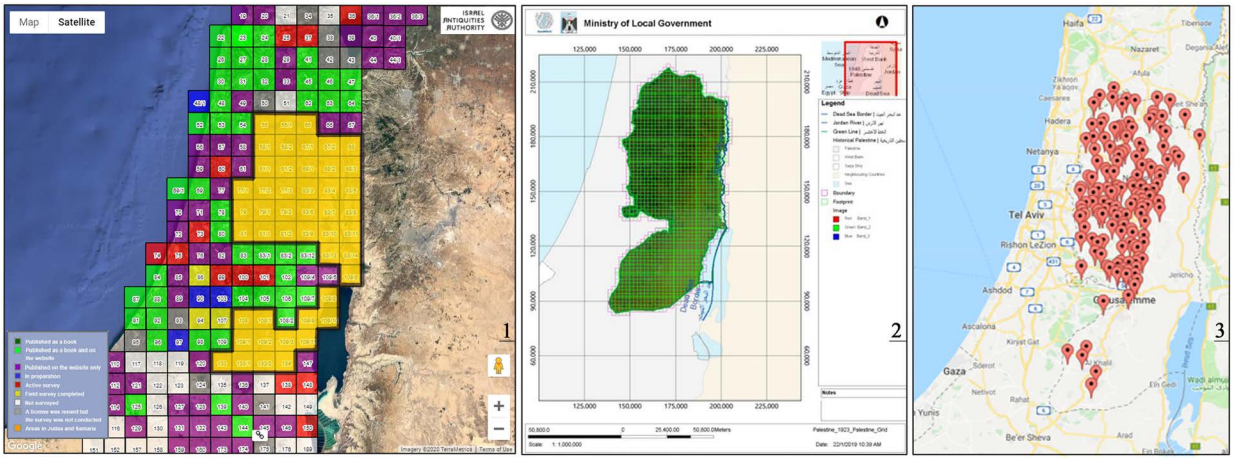

Figure 1: *1. Surveyed areas from The Archaeological Survey of Israel. 2. Geomolg portal. 3. The West Bank and East Jerusalem Searchable Map (© Maria Tamburrini).*

Spatial analysis between developments and limitations

The research involves six extremely different subregions like the hill country of Samaria, the mountain area of Judea, the nearby Judean Desert, the strip overlooking the Jordan River, the Shephelah Valley, and the Beth Shean Valley.

Unfortunately, the entire Southern Levant area suffers from a lack of homogeneity in data collection due to a political discontinuity. The first main problem arising from these fractionated studies implies a different concentration in surveys and, therefore, a gap in interpreting settlement distribution. In a *long durée* view, this condition may give rise to erroneous perception of the historical phenomena and panorama.[5] In an attempt to avoid this condition, this analysis takes into account several studies, all remarkable for the amount of data processed and for the methodology, e.g. the survey of the Israel Antiquity Authority (**Figure 1.1**),[6] data from Geomolg portal (**Figure 1.2**),[7] and the surveys compendium of West Bank formulated by Greenberg and Keinan in the last decade (**Figure 1.3**).[8] Therefore, in here reconstructing the settlement landscape, this paper will try to bridge the gap between the two regions, bearing in mind the cultural unity of the entire land. It will furthermore consider the possibility that some either concentrations or gaps, previously identified, could only be considered as 'apparent', most likely due to the absence of an equal and targeted study of the entire area.

The spreading of clustered model

Based on these surveys data collection, scholars began to formulate hypotheses on settlements organization considering excavated and surveyed sites.[9]

[5] Finkelstein 2007, 15; Van Bekkum 2011, 65–66.

[6] The surveys conducted by the Israel Antiquity Authority are available online in the 'Archaeological Survey of Israel' section and it includes the area of modern Israel <http://www.antiquities.org.il/survey/new/default_en.aspx>.

[7] Geomolg is a geospatial web mapping system dedicated to the West Bank and developed by the Palestine Ministry of Local Government (MOLG) in partnership with German International Cooperation and the Local Governance and Civil Society Development Programme (LGP).

[8] Conducted under the Israeli license in the West Bank, the project consists of a GIS platform linked to a database that sums up several survey studies, however, due to gaps in information, the database should not be considered as definitive (Greenberg and Keinan 2007; 2009, 5–10, 28–29).

[9] In this regard, it should be remembered that not all surface surveys provide data relating to the extension, so it is not easy deal with all the sites in a homogeneous way.

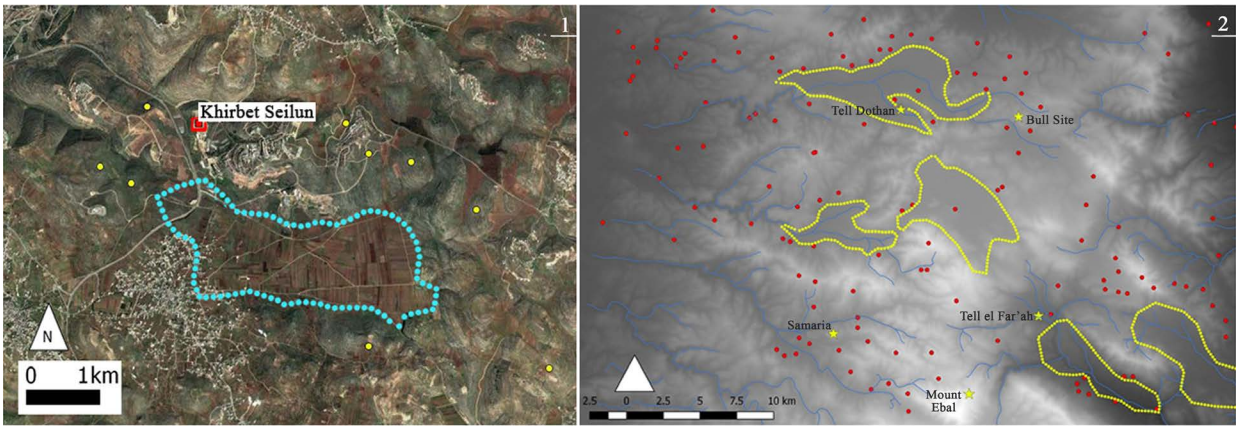

Figure 2: *1. Surveyed sites arrangement in the surroundings of Khirbet Seilun. 2. example of high ground settlement distribution in Manasseh region (© Maria Tamburrini).*

Finkelstein's study is a consolidated point of view for the Early Iron Age settlement pattern studies especially for the accuracy in addressing the topics and the always relevant methodology.[10] Following the surveys in the Ephraim, Manasseh, and Benjamin areas and considering the dimensional factor of both the excavated and the surveyed sites,[11] the author attempted a reconstruction of the Early Iron Age landscape. Concerning the end of the 2nd millennium BC, he proposed a site distribution model organized through small groups, characterized by the concentration of numerous settlements around a pivotal site;[12] the central site, often with a spring, was distinguished by a dimensional factor.[13] This clustered model was initially observed in the Ephraim area, particularly around the sites of Tell Sheik Abu Zarad, Khirbet 'Urma, Deir el-Mir, and Khirbet Seilun.[14] The grouped scheme recognized around this last site appears to be justified by a supposed cultic function attributed to it. A pillared structure used for storage and, according to some archaeologists, connected to a presumed temple was discovered in the site and the presence of a rock-hewn horned altar, identified near the site,[15] would have further consolidated this image of cultic outpost, although the author itself does not assure this hypothesis because of the lack of precise archaeological cultic elements. The analysis of the archaeological evidences, together with the comparison of other neighboring sites,[16] suggested a different image for Khirbet Seilun, namely that of a simple rural village to be considered as more coherent, considering materials and present structures. For this reason, if the settlements layout could be reassessed in light of the changed functionality of Khirbet Seilun, it can be observed that the arrangement of the satellite sites, rather than centralized as previously proposed, would be set by the geomorphology of the region (**Figure 2.1**).[17] Distributional studies have shown that especially in the hilly region, villages prefer to be placed on the ridges leaving the few flat areas free for agricultural and pastoral purposes (**Figure 2.2**). Probably this different distribution reflects a connection between sites and regional road networks passing through the valley.

[10] The Archaeology of Israelite Settlement, edited in 1988, together with the survey work Highlands of Many Cultures remain the baseline studies for the entire area.
[11] The size of the surveyed sites has been calculated on the dispersion of pottery fragments (Finkelstein 1997, 20).
[12] Finkelstein 1988, 91.
[13] Dimension is among the main factors also in the Rank Size Rule theory (McNutt 1999, 117–120).
[14] Finkelstein 1988, 191, figs 54, 56.
[15] Bunimovitz 1993; Finkelstein, 1993; 2013, 24, 26.
[16] Tamburrini 2019, 86–89.
[17] Mazar 1994, 73–74; Kloner 2003, 21–22.

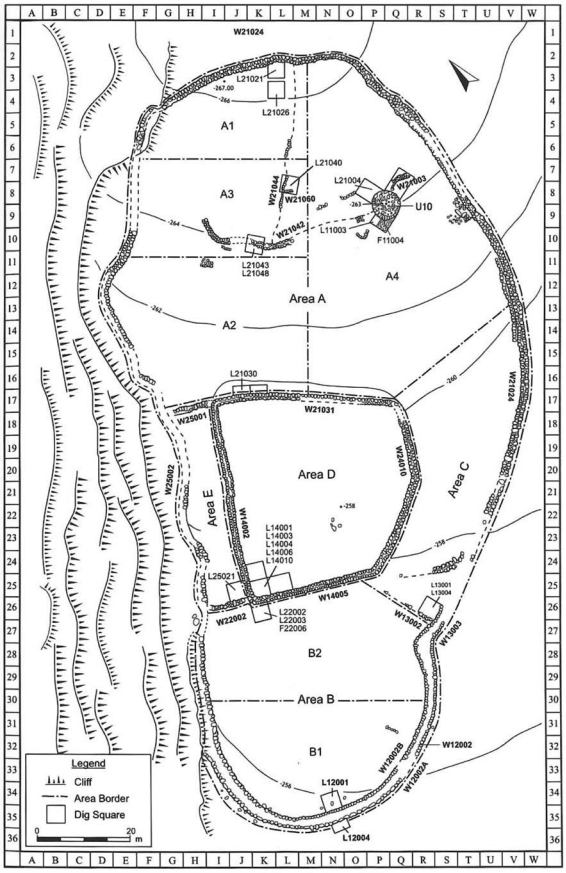

Figure 3: *Bedhat esh Sha'ab enclosure plan (after Ben-Yosef 2017a, fig. B2).*

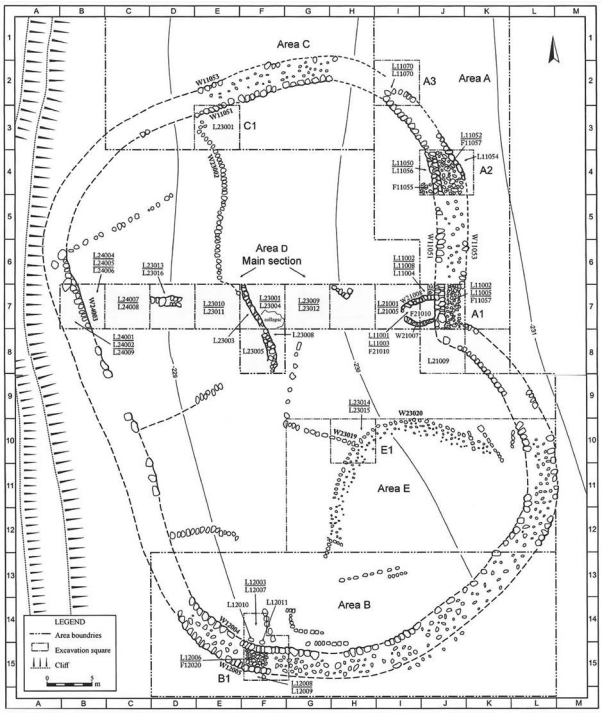

Figure 4: *Yafit 3 enclosure plan (after Ben-Yosef 2017b, fig. C3).*

This precise clustered layout was recognized by Finkelstein not only in the Ephraim region but also in the area of Manasseh, close to Tell Balata, Tell Dothan, and Samaria,[18] and in the southern region of Benjamin.[19]

The linear arrangement

Differently, Zertal identified for Manasseh an almost linear arrangement characterized by the succession of several settlements along the river routes of Wadi Far'ah and Wadi Malikh. A chrono-typological study on pottery fragments, together with the analysis of their distribution, also clarified the settlement situation in the area. Fragments indicated a progressive occupation began from the most eastern fringes, at the end of the Late Bronze Age, up to the total occupation of the hill country in the Early Iron Age;[20] it is highly likely, therefore, that this evolution was contemporary to shifting from a nomadic to a sedentary attitude.[21]

In the Jordan Valley, Zertal also recognized a clustered arrangement nearby two specific locations: the sites of Bedhat esh Sha'ab (**Figure 3**) and Yafit 3 (**Figure 4**).[22] These two sandal-shaped enclosures,

[18] Finkelstein 1988, 80–81.
[19] Finkelstein 1988, 66, fig.14.
[20] Zertal 2004; 2008; Zertal and Mirkam 2016.
[21] Frick 1991, 69; Finkelstein 1995, 353–354; McNutt 1999, 70; Lehmann 2003, 142.
[22] Zertal and Bar 2009; 2017, 85.

considered by the author as cultic places and as the first evidence of the proto-Israelite presence in the area,[23] were deemed to be indeed the two clusters key sites.[24] A careful analysis and comparison of the archaeological evidences demonstrated an absence of specific cultic elements for these structures and their probable use as an enclosure for herds, like so many others in the area;[25] Jordan Valley was in fact characterized by different-sized oval fences reused several times over the centuries.[26] In the light of these observations, it can be asserted that the reason of the thickening of the sites should not be sought in the cultic function. Most likely, the origins of these clusters should be found in the need for protection and for the purpose of leaving the few valleys free by positioning themselves along the ridges of the *Ghor*.

The development of the 'complex chiefdoms' model

Among the studies that have mostly contributed to the affirmation of cluster theory, there is Miller's about hilly areas. Thanks to the application of some theories and models on size-based classes of sites,[27] he recognized the presence of clusters renamed 'complex chiefdoms',[28] in a similar way to what Finkelstein identified in the hillside area and named 'dimorphic chiefdoms'.[29] According to Miller, each cluster would have been affected by the presence of inner hierarchical relationships, such as exchange links based on sites size relations and support of élites living in the key site.[30] The main issue afflicting this study is its contribution in determining all the connections upon the dimensional factor, totally neglecting the possibility that the function, and not the extension, may have generated that distribution. The extension remains often conjectured, especially for the surveyed sites, and this disparity gives rise to an altered reconstruction in which the excavated site — often regarded as larger — automatically assumes a key role.

The predictive modeling in the highlands

Finally, one of the most recent contributions in the spatial studies is represented by Palmisano over about 270 sites in the West Bank.[31] The new analysis is characterized by the use of predictive models and attention to the environmental features.[32] It addresses some former issues previously discussed by Finkelstein and others, e.g. the diffusion of a clustered model, the placement of sites at high altitudes, and the importance of visibility.[33] The weak point of this analysis is to trace in limiting the investigated area just to the hilly zone, leaving out some fundamental connecting units such as the one in south of Manasseh and the area west of Jerusalem. Common to Miller's study is calibrating all relationships according to distance and dimension, never to the role.

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[23] Hawkins 2013, 122; Zertal 1994, 65; Zertal and Bar 2017, 6–7, 84.

[24] Ben-Yosef 2017a; 2017b.

[25] Stone-built enclosures are a common phenomenon regarding not only the Jordan Valley but the entire Middle East. Fences of different shapes and sizes occur in the neighboring desert and semi-desert regions such as the Negev area (Holzer *et al.* 2010), Jordan (Betts and Burke 2015), Syria, Iraq (Kennedy 2012; Morandi Bonacossi and Iamoni 2012), and Nile valley (Storemyr 2011). Their dating, as well as their purpose, is often controversial (Echallier and Braemer 1995; Davidovich *et al.* 2014).

[26] Several enclosures similar to those of the Jordan Valley (Zertal 1998, fig. 7) have also been reported in the area of eastern Manasseh (Zertal 2008). These structures are dated between the 13th and 12th BC although the typology of the circular fence with a domestic/rural vocation is well known in the area also during the Iron Age II (Zertal 2001, 46; Faust 2012, 149–159).

[27] Miller used Gravity Model, Thiessen Polygons Analysis and Central Place Theory; the size of the surveys sites is obtained from the pottery fragments dispersion and the architectural evidences (Miller 2012, 26).

[28] Miller 2012, 40.

[29] Finkelstein 1995, 361.

[30] Miller 2012, 30–40.

[31] Palmisano 2013.

[32] Palmisano 2013, 755–760.

[33] Palmisano 2013, 765.

The latest research updates and the methodology applied

A further renewed territorial analysis was conducted on 500 sites, where 42 were excavated and 468 surveyed.[34] This is the same group mentioned above by Finkelstein, Zertal, Miller, and others, increased with recent survey data and with the combination of several areas, regardless of their belonging. Gibson moreover suggested the need for a study where the identified links are addressed in the order to relate with the environment and its resources.[35] Unlike previous studies, focused mainly on the sites dimensional factor and relationships derived from it, the analysis here conducted was supported by a multidisciplinary approach that involves both archaeology, meant as a functional study on settlements evidence and their interconnections (intra-site and inter-site analysis) but above all landscape archaeology, meant as the observation of ecofacts, surface surveys records, knowledge of subsistence strategies, the capacity of the land, river and road networks.[36]

Natural environment and subsistence strategies

Despite a restricted area, slightly more than thirteen thousand square kilometers, the Southern Levant region is characterized by numerous ecological niches, soil capacities, stable water sources, different rainfall percentages, and climates.[37] Settlement distribution, as well as the population and subsistence systems, depends on environmental features and represents the result of the human ability to adjust and interact.[38]

Starting from the east, it is possible to recognize three different macro-regions that are the desert and semi-desert areas, the most impervious central mountain area, and the foothills zone, with valley and plains. Precipitation together with other stable water sources decreases with altitude, as a result, the most productive areas are the valleys and foothills, such as the Beth Shean, Jezreel, Shephelah, and Sharon valleys. Other small dry areas and semi-desertic sub-regions show limited exploitation, due to rocky soils and absence of stable water resources.

The analysis of the settlement typologies and, above all, the observation of their disposition show a clear matching between the models adopted and the geographical sub-regions. Fences, small circular settlements with a pastoral function, were identified mainly in semi-desertic and dry zones; indeed domestic/rural villages are differently located in the innermost region, and urban centers, characterized by a public aspect were found in flat areas and valleys. From this precise correspondence, it is possible to glimpse how the planimetric model, as well as the choice of the territory to live in, can be interpreted as a real subsistence and adaptation strategy.

Despite the different potential growth of each region, the subsistence strategies adopted during the Early Iron Age show a great uniformity. To dominate was a mixed system where diversification can be observed only in the rotation percentage between pastoral and dry farming practices;[39] this combination stays for all the regions, in arid, hilly or foothill environment, with or without terraces.[40]

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[34] For a comprehensive analysis of sites and regions see Tamburrini 2019.

[35] Gibson 1995.

[36] Olsvig-Whittaker *et al.* 2015.

[37] Langgut *et al.* 2015, 215, 229.

[38] Frick 1991, 69; McNutt 1999, 70.

[39] Stager 1985, 178–179; McNutt 1999, 71–72; Ofer 2001, 21; Jasmin 2006, 53–54; Finlayson *et al.* 2011, 210; Liverani 2018, 86–87.

[40] The terracing technique consists of steps subdivision of sloping areas allowing the exploitation of particularly steep zone otherwise usable (Ron 1966, 34; Hopkins 1985, 173, 208–209; Barton *et al.* 2010, 5276; Langgut *et al.* 2015, 229). A widespread accepted until recent hypothesis (Finkelstein 1995, 354; Gibson 2001, 119, 12) assumed a great spreading of terracing and considered them among the first reasons on which both the generalized Early Iron Age development and transition from a semi-nomadic to a permanent society depended. On the contrary, the archaeological evidences suggest a scarce presence of

Compared to the previous period, it is furthermore possible to observe a shift in work management, where diversification is preferred over intensification giving up on full-time specialized operators as it was in the Late Bronze Age.[41] Village communities, as spread in the Early Iron Age, offer the possibility of a survival economy, unlike the large urbanized Late Bronze sites whose management obligations were decidedly more onerous as they included a more wide and articulated hinterland.[42] The limitation of the production at a family level, consequently reducing the surplus, probably emerged as a response to several conditions which characterized the previous Late Bronze system as well as contributed to its collapse.[43] A widespread crisis marked by political power vacuums, and external attacks, in addition to bad climatic conditions, determining in turn a reduced quantity of foodstuff and famines, were all circumstances that inevitably led to the recalibration of the new emerging organizational systems, at the end of the 13th century BC. This alternative strategy, adopted in the aftermath of the Late Bronze crisis and based on readiness to face sudden changes, would reveal a polymorphic and resilient society together with a return to an easier and more dynamic organization.[44] It is, therefore, worthy to underline how this strategy, probably chosen for transitory purposes to tackle the crisis, proved to be perfect in the long-term period.[45] It is in fact known how the choices and the developments that took place in this period became a consolidated experience, determining the birth of the successive Iron Age II nation-states of Judah and Israel and, above all, their long success in organizational terms.

Reading new settlement pattern

Thanks to a less severe approach that considers the features of each site, as well as the environment and community needs, a somewhat different settlement picture, emerges from that offered so far, composed of clusters and subordination relations.

From the superimposition of several levels such as the topographical one, river networks, the mesh of sites, and the soil's capacity, a correspondence of some details should be noted. As regards settlements pattern, it is possible to recognize an aligned distribution that follows the articulation of the wadis fluvial system. It was agreed to name this arrangement dendritic, a term usually adopted for drainage systems, but in this case suitable to underline the unseen relation between sites — located close to the fluvial network — and less stable sources (**Figure 5**). It must be recollected that the wadis system was extremely important because of the fundamental practice of dry farming and the exploitation of the whole area. This process was based on the natural water run-off and its adoption would reflect the community opportunistic attitude that exploits existing conditions without modifying the landscape.[46]

The water run-off direct exploitation here proposed would have also saved the community from spending the workforce in wide structures such as terraces, dams, and cisterns unlike how some scholars had previously suggested.[47]

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terraced structures in the Early Iron Age as well as the possibility of a lowering in their chronology (Porat *et al.* 2017, 643–644). The modest use would thus make the terracing an incentive for growth but not a determining factor.

