UNIVERSITÀ DI TORINO

# MESOPOTAMIA

# RIVISTA DI ARCHEOLOGIA, EPIGRAFIA E STORIA ORIENTALE ANTICA

# LIV

2019



apice libri

Rivista fondata da Giorgio Gullini.

Direttore: CARLO LIPPOLIS Comitato scientifico: GIORGIO BUCCELLATI EVA CANCIK STEFANO DE MARTINO ELENA DEVECCHI ANTONIO INVERNIZZI CHRISTINE KEPINSKI STEFANIA MAZZONI ROBERTA MENEGAZZI DANIELE MORANDI BONACOSSI MIRKO NOVÁK ANDREAS SCHACHNER ST JOHN SIMPSON ROBERTA VENCO RICCIARDI

Redazione scientifica: Carlo Lippolis Roberta Menegazzi

«Mesopotamia» is an International Peer Reviewed Journal.

Proprietà letteraria riservata

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

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

# SOMMARIO

Luca Peyronel - Claudia Minniti - Daniele Moscone - Younes Naime - Valentina Oselini Renata Perego - Agnese Vacca, <i>The Italian Archaeological Expedition in the Erbil Plain</i> ,		
Kurdistan Region of Iraq. Preliminary Report on the 2016-2018 Excavations at Helawa	p.	1
NOEMI BORRELLI, Invisible People and Elite Customers. Fowlers and Bird Breeders in the Social Network of the Ur III Province of Ĝirsu/Lagaš	»	105
MICHELE CAMMAROSANO - KATJA WEIRAUCH - FELINE MARUHN - GERT JENDRITZKI - PATRICK L. KOHL, They Wrote on Wax. Wax Boards in the Ancient Near East	»	121
1. Writing on Wax1212. The Use of Wax Boards in the Ancient Near East1253. Wax Boards as Hardware1464. Wax and Wax Paste1535. Wax Styli and Writing Technique1586. Conclusions168		
Federico Zaina - Pietro Baraldi - Vittoria Cardini - Marzia Cavriani - Paolo Zannini, Archaeo- metric Characterization of a Blue Ingot from the Palace of Sargon II at Karkemish (Turkey) and the Distribution and Function of Egyptian Blue in the Near East during the Iron Age	»»	181
ENRICO FOIETTA, Movable Altars and Burners in Stone from Hatra	»	197
Анмад Addous, The Founding of the First Arab-Islamic Cities According to Ancient Arab Sources. The Model of Kūfa	»	219

## Notiziario Bibliografico

»	231
»	232
»	233
»	234
»	235
»	237
	» » »

# Luca Peyronel\* - Claudia Minniti<sup>+</sup> - Daniele Moscone\*\* - Younes Naime° Valentina Oselini\* - Renata Perego<sup>++</sup> - Agnese Vacca\*

# THE ITALIAN ARCHAEOLOGICAL EXPEDITION IN THE ERBIL PLAIN, KURDISTAN REGION OF IRAQ

PRELIMINARY REPORT ON THE 2016-2018 EXCAVATIONS AT HELAWA

#### Abstract

The article is a preliminary report on the excavations conducted at Helawa by the Italian Archaeological Expedition in the Erbil Plain (MAIPE), Kurdistan Region of Iraq, during the 2016-2018 seasons. The site was surveyed in 2013 and 2015, revealing consistent occupation dating to the Late Chalcolithic period and briefer re-occupation in the mid-2<sup>nd</sup> millennium BC. Helawa is one of the largest 5th millennium sites in the Erbil Plain, probably reaching an area of 10 ha, and was abandoned at the beginning of the 4<sup>th</sup> millennium BC (early LC 3). The excavations (Step Trench B, Operations B1 and D, sounding G) established the chronological sequence, bringing to light a 5 m thick sequence of superimposed buildings and structures dating from the Ubaid to the early LC 3 period, located on the terraced southern slope of the higher mound, Middle/Late Bronze dwellings equipped with fire installations and storage facilities in Operation D, built directly over the last LC occupation at the site and an Islamic and LC 2 occupation in Operation G.

#### Keywords

Helawa; Erbil; Iraqi Kurdistan; Urbanization; Chalcolithic; Bronze Age; Classical and Islamic periods.