[41] For a careful analysis about the developments linked to the end of Late Bronze see de Miroschedji 2009, Cline 2014, Knapp and Manning 2016.

[42] de Miroschedji 2009, 120.

[43] Sasson 2008, 128.

[44] Butzer 1982, 21; Faust 2003, 152; de Miroschedji 2009, 101; Hammer 2018, 64–65.

[45] The adoption of this more autonomous model firstly involved the hilly areas where the early withdrawal of the Egyptian power encouraged the stabilization of that group which, due to taxation, had been forced to a nomadic lifestyle (Ofer 1994, 109; Sugerman 2000; Faust 2006b, 120; Liverani 2007, 632; de Miroschedji 2009, 122).

[46] Gibson 1995; Liverani 2005, 55; Shahack-Gross and Finkelstein 2008; Finlayson *et al.* 2011, 192–193, 200; Bruins 2012; Bruins and Van Der Plicht 2017.

[47] Gibson 2001, 119–120; Langgut *et al.* 2015, 229; Gadot *et al.* 2016, 452.

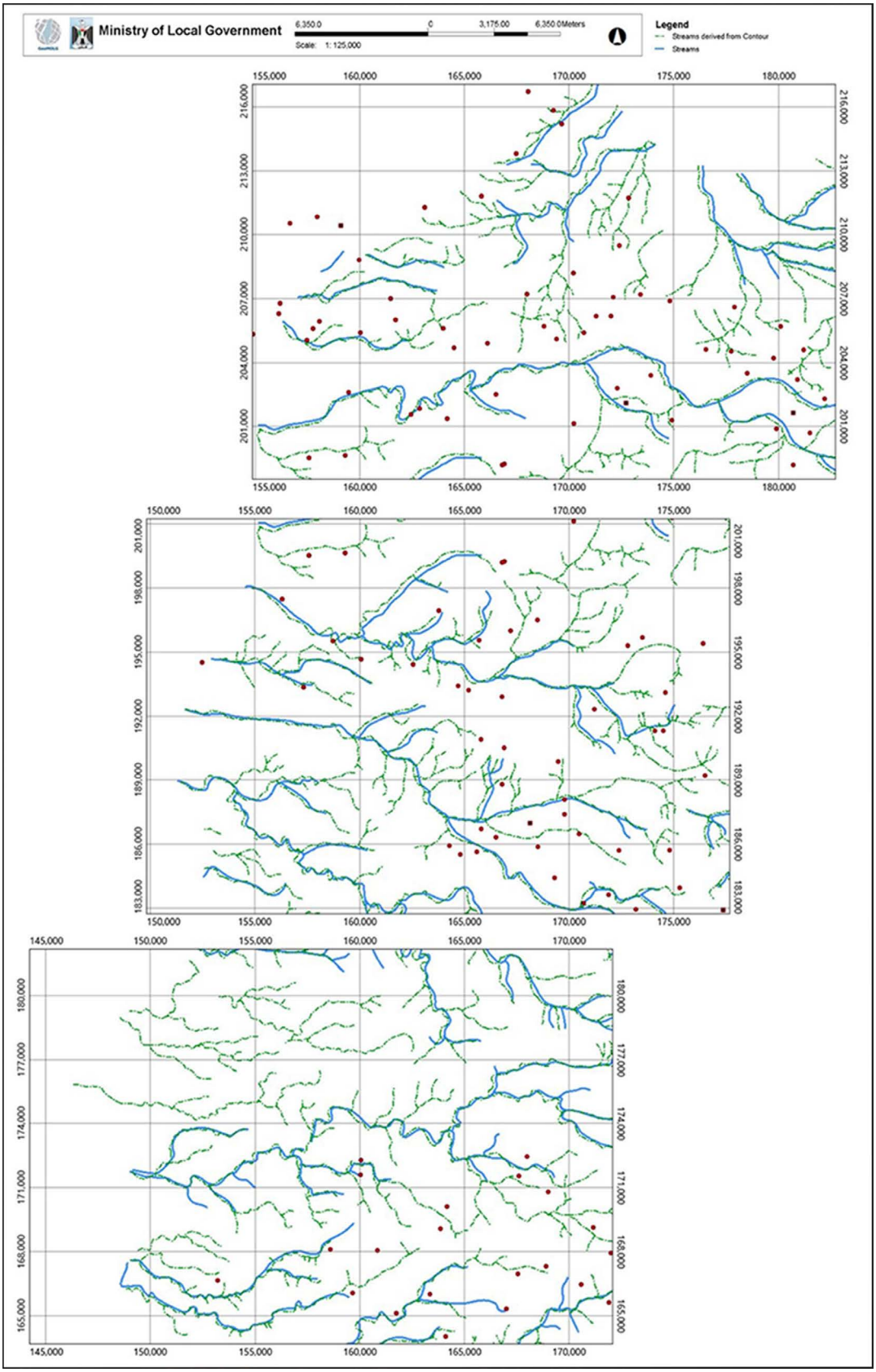

Figure 5: *Map showing a dendritic layout in western side Manasseh and Northern Benjamin area (© Maria Tamburrini).*

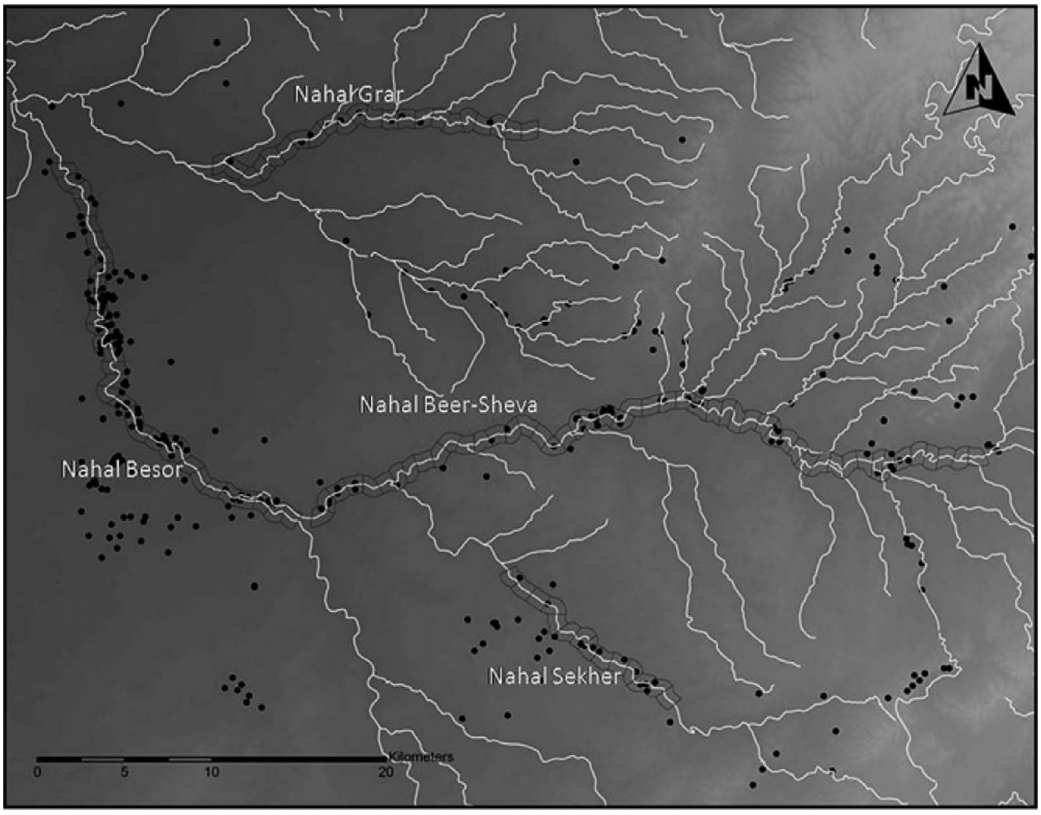

Figure 6: *Chalcolithic site distribution in the Northern Negev (after Winter-Livneh et al. 2010, fig. 4).*

The dendritic pattern has been recognized from north to south, along the main wadis and the valley areas, in Western Manasseh, in Ephraim, and in Jordan Valley. Looking back to the organization of Middle and Early Bronze Age up to the Chalcolithic period, it can be noted that the dendritic arrangement is not totally foreign in the region. A similar scheme indeed emerged for the Chalcolithic period in the Northern Negev areas, thanks to a cross-study on water flow rate, wadis volume and sites position (**Figure 6**).[48] Even in this case, the distributions of sites close to the water flow suggest how determinant the proximity is.

River networks as communication route

These above-mentioned rivers and streams were probably useful not only for an agricultural purpose but also as real communication channels, as furthermore demonstrated by the road network identified by Dorsey in his study on Iron Age.[49]

Along the entire area, it is possible to distinguish two main routes with north-south direction: *Via Maris*, parallel to the coast and known from ancient times, and the *Patriarchs Route*, also known as hilly or ridge road, passing through the central mountains. Two further north-south lateral paths were added to these: the first parallel to the Jordan River and the second crossing the Shephelah Valley. The possibility that this precise network could have existed would seem to be confirmed by the correspondence of three levels, the road network, the fluvial system, and site layout (**Figure 7**).

[48] Winter-Livneh *et al.* 2010, 293.

[49] Considering the sites location and routes travelled in different eras, the author created a potential communications networks in use during the Early Iron Age (Dorsey 1991).

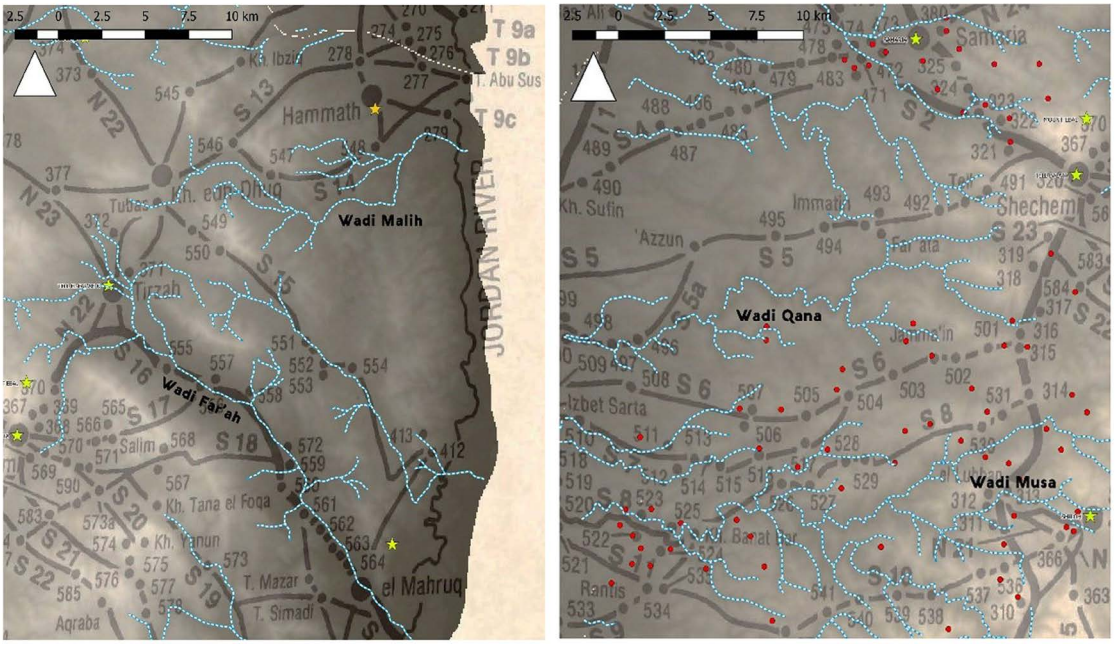

Figure 7: *Example of correlation between roads network (grey), wadis fluvial system (blue), and site grid levels (red/yellow) (© Maria Tamburrini).*

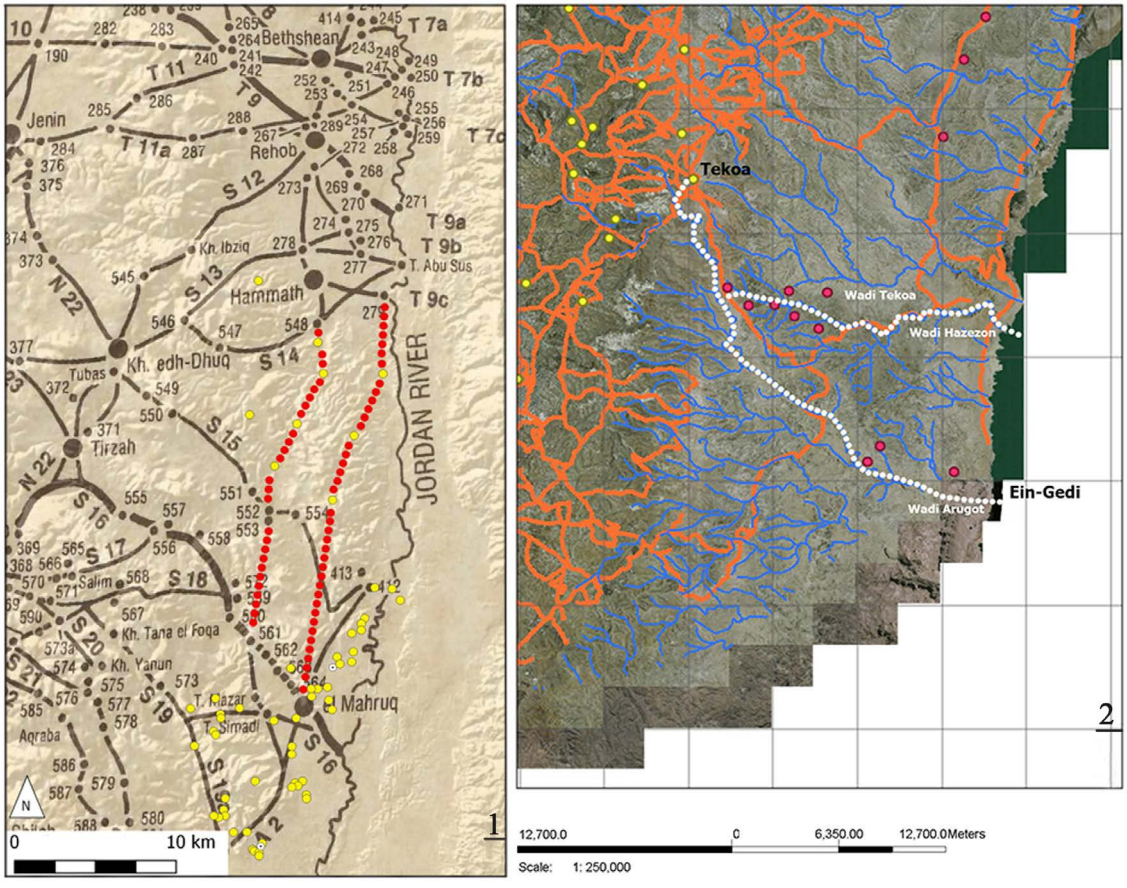

Figure 8: *New Early Iron Age presumed tracks: 1. the Jordan Valley road, and 2. Tekoa-Dead Sea road (© Maria Tamburrini).*

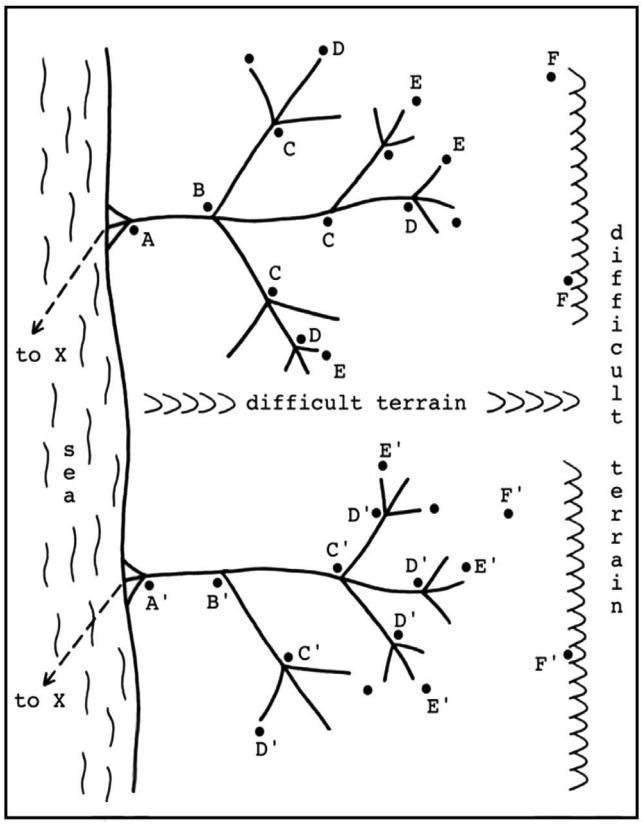

Figure 9: *Sketch of dendritic trade system derived from filistee trade ports activities (after Bronson 1977).*

The four north-south main paths are intersected by horizontal routes that follow the course of the wadis, in turn, punctuated by settlements. Thanks to new sites, recognized within recent surveys, it was possible to recreate further paths, perhaps used during the Iron Age; one with a north-south direction leading from Tekoa to the Dead Sea and suggested by different sites and the modern road, but also the path below the Beth Shean Valley developing parallel to the Dead Sea (**Figure 8**).

These sites, always positioned along the edge of the wadis network, could also be interpreted as real supply points. Khirbet Qeiyafa,[50] in Jewish *Sha'araym* — two gates — could represent an example of this distribution linked to road routes. The gates seem to be positioned in order to allow access to the paths connecting to the Elah Valley, thus underlining the essential relation between site structure and site location. In the nearby Shephelah Valley, the dendritic layout was even connected to the commercial system and renamed by some scholars Dendritic Trade System where the importance of the centers was proportional to the distance from the great filistee port activities (**Figure 9**).[51] This dynamic attitude reveals an image of the Early Iron Age far from static, on the contrary, catalytic, and forerunner of a new era.[52]

Final remarks

Considering these data, the model here identified appears to differ from that previously proposed. Apart from some clusters in the Jordan Valley, whose key site is according to my opinion still not

[50] Garfinkel and Ganor 2009; Garfinkel 2017.

[51] Bronson 1977; Sugerman 2000.

[52] The abandonment of rural sites at the end of the 11th century BC suggest a process of repopulation of the large centers that led to the creation of the national authorities (Faust 2006a, 26).

recognizable, the dendritic pattern prevails, interrupting the idea of hierarchical site distribution. This layout, characterized by the presence of sites near the wadi banks, is present throughout the hilly area, from Manasseh to Benjamin up to the southernmost regions. The above-mentioned arrangement underlines the key role played by the environmental features, the great homogeneity of the subsistence strategies but, above all, it reveals the strong connection with the less stable water sources, in spite of what so far hypothesized. It is impossible to correctly define which of the two needs, agricultural or communicational one, firstly influenced and determined the pattern, considering the probability that they both constituted needs linked to the success of the crop to prevail over trade aspirations, significant but nonetheless secondary.

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The Mountain Sanctuary of Šami and the Relationship with the Settlement Pattern[1]

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Abstract

The sanctuary of Šamī, dated to the Hellenistic and Parthian periods, is located in the mountains of the modern Province of Iranian Xūzestān, ancient Elymais. A research at the site, firstly explored by Sir Aurel Stein in 1936, is now conducted by a joint Iranian-Italian expedition co-directed by Vito Messina (University of Torino – Centro Ricerche Archeologiche e Scavi di Torino per il Medio Oriente e l'Asia) and Jafar Mehr Kian (Iranian Centre for Archaeological Research). The present paper examines the archaeological testimonies in the area surrounding the sanctuary, with the purpose of trying to shed some light on the location of the settlement related to the site. The study is based on the analysis of remote-sensing imagery and cartographic data, as well as on published and unpublished survey evidences. Datasets are analysed within an environmental context, such as highlands, which presents specific peculiarities in landscape studies.

Keywords

Šamī, Elymais, Settlement Pattern, Landscape, Highlands

Introduction

The sanctuary of Šamī is located in the current Xūzestān Province, 30 km north from the modern city of Īẕeh, in a mountainous area part of the Zagros range. Research on Šamī has been limited so far to the area of the site itself, and based on published bibliography, very little is known on the surrounding environment. This research analyses the natural and human-built landscape with the aim of trying to shed some light on the relationship between the sanctuary and the settlement pattern.

[1] The text presented here is part of the PhD project that is being currently carried out by the author, concerning the analysis of the environment surrounding the sanctuaries of Elymais. The author wishes to thank the Centro Ricerche Archeologiche e Scavi di Torino per il Medio Oriente e l'Asia or Centro Scavi di Torino (CRAST) and in particular Prof. Vito Messina (University of Torino – CRAST), as well as the Iranian Centre for Archaeological Research (ICAR), for allowing the use of the photographic and topographic material. Moreover, the author wishes to thank: Ms Mahshid Zeighami Moghaddam and Ms Harir Sherkat for the help with the translation of the cartography from Persian, Ezio and Sandro Michelis (CAI – Club Alpino Italiano), for their kind help in estimating the walking time, Ms Maria Pia Zini and Ms. Anna Mores for the help with the English text, and Dr Enrico Foietta (University of Torino) for his continuous advice during the research work. The author wishes to thank, moreover, the two anonymous referees for their helpful comments. The Persian dictionary Mo'in 1342/1964 has been used as reference for the transliteration of place names from the Persian alphabet. Except for the photos, all figures in the article were elaborated by the author.

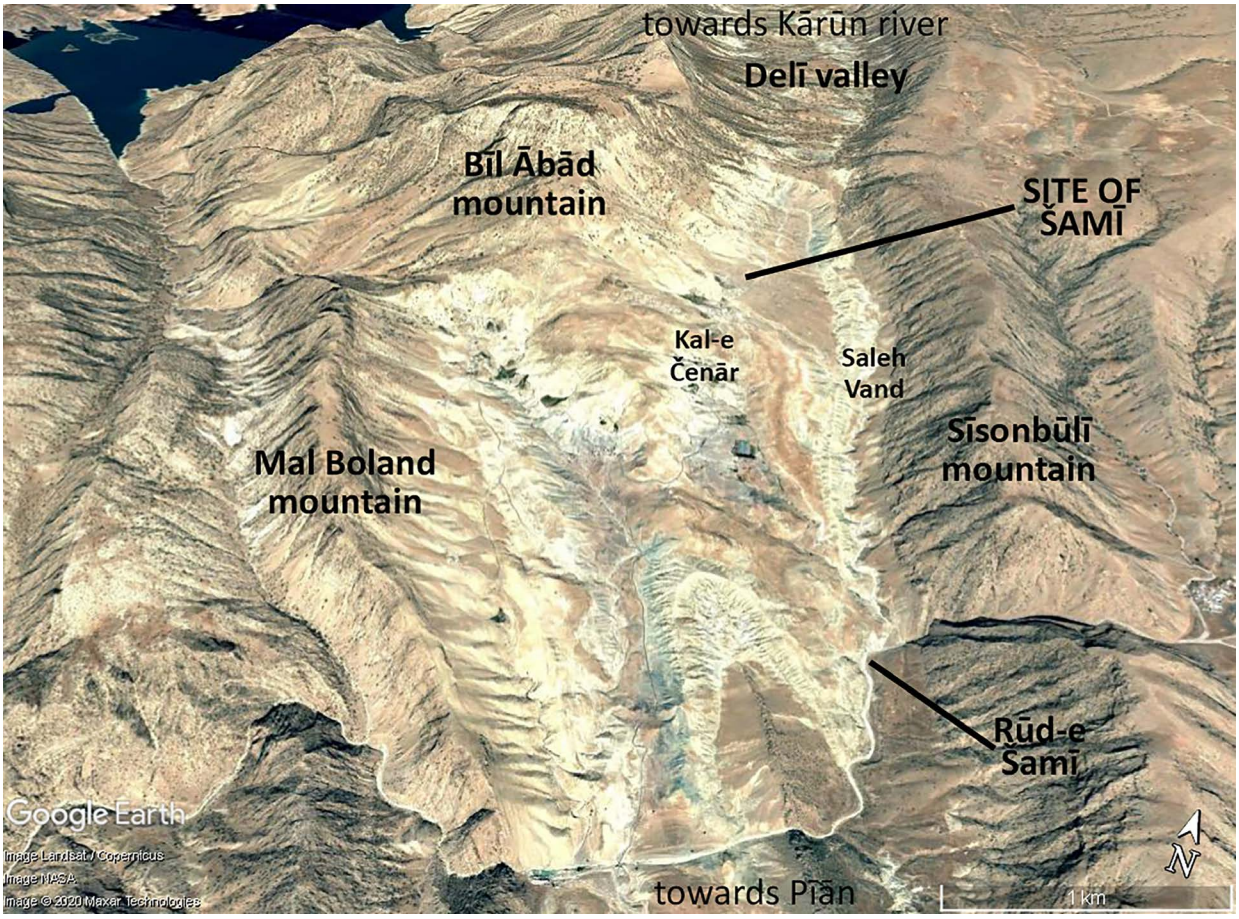

Figure 1: *Valley of Šamī. Satellite image visible on Google Earth acquired on 9-23-2010 (image Landsat/Copernicus; image NASA © 2020 Maxar Technologies).*

The archaeological site

The site is positioned in the small valley of Šamī, which links the Delī valley and the Kārūn river (on the northern side) with the plains of Pīān and Īẕeh (on the southern side). The valley has a triangular shape, is about 15 km[2] wide and lies at an altitude varying from 900 to 1100 m asl It is enclosed on its western and eastern sides by three mountain ranges, the Bīl Ābād mountain,[2] to the west, the Sīsonbūlī range, to the east, and the Mal Boland mountain, to the south-west. At the bottom, a seasonal watercourse, the Rūd-e Šamī, flows along the eastern side of the valley. The archaeological site is located along the mountainside of the Bīl Ābād, on a colluvial slope, at an altitude ranging from *c.* 920 to 1040 m asl (**Figure 1**). Near the site there is the modern village of Kal-e Čenār.[3] The middle part of the valley, between the site and the river, is characterized by a slope that increases in steepness, while the mountain ranges surrounding the valley take the aspect of cliffs.[4]

[2] The name Bīl Ābād is reported on the topographic map of the area (NGO 2002, sheet 5954III Keveshk). The name Bilevah or Bilawa is used in the archaeological literature on the site.

[3] The name Kal-e Čenār is reported on the Iranian topographic map of the area (NGO 2002, sheet 5954III Keveshk). The name Kal-e Chendar is used in the archaeological literature discussing the site.

[4] Iranian topographic map (NGO 2002, sheet 5954III Keveshk). For the description of the Šamī valley also: Stein 1940, 141, 143, fig. 10; Godard 1965, 153–154; Messina and Mehr Kian 2014, 67, 69, figs 3, 5, 9; Messina 2015, 198, figs 8, 11; Baqherian *et al.* 2016, 71, figs 4–5; Messina and Mehr Kian 2016, 441, 443, figs 2, 6; Bucci *et al.* 2017, 9, fig. 1; Bucci *et al.* 2018, 59, fig. 1; Messina and Mehr Kian 2018, 299, fig. 4; Messina and Mehr Kian 2019b, 275, fig. 4.

Figure 2: *a. Šamī, Hellenistic bronze mask. Image from Lindström 2017, fig. 22.1. b. Šamī, Tomb 23, façade and stepped corridor (Photo courtesy of Centro Scavi di Torino and the Iranian Centre for Archaeological Research). Fig. 2c. Šamī, golden object from Tomb 23 (Photo courtesy of Centro Scavi di Torino and the Iranian Centre for Archaeological Research).*

The archaeological site is made up of a sanctuary and a cemetery and dates back to the Hellenistic and Parthian periods. The area was initially investigated in 1936 by Sir Aurel Stein, who discovered a single room building interpreted as a shrine.[5] Parts of large-scale bronze statues and fragments of marble sculptures showing a high degree of workmanship have been found out of context on the site, such as the famous statue of the 'Parthian prince' as well as remains of a Hellenistic bronze head (**Figure 2a**).[6] Soon after, a brief excavation, only partially published, was conducted by André Godard.[7] Research was resumed in recent years by the *Iranian-Italian Joint Expedition in Khuzestan*, led by Vito Messina (University of Torino – Centro Ricerche Archeologiche e Scavi di Torino per il Medio Oriente e l'Asia) and Jafar Mehr Kian (Iranian Centre for Archaeological Research), whose results are currently under publication. The recent excavation campaigns discovered the presence of monumental artificial terraces, possibly of ancient chronology, along with cultic structures and remains of large walls. A wide cemetery occupies a large part of the site. Some tombs were investigated by the Iranian-Italian mission: both the architecture (**Figure 2b**) and the grave goods (**Figure 2c**) suggest that the necropolis was used by a wealthy elite.[8]

[5] Stein 1940, 141–158.

[6] Stein 1940, 130–134, 143–144, 150–152, fig. 11, Photos Nos 46–49, Pls. IV–V. On the so-called 'Parthian prince' statue: Kawami 1987, 59–63, 169–171, Cat. No. 8, Pl. 11; Mathiesen 1992, 47–49, 166–167, Cat. No. 80; Sarkosh Curtis 1993; Canepa 2015, 85–86, fig. 6.4. On the bronze head: Canepa 2015, 85, fig. 6.2; Fleischer 2016; Lindström 2017.

[7] Godard 1965, 153–163.

[8] Messina and Mehr Kian 2014; Messina 2015, 197–200; Messina and Mehr Kian 2016; Baqherian *et al.* 2016; Bucci *et al.* 2017; Bucci *et al.* 2018; Messina and Mehr Kian 2018, 299–301; Messina and Mehr Kian 2019b; Cellerino and Foietta 2020.

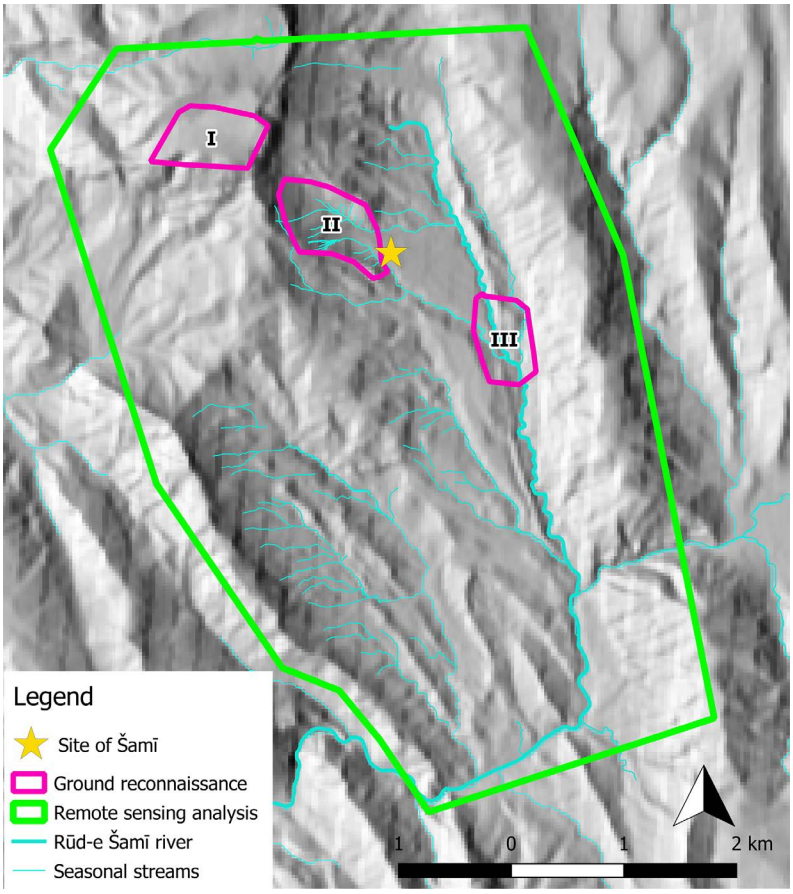

Figure 3: *Šamī valley, the areas covered throughout both the ground reconnaissance survey carried on by the Iranian-Italian Joint Expedition in Khuzestan and the remote-sensing analysis. Hillshade model from DSM ALOS WORLD 3D, 30 m resolution (©JAXA).*

Despite the importance of the site, its position is still puzzling: indeed, the presence of the necropolis suggests that worshippers arriving to the sanctuary to bury their relatives must have come from one or more settlements situated nearby. Using ground reconnaissance data and remote sensing analysis (**Figure 3**), it has been possible to highlight further potential archaeological features in the area and to formulate some hypotheses on the settlement's location (**Figure 4**).

Data from ground reconnaissance

The area immediately to the west and to the east of the archaeological site was briefly investigated by the *Iranian-Italian Joint Expedition in Khuzestan* during the excavation campaigns held in 2013–2016. The unsystematic survey, held on foot, covered the top of the Bīl Ābād mountain and its eastern slope in three areas (I, II and III) about 42, 48 and 35 hectares wide respectively (**Figure 3**).

Three *qal'eh* (fortresses) were found (**Figure 4: Sh1–3**). The first one, Qal'eh-ye Vali (**Sh2**), is positioned on the top of a little hill immediately south of the site (area II), at an elevation of 1070 m asl, while the second *qal'eh* (**Sh1**) is situated near the mountain peak (area I), at an elevation of 1707 m asl (**Figure 5**). The fortresses are located at a higher elevation than the archaeological site and overlook it. In both cases what remains visible of the building dates back to the Islamic period. However, pottery sherds scattered near the higher *qal'eh* (**Sh1**) and dating back to the Parthian period indicate that the area was somehow settled before the end of the Arsacid empire. It is possible that also the area of Qal'eh-ye Vali (**Sh2**) was

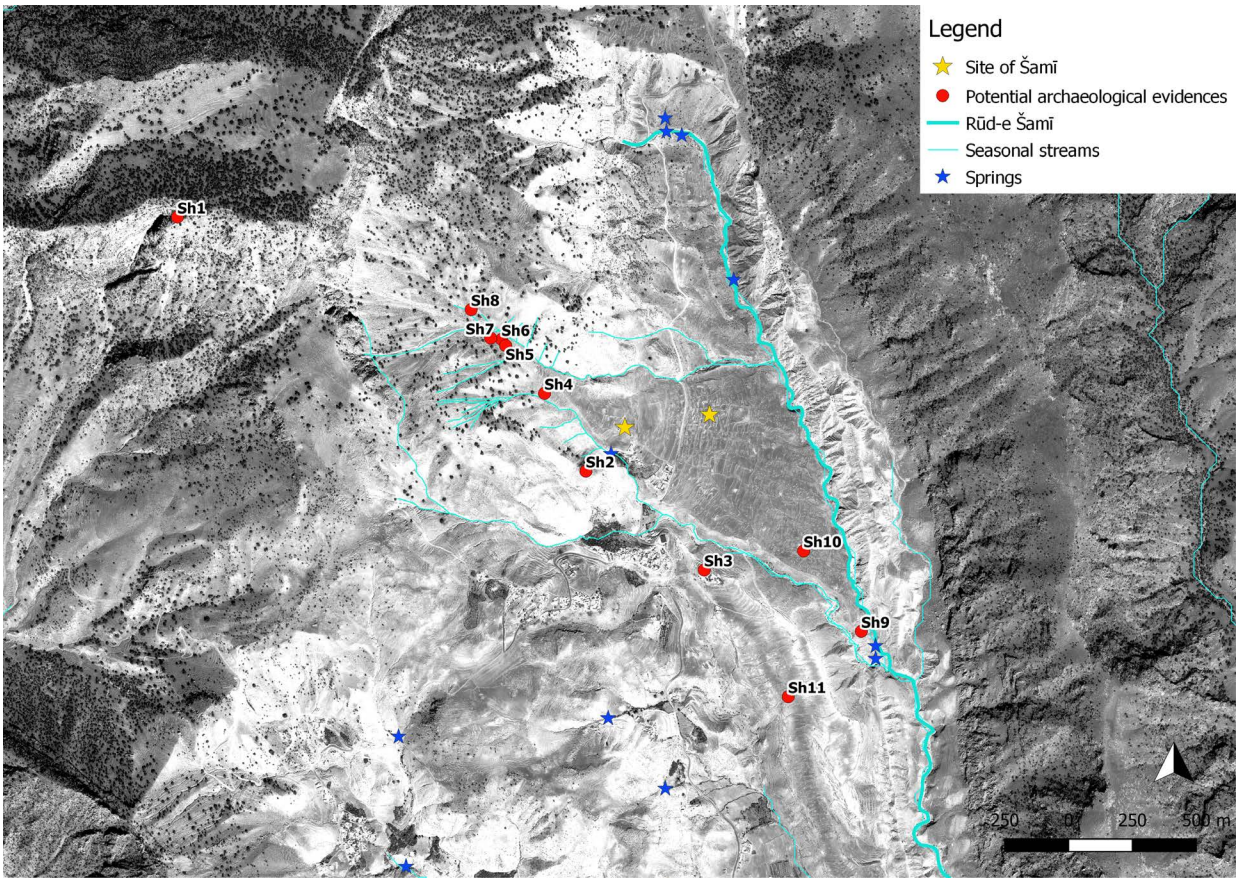

Figure 4: *Šamī valley, potential archaeological features near the site. High-resolution satellite image GeoEye (©Digital Globe). Gaussian image enhancement. Topographic data courtesy of Centro Scavi di Torino and the Iranian Centre for Archaeological Research.*

frequented in the same period, as likely testified by ceramic fragments in common ware found close the building.[9] A third *qal'eh*, Qal'eh-ye Šor Xoda (**Sh3**), has been located in the modern village of Kal-e Čenār. The complex of the structure which is currently visible dates back to the modern age; however, the on-site investigation has identified possible ancient elements in the wall texture.[10]

A little higher than the site, along the colluvial slope of the Bīl Ābād mountain, in the area II, it was possible to identify some structures which are perhaps ancient (**Figure 4: Sh4–8**). The remains of a terrace built in large undressed stones (**Sh4**) (**Figure 6**) as well as ruined structures made of massive stones (**Sh5**, **Sh6**, **Sh7** and **Sh8**) were found in the area.[11] The use of large stones is testified on the site

[9] For the higher *qal'eh:* Messina 2015, 200, fig. 8; Messina and Mehr Kian 2016, 443; Baqherian *et al.* 2016, 85, figs 4, 18–19; Bucci *et al.* 2017, 11; Messina and Mehr Kian 2018, 301, fig. 4; Messina and Mehr Kian 2019b, 283–284, figs 13–14. On Qal'eh-ye Vali: Messina and Mehr Kian 2014, 69, fig. 9; Messina 2015, 198, fig. 8; Messina and Mehr Kian 2016, 441; Baqherian *et al.* 2016, 71, 85, figs 4–5; Bucci *et al.* 2017, 11, fig. 1; Messina and Mehr Kian 2018, 299, fig. 4; Messina and Mehr Kian 2019b, 275. The latter building is mentioned also by Roman Ghirshman (Ghirshman 1976, 237). Information on pottery has been kindly given by Prof. Vito Messina (University of Torino – Centro Scavi di Torino) as personal communication. Topographic and photographic material courtesy of the Centro Scavi di Torino and of the Iranian Centre for Archaeological Research.

[10] Messina 2015, 198, fig. 8; Messina and Mehr Kian 2019b, 275. Topographic material courtesy of the Centro Scavi di Torino and of the Iranian Centre for Archaeological Research.

[11] Personal communication of Prof. Vito Messina (University of Torino – Centro Scavi di Torino). Topographic and photographic material courtesy of the Centro Scavi di Torino and of the Iranian Centre for Archaeological Research.

Figure 5: *Šamī valley, mountain qal'eh (Sh1)*
(Photo courtesy of Centro Scavi di Torino and the Iranian Centre for Archaeological Research).

Figure 6: *Šamī valley, possible ancient terrace wall (Sh4) (Photo courtesy of Centro Scavi di Torino and the Iranian Centre for Archaeological Research).*

Figure 7: *Šamī valley, Saleh Vand area (Sh9), building remains (Photo courtesy of Centro Scavi di Torino and the Iranian Centre for Archaeological Research).*

of Šamī by the walls of the 'Stein Terrace',[12] as well as by the tombs.[13] Even though it is impossible to date this evidence for the moment, the comparison suggests the possibility that the structures could be related to the Šamī site.

In the Saleh Vand area (area III) (**Figure 4: Sh9**), near the seasonal watercourse of Rūd-e Šamī, just east from the site of Šamī, a visit made in 2016 recognized the remains of perhaps ancient structures, characterized by walls with sizeable stones (**Figure 7**). Furthermore, a few pottery fragments dating back to the Parthian age have been found in the surroundings. Considering the slope of the ground, one could not exclude however that the sherds have come from the nearby sanctuary area.[14]

The remote-sensing analysis

A remote sensing analysis of the area of the valley of Shami (**Figure 3**) has been undertaken in order to detect the possible presence of further archaeological remains (**Figure 4: Sh10–11**).[15]

The recognition of archaeological structures in a mountainous environment, where soil stratification develops with difficulty due to its shallow depth, the high slope and the abundance of stones, is quite problematic.[16] However, even though evidence has yet to be confirmed throughout supplemental survey as well as stratigraphic excavation, an attempt has been made to identify a series of anomalies that may constitute an indication of the presence of buried features. The most informative are:

- shape anomalies: stone mounds. Piles of stones are often found in the mountainous fields, as they are the result of the clearance of the cultivated surfaces;[17] in these cases, stones could be accumulated above older pre-existing structures in order to optimize the availability of surface.[18] Moreover, the unusual shape and extension of stone mounds could suggest that they represent decayed buildings for which stone has been hugely used as construction material;[19]
- colour anomalies: patches showing a brighter or darker colour when compared to the rest of the soil and a regular shape or pattern;[20]
- shape anomalies: seeing as the fields in the area are enclosed by fences as well as crossed by walls built in undressed stones, the walls showing a non-regular shape or a direction which is different from the surrounding ones, could suggest the presence of buried ancient structures.

[12] In Trench 2 (Baqherian *et al.* 2016, 77, figs 9–10; Messina and Mehr Kian 2016, 445–446) and in Trench 4 (Baqherian *et al.* 2016, 83; Messina and Mehr Kian 2016, 447).

[13] Messina and Mehr Kian 2014, 73–74; Bucci *et al.* 2016, 83–84; Messina and Mehr Kian 2016, 447; Bucci *et al.* 2017, 17–23; Messina and Mehr Kian 2019b, 279–281.

[14] Information on pottery has been kindly given by Prof. Vito Messina (University of Torino – Centro Scavi di Torino) as personal communication. Topographic and photographic material courtesy of the Centro Scavi di Torino and of the Iranian Centre for Archaeological Research.

[15] For the remote sensing analysis, the following dataset has been used: panchromatic high-resolution satellite image GeoEye acquired in 2011 (©Digital Globe); Bing aerial photos (©2019 Microsoft Corporation) and satellite images from Google Earth.

[16] Parcak 2009, 125–126; Wilkinson 2003, 188; Reinhold *et al.* 2016, 46–47, 58; Messina and Mehr Kian 2019a, 41, 46–47.

[17] On stone mounds in agricultural fields: Wilkinson 2003, 53, 55, fig. 4.5.

[18] For example, the platforms brought to light in Trench 13 have been found underneath similar stone mounds (Bucci *et al.* 2018, 71, fig. 13).

[19] On the use of stones as construction material in mountain areas: Watson 1979, 241–243, 282–284; Yakar 2000, Chapt. 4; Wilkinson 2003, 48, Tab. 4.1. During the permanence in the area it was possible to see that in the valley of Shami several modern buildings are fabricated with stones.

[20] On the matter for example: Piccarreta and Ceraudo 2000, 104–106; Wilson 2000, 53–67.