#### 1. Introduction and fieldwork goals

The MAIPE (Missione Archeologica Italiana nella Piana di Erbil) Project was initiated in 2013 with the aim of investigating a small area of c. 25 km<sup>2</sup> in the south-western part of the Erbil Plain (Shemamoq Nahiya of the Erbil Governorate, Kurdistan Region of Iraq), where there are two main settlements, Helawa and Aliawa, located 2.5 km apart (Fig. 1).<sup>1</sup> They correspond to sites number 272 (Helawa) and 246 (Aliawa) identified in the Erbil Plain Archaeological Survey (EPAS), an Harvard-led extensive survey project which is primarily devoted to the reconstruction of the plain's settlement history.<sup>2</sup>

The area investigated by MAIPE is bordered to the south by the Awena Dagh, a ridge of low hills stretching from north-west to south-east, dividing the Erbil Plain from the Dibaga/Kandinawa Plain, and running parallel to the Qara Chuq mountains, which mark the separation from the Makhmour Plain (Fig. 2).<sup>3</sup>

The sites are located on the course of two secondary branches of the River Kordara, one of the southern tributaries of the Upper Zab, which forms the Erbil drainage system together with the Siwasor and the Bastora Chai (Fig. 3).

The multi-period occupation of the two sites, with only a partial overlapping of the main phases, makes this an ideal location for a long-term archaeological research project, with the primary objectives of assembling a detailed chronological sequence covering the timespan from the Late Neolithic up to the Parthian period, investigating in extension the main settlement phases, and defining the material cultures of each period. The south-western Erbil Plain is characterized by a high density of sites whose occupation was favoured by the fertile lands of the Kordara basin and by the presence of a strategic route running along the foot of the Awena hills to the south, crossing the west-east route towards Erbil and the Zagros mountains (Fig. 1).

Since 2012, several archaeological excavation projects have been launched in the Erbil Governorate focusing on sites of different periods, developing collaborations and sharing results.<sup>4</sup> The MAIPE expedition forms part of this new context of Near Eastern research, which is also of great importance for safeguarding the region's cultural heritage, considering the extent to which nearby Nineveh Governorate was dramatically affected by Daesh destructions and lootings.

<sup>\*</sup> Università degli Studi di Milano, \*\* Sapienza Università di Roma, <sup>+</sup> Università del Salento, <sup>o</sup> Università degli Studi di Pisa <sup>++</sup> Palynology and Palaeoecology Lab - CNR-IGAG. Sections 1, 2, 9 are authored by L. Peyronel, 3 by A. Vacca, 4 by L. Peyronel and A. Vacca, 5 by V. Oselini, 6 by D. Moscone, 7 by C. Minniti and Y. Naime, 8 by R. Perego.

<sup>&</sup>lt;sup>1</sup> MAIPE is directed by Luca Peyronel, with field direction by Agnese Vacca, and is based at the Università degli Studi di Milano.

<sup>&</sup>lt;sup>2</sup> UR *et alii* 2013; in press. The EPAS project, headed by J. Ur, shares methods with another three extensive survey projects in the Kurdistan Region of Iraq (UZGAR in the Upper Zab, LoNAP and EHAS in the Dohuk and Zako provinces), using a common pottery typology for the determination of site occupation phases.

<sup>&</sup>lt;sup>3</sup> Sissakian, Al-Jibouri 2012; Sissakian 2013.

<sup>&</sup>lt;sup>4</sup> KOPANIAS, MACGINNIS, UR 2015; IDEM 2017.



Fig. 93 - Chipped stone artefacts from the Ubaid period. Cores (1-5), core-tool (6), glossed inserts (7-13); blade possibly produced by pressure technique with a long crutch (14), direct percussion blade/bladelets (15-17), pressure blade/bladelets (18-20).