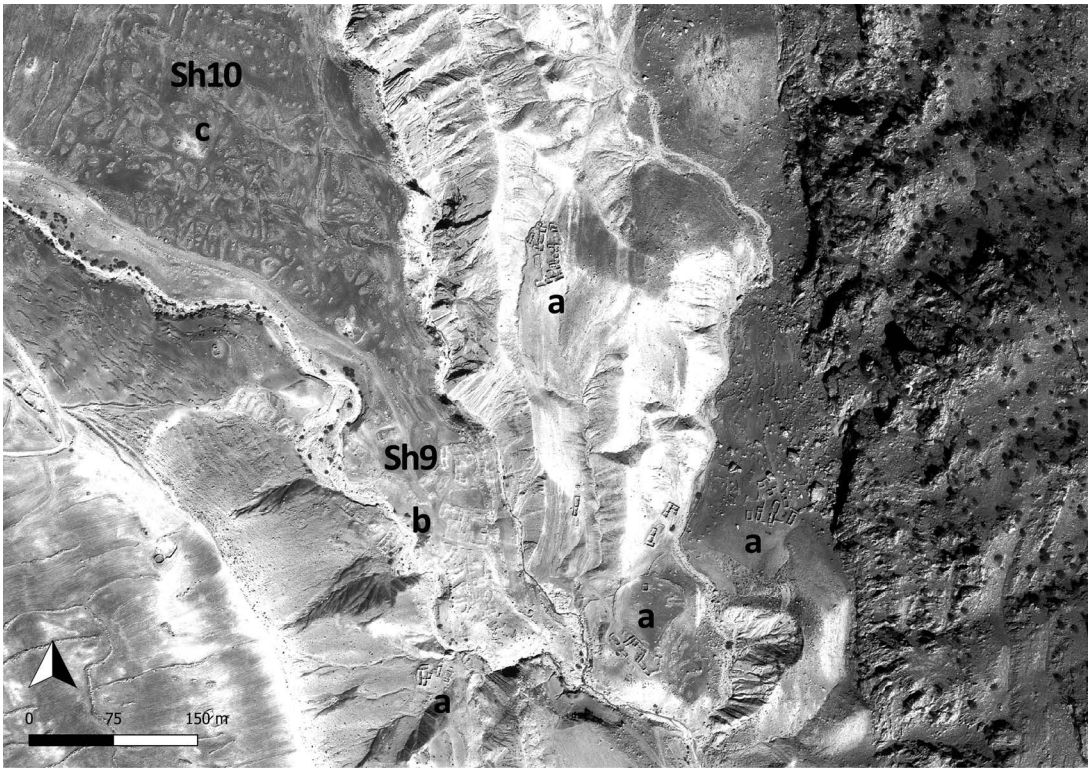

Figure 8: *Šamī valley, Saleh Vand area, anomalies and ruined buildings identified on the high-resolution satellite image GeoEye (Sh9-10) (©Digital Globe). Gaussian image enhancement.*

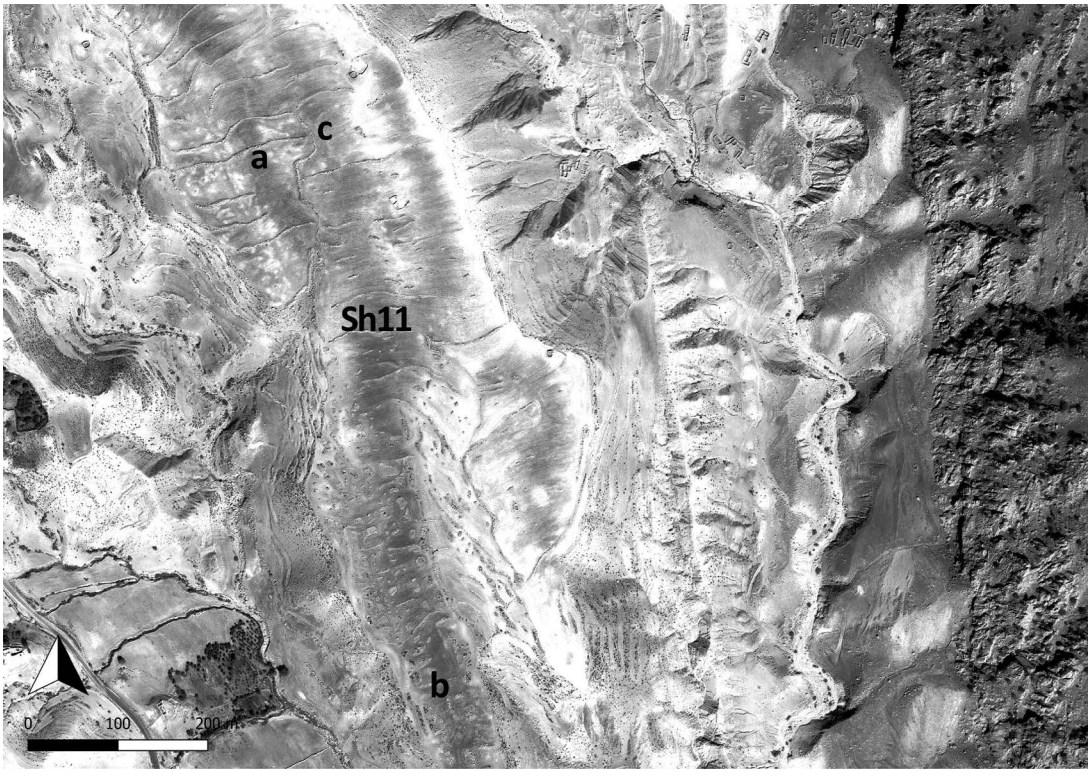

Figure 9: *Šamī valley, anomalies identified on the high-resolution satellite image GeoEye (Sh11) (©Digital Globe). Gaussian image enhancement.*

In the area of Saleh Vand (**Figure 4: Sh9–10**) a high concentration of structures showing at least two distinct conservation stages – thus possibly dating back to different periods – has been identified through the observation of remote sensing imagery (**Figure 8: a and b**). Moreover, a large zone covered by several stone mounds was detected nearby (**Figure 8: c**): the shape and the extension of the latter suggest that they could represent decayed buildings or hidden buried structures.

Besides, a strong concentration of different kinds of large extended anomalies has been detected on an area covered by agricultural fields, near the Rūd-e Šamī river and immediately to the south of Saleh Vand and Šamī, (**Figure 4: Sh11**). The most interesting ones show several patches of bright colour with a regular profile (**Figure 9: a**), as well as stone mounds (**Figure 9: b**) and fenced walls showing a peculiar shape (**Figure 9: c**).

The location of the settlement

It is difficult to define whether there actually was an inhabited area close to the sanctuary of Shami due to the absence of systematic surveys. Furthermore, ground reconnaissance of archaeological features is affected by factors such as the re-use of ancient construction materials as well as the difficulty of preservation of the record in the mountainous landscape.[21] Nevertheless, the remote-sensing analysis has allowed to identify some clusters of anomalies which, when considered in conjunction with the ground reconnaissance data from unsystematic survey, could suggest some possible locations for the settlement.

On the basis of the data analysed so far, it can be hypothesized that the settlement could be located both in the area of Saleh Vand (**Figure 4: Sh9–10**) or in the zone south from Saleh Vand and Šamī (**Figure 4: Sh11**), where a concentration of different kinds of anomalies has been detected; the latter is one of the few portions of the valley of Šamī having a slightly flat terrain. In both localities, the proximity with the Rūd-e Šamī as well as the presence of water springs could represent factors favourable for the foundation of a village (**Figure 4**).[22] It seems unlikely, instead, that the structures identified throughout ground reconnaissance in areas I and II (**Figure 3**) could be identified in the same way, because of their location high up on the mountainside, where the slope of the terrain is quite elevated.

Nevertheless, the Šamī area does not seem to be particularly favourable to the establishment of a settlement when the mountainous environment as well as the soil type are taken in consideration: indeed, the land plausibly allowed little more than a subsistence economy, particularly concentrated on pastoralism.[23] It is thus difficult to imagine the development, in the valley of Šamī, of a settlement of considerable size where the wealthy elite that seem to have frequented the sanctuary and the cemetery — as suggested by the site discoveries — could have established their residency. Therefore, it could be assumed that the worshippers could have also come from more important and larger settlements located in the nearby plains of Īẕeh and Pīān. These are areas with a relatively good agricultural yield potential due to the presence of wide flat areas, a good availability of water and a fertile soil (**Figure 10**).[24]

André Godard proposed in the 1970s that a possible settlement that can be related to Šamī is most likely to be found in the adjacent plain of Pīān. The archaeologist, during a survey that has been only

[21] Stein 1940, 156–157; Messina 2015, 200; Messina and Mehr Kian 2018, 299, 301; Messina and Mehr Kian 2019b, 283–284.

[22] Topographic map (NGO 2002, sheet 5954III Keveshk); topographic material courtesy of the Centro Scavi di Torino and of the Iranian Centre for Archaeological Research.

[23] Topographic map (NGO 2002, sheet 5954III Keveshk) and soil map (SWRI 1991, sheet Khūzestān).

[24] Topographic maps (NGO 1999, sheet 5953IV Chamreyhān; NGO 1999, sheet 5953I Īẕeh; NGO 2002, sheet 5954III Keveshk; NGO 2002, sheet 5954II Tarashok) and soil map (SWRI 1991, sheet Khūzestān).

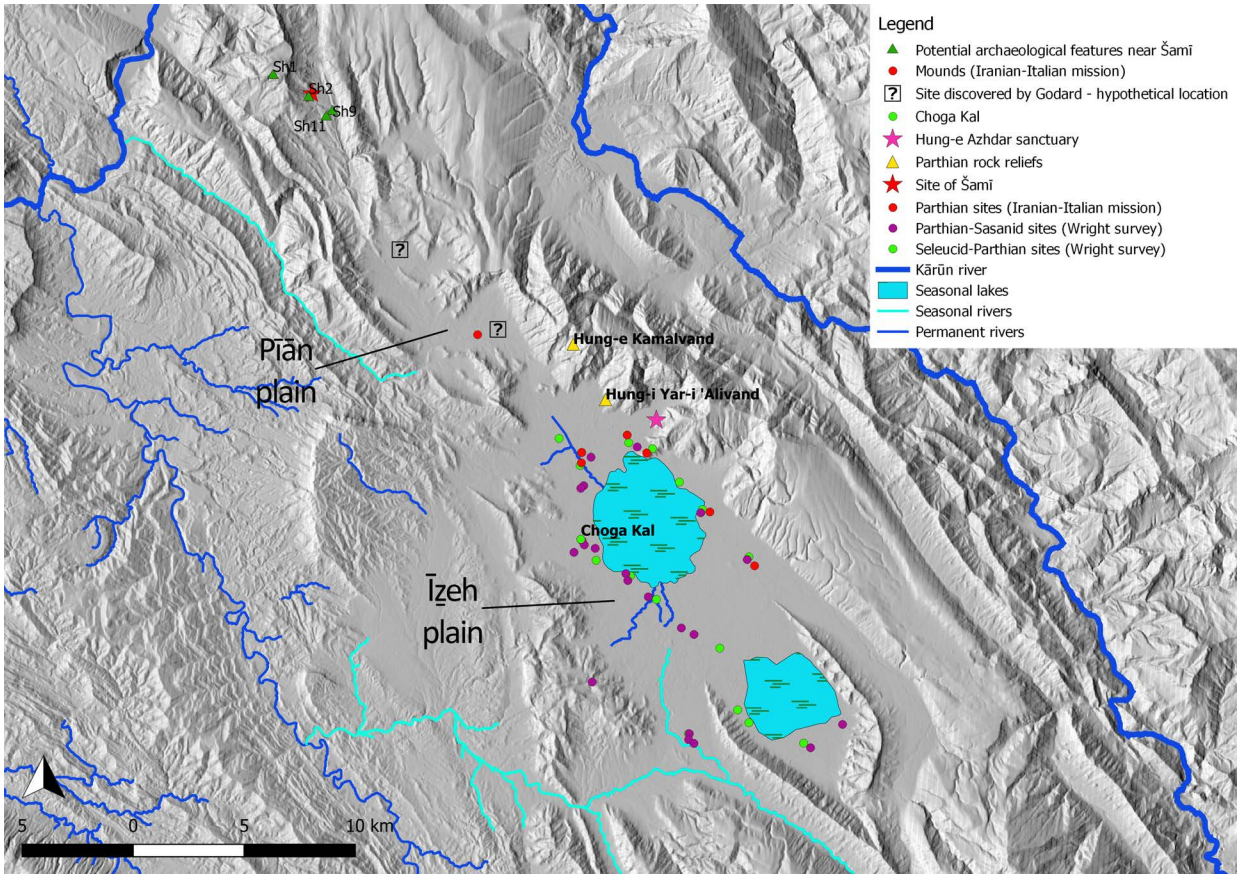

Figure 10: *The sanctuary of Šamī and the settlement pattern. Hillshade model from DSM ALOS WORLD 3D, 30 m resolution (©JAXA).*

partially published, found traces of a settlement and a few tombs which bear some similarities with those of Šamī.[25] Moreover, a visit carried out by the *Iranian-Italian Joint Expedition in Khuzestan* in February 2009 revealed the presence, near the modern village of Pošt-e Pīān, of at least two large mounds with pottery sherds possibly also dating back to the Parthian period (**Figure 10**).[26] A simulation carried out throughout Least Cost Path Analysis[27] of the possible route linking the site of Šamī to the *tappeh* shows a path which is about 15 km long and that can be covered by foot in about 4 hours. While the route along the plain is almost flat, the path that crosses the Šamī valley, characterized by several altitude variations, could be more difficult, as it is quite steep.

In the plain of Īẕeh, situated just south of Pīān, surveys have revealed a complex settlement pattern dating back to the Hellenistic and Parthian periods, with sites of different size and type, including at

[25] Godard 1965, 155–156.

[26] Information on pottery has been kindly given by Prof. Vito Messina (University of Torino – Centro Scavi di Torino) as personal communication. Topographic and photographic material courtesy of the Centro Scavi di Torino and of the Iranian Centre for Archaeological Research.

[27] For the elaboration of the LCPA the opensource software suit GRASS has been used. A digital surface model with a 30 m resolution (DSM ALOS WORLD 3D ©JAXA) has constituted the base for the construction of the friction map, while the considered factors that could influence the speed of movement (Herzog 2014, 230–235) were permanent rivers, seasonal streams, seasonal lakes and slope; the so-called 'knights move' was used. The simulation of the time of travel was elaborated for the movement by foot, and the walking time has been calculated using the opensource web platform *Outdooractive* <https://www.outdooractive.com>, dedicated to hiking.

least one large centre, Choga Kal.[28] Furthermore, in the plain there are the rock reliefs of Kamālvand and Īār-e ʻAlīvand,[29] as well as the open-air sanctuary of Hung-e Azhdar,[30] which testify the frequentation of the territory at least in the Parthian period (**Figure 10**). The simulated route that links Šamī to the settlement of Choga Kal is about 28 km long, while the walking distance is about 8 hours. Thus, contacts between the two areas were probably less frequent than in the Pīān area.

Conclusion

In conclusion, available data seems to indicate that, although no clear traces of a village were found in the valley of Šamī, the presence of the sanctuary in such a remote location can be considered to be part of a regional system of settlements. Taking into consideration the necropolis, it seems more plausible that people using the site came from a nearby area, such as the valley of Šamī and the Pīān plain. It could be assumed, instead, that those who frequented the sanctuary came also from the larger settlements located in the nearby plains of Īẕeh. From this point of view, it is possible that the sanctuary of Šamī constituted a focal point for visitors coming from different areas in the region.

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[28] Eqbal 1979; Faraji, Mehr Kian and Sourani 2015; Messina and Mehr Kian 2019a; Messina 2020.

[29] Hinz 1963, 169–173; Vanden Berghe and Schippmann 1985, 39–45; Kawami 1987, 126–128, 177–178, 214–215; Mathiesen 1992, 121–124; Messina and Mehr Kian 2011; Messina and Mehr Kian 2015.

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Some Considerations on Workers and Officials Involved in the Circulation of Fish in the Ur III Umma Province[1]

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Abstract

The importance of fishery in third-millennium Mesopotamia is well known; nevertheless, what extant economic documents substantially describe is an intricate network of (human) bureaucratic interaction aimed at controlling and exploiting the surrounding natural environment.

This contribution puts forward some considerations on workers and officials, such as fishermen, fish collectors (enku), scribes and high-ranking officials, involved in the circulation of fish in Ur-III Umma. In addition, it will discuss possible royal interference in the provincial institutional landscape.

Keywords

Fishery, Fishermen, Fish Collectors, Work Obligations, nam-enku

Premise

Both archaeological and written evidence underline the importance of fishery (catch, storage, processing units, and distribution) in the economy of Southern Mesopotamia in the third millennium BC. The majority of written evidence on this topic comes from the last century of the third millennium, also known as Ur-III period, for which we have a considerable number of administrative documents enabling us to glimpse the contemporary local economy and society. The most comprehensive and authoritative work on fishery in Ur-III times is still R. Englund's *Organisation und Verwaltung der Ur III-Fischerei*, published in 1990 as the tenth volume of the series *Berliner Beiträge zum Vorderen Orient.*

Since then, the publication of new texts[2] and studies enriched and confirmed the value of Englund's work, at the same time offering more hints on the role some officials and workers played within the circulation of fish in Ur-III times. This is the case, for example, of the official known as enku.d/r (ZAG.HA), a profession attested since the Archaic period, whose connection with fishing is attested from the Early Dynastic to the Ur-III period.[3] However, already in the subsequent Early Old Babylonian period the figure of the enku was equated with that of the contemporary *m*ākisu, a kind of 'tax collector', logographically written LU_2.NIG_2.KUD.DA or ZAG.HA, sometimes also misleading modern scholars into overlapping the two different

[1] With deep admiration, the present writer dedicates this small contribution to the memory of Englund, who died in May 2020. The world of research has lost some of its best inquisitive eyes. All texts quoted in this contribution can be consulted in BDTNS (Base de Datos de Textos Neo-Sumérios) and CDLI (Cuneiform Digital Library Initiative, <http://cdli.ucla.edu>). Abbreviations follow the List of Abbreviations available in the CDLI website: <http://cdli.ucla.edu/wiki/doku.php/abbreviations_for_assyriology>.

[2] At the time of Englund's work 30,000 Ur-III published texts were available to scholars (Englund 1990, 22). According to Molina, in 2016 the number of Ur-III published texts reached 64,500 (Molina 2016, 2); a number that is still growing.

[3] Steinkeller 2017, 48–49, fn. 101; Greco 2021 with literature.

professional figures.[4] Indeed, ZAG in Sumerian has several meanings derived from the concept of side, among them that of share or, specifically, tithe (zag-10), and the Old Babylonian *m*ākisu was in charge of collecting the *miksum*-tax, that is the share from a rented field or a tax levied on transported goods.[5] As particularly evident from Ur-III Umma administrative texts, the activity of the enkus concerned the circulation of fish (and to a less extent bird plumage and reeds), where they played an intermediary role within the provincial territory;[6] therefore they can be interpreted as 'fish collectors'. To the best of my knowledge, their connection with the tithe, at least in Ur-III Umma, concerned the quota of fish deducted from the deliveries of the enku as tithe for the boat of firstlings (ma_2 nesaĝ).[7] In Ur-III times, this duty was levied in the first month on different kinds of products (fruit, dairy products, seeds, fish and other animals) on behalf of Enlil in Nippur, where the goods were brought by ship.[8]

In any case, the most striking aspect of the activity of the enkus is represented by the quantity of fish they managed; a quantity that can be compared to what was caught or processed by more than one group of fishermen. Of course, this is reflected in the silver transactions they managed (**Table 1**).

Fishermen (šu-ku_6)*			**Fish collectors (enku)**	
Text	*Silver*		*Text*	*Silver*
BIN 5, 109	10 gin_2		Princeton 1, 541	<...> ma-na†
MVN 14, 157	6 gin_2		YOS 4, 262	120 gin_2
AOS 32, C16	10 gin_2			99.90 gin_2 (*two years*)
MVN 9, 212	1.80+ gin_2		BPOA 6, 949	110 gin_2
AOS 32, G05	10 gin_2		BPOA 6, 1004	54.75 gin_2 (*in three times*)
JCS 39, 126 15	5 gin_2		ZA 95, 175	32 gin_2 (ku_3-sig_7)‡
Vicino Oriente 8, 67	5 gin_2		ZA 95, 191	[...] gin_2 24 še
			Nisaba 32, 103	60 gin_2
Fishermen groups§			MVN 14, 36	20 gin_2
SAT 2, 311	23.60 gin_2			20 gin_2
Syracuse 18	11.47 gin_2			

* This section reports the silver delivered by individual fishermen as silver in place of fish (ku_3 ku_6).
† 1 ma-na=60 gin_2.
‡ For a range of correspondences between silver and gold in Ur III, see Ouyang 2013, 248.
§ This section reports the silver delivered by individual fishermen as shortfall repaid by fishermen (la_2-i_3 su-ga šu-ku_6-e-ne).

Table 1: *Silver payments related to fish. Table adapted from Ouyang 2013, 184–185: table 3.5.F.*

[4] The main cause of misunderstanding for modern scholars was SLT 24, a source of the lexical composition Lu A, which substantially identifies the third millennium *enku* and the second millennium *mākisu.* This text was indeed believed to be an Ur-III source of the composition until Veldhuis dated it to the Old Babylonian period (Veldhuis 2010, 381), thus, indirectly implying that later scribes operated the assimilation. On this topic, see Greco 2021, 101–104.

[5] On the role of the Old Babylonian *m*ākisu, see Stol 2004, 764–766. An ancestor of the *m*ākisu may be found in the Early Dynastic dam-kas_4, interpreted by Visicato as a Sumerian loanword borrowed by a hypothetical *taprā*s form of the Akkadian verb *makāsu* (Visicato 1992, 97, fn. 8).

[6] Englund already recognised the intermediary role played by the enku in the circulation of fish, as he asserts: 'Möglicherweise ist dies [enku] ein in der Ur-III-Zeit nicht mehr geläufige Bezeichnung für jemanden, der Fischlieferungen von Berufsfischern übernahm und die Fische weiterleitete.' (Englund 1990, 201). In any case, the lack in 1990 of several attestations as well as of a systematic prosopography (of which the Author was completely aware) led Englund to think that it was an outdated professional designation in Ur-III times. With regard to the enku in the Archaic period, see Englund 1998, 142, fn. 349.

[7] See Greco 2021, 108–112. For a discussion about the provenance of the fish managed by the enku, see below Circulation of fish.

[8] Sallaberger 1993, 154–155.

In her study on the silver administration in Ur-III Umma, Ouyang noted that the silver payments delivered by the enkus were consistently larger than those delivered by single fishermen or groups of fishermen, and suggested that the Umma administration had organised fishermen (šu-ku$_6$) into groups led by fishery inspectors (enkus). According to her, the inspectors took the responsibility for collecting silver payments from fishermen and then delivered those payments to a recipient, although individual fishermen could manage their payments without the involvement of any intermediary. She stressed, therefore, that the role of the inspectors was dispensable.[9]

Fishermen's labour

It seems, in fact, that the enkus played a marginal role in the employment of workforces and in the payment of the relative shortfalls. In Ur-III Umma, these kinds of tasks indeed pertained, at different levels, to scribes managing workforces and products, and supervisors of working groups, that is the 'supervisor(s) of fishermen' (ugula šu-ku$_6$),[10] while the involvement of the enkus in the managing of workforces was apparently circumscribed to specific professionals or purposes.