## NOEMI BORRELLI\*

# INVISIBLE PEOPLE AND ELITE CUSTOMERS

FOWLERS AND BIRD BREEDERS IN THE SOCIAL NETWORK OF THE UR III PROVINCE OF ĜIRSU/LAGAŠ

#### Abstract

The purpose of this article is to offer an overview of the socio-economic dimension of the individuals involved in the exploitation of marginal resources, specifically birds, which were nonetheless perceived as prestige products by the royal elite. Drawing from Ur III sources, the policy adopted by the state to dispose of these goods is scrutinised. Despite the meagre documentation, glimpses of the strategies used by fowlers to capitalise on state allowance return a vibrant image of this sector of society. The scenario here proposed confirms the careful planning so peculiar to the Ur III economy, strengthening however a new perspective, which increasingly focuses on a hidden regionalism and on dynamics of intra-societal cooperation.

#### Keywords

Ĝirsu/Lagaš; southern Mesopotamia; Ur III; Mesopotamian history; economy; birds; fowlers; elite.

#### I. Introduction

In studies about the socio-economic history of southern Mesopotamia, the reconstruction of the land tenure system has been an indisputable protagonist. This pre-eminence has been granted by the variety of data available and by the relevance of agricultural resources in the economy of the country, which represented the main output and source of surplus. For the Ur III period (2112-2004 BCE), the disparity among studies on agricultural management and other branches of the regional economy is very much evident. The search for the exploitation of smaller ecological niches in terms of administration, technical issues, and social participants, still eludes major publications. In particular, the reliance on resources from marshes and riverine areas has not been entirely integrated in the reconstruction of the economy of the southern alluvium, and this is especially true for both fish and fowl and by extension for fishermen and fowlers.<sup>1</sup>

The contribution that these types of products supplied to the general idea of prosperity within the Mesopotamian culture is detectable in literary *topoi* as well as in iconographic repertoires.<sup>2</sup> Domesticated resources such as barley, emmer, herds, and cattle made up for the majority of the goods needed for the running of the state and the heavy reliance upon them for a prosperous year was acknowledged through cultic offerings and royal propaganda. In this narrative of abundance, also birds and fowl found their place. In the account of his deeds, the founder of the Ur III dynasty, Ur-Namma, recalls the digging of a canal to provide the city of Ur with fertile fields and pasture as much as with plenty of fish and birds.3 The same idea of complementarity between the domesticated world of barley and cattle and the wild realm of fish and fowl is stressed not only in royal hymns but also in other literary genres, such as the lamentations, where they all concur to describe an ideal world order.<sup>4</sup> Even if in a lesser role than agricultural products, these resources were relevant enough to enter in the collective consciousness of prosperity.

Therefore, the main reason behind the blank spot in the socio-economic evaluation of these resources lies elsewhere, and specifically, in the paucity of administrative documents at disposal for these goods rather than to an alleged irrelevance in everyday life. Seldom accounted by the provincial bureaucracy, these economic assets and the people who secured them are frequently liminal within the institutional households and difficult to trace through marginal quotations and

<sup>2</sup> For the association of fish and birds with the idea of fertility in literary texts see TINNEY 1999, 37 and 43-44. For a discussion on the iconography of abundance in Mesopotamia see WINTER 2007, 117-138.

<sup>3</sup> TINNEY 1999, 32-34, II. 7-14 and 39 II. 33-36. FLÜCKIGER-HAWKER 1999, 236-237 II. 25-31 and 242-243 II. 33-36.

<sup>4</sup> E.g. *The Lamentation over the destruction of Sumer and Ur* (MICHALOWSKI 1989, 68-69 II. 501-502).

<sup>\*</sup> Università degli Studi di Napoli "L'Orientale".

I would like to thank Ryan Winters for having kindly revised the English of this contribution. Needless to say, the author bear sole responsibility for any mistakes and inaccuracies that may remain.

Text abbreviations follow those of the Database of Neo-Sumerian Texts project (http://bdts.filol.csic.es/). Regnal years of the Ur III kings appear as follow: Šulgi (Š), Amar-Suen (AS), Šu-Suen (ŠS), Ibbi-Suen (IS).

<sup>&</sup>lt;sup>1</sup> The major works covering these topics from a lexical perspective are SALONEN 1970, IDEM 1973, and VELDHUIS 2004. The latter still represents the major achievement regarding bird and fish terminology. Among the few studies based on Ur III administrative sources one can enumerate OWEN 1981, ENGLUND 1990, and more recently VON DER OSTEN-SACKEN 2015, which also includes discussions of bird names (Part B).

occasional evidence. Avoiding to acknowledge the existence of these less structured segments of the society, whose life we might never be able to fully appreciate, will increase the perception of an unintegrated social system.