The undated text SNAT 537 records different workers (ĝuruš) employed within the *bala*-service (ša$_3$ bala-a), that is, the work obligation the state-dependent individuals (eren$_2$) had towards the state. Among the workers, eight 'boat-keepers' (ma$_2$-du$_3$)[11] are recorded as being assigned to the enku Ur-Utu, eight potters (bahar$_3$) and two fishermen to Nir-idaĝal, likely the general who was connected to the royal family,[12] while further workers are recorded as fishermen for the *holy mound*-provision (du$_6$-ku$_3$).[13] The supervisor is Ur-BaU, as we will see, very probably a scribe.

CUSAS 39, 133 (AS 5/vii/15), attests to a worker inspection (gurum$_2$ aka) of 'fishermen with spears' (šu-ku$_6$ ĝeš-gid$_2$-da), a kind of fishermen employed in boat transport,[14] 'sesame farmers' (engar ĝeš-i$_3$-ka), 'boat-keepers' of the enku (ma$_2$-du$_3$ enku) and 'men settled in the marshes' (<lu$_2$> ambar-da tuš-a). In this text, the responsibility of the enku exclusively concerns the employment of 'fishermen for transporting fish to the palace gate' (šu-ku$_6$ KA e$_2$-gal-še$_3$ ku$_6$ tum$_3$-še$_3$) and the 'boat-keepers'.

According to a simplified schematisation, the inspected workers are subdivided in two main groups; one under the supervision of the fisherman Ur-Kalkal, here occurring as ugula šu-ku$_6$, and one under the supervision of Ur-BaU, who occurs without any professional title.

The group of Ur-kalkal is defined (obv. col.ii, 28) as šu-ku$_6$ gu$_2$-na-me, '(they are) fishermen of the 'load'', that is, they have been employed for transport. Among them, three workers settled in the marshes are

[9] Ouyang 2013, 82–83.

[10] Englund 1990, 177–194. In any case, ugula is a function rather than a proper profession, thus, based on the type of procedure recorded in the texts, supervisors of fishermen can be labelled just as fishermen.

[11] To the best of my knowledge, the workers labelled as ma$_2$-du$_3$ are attested only in Ur-III Umma; a translation as 'boat-builder' is possible, but unlikely; the usual Sumerian term for boat-builder is ma$_2$-GIN$_2$. An interpretation of du$_3$ as 'to keep' can be supported by the value 'festhalten' of that verb; see Krecher 1973, 190 with literature. Despite the expression ma$_2$-du$_3$ enku occurs in different texts, boat-keepers were not exclusively employed by the enkus. ASJ 11, 182 [...] attests (rev. iii, 28–32) a 'boat-keeper' (1 ĝuruš dumu-ĝir$_{15}$ ma$_2$-du$_3$) among the boatmen (ma$_2$-laḫ$_5$) of the personnel of the *sikkum* (ĝiri$_3$-se$_3$-ga zi-gum$_2$-ma-me), according to Heimpel (1994, 29), a sort of station for royal messengers on their travels. In CUSAS 39, 133 (see above), a boat-keeper employed as fisherman for transport under the supervision of the fisherman Ur-kalkal is recruited from the e$_2$-kas$_4$ gaba, that is a travel station, probably located beyond the Tigris. In YOS 4, 189 (Š 48/viii/15), the high-ranking official Ur-E'e takes charges of a fisherman (ĝuruš šu-ku$_6$) provided by the (supervisor of) fisherman Badaga to be employed as boat-keeper in that very travel station (e$_2$-kas$_4$ gaba), therefore suggesting it might have been a function, rather than a proper profession. At any rate, further studies on this topic are needed.

[12] See Sharlach 2017, 219–221.

[13] With regard to this provision for Nippur, see Sallaberger 1993, 154–155.

[14] Englund 1990, 96.

assigned to the 'scribe of spices' (dub-sar mun-gazi), Lugal-niĝlagar'e son of Lugal-saga, for the *bala*-service (bala-še$_3$). From this first group, Ur-Utu the enku takes charge of one worker for bringing fish to the palace gate. The group under the supervision of Ur-BaU concerns the workers employed as sesame farmers. From this second group Ur-Utu takes charge of nine workers as boat-keepers and four workers as fishermen for bringing fish to the palace gate. Finally, a last section summarises (rev. II, 13–III 5) the number of boat-keepers and fishermen allocated for bringing fish to the palace, and adds five further workers coming from the office of the *šarabdu*-administrator[15] as boat-keepers of the enku. Thus, in total the enku takes charge of 14 boat-keepers and five fishermen, out of *c.* 80 inspected workers.[16] At the end, all of them are provided by Ur-BaU.

As already suggested by SNAT 537 (see above), the work obligation of the boat-keepers within the *bala*-service (a$_2$ bala-a) could be managed by enkus. UTI 5, 3400 (AS 8/ii) attests Ur-Utu, very probably the enku, as provider of a quantity of bundles of reeds brought to a *ĝanun*-depot and described as work obligation of the boat-keepers (a$_2$ bala-[a] ma$_2$-du$_3$-a).

The responsibility of the enkus for the employment of workers was therefore limited to few individuals, were they fishermen or boat-keepers. *Treasuring the word S 84* (undated, but referring to Š 33–38) attests the enku Umani as responsible for the amount of silver (4 ma-na)[17] related to the labour (a$_2$) of 40 fishermen partially employed for six years, a number that is consistent with the quantity of workers hypothetically assigned to an enku in two worker inspections.

In most of the cases, the management of silver payments tied to the work of fishermen was indeed not a concern of the enkus.

It should be stressed that the supply of fish owed to the fiscal office could be established far from the places it was caught and based on the workforces, i.e., how much and what kind of fish a worker can catch or process in a day.[18] Consequently, both the account of workforces employed in fishing and the relative shortfalls can be related to the 'labour of the fishermen' (a$_2$ šu-ku$_6$) and were under the responsibility of their supervisors. The related silver payments could be made by the scribes who managed the required workforces via (ĝiri$_3$) the (supervisors of) fishermen, as is the case of Ur-BaU and Amar-isin and Ur-BaU and Badaga (**Table 2**).[19]

Text	*Payer*	*Description*	*Silver*
SAT 2, 532 (Š 47/-)	Ur-^{d}Ba-U$_2$ (dub-sar)	**a$_2$** šu-**ku$_6$** ĝ**iri$_3$** Amar-i$_3$-sin$_2$ (šu-ku$_6$)	14.09 gin$_2$
Santag 6, 80 (Š 47/-)	Ur-^{d}Ba-U$_2$ (dub-sar)	**a$_2$** šu-**ku$_6$** ĝ**iri$_3$** Ba-da-ga (šu-ku$_6$)	19.83 gin$_2$
BPOA 1, 1112 (ŠS 6/viii)	Ur-^{d}Ba-U$_2$ (dub-sar)	**la$_2$-i$_3$ su-ga a$_2$ šu-ku$_6$**	14.65 gin$_2$

Table 2: *Silver payments related to labour of fishermen.*

[15] On the role of this official, see Alivernini 2014.

[16] Although Ur-Utu is still attested in ŠS 9 (e.g. UTI 5, 3215), in this last section of the inspection, he is defined as being old (rev. ii, 12: šu Ur-^{d}Utu) and the workers he took charge of in the two main groups appear here under the authority of his son Arad-hula, here defined as enku. The affiliation and actual title of Arad-hula are attested in the still unpublished BM 106612, where his seal shows he was a scribe, son of Ur-Utu; see below.

[17] The silver is labelled as ku$_3$ nam-enku, for which see below.

[18] Englund 1990, 84–90 and 154. Each fisherman was supposed to catch 7 sila (about 7 litres) of fish in a day. With regard to the accounts of fishermen's labour in Ĝirsu, see Englund 1990, 184–194.

[19] AAICAB 1/4, Bod. S 411 (-/-) records quantities of fish delivered by Badaga, Amar-i(sin), Lu-turtur and Ur-kalkal to the governor. This would imply that their status was that of 'supervisors of fishermen'. On Badaga, see Englund 1990, 190, fn. 523 and below in this contribution.

As is shown in the following chart (**Table 3**), the Ur-BaU who managed the silver payments for the shortfalls of fishermen is probably the same one who managed the payments for the shortfalls of 'sesame farmers' (engar ĝeš-i_3). In one case, SNAT 407 (AS 8/iii), both payments are indeed recorded together in one single document (a_2 šu-ku_6 u_3 engar ĝeš-i_3).

Text	Payer	Description	Silver
AAICAB 1/4, Bod. S 359 (Š 44/-)	Ur-^{d}Ba-U_2 (dub-sar)	**la_2-i_3 su-ga engar ĝeš-i_3**	27 gin_2
Vicino Oriente 8/1 65 (Š 44/vi)	Ur-^{d}Ba-U_2 (dub-sar)	**la_2-i_3 su-ga ĝeš-i_3**-ka	24 gin_2
Princeton 1, 559 (Š 47/-)	Ur-^{d}Ba-U_2 (dub-sar)	**la_2-i_3 su-ga engar ĝeš-i_3**	69.57 gin_2
Santag 6, 78 (Š 47/-)	Ur-^{d}Ba-U_2 (dub-sar)	**la_2-i_3 su-ga engar ĝeš-i_3**-ka-ke_4-ne ĝ**iri$_3$** Lu_2-^{d}En-lil_2-la_2 (engar ĝeš-i_3?)	15.57 gin_2
SNAT 407 (AS 8/iii)	Ur-^{d}Ba-U_2 (dub-sar)	**a_2 šu-ku_6 u_3 engar ĝeš-i_3**	80 gin_2

Table 3: *Silver payments related to labour of fishermen and sesame farmers.*

Moreover, the same Ur-BaU can be identified with the one who managed sesame and the workforces for fishermen and sesame farmers (**Table 4**).[20]

Text	*Description*
UCP 9-2-1 78 (Š 47/-) **niĝ$_2$-ka_9 aka Ur-^{d}Ba-U_2**	capital: *q* še ĝeš-i_3 gur si-i_3-tum (Š 46) *q* še ĝeš-i_3 gur 11 PN (engar ĝeš-i_3-me) expenses: **0.4.0 še ĝeš-i_3** a-gu_3 Ur-E_{11}-e ba-a-ĝar / kišib Ur-^{d}Šara$_2$ GA_2-dub-ba **15 2/3 gin_2 ku_3 še ĝeš-i_3-bi 3.0.4 gur** / ku_3-bi a-gu_3 Da-da-ga ba-a-ĝar a-gu_3-a ĝa$_2$-ra-ta **5 ĝuruš iti 13-še$_3$** / a-gu_3 Lugal-ku_3-zu ba-a-ĝar a-gu_3-a ĝa$_2$-ra-ta difference: 3.4.2 2 2/3 $sila_3$ **še ĝeš-i_3**
AAS 135 (AS 3/-) **niĝ$_2$-ka_9 aka** **PN ugula uš-bar**	360 **geme$_2$** u_4 1-še$_3$ / **engar ĝeš-i_3-ka-še$_3$** **Ur-^{d}Ba-U_2 i_3-dab_5**
L'uomo 49 (ŠS 2/d/3) **niĝ$_2$-ka_9 aka a_2 šu-ku_6 Ur-^{d}Ba-U_2**	capital: **18290 ĝuruš u_4 1-še$_3$**; [x.x].4 8 $sila_3$ i_3 ku_6 expenses: [...] **nesaĝ ^{d}En-lil_2** [...];[...] **i_3-ku_6 mar-sa** kišib Lu_2-ila_2; i_3-ku_6 a-gu_3 Ur-E_{11}-e ba-a-ĝar; difference: 0.0.1 4 1/3 $sila_3$ **i_3-ku_6** / 319 1/3 **ĝuruš** u_4 1-še$_3$
AION 64, 41 (ŠS 2/-) **niĝ$_2$-ka_9 aka a_2 šu-ku_6** **Lugal-niĝ$_2$-lagar-e**	capital: **6270 ĝuruš u_4 1-še$_3$**; 0.2.1 5 $sila_3$ i_3-ku_6 **a_2 niĝ$_2$-ka_9 [aka]** expenses: [...] ĝuruš gub a_2-bi u_4 3677-[še$_3$] **niĝ$_2$-ka_9-še$_3$ ku_6 nesaĝ-ka ugu_2 ba-a-ĝar** šu-niĝin$_2$ 5182 ½ ĝuruš u_4 1-še$_3$ **zi-ga-am_3** difference: 1087 ½ **ĝuruš** u_4 1-še$_3$; 0.2.1 5 $sila_3$ **i_3-ku_6**
BPOA 1, 1087 (ŠS 2/-) **Ur-^{d}Šul-pa-e$_3$ šu ba-ti**	1.0.0 1 $sila_3$ še ĝeš-i_3 gur / **a_2 engar** / **i_3-bi** igi 0.4.1 dug i_3-ib_2-si ki Ur-^{d}Ba-U_2-ta

Table 4: *Accounts of workforces for fishermen and sesame farmers.*

[20] The management of the labour of fishermen and sesame farmers might have been associated for storage and transport reasons tied to the yielded products (especially oil), rather than being due to a supposed proximity of the workplaces of the employed personnel.

Therefore, it seems plausible, that the Ur-BaU involved in these transactions was the same Ur-BaU involved in the employment of fishermen, sesame farmers and boat-keepers described in CUSAS 39, 133 (AS 5/vii/15) and SNAT 537 (-/-) seen above. His title of scribe is confirmed by two texts: MVN 14, 298 (ŠS 2/-) and Nisaba 31, 64 (ŠS 5/iv/20). MVN 14, 298 records the shortfall of workforces for the *bala*-service (la_2-i_3 bala-a) that Ur-BaU the scribe son of Da'aga had to repay. It is interesting to note that the deficit related to 2 workers appears under the responsibility of Ur-kalkal, the supervisor of fishermen seen in CUSAS 39, 133. Nisaba 31, 64 records the transfer of the labour (a_2-bi) of 20 fishermen (šu-ku_6) to the account of Ur-BaU in the month of the local firstling festival.[21]

Also interesting to note is AION 64, 41 (ŠS 2/-), an account of fishermen's labour subscribed by Lugal-niĝlagar'e, who can be identified with the scribe son of Lugal-saga attested in CUSAS 39, 133 and in MAH A.2012.0004 (AS 7/i), where he received fish for the boat of firstlings from the enku Ur-Utu. Indeed, it is important to note that, as is shown by the summarising chart above, what is computed in such accounts are workforces, male (ĝuruš) or female ($geme_2$) workers in terms of man-days (u_4 1-$še_3$), and fish oil quantities (i_3-ku_6), sesame in the case of Ur-BaU, but no fish. The twofold management of workforces and fish is confirmed by SNAT 345 (AS 4/-), which records the fish allocated for the holy mound- and firstling provisions (ku_6 du_6-<ku_3> u_3 ku_6 nesaĝ). In this text, the section ascribed to Ur-BaU (obv. 1-rev.6) concerns the workforce (a_2-bi) required to gain a certain amount of fish for both destinations and the total (šu-$niĝin_2$) gives the number of required man-days (ĝuruš/u_4).[22] Only after the workforces provided by Ur-BaU, the text records (rev. 7-8) the delivery of the enku Ur-Mami in terms of baskets of fish (^{gi}hal). Interesting to note, the conveyor ($ĝiri_3$) is Lugal-niĝlagar'e, probably the scribe son of Lugal-saga.

The text can be resumed according to the following scheme:

> *q* fish **a_2-bi** u_4 *n*-kam (šu-$niĝin_2$ *n* ĝuruš u_4 1-$še_3$) ki PN **scribe**-ta
>
> *q* fish ki PN **enku**-ta.

Fish labelled as 'labour of fishermen' (a_2 šu-ku_6) is probably that obtained by purposely-hired workforces within the *bala*-service.[23] This fish could be directly delivered by a supervisor of fishermen without the intervention of any intermediary, as is the case in Princeton 1, 531 (AS 2/-). In this text 2460 litres of smoked fish (8.1.0 ku_6 $šeg_6$ gur), from which the tithe has been already deducted (obv. 5: za_3 10-bi ib_2-ta-zi),[24] are labelled as 'labour of fishermen' (a_2 šu-ku_6) and delivered by the fisherman Badaga to the scribe Ur-Šulpa'e son of Lugal-kugani. This text can be compared to UTI 4, 2417 (AS 1/-), which records the amount of fish labelled as 'labour of fishermen' (a_2 šu-ku_6) delivered by a fisherman (Ba-sa_6-ga)[25] to Ur-Šulpa'e son of Lugal-kugani for specific cult purposes: 21 baskets 60 litres each and 330 weir fish as offerings to Šara (sa_2-du_{11} ^{d}Šara$_2$-ka), for the festivals of the 8th (ezem e_2-iti-6) and 11th (ezem pa_4-u_2-e) month, and 600 litres of smoked fish for various expenditures (zi-ga didli).

Diversely, ANM 3792 (ŠS 2/-) records the delivery (mu-DU) of a quantity of fish (1360 weir fish of good quality, 200 beheaded fish, 3600 litres of smoked fish, 42 litres of fish oil) labelled as 'labour of fishermen'

[21] The text specifies (obv. 2–3) that the work of the fishermen (already assigned) to the temple of Enlil had to be released (a_2-bi e_2 ^{d}En-lil_2-la_2-ka-$še_3$ bur_2-dam) and booked on the account of Ur-BaU (a-gu_3 Ur-^{d}Ba-U_2 ĝa$_2$-ĝa$_2$-dam).

[22] See above SNAT 537 (-/-); in that text the assignment (expenditure in the text) of fishermen for the holy mound under the supervision of Ur-BaU is tied to the *bala*-service ($ša_3$ bala-a).

[23] For a possible connection between a_2 and a_2 bala-a, see Ouyang 2013, 85–86.

[24] It is unclear to me, whether it can imply that the deducted fish was directed to the firstling provision (before being smoked) and thus caught by fishermen employed for that very purpose. Apparently, the tithe could be applied to quantities of fish allocated for other purposes; see e.g. MVN 16, 1187 in the fn. below.

[25] A Basaga fisherman is attested in MVN 16, 1187 (AS 2/-), where he delivers 106 baskets of fish of 60 litres each (from which the tithe has been already deducted) to Lugal-niĝlagar'e, the scribe son of Lugal-saga, for the holy mound of Nippur.

(a_2 šu-ku_6), but without mention of the formal provider. The text however specifies that the conveyor (ĝiri$_3$) was Ur-BaU, who may have been the scribe son of Da'aga (although there are no fish in his accounts)[26] or the homonymous enku.[27]

Therefore, one can speculate that the enkus collected the fish that fishermen delivered to the provincial Fiscal Office as a portion of what their independent activities yielded,[28] while they result as dispensable in the management of the corvée labour of fishermen.[29]

Circulation of fish

Unfortunately, texts do not offer much information about the provenance of the fish managed by the enkus. Two texts, Nisaba 9, 186 (Š 46/-) and CST 741 (ŠS 4/-), record the fish delivered by an untitled Ur-BaU and conveyed by (ĝiri$_3$) fishermen, who can be understood as the supervisors of fishermen at the head of the working teams that caught or processed the fish.

Nisaba 9, 186 records a quantity of fish delivered for the holy mound (ku_6 du_6-ku_3) by Ur-BaU *via* (ĝiri$_3$) the fisherman Ur-Kalkal to Lugal-ezem, whose title is unknown. CST 741 (ŠS 4/-) records the fish delivered by Ur-BaU to Lugal-niglagar'e son of Lugal-saga *via* (ĝiri$_3$) the fisherman Badaga as provision for the holy mound (niĝ$_2$-dab_5 du_6-ku_3-ga) and *via* Lugalmah-[x], probably a fisherman as well, as provision for the firstlings of Enlil (niĝ$_2$-dab_5 nesaĝ ^{d}En-lil_2-la_2); about this latter quantity of fish, the text specifies that the tithe has been already deducted (za_3 10-bi ib_2-ta-<zi>). However, it is unclear to me whether these transactions might have regarded the enku Ur-BaU or the scribe son of Da'aga; in this case, one can wonder whether the expression 'labour of fishermen' might have been implicit.

Other texts apparently refer to another level of the circulation of items. In Aleppo 470 (Š 38/-) the enku Lugal-nesaĝ'e seals the receipt (kišib)[30] of 9000 litres of smoked fish (ku_6 šeĝ$_6$) and 1800 containers (pisan) of *suhur*-fish by Umani, likely the enku, 7500 litres of smoked fish by the high-ranking official Ur-E'e, and 2100 litres of smoked fish by Umani, probably the scribe son of Ur-gigir.[31]

These transactions may recall those reported in SNAT 347 (AS 4/-), which records the capital (saĝ-niĝ$_2$-gur_{11}) of fish and fish oil available to an enku.[32] The total section reports: 3600 big *suhur*-fish (suhur^{ku6}

[26] The transactions reported in UTI 5, 3421 (AS 3/-) and Sa 148 (AS 7/-), which record quantities of reeds defined as 'labour of fishermen' (a_2 šu-ku_6) supplied by Ur-BaU, might have regarded the scribe son of Da'aga. Compare them to UTI 5, 3400 (AS 8/ii), where bundles of reeds are provided by the enku Ur-Utu as work obligation of the boat-keepers; see above.

[27] For Ur-BaU enku, see below.

[28] According to Steinkeller, state-dependants ($eren_2$), among them fishermen, were required to deliver a portion of their particular product to the state and to make corvée labour contributions (Steinkeller 2004, 106). In addition, one can speculate that the enkus collected fish on behalf of the province from local fishermen (not necessarily state-dependants) as a fee for catching or marketing such products in the provincial territories or, as a sort of specialised merchants, they were entitled by the provincial administration to gain the fish circulating outside the direct control of the province. According to Ouyang (2013, 83), the existence of a marketplace is suggested by Studies Leichty 392 (-/-), which indeed records the controversial case of some fishermen of Umma who sold fish to fishermen of Ĝirsu and 'gave' fish and fish oil to Ur-Ninmuga, an enku of Ĝirsu. The text surely does not record the usual praxis, but it suggests that the enkus could benefit from a certain 'freedom' in procuring fish from fishermen.

[29] However, it is clear that the enkus managed the shortfalls in terms of labour of the workers they were responsible for; see e.g. *Treasuring the word S 84* above or AUCT 3, 479 (AS 6/-). In any case, the employment of few workers (fishermen and boat-keepers) under the authority of the enkus apparently does not justify the large amounts of fish they managed; their activity on behalf of the state may have been related to the collection of scattered and elusive resources in the territories under the provincial jurisdiction, as the fish caught by fishermen for their own activity may have been.

[30] The seal identifies Lugal-nesaĝ'e as enku (written here: $en\text{-}ku_3$) son of Ur-Sin.

[31] The text reports (obv. 7) $^{\lceil}U_3$-ma-ni$^{\rceil}$ dumu [...], who might be identified with the scribe who receives fish by Lugal-nesaĝ'e in the same year; see below, NYPL 109.

[32] The editors of the text (Gomi and Sato) suggest the integration Ur-^{d}[Ma-mi] $^{\lceil}$enku$^{\rceil}$.

gal), 144,300 carp (eštub^{ku6}), 1600 litres of smoked fish, 156 eels-*GUR* (ku$_6$ gam-gam GUR), 700 litres of fish-oil (i$_3$-ku$_6$), 2 *sin*-fish (ku$_6$ sin$_2$), 6600 eels. The detail section subdivides the recorded amounts by name of the conveyors (ĝiri$_3$),[33] who may have been scribes or other enkus. Among them, indeed, Lugal-kugani and Umani occur, which are both names of enkus and scribes,[34] and Lugal-niĝlagar'e, responsible for the 2 *sin*-fish, who was very probably the scribe son of Lugal-saga. The involvement of high-ranking officials in these two texts might imply that the capitals available to the enkus could also derive from internal transactions. This may be understood in the light of the considerations put forward by Steinkeller in connection with merchants: that their work for the state entailed both the procurement of goods and the distribution throughout the state economy of perishable commodities (in our case fish) that could not efficiently be handled by the central redistributive mechanisms.[35]

However, most information concerns the destinations of the fish the enkus collected. For example, NYPL 109 (Š 38/-) records the delivery of 21,680 litres of smoked fish (ku$_6$ šeĝ$_6$) and 1800 weir *suhur*-fish (ku$_6$ kun-zi suhur) by the enku Lugal-nesaĝ'e to the scribe Umani son of Ur-gigir. UTI 5, 3406 (ŠS 9/-) adds some information about the destinations of the fish delivered by an enku; it indeed records some deliveries of fish by Ur-Utu: 1680 gutted fish (ku$_6$ ša$_3$-bar), 1620 ĝ*irus*-fish (ku$_6$ ĝir$_2$-us$_2$), 10,200 eels (ku$_6$ gam-gam) to the provincial palace (e$_2$-gal); 3240 carp (^{ku6}suhur), 49,680 ĝ*irus*-fish, 13,500 eels to the merchant A'akala; 720 litres of smoked fish as regular offering to the prison (sa$_2$-du$_{11}$ en-nu-ĝa$_2$).[36]

As mentioned above, the most striking difference between enkus and fishermen generally lays in the quantity of fish managed. For example, STA 11 (AS 1/-) records the capital (saĝ-niĝ$_2$-gur$_{11}$-ra) of produce available to Ur-Šulpa'e, probably the scribe son of Lugal-kugani. The section concerning fish shows that the governor was the provider of the fish conveyed by (ĝiri$_3$) Ur-Sin the fisherman (110 weir *maš*-fish of good quality, 600 litres of smoked fish), and by (ĝiri$_3$) Ur-BaU the enku (360 weir fish, 19,740 gutted fish, 6300 ĝirus-fish, 12,600 beheaded fish). Regardless of the quantity, this text indicates that the delivery of Ur-Sin did not converge in that of the enku.

Ur-Sin is one of the fishermen attested in different documents as delivering silver in lieu of fish (ku$_3$ ku$_6$).[37] From AOS 32, C16 (AS 4/-) we know he was a member of the royal personnel (ĝiri$_3$-se$_3$-ga ^{d}Amar-^{d}Suen).[38] Another fisherman delivering silver in lieu of fish is Hunlah,[39] who was a fisherman of the city-god Šara.[40] This could explain, in my opinion, why their deliveries did not require the intervention of intermediary figures (scribes or enkus), since their households of pertinence might have profited from direct connections with the provincial Fiscal Office.[41]

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[33] In the circulation of items, the function of the conveyor can be related to the unit of provenance (e.g. working-team, agricultural plot), as it is clear in the transactions of silver or fish conveyed by fishermen and delivered by an individual of higher status (see above), or to the receiving institution. Since SNAT 347 concerns the available capital, the function implied by the term ĝiri$_3$ might be related to the provenance of the fish, rather than to the receiving institutions.

[34] It should be considered that Umani and Lugal-kugani are also names of fishermen: the fisherman Umani is attested in Nisaba 23, 79 (-/-), while the fisherman Lugal-kugani in Nik 2, 401 (ŠS 2/-). However, the comparison with Aleppo 407, on the one hand, and the presence of the scribe Lugal-niĝlagar'e among the conveyors, on the other, suggest that SNAT 347 concerns the circulation of fish on a higher level (that is, not involving the actual exploiters, the fishermen).

[35] Steinkeller 2004, 98.

[36] For this last transaction the text specifies it has to be erased in the tablet of Gududu (rev. 5–6: zi-re kišib$_3$-ba / Gu-du-du), probably the son of the provincial governor Dadaga.

[37] MVN 14, 157 (Š 43/-); AOS 32, C16 (AS 4/-); MVN 9, 212 (ŠS 1/xii); BPOA 7, 2920 (ŠS 2/iv).

[38] See also Englund 1990, 180 and 195.

[39] BIN 5, 109 (Š 42/-).

[40] Steinkeller 2004, 107, fn. 59.

[41] In any case, the quantities of fish and silver delivered by individual fishermen may have been related to the fish and labour supplied by the single groups of workers under their responsibility. See e.g. AnOr 1, 88 (AS 5; rev. iii 8'–17'), which shows Ur-Sin as responsible (ugula) for a team of 14 fishermen (in the detail section: ĝuruš šu-ku$_6$) employed for specific cult purposes: regular offerings (sa$_2$-du$_{11}$) to the city-god Šara, Ninura, the Emah-temple, Šulgi, the travel station (e$_2$-kas$_4$), and Amar-Sin. This

Regardless of the underlying reasons (particular connection with the provincial administration or work obligation), we can state that there were fishermen who had a direct connection with high-ranking scribes, who managed different kinds of products. However, this is not the case of merchants. The following tables summarise the cases analysed by Ouyang in connection with fish and fish oil received by the Umma merchants (dam-gar$_3$) and show that fishermen interacted with high-ranking scribes, but not with merchants. In STA 22 (AS 4/i), the payer is the high-ranking official Ur-e'e and in two cases, BPOA 7, 1898 (Š 47/-) and TCL 5, 6046 (AS 4/-), the scribe Ur-Šulpa'e, son of Lugal-kugani. In BPOA 7, 1898 Ur-Šulpa'e supplies fish and dates, while in TCL 5, 6046 (AS 4/-) fish from specific places or warehouses (e$_2$ kišib$_3$-ba).[42] One of the amounts of fish supplied by the scribe is labelled as being fish of Ur-Sin, very probably the fisherman of the royal personnel (**Table 5**).

Text & Merchant	*From*	*Product & description*	*Quantity*	*Silver (shekel)*
BPOA 7, 1898 (Š 47/-) Ur-^{d}Dumu-zi-da (dam-gar$_3$ ^{d}Šara$_2$)	Ur-^{d}Šul-pa-e$_3$ dub-sar dumu Lugal-ku$_3$-ga-ni	548.2.0 **zu$_2$-lum** gur	158,520 *l.*	-
		20.0.0 ku$_6$ šeg$_6$	6000 *l.*	
STA 22 (AS 4/i) Ur-^{d}Dumu-zi-da	Ur-e$_{11}$-e (šuš$_3$)	28.3.0 ku$_6$ šeg$_6$	8580 *l.*	14.21
TCL 5 6046 (AS 4/-) dam-gar$_3$-ne	Ur-^{d}Šul-pa-e$_3$ (dub-sar)	17.3.0 ku$_6$ šeĝ$_6$ [gur]	5280 *l.*	8.80
		3000 ku$_6$ ša$_3$-bar [sig] **e$_2$ kišib$_3$-ba** erin$_x$	3000 *u.*	1.94
		3300 ku$_6$ saĝ-[kur$_2$] **e$_2$ kišib$_3$-ba Ur-^{d}**[...] **ku$_6$ Ur-^{d}Suen [šu-ku$_6$?]**	3300 *u.*	2.06
		9900 ku$_6$ saĝ-kur$_2$ Ka-i$_7$-da [...]	9900 *u.*	11
		1.4.0 i$_3$-ku$_6$ gur	540 *l.*	18

Table 5: *Fish and fish oil received by the Umma merchants I. Table adapted from Ouyang 2013, 243–245: table 5.2.E.*

In four cases, the suppliers of large amounts of fish are the enkus: Ur-Mami, Lugal-kuga(ni) and Ur-Utu. This would imply that they had a direct connection with merchants (**Table 6**).

text can be compared to UTI 4, 2417 (AS 1/-), which records the delivery of fish labelled as 'labour of fishermen' for given cult purposes (see above).

[42] Since Ur-Šulpa'e is the scribe who receives fish labelled as 'labour of fishermen' in UTI 4, 2417 (AS 1/-) and Princeton 1, 531 (AS 2/-), one may wonder whether at least part of the fish delivered by him in the merchant account may derive from the 'labour of fishermen'.

Text & Merchant	*From*	*Product & description*	*Quantity*	*Silver (shekel)*
TCL 5 6046 (AS 4) dam-gar$_3$-ne	Ur-^{d}Ma-mi enku	27,600 ku$_6$ ĝir$_2$-us$_2$	34,140 *u.*	40.73
		6540 ku$_6$ ĝir$_2$-us$_2$		
		900 ku$_6$ ša$_3$-bar	3900 *u.*	10.33
		3000 ku$_6$ ša$_3$-bar		
		4380 ku$_6$ saĝ-kur$_2$	4380 *u.*	4.87
			42,420 *u.*	**55.93**
	Lugal-ku$_3$-ga dumu Ur-^{d}EN[...] (Lugal-ku$_3$-ga-ni enku dumu Ur-^{d}Suen)	16200 ku$_6$ ĝir$_2$-us$_2$	16200 *u.*	20.75
		1740 ku$_6$ ša$_3$-bar	1740 *u.*	1.93
		4560 ku$_6$ gam-gam	4560 *u.*	5.07
			22,500 *u.*	**27.75**
Nisaba 6, 34 (AS 6) Pad$_3$-da	Ur-^{d}Utu enku (niĝ$_2$-ka$_9$ aka nam-enku Ur-^{d}Utu-ka)	54,000 ku$_6$ ĝir$_2$-us$_2$ / kišib$_3$ Pa$_3$-da a-gu$_3$ Lu$_2$-kal-la-ka ĝa$_2$-ĝa$_2$-dam	**54,000 *u.***	-
UTI 5, 3406 (ŠS 9) A-a-kal-la	Ur-^{d}Utu (enku)	3240 ^{ku6}suhur	3240 *u.*	-
		49,680 ku$_6$ ĝir$_2$	49,680 *u.*	
		13,500 ku$_6$ gam-gam	13,500 *u.*	

Table 6: *Fish and fish oil received by the Umma merchants II. Table adapted from Ouyang 2013, 243–245: table 5.2.E.*

As we can note, Nisaba 6, 34 (AS 6/-) specifies that the delivery of the enku Ur-Utu comes from the account of his nam-enku, '*enku*-status', that is a label characterising different transactions managed by enkus.

Fish of the 'nam-eren$_2$', fish of the 'nam-enku'

Orient 16, 106 170 (-/-) attests two quantities of fish, one defined as **ku$_6$ nam-eren$_2$-na**, 'fish of the *eren*-status' and one as **ku$_6$ nam-⌈enku⌋**, 'fish of the *enku*-status'.

The first amount is split in two quantities, likely under the supervision of two different fishermen,[43] one of them being Badaga, the fisherman who supplied fish labelled as 'labour of fishermen' (a$_2$ šu-ku$_6$) to the scribe Ur-Šulpa'e (see above).

The second amount has no supervisors and is labelled as 'fish of the nam-enku', which to the best of my knowledge is attested only in Ur-III Umma and in one text from Ur, the capital of the state. In the text from Ur (UET 3, 1310 (IS 6/[...]), a quantity of fish is defined as 'fish of the nam-enku' (ku$_6$ nam-enku-ra) in the marsh planted with palm seedlings (ambar peš du$_3$-a)[44] and is conveyed (ĝiri$_3$) by the enku Ku-Nanna. From Umma, attestations of 'nam-enku' occur in connection with fish oil, fish and silver delivered by different enkus.

[43] The name of the second fisherman is lost in a break at the bottom of the tablet.

[44] With regard to the mentioned marsh, it may have been that which Ur-Namma, the founder of the dynasty, claimed to have drained (at least part of it) by digging a canal; see Greco 2020.

UCP 9-2-2 122 (AS 1/-) offers us the example of Ur-BaU, in this case much probably the enku, delivering 104 litres of fish oil labelled as 'oil of the nam-enku' (**i$_3$ nam-enku)** to the governor, while in UTI 5, 3284 (AS 9/-) Lugal-kugani delivers 65 litres of fish oil labelled as oil of the nam-enku to Ur-Šulpa'e.

Hirose 407 (ŠS 3/-) shows Ur-BaU delivering 9000 litres of smoked fish labelled as 'fish of the nam-enku' (**ku$_6$ nam-enku**) allocated to feed little dogs arrived from the palace for ten months (obv. 2-3: ša$_3$-gal ur-gi$_7$ tur-tur / e$_2$-gal-ta er-ra iti 10-kam). In Santag 6, 340 (IS 2/xii), he also delivers 600 beheaded fish and 10,560 litres of smoked fish labelled as 'fish of the nam-enku' (obv. iv 10-13) in the yearly account of spices (niĝ$_2$-ka$_9$ aka mun-gazi) of Gududu, probably the son of the governor. In SAT 2, 1161 (AS 9/-), the enku Lugal-kugani receives (šu ba-ti) 4500 litres of mixed fish (ku$_6$ hi-a) labelled as nam-enku, but unfortunately there is no mention of any providers.[45] Lastly, in BPOA 2, 2412 (AS 7/iv), Ur-Utu delivers 56 baskets (^{gi}kaskal), 60 litres each, of smoked fish labelled as 'fish of the nam-enku' to the warehouse (e$_2$ kišib$_3$-ba), a transaction ratified by the scribe Lu-kala son of Ur-E'e. In addition, the text specifies that the tithe has already been deducted from the delivered amount of fish.[46]

As far as silver is concerned, we have the example of Ur-Utu delivering a no longer readable amount of silver labelled as 'silver of the nam-enku' **(ku$_3$ nam-enku)** in the silver account of the Apišal district (ZA 95, 191 [IS 1]; obv. i 13–15),[47] and that of Umani responsible for (kišib) 2 kg (4 ma-na) of silver related to the work of 40 half-employed fishermen in six years (Š 33–38) and labelled as 'silver of the nam-enku' (*Treasuring the word S 84* (-/-); see above).[48]

In any case, the most illustrative case is the account of the nam-enku of Ur-Utu, Nisaba 6, 34 (AS 6/-).[49] The first section describes the capital (saĝ-niĝ$_2$-gur$_{11}$-ra-kam) made up of a large amount of unprovenanced fish and fish oil: 499 weir fish of good quality, 243 weir fish of low quality, 1860 weir carp, 1732 gutted carp, 163 gutted *suhur*-fish, 1560 split fish, 64,800 ĝirus-fish, 49,035 litres of smoked fish and 375 litres of fish oil. The expenditure section shows that the collected amounts were directed to the palace (e$_2$-gal), the governor (ensi$_2$), the merchant Pada, Lukala, probably the son of Ur-e'e, the scribe Ur-Šulpa'e, probably the son of Lugal-kugani, the scribe Lugal-niĝlagar'e, probably the son of Lugal-saga, here connected with Ur-Šulpa'e for the holy mound provision,[50] Ur-BaU, probably the scribe son of Da'aga, and to Nir-idaĝal, who may have been the general connected to the royal family involved in the circulation of workforces, here occurring as recipient of fish as food for dogs.[51] Interesting to note, the capital section coincides with the expenditure section, thus neither surplus nor shortfalls are counted. Moreover, the still unpublished BM 106612 (ŠS 3/-) suggests that Ur-Utu was directly responsible for

[45] The text reports the seal of Lugal-kugani son of Ur-Sin, without specifying his professional title. In any case, his title is suggested by this text, UTI 5, 3284 (see above) and Princeton 1, 541 (Š 34/-), where he delivers an unspecified amount of silver labelled as ku$_3$ enku. A kinship with the enku Lugal-nesaĝ'e son of Ur-Sin is unclear.

[46] Whether this tithe implies a connection with the local firstling festival (as the month name would suggest) is unclear to me; see also above fn. 28.

[47] A similar text, ZA 95, 175 [...] reports (obv. iv, 14–17) 10 shekels of silver labelled as 'labour of fishermen' (ku$_3$ a$_2$ šu-ku$_6$-e-ne) supplied by the scribe Lugal-heĝal son of Ur-Sin and 32 shekels of silver supplied by Ur-Utu the enku, with no further specification. With regards to both texts, see D'Agostino and Pomponio 2005.

[48] This transaction is recorded in a summarising tablet (Santag 6, 19; obv. i, 1–23) collecting the 'deficit tablets of the individuals (entitled) to take over commodities' (kišib la$_2$-i$_3$ lu$_2$ niĝ$_2$-dab$_5$-ba-ke$_4$-[ne]). With regard to this group of persons, see Sallaberger 1993, 49, fn. 205. In Santag 6, 19 the silver shortfall ascribed to Umani is not labelled as nam-enku; whether this information was irrelevant or implied in the concept of lu$_2$ niĝ$_2$-dab$_5$-ba is unclear to me. The section concerning Umani also records a quantity of fish without further indications and two quantities of fish with their silver value ascribable to 18 transactions (sealed tablets: kišib). A further amount of cereals seems erroneously ascribed to him by the scribe, who compiled the text.

[49] CDLI P322305 (AS 6/-) reports the same text of Nisaba 6, 34, while a further balanced account of Ur-Utu can be NYPL 75 (AS 5/-), where the expression 'niĝ$_2$-ka$_9$ aka nam-enku' could be lost in the breaks at the bottom of the tablet (rev. iii, 2'–3': [niĝ$_2$-ka$_9$ aka nam-ZAG].HA / [Ur]-^{d}Utu-ka).

[50] Obv. ii, 15–20: *q* fish du$_6$-ku$_3$-še$_3$ kišib Lu$_2$-niĝ$_2$-lagar-e a-gu$_3$ Ur-^{d}Šul-pa-e$_3$-ka ĝa$_2$-ĝa$_2$-dam.

[51] With regard to generals and dogs, see Tsouparopoulou 2012.

the payment of the fish computed in his account of nam-enku. The text indeed specifies that if he had not produced (nu-ak) and had not delivered (nu-mu-de$_6$) his account (covering one and a half year), he would have had to supply its value in silver (labelled as ku$_3$ nam-enku).[52]

Following Steinkeller,[53] the term nam-eren$_2$ can be associated with state dependent individuals (eren$_2$) tied to the royal sector. However, it seems that in our context that label, especially nam-enku, regarded items, not individuals. At this point, one may wonder whether the 'nam-enku' regarded fish, or the related silver, collected from displaced royal territories –according to Steinkeller widely present in the Umma territory–[54] and allocated to the royal sector (here represented by Nir-idaĝal) or important institutional purposes via the provincial Fiscal Office, which managed both the expenditures on behalf of Ur, in terms of silver or kinds, and the expenditures for national cult purposes, such as the holy mound and the boat of firstlings in Nippur. In addition, one can hypothesise that the nam-eren$_2$ regarded the occasional employment of workforces from the royal sector in teams headed by institutional fishermen in support of the institutional economy.[55]

Another possibility is that the labels nam-eren$_2$ and nam-enku referred to some kind of work obligation towards the state that supervisors of fishermen and enkus respectively had.

In the case of fish of the nam-eren$_2$ this can be hypothetically connected to the fish labelled as a$_2$ šu-ku$_6$ 'labour of fishermen' and tied to the fish caught/processed/transported by workers within their *bala*-service. A sort of specific condition that allowed fishermen as Badaga to occasionally avoid the intermediation of scribes or enkus in the circulation of fish within the provincial offices. This would also imply that the state supplied the 'capital' available to the supervisors of fishermen in terms of man-days from conscripted labour. At this point, the difference in the fish amounts simply delivered by an enku and those labelled as 'nam-enku' might have lay in the 'capital' of fish managed: whether it derived from his own activity or from transactions internal to the provincial offices, or even, whether it derived from his own activity or from his work obligation towards the state.[56]

Final remarks

As we have seen, what extant economic documents substantially describe is a network of human bureaucratic interactions, which aim to control and exploit the surrounding landscape. The Umma documents show that the enkus were 'fish collectors', a sort of intermediary agents the provincial Fiscal Office employed to manage scattered and elusive resources. Their activity is particular evident in Ur-III Umma, while very little information about this ancient profession comes from other Ur-III archives, such as that of Ĝirsu. This surely depends on the randomness of the findings; however, one may wonder whether this could reflect Englund's idea that Umma was a trade centre devoted to trading local catch for imported goods,[57] reason why in Ur III Umma we have several attestations of the activity of enkus in the provincial archive, as their activity came into contact with the institutional economy.

[52] I owe this reference to Manuel Molina. The information offered by this text would imply that the provincial Fiscal Office could in some way estimate the value of the starting capital available to Ur-Utu in that span of time.

[53] Steinkeller 2013, 351 and 361.

[54] Steinkeller 2013, 359.

[55] For this possibility, see Steinkeller 2013, 383. According to the Author, this type of work would not be connected to the corvée obligation that the members of the royal sectors owed to the state.

[56] It may have been a sort of obligation comparable to the a$_2$ ĝeš-ĝar-ra enku-e-ne 'obligation of the enkus' attested in Puzriš-Dagan. See e.g. RSO 83, 343 5 (Š 45/x). On this term applied to fish deliveries, see Englund 1990, 164, n. 438.

[57] Englund 1990, 219: 'Ĝirsu scheint mehr ein Verwaltungszentrum gewesen sein, das die Arbeitsleistungen der Fischer abrechnete und Fisch primär als Lebensmittelressource der einheimischen Bevölkerung betrachte; Umma war dagegen eher ein Handelszentrum, das sich hauptsächlich der Umsetzung des Fangs in Importgüter widmete.'

With the due differences, their activity might recall that of the Old Babylonian private businessmen,[58] where, due to the opposite perspective of the texts, we have only indirect information about the relationship between tradesmen and institutional authority.

Addendum

At the time when I wrote this paper my article 'Whips and Boats. On Hunters and Fishermen in Third Millennium Southern Mesopotamia' (Archiv Orientální 89) was not yet conceived and N. Borrelli's 'Fisheries in Ur III Southern Mesopotamia' (Annali Sezione Orientale 81) had not yet appeared.

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[58] In Early Old Babylonian Ur a merchant of fishermen (dam-gar$_{3}$ šu-ku$_{6}$-e-ne) is attested among tradesmen; see Van de Mieroop 1992, 202.

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The Transformation of the Urban Landscape at Hatra (5th/4th Cent. BC – 3rd Cent. AD)

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Abstract

This paper explores the development of the centre of Hatra from the first settlement to the fall of the city in AD 240/1. Published and unpublished archaeological, historical, and epigraphical data have been used to propose the different phases.

Keywords

Hatra, Parthian Period, City Planning, Iraq

Introduction

The ancient site of Hatra is located in the Iraqi Jazira, about 80 km south-west of Mosul. The city, which was brought to the attention of the international community when ISIS/Daesh destroyed its architectural decoration, was the capital of an important buffer state located between the Parthian and the Roman Empires.[1]

The site, encircled by a subcircular curtain wall, presents itself to visitors as an area full of tells extending for about 300 ha (**Figure 1**). A network of irregular streets, easily detectable on ground, aerial, and satellite images, define districts where small shrines, houses, shops, palaces, and funerary buildings have been excavated by several archaeological expeditions.[2] A great Temenos built in stone of about 14 ha stands in the city centre, where the most famous temples dedicated to the Triad gods of Hatra (Maran, Martan and Bar Maren) were built.[3]

This paper examines the different urban phases of Hatra by crossing the archaeological and epigraphical data spanning a period that goes from the foundation of the first village, whose exact date remains unknown, to the city's destruction by the Sasanian army in AD 240/241. Other papers have explicitly investigated this topic in the past, but a general revision that combined different types had to be assessed.[4]

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[1] For the extension and features of the Kingdom of Hatra: Hauser 2000; 2009; Foietta 2018, 141–150; Foietta 2020. An Expedition of the Ismeo, Universities of Padova and Siena (Director: M. Vidale) supported by the Aliph Foundation is working on assessing the damages at Hatra.

[2] For a detailed report about the history of the studies: Venco Ricciardi 2000, 90–92; Foietta 2018, 7–21.

[3] Here the Great Iwans, the Twin Iwans, the Square Temple, the Triad Temple, the Temple of Shahiru, the Temple of Samya (in the upper terrace), The Temple of Maran or the so-called 'Hellenistic Temple', the Temple of Allat (in the lower terrace) are built (Venco Ricciardi and Parapetti 2000; 2013).

[4] See, for instance: Gawlikowski 2013. For the most part, unpublished data belong to the Italian Archaeological Expedition at Hatra of the University of Torino. For this reason I want to thank Roberta Ricciardi Venco for her constant help and the possibility of using the information stored in the Italian Archive of Torino.

Figure 1: *Aerial view of the city of Hatra from south (RAF '30s).*

How to analyse and subdivide urban landscape? Between HatraGIS and the Urban Morphology

In 2014, a multilayer GIS was created to analyse in detail the urban space of Hatra (HatraGIS), containing published and unpublished data, the latter mainly pertaining to the Italian Archaeological Expedition (Università di Torino). The GIS project integrates multi temporal images, ranging from the earlier maps dating back to the beginning of the 20th century to the topography of the Italian Expedition (1986–1988) and the most recent satellite images.[5]

The layout of the main-streets network has been used as the main *criterion* for the subdivision of the urban space into 25 urban areas that possibly corresponded to ancient districts, using a standard methodology employed in Urban Morphology research (**Figures 2 and 3**).

All relevant chronological data has been gathered in specific layers of HatraGIS: dated inscriptions,[6] inscriptions including the names of local rulers,[7] archaeological remains, and the information provided by different architectural building phases. There are more than 600 inscriptions in Hatran (eastern Aramaic), and only 32 of them (recovered inside the city layout) show year dates.[8] Their findspots have been identified and a distribution map has been created. The same method has been accomplished with 71 inscriptions containing the name of the rulers with the titles *marya* (Lord) and *malka* (King).[9]

[5] For a complete list of the shape layers uploaded and the detailed methodology used for HatraGIS see Foietta 2018, 41–45.
[6] See Tab. 24 (Foietta 2018, 444–445, 471, fig. 276).
[7] Foietta 2018, Appendix 2, 520–524.
[8] For the complete list and system of enumeration of the inscriptions from Hatra: Marcato 2018, 17–19; Moriggi and Bucci 2019, Concordances of Texts, 156–193.
[9] Foietta 2018, 471–473, figs. 276–279.

Figure 2: *General plan of Hatra with the location of the main excavated areas (HatraGIS – Italian Archaeological Expedition at Hatra, Torino).*

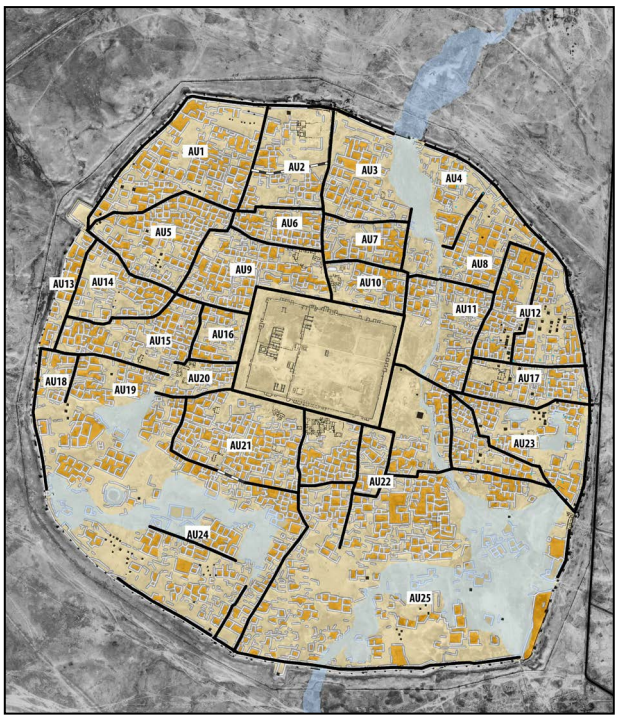

Figure 3: *General plan of Hatra with the street network and the urban areas (HatraGIS – Italian Archaeological Expedition at Hatra, Torino).*

The main urban phases at Hatra

Considering the archaeological, epigraphical, and historical data, we can identify six urban phases, from the first settlement —of uncertain date but usually dated back to the 'Post-Assyrian' period— until the fall of the city in AD 240/1.[10]

Archaeological data are scanty especially for the most ancient periods, while they become more and more consistent for what concerns the so-called 'Great Hatra' (2nd–3rd century AD), even if the excavated areas, also for the better-known period of the city-life, involve only about 10–15% of the whole surface.

The first settlement (Figure 4a)

Iraqi archaeologists suggest that the site upon which Hatra grew was first occupied during the Neo-Assyrian period, although this still needs to be supported by archaeological evidence. Their assumption was based on the easy-access to water at the site[11] and upon consideration of the expansion and use

[10] For the definition and features of the so-called 'Post Assyrian' period, a huge debate in the scientific community studying the Near East exist; nevertheless it is still used to include the time-span between the fall of the Assyrian Empire and the Hellenistic period.

[11] On this topic: Foietta 2018, 163–173; Foietta (in print).

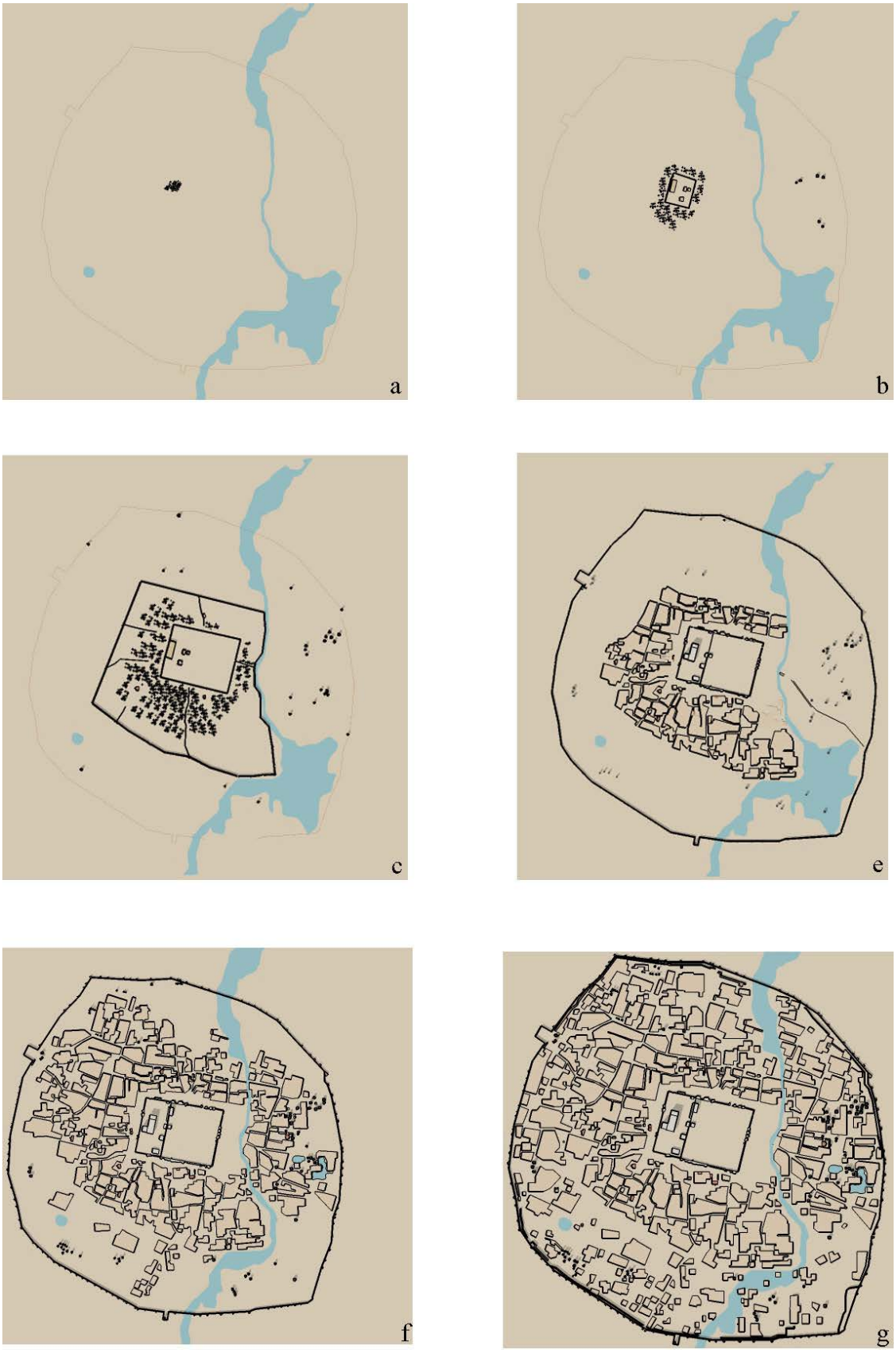

Figure 4a–f: *3D reconstruction of the six urban phases proposed.*

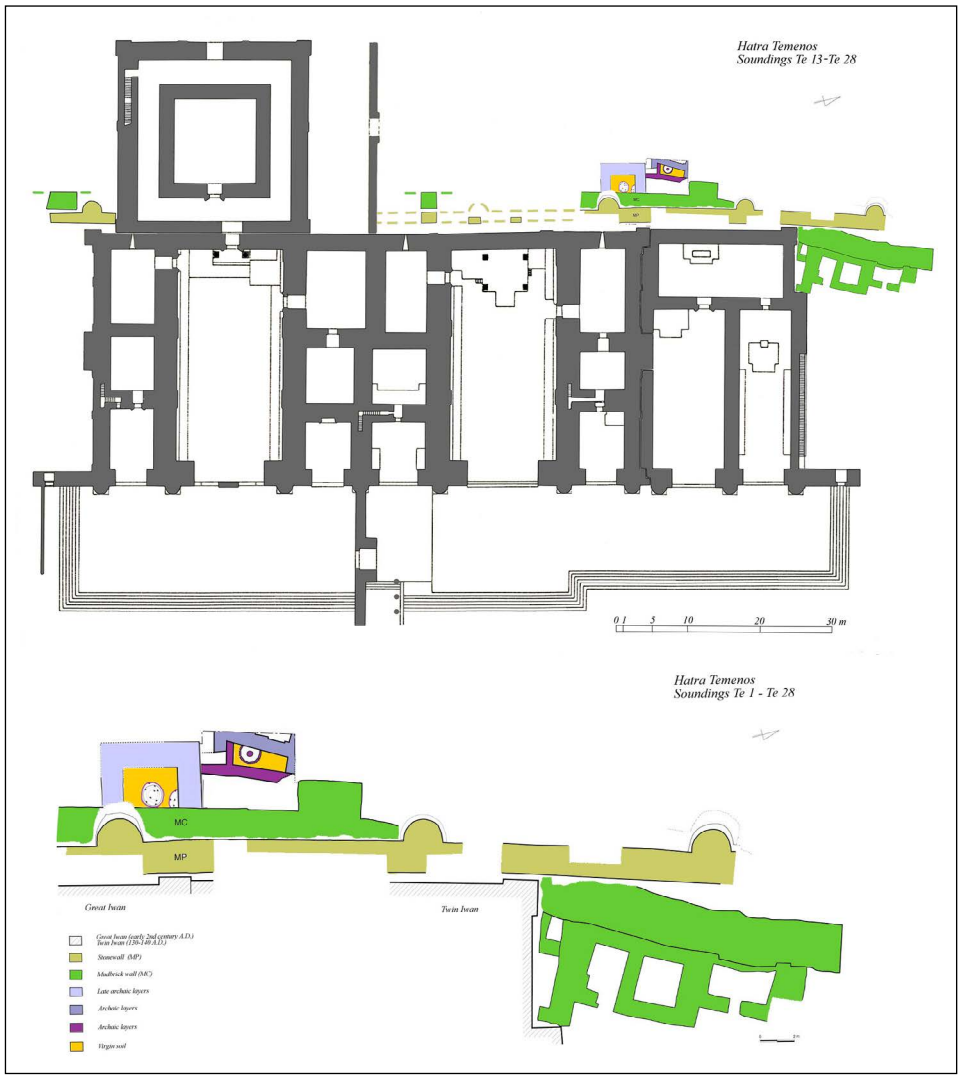

Figure 5: *Plan of the deep trenches of the Italian Archaeological Expedition at Hatra (Archive of the Italian Expedition at Hatra - Torino).*

of 'tracks' during the campaigns of the Middle and Neo-Assyrian kings.[12] F. Safar and M.A. Mustafa, for instance, have suggested that certain ash layers discovered in some deep trenches excavated down to the_virgin soil in the Temenos must be considered the remains of an ancient occupation or partial occupation by nomadic groups, who crossed the Jazira during this early period.[13]

The first substantial phases of the site, however, were detected by the Italian Archaeological Expedition (Università di Torino) in the area of the Temenos, in deep trenches (Te1, Te24) located west of the Twin Iwans (**Figure 5**).[14] Here in the lower archaeological layers just above the virgin soil were found several rooms —apparently with a domestic purpose— and a kiln, which had been abandoned and then replaced by a new structure, identified possibly as a small shrine.[15] The recovered pottery fragments

[12] For instance: Reculeau 2011.

[13] F. Safar and M.A. Mustafa opened some small trenches in rooms 3, 6, 10 and 14 of the Great Iwans (Safar and Mustafa 1974, 331), while J. Ibrahim excavated some trial trenches north of the stair of the Allat Temple (sounding 1) and south of the Square Temple (sounding 2) (Ibrahim 1986, pl. 59).

[14] Peruzzetto and Valentini 2000, 160–161; Peruzzetto and Venco Ricciardi 2013, 86–87.

[15] Peruzzetto and Venco Ricciardi 2013, 86–87.

date between the 4th and 2nd centuries BC, with one earlier fragment of a black-slip lamp possibly from the last decades of the 5th century BC[16] and an *ostracon* with an inscription in 'Imperial Aramaic', probably dated a bit later.[17]

The dimensions and features of this first settlement are mostly unknown, however there is some scanty evidence that suggests the existence of a village, perhaps over a few hectares, and probably centred in the west part of the later Temenos area (**Figure 4a**).

***The village of the first half of the first century BC to the first half of the first century AD* (Figure 4b)**

There is little known information on the village that dates from the first half of the 1st century BC to the first half of the 1st century AD. The wall known as 'MC' that was discovered in the Italian trenches behind the Great Iwans (Temenos) was likely built at this time.[18] It was a wall entirely made of bricks (without a stone basement) 3 m wide and 120 m long, characterised by full square buttresses built in at a regular distance (**Figure 5**). On the inner side of the wall, several rooms have been added, as well as in the later monumental Temenos in stone. The chronological setting of MC has been clarified based on the pottery sherds discovered in associated layers.[19] Given the architectural features of the wall, A. Peruzzetto and R. Venco Ricciardi have identified its remains as part of a religious enclosure, functionally similar to the later monumental stone Temenos.[20]

According to the Iraqi archaeologists, layers of mud-bricks were discovered below the main temples of the Temenos (Great Iwans, Twin Iwans, Allat Temple, Square Temple), which likely indicate earlier phases of these religious buildings.[21] These trenches have been only partially published, and it is yet unknown if the building remains have the same layout as the later temples.

The full plan of the MC wall is unknown; only its west side has been exposed, and no corner has been found, which could suggest its original layout. In reconstructing this phase (**Figure 4b**), the MC wall has been represented as delimiting the space around what are considered to be the most ancient temples of the Temenos: the Great Iwans, the Temple of Maran, the Temple of Samya, and the Temple of Shahiru.[22]

Other buildings were likely scattered around this sacred enclosure, forming the village, but yet remain to be explored by archaeologists. The settlement in use during this period was probably larger than the previous one, as it could accomplish the construction of temples and the big enclosure wall around them. During the first half of the 1st century AD, certain funerary buildings of Type 2, characterised by multiple chambers, might have been built especially in the eastern area of the site. Unfortunately, due to the lack of dated inscriptions, it is impossible to identify which are actually related to this ancient chronology, but a suggestion in this sense can be proposed using the funerary building chronology indicated by F. Dorna Metzger, together with the information on Funerary Building II (**Figure 5**).[23]

During this time-span, the settlement should most likely be considered as pre-urban, mainly for the the large enclosure in bricks, around which nomadic groups would probably encamp, as customary for

[16] Venco Ricciardi 2008, 147–148; Peruzzetto and Venco Ricciardi 2013, 87.
[17] Bertolino 2000, 133–138; Moriggi 2010, 129.
[18] The walls MC have been discovered in Te28, 4, 24, 1, 10, 7, 13.
[19] Venco Ricciardi 2008, 134.
[20] Peruzzetto and Venco Ricciardi 2013, 87.
[21] Safar and Mustafa 1974, 331; Ibrahim 1986, 93–94.
[22] Foietta 2018, 477, fig. 286.
[23] About this topic and the chronology of tombs: Foietta 2018, 454; 376–380. For the study of Funerary Buildings at Hatra: Dorna Metzger 1998, 2000b. For the specific chronology of Funerary Building II, see the next phase.

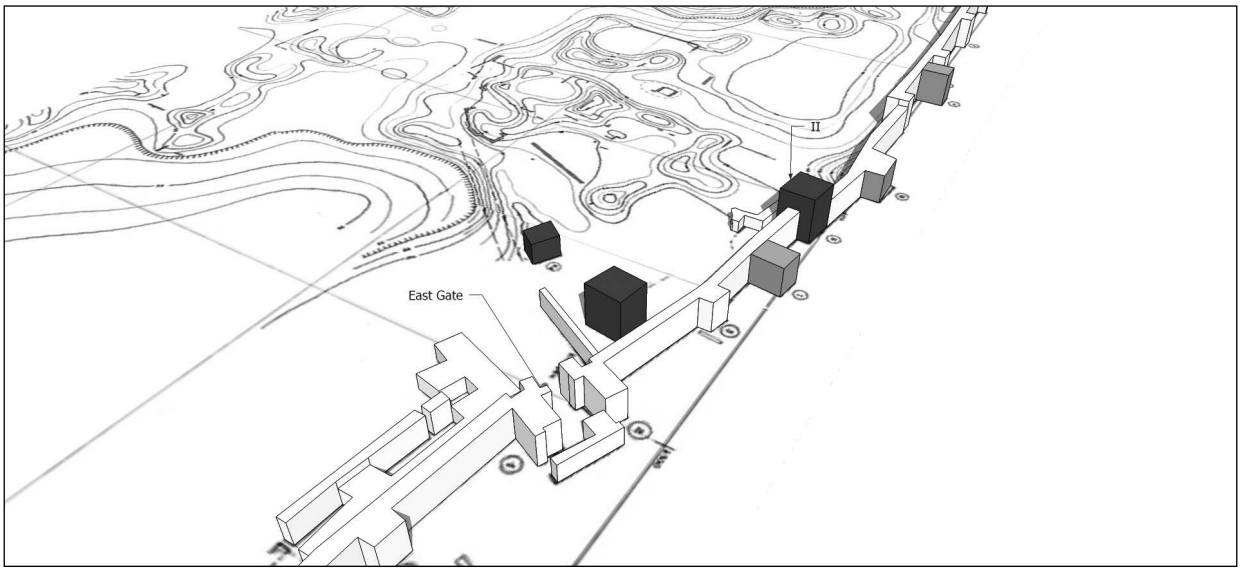

Figure 6: *3D reconstruction of the East Gate and location of Funerary Building II, eastern part of the city.*

instance at the beginning of the 20th century.[24] There might have not been a defensive walls around it, perhaps due to the absence of a significant enemy threat to justify their construction, or perhaps because the buttressed MC wall could also function as a defensive emplacement in case of attack.

***The city from the second half of the first century AD until the end of the century* (Figure 4c)**

From the second half of the 1st century AD onward, there are more archaeological and epigraphical data available. Several new features, such as the presence of a defensive curtain wall, the reconstruction of main temples entirely in stone, the proliferation of small shrines throughout the settlement and the construction of a new Temenos wall in stone, appear to confirm Hatra's urban character.

According to the inscription H416, the Funerary Building II near the East Gate was built at this time (**Figure 6**).[25] The inscription also mentions the first known *marya* (Lord) of the city, Elkud, who ruled the centre probably around AD 55.

Another inscription records that Funerary Building J3 was built about forty years later (AD 98/99) by two local tribes: the Bani Taymu and the Bani Bel'aqab.[26] The members of the tribes were quite prominent and also erected the Small Shrine 8a around the same time, located close to the Temenos area.[27] Unpublished information from some deep trenches made by Iraqi archaeologists, suggests also the presence of an older phase of the shrine.[28] Similarly, another inscription (H463) engraved on the steps of Small Shrine 14 dates the construction to the first years of the 2nd century AD, but for this shrine a previous phase can also be suggested with due probability (**Figure 7**).[29]

[24] Many explorers of the end of 19th and beginning of 20th century testify the presence of nomad tribes encamped near or in the ruins of Hatra. Charles Fossey was obliged to set inside the Temenos to defend himself against them, and Gertrude Bell took several pictures of them.
[25] Foietta and Marcato 2018.
[26] See H293 (Beyer 1998, 85).
[27] See H214 (Beyer 1998, 85).
[28] Al-Aswad 2013, 109; Beyer 2013, 36; Foietta 2018, 455.
[29] Foietta 2018, 455.

Figure 7: *Small Shrine 14 (Archive of the Italian Expedition at Hatra - Torino).*

At the end of the 1st century AD, the stone wall named MP was erected, as discovered by the Italian Expedition in trenches close to the Great Iwans, characterised by semicircular buttresses placed at regular intervals (c. 14 m) (**Figure 5**).[30] In some trenches the foundations of the MP wall cut into the older MC wall. The MP wall is 2 m wide and has been identified for a length of 115 m. According to the Italian archaeologists, it is probably from a period that dates slightly before the construction of the Great Iwans, and certainly before that of the Twin Iwans.[31] Similar semi-circular buttresses have been found in other trenches excavated by the Iraqi archaeologists along the east side of the enclosure, close to the Propyleon,[32] and for this reason, they are believed to belong to the same wall, which had to enclose the whole area.

It seems that at the end of the 1st century AD, several main temples, specifically the Temples of Shahiru, Samya, and Maran were 'reconstructed' in stone, while other religious structures in the area of the Great Iwans were very likely still in mud-brick.[33]

The construction of the most ancient defensive wall of the city, which was discovered in trenches by the Polish Expedition,[34] was probably begun and completed during these fifty years. Its overall layout is uncertain except for the south side. It is possible that this curtain wall followed the inner wadi towards

[30] Peruzzetto and Valentini 2000, 163–164; Peruzzetto and Venco Ricciardi 2013, 84–85.
[31] Foietta 2018, 455–456.
[32] Peruzzetto and Venco Ricciardi 2013, 85.
[33] Peruzzetto and Venco Ricciardi 2013, 82. For the architectural phases of the Temple of Samya and Shahiru: Fossati and Venco 2018.
[34] Gawlikowski 1994; Foietta 2018, 400–402.

the east, using it as a natural ditch, and that the main corners of the wall were located on some of the highest tells of the city (**Figure 4c**).[35] The area delimited by this curtain wall covered 90 ha, which would have required a significant logistic and economic effort on behalf of the city to be constructed. There is no evidence for dating such wall, except for that contained in Cassius Dio's report of Trajan's siege of Hatra in AD 117.[36] Here, the city is described as fortified although 'small and poor', possibly providing a *terminus ante quem* for this curtain wall. It should perhaps be suggested that the defensive wall was planned slightly after the first half of the 1st century AD in order to protect the inhabitants, the shrines, and the Temenos. The shape, layout, and types of homes of the dwelling area are entirely unknown. The street network of the previous village was certainly adapted. Probably several of the streets in the city area delimited by this curtain were built at the end of the 1st century. They seem to have been made of beaten earth, as attested by the Italian excavation of North Street. There were no structures in the area where Building A (Italian Expedition) later stood,[37] and for this reason, it can be suggested that the main settlement was located mainly south of the Temenos.

The funerary buildings were probably built outside the limits of the curtain wall and in some cases were already grouped in necropoleis. The funerary buildings II and J3 were certainly built at that time, but it is possible that almost all the funerary buildings of Type 2 and several of Type 1 were already standing.[38]

It was during this period that the tribes gained extraordinary power within Hatra, as attested in several inscriptions of shrines and funerary buildings.[39] The social hierarchy was clearly defined, with a *marya* (Lord) at the top, priests and chiefs of temples (*rbyt'*) working in administrative capacities, and relevant tribal groups participating in the settled life of the city as indicated by the dedication of important buildings. Several of the small shrines located inside the limits of the curtain wall were probably built in this phase, such as Small Shrines 3, 4, 7, 8b, 12.[40]

The city of the first half of the 2nd century AD (Figure 4d)

The Great Iwans were likely built during the first decades of the 2nd century AD, as is recorded in certain dated inscriptions (H108, H243). The construction of this religious complex is usually considered to be the work of the *marya* Worod (end of the 1st century–beginning of the 2nd century AD), as his name appears on several blocks (**Figure 8**).[41] Also at this time the monumental phase of the Temenos started.[42]

In the first decades of the 2nd century AD the empty open zones of the city were occupied all the way to the limits of the ancient curtain wall. It was probably at this moment that the shape of several blocks was defined and the network and hierarchy of streets established.

In this same period the need of defence required the rulers, at least Worod and Manu (AD 115–116/117), to build more fortifications.

A new defensive project for a stone wall was started, probably similar in layout to the later Main Wall, which takes a subcircular shape. Several articles have reported information about this 'incomplete

[35] Foietta 2018, 401, 419, fig. 258.
[36] Cassio Dio 68, 31, 1.
[37] Dorna Metzger 2000a, 186.
[38] For the chronology and types of tombs: Dorna Metzger 2000b.
[39] See H293, 214. For the tribes at Hatra: Bertolino 2016.
[40] Even if there are not archaeological data to support this hypothesis (Foietta 2018, 458).
[41] H189, 233, 267.
[42] Foietta 2018, 458.

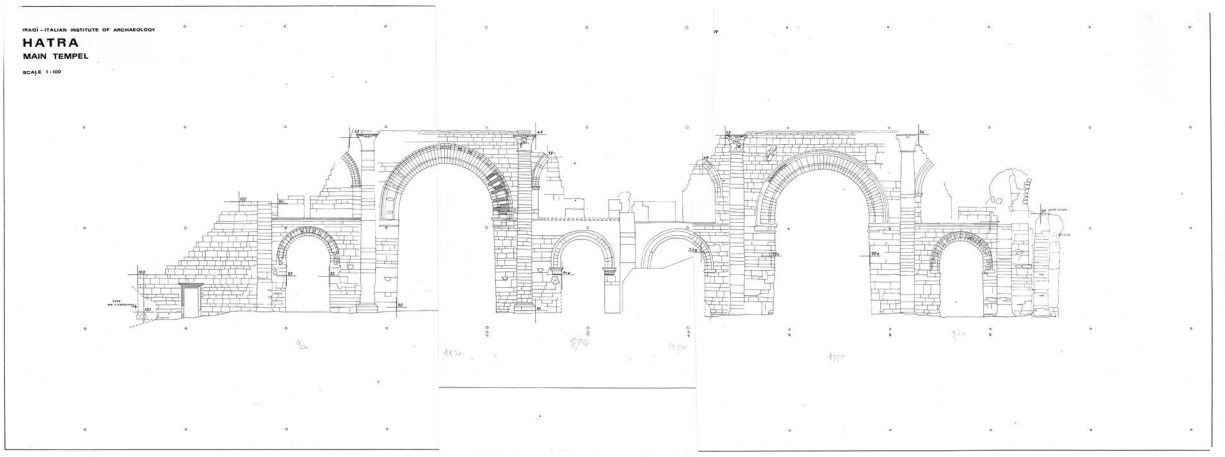

Figure 8: *Photogrammetry restitution of the Great Iwans and Twin Iwans (Archive of the Italian Expedition at Hatra - Torino).*

project'.[43] Its only remains are those attested at the West Gate and the Secondary North Gate. In AD 117, Trajan besieged the city, which was still enclosed by the ancient curtain wall.

The later rulers of Hatra apparently abandoned the project in stone and started building a new wall, which maintained its subcircular shape using quicker building techniques with mud-bricks on a stone foundation and basement.[44]

The ruler who managed to repel Trajan (AD 117) was probably Manu, who appears in only one inscription and probably in Cassius Dio's description of a diplomatic meeting at Edessa in 114 AD.[45] After Trajan's siege, the ancient curtain wall was damaged, and the construction of the new Main Wall became a priority. Its building was most likely begun during the reign of Nashrihab (AD 117–128/129) and completed during Nasru's reign (AD 128/129–137/138), who is mentioned in inscriptions discovered in the East and North Gates, considering its extends and features.[46]

Nasru *marya* built many important structures inside the city layout: the Twin Iwans, the Triad Temple, The Square Temple, part of the Temenos with the so-called Nasru Gate, Small Shrines 5 and 10, engraving his name on most of them.[47]

For about thirty years, the city was greatly affected by this frenetic building activity. At this time Hatra tripled in size, from 90 ha up to 300 ha. The new subcircular city wall encompassed such a vast area that many parts of the city were still left devoid of buildings (**Figure 4d**).

The majority of the necropoleis were at the time within the urban area and some of them enclosed in the layout of the subcircular wall.[48]

[43] Foietta 2015, 298–299; 2016, 245–246.
[44] Foietta 2015, 295–296; 2016, 238.
[45] H288; Cassius Dio 68, 21, 1–2. For this argument: Sommer 2004, 238.
[46] H335, H461.
[47] H352, H33, H67, H250, H272, H273, H274, H346, H351, H355, H356, H358, H359. For Nasru and its representations at Hatra: Foietta 2019.
[48] Foietta 2018, 460.

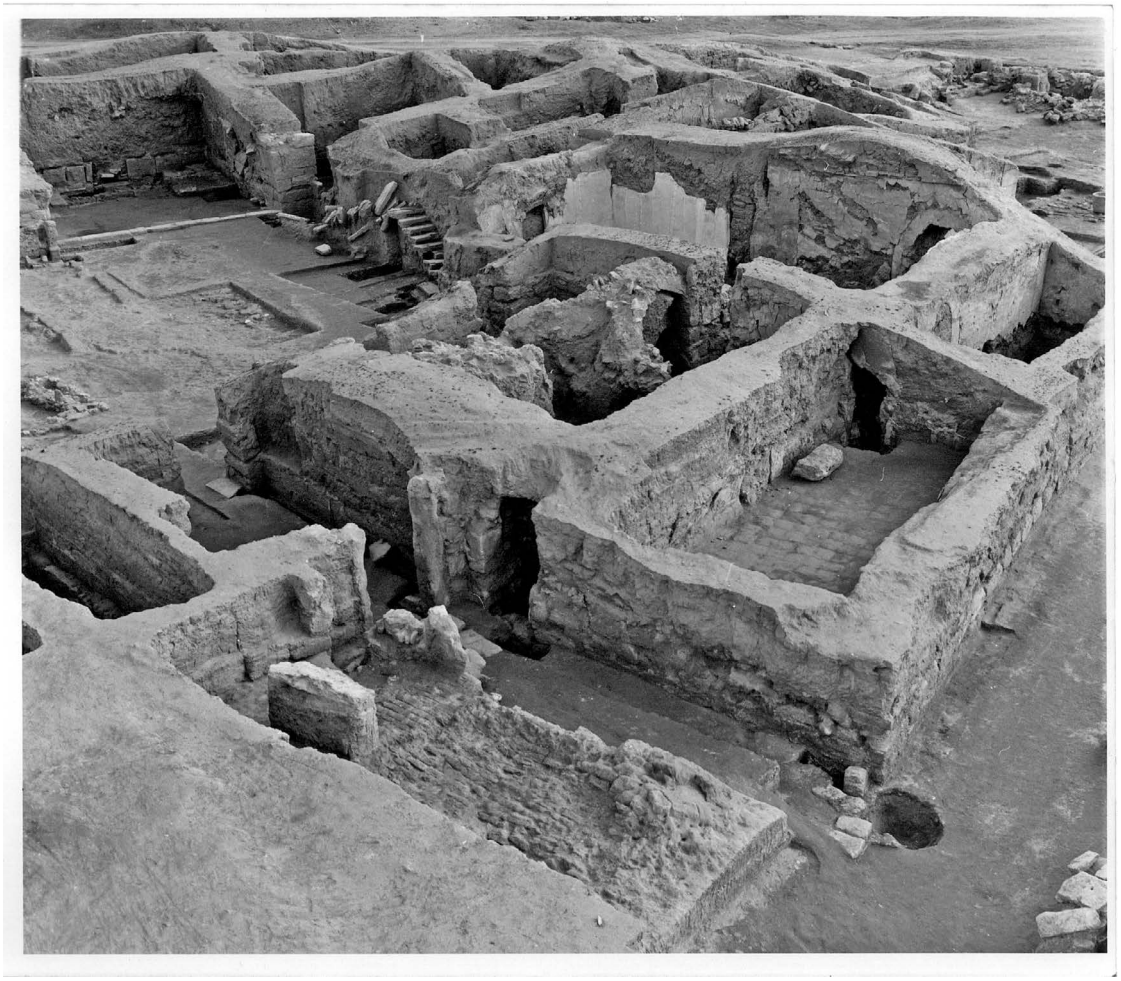

Figure 9: *Building A and North Street (Archive of the Italian Expedition at Hatra - Torino).*

The city of the second half of the 2nd century AD (Figure 4e)

During the second half of the 2nd century AD, the inhabited areas grew progressively, creating new blocks and streets from the centre to the subcircular Main Wall. The blocks that are closer to the fortifications were for the most part built during the last city phase (3rd century AD).

Belonging to this period are the main phases of Building A and the associated part of the North Street (**Figure 9**).[49] It is also possible that Shrines 6, 11, 13, located in the 'new city area', were constructed in this period or later, considering their location outside the hypothetical perimeter of the ancient curtain wall (Polish trenches).[50] During this time, most of the eastern zone of the city was likely planned and built, showing a more regular layout of streets and blocks (**Figure 10**).[51] Also, at this time were

[49] Dorna Metzger 2000a, 185–186.

[50] Foietta 2018, 460. The idea of a previous chronology for the Small Shrines 6 and 13 has been recently proposed by K. Jakubiak, suggesting external temples, as in the case of the Necropole Temple at Europos-Dura. However, there is no archaeological or epigraphical information to support this idea (*contra* Jakubiak 2015, 265).

[51] This part of the city has been entirely surveyed in the Italian topography.

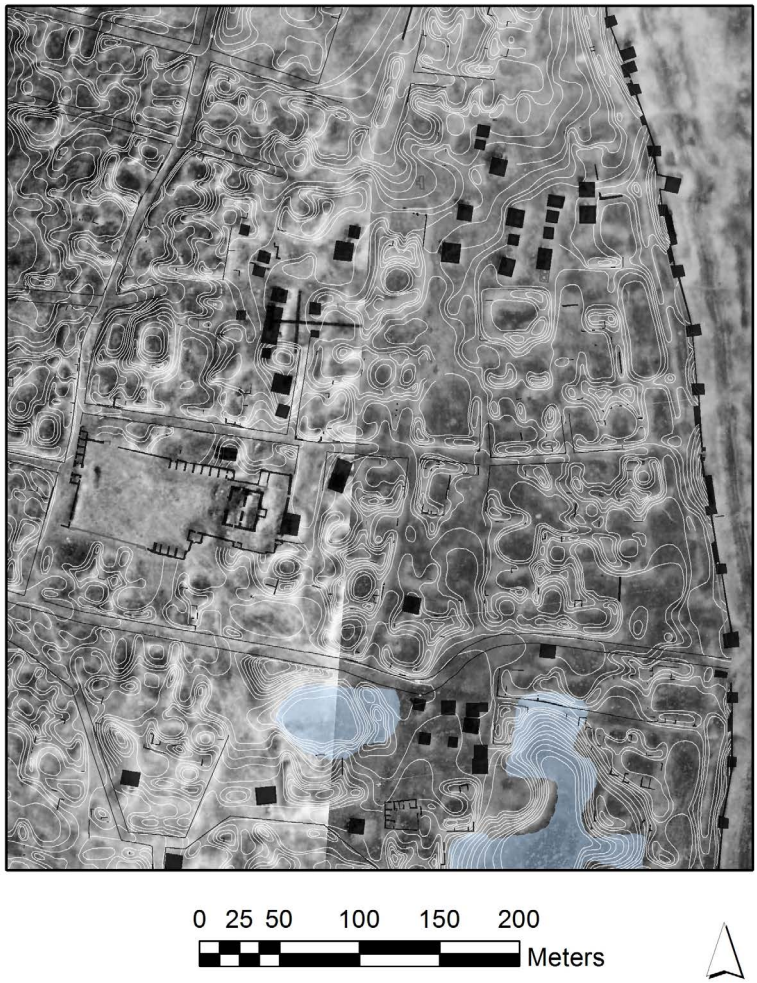

Figure 10: *Topography and image IKONOS (2004) of the eastern part of the city (HatraGIS - Archive of the Italian Expedition at Hatra - Torino).*

introduced the first funerary buildings of Type 3, which were characterised by a single room plan and a smaller dimension and lasted until the fall of the city.[52]

Wolgash (AD 140–170), Sanatruq I (AD 140–176/177) and Abd Samya (AD 180–200) were the main rulers during this half-century. Nineteen inscriptions with the name of Sanatruq I have been found at the site.[53] He constructed the Temple of Allat and erected the Small Shrine 9. From the reigns of Wolgash and Sanatruq I onward, the rulers of Hatra began to use *malka* (King) as a title, accorded to them by the Parthian court, probably for the newly important defensive role of the kingdom or for the weakness of the Parthian dynasty.[54] After the *pax adrianea*, the historical and political situation radically changed during the war with the Roman campaigns in Mesopotamia. In AD 197 and 199, probably under the reign of king Abd Samya, Hatra was besieged by Septimius Severus (AD 193–211) but the city did not fall.[55]

[52] Dorna Metzger 2000b, 201; Foietta 2018, 377.

[53] H82, H194, H197, H199, H231, H345, H347, H367, H368, H369, H370, H371, H376, H378, H386, H196, H342, H353, H232 (Foietta 2018, 521–522).

[54] Sommer 2013, 41–44.

[55] Cassius Dio 76, 10–12; Erodianus 3, 9, 1–7.

The 'Great Hatra' of the 3rd century AD (Figure 4f)

During the first half of the 3rd century AD, the settled area of Hatra reached its greatest size, extending up to the Main Wall in the northern, eastern and western zones of the city, but still leaving large unbuilt areas, particularly in the southern part. These areas were probably used for pasture or tents during siege times.[56] Sanatruq II (AD 200–240/1) reigned over Hatra and its powerful kingdom (the so-called *arabaya* in Hatran inscriptions) for forty years.[57] During his reign, the Main Wall was restored, and several massive towers and walls were added.[58] This strengthening of the fortifications was necessary due to an ongoing state of war between Parthians and Romans. After the fall of the Parthian Empire and the rise of the Sasanian dynasty, the Kingdom of Hatra allied with the Romans against the common enemy. In the decade after AD 224, Roman troops were settled at Hatra, as attested by the three Latin inscriptions recovered in Small Shrine 9.[59] The palace of the Qasr Shimali, close to the North Gate, was used to house Roman troops.[60]

According to Cassius Dio, Ardashir I attempted to besiege Hatra in AD 229. However his army did not succeed and he retreated in the closer Kingdom of Media.[61]

The inhabitants of Hatra quickly erected an Inner Wall as a last defence, but it was never completed.[62] The inscriptions which mention Sanatruq II were probably engraved on the Secondary North Gate, in order to take possession of it, when the Inner Wall was under construction.[63] In AD 240/1, as reported in the *Codex Manichaicus Coloniensis*, the Sasanian army probably led by Shapur I (AD 241–272) besieged Hatra, and after a long siege, sacked it.[64]

Conclusion

The six phases here proposed must be intended as a preliminary reconstruction of the settlement phases of the site, which would be better clarified by new on-field research and excavation of deep trenches in the relevant part of the site. The progressive development from a first small settlement in the 'Post-Assyrian' period to a large city of about 300 ha (3rd century AD) that was the capital of an important buffer state in the Near East area, reflects regional and local dynamics, which involved nomads, semi-nomads, and sedentary people, as some Hatran inscriptions report. Evidence of Hatra's role as 'sacred city' is provided by the presence of temples and sacred enclosures in the city core and for the prominent amount of dedication inscriptions, although the city was certainly also an important stronghold and an economic centre for district trades.

The identification and studies of the most ancient phases of the settlement throughout the unpublished data of the Italian Archaeological Expedition (University of Torino) will possibly fill a gap in the archaeological chronology and pottery sequence of the area.

Remains of a later occupation subsequent to the 3rd century AD are scanty and attested in limited areas (mainly Tell 1), confirming that the region was progressively abandoned during the Sasanian period.

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[56] Foietta 2018, 462.

[57] The title *mlk' d 'rby'* is reported in H79, H195 and H203.

[58] Foietta 2015, 296; Foietta 2018, 399.

[59] Oates 1955; Oates 1968, 74–75; Aggoula 1991, 183.

[60] Venco Ricciardi 2000, 99; Foietta 2018, 425.

[61] Cassius Dio 80, 3, 2.

[62] The layout of the Inner Wall is detectable on satellite images, even if some parts are lacking or occupied by different buildings. Excavations of part of this defensive wall have been accomplished at the North and East Gates (Gawlikowski 1994, 153; Foietta 2018, 400).

[63] H333, H334, H341. For a detailed analysis of the question: Foietta 2015; 2016.

[64] The Sasanian siege is reported in detail on later Islamic sources.

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