The elusive evidence for social agents like fishermen and fowlers, or merchants, shepherds, and craftsmen, is not an exclusive prerogative of the Mesopotamian society but it also affects neighbouring areas, like ancient Egypt.5 Differently from agriculture, which was run by a very specific set of officials, activities carried out by the above-mentioned groups pop-up within the institutional archives only when they intersected with the everyday management of provincial demands. In contrast with the fullydependent cultivators, fowlers were not exclusively controlled or integrated within temple institutions and they are frequently found at the intersection between provincial and royal sectors. The partiality of the viewpoint of a provincial archive cannot ever be stressed enough: scribes cared to take notes only about what was of interest for the provincial administration. As frequently the case with lower status workers, documents recorded these social realities as a collective, focusing on their productivity rates, both in terms of goods and workforce.

This contribution is intended to shed some light on the existence of these neglected economic parties and how they interacted with the main branch of the Ur III provincial administration, which represent the only aspect one can scrutinize with a certain degree of confidence, considering the current state of data availability. The following pages aim to provide an overview of these communities of fowlers in Ĝirsu/ Lagaš, the largest province of the Ur III state located on the Gulf coastline: the peculiar environmental features of this area favoured the formation of thriving ecological niches represented by freshwater and brackish marshes, lagoons, and tidal wetlands. Taking advantage of the quantity of data and the abundance of details provided by the documents that the provincial administration drawn up for the management of these specific resources, this inquiry will mainly rely on Ĝirsu/Lagaš sources; however, for the sake of completeness, data from other provincial and state archives will also be considered.

#### II. Bird-hunting and aviculture

Less heterogeneous when compared with the records provided by other archives such as Puzriš-Dagān, the Ĝirsu/Lagaš accounts list a great variety of birds, from wildfowl to domesticated species: turtledoves (tu<sup>mušen</sup>, tu-gur<sub>4/8</sub>), pigeons (ir<sub>7</sub><sup>mušen</sup>), ducks (uz-tur, uz), francolins (dar<sup>mušen</sup>), domestic geese or crane (kur-gi/gi<sub>16</sub><sup>mušen</sup>), and wild geese or cormorant (u<sub>5</sub>-sim<sup>mušen</sup>/u<sub>5</sub><sup>mušen</sup>).<sup>6</sup> The identification of Sumerian bird names with current ornithological species is far from indisputable and the challenge is burdened by the varying degree of accuracy used in administrative context, where the use of simpler terms to identify a higher taxon was widespread to achieve a meagre bookkeeping and to avoid what were perceived as redundant clarifications. This choice was not limited to the specific case of birds: just as the basic word udu may cover any ovine listed in a tablet regardless of age, sex, or specimen, the abbreviated form  $u_s^{mušen}$ could refer to all types of geese, and even more inclusive was mušen "birds".

The provincial administration was not merely interested in adult specimens, and texts suggest that chicks (amar-saĝ) and eggs (nunuz) coming from the marshy areas were valued too.7 Poorly attested, eggs represented a delicacy provided by fowlers to the Mesopotamian elite, since the primary recipients were members of the royal entourage. In Puzriš-Dagān, income from eggs and birds passed through the bureau of king Šulgi's favourite concubine, Šulgi-simtī, who supervised the management of kitchens.8 These delicacies were intended to be eaten at the table hosted by the queen  $(ni\hat{g}_2-gu_7 nin-\hat{g}a_2-\check{s}e_3)$  and other royal ladies, as is confirmed by their mention in lists of commodities delivered to the palace (e2-gal ba-an $ku_4$ ) for the banquets of Ea-niša (kaš de<sub>2</sub>-a E<sub>2</sub>-a-ni-ša), Šulgi's kaskal-concubine and later junior wife, and Taddin-Eštar, possibly one of Šulgi's lukur-women.9 At the capital, royal women had a primary role in the reception of these prestige goods: Geme-Ninlila, another one of Šulgi's junior wives, received birds from the wife of Issu-arik, governor of Kazallu, and

<sup>&</sup>lt;sup>5</sup> MORENO GARCÍA 2013, 88-101.

<sup>&</sup>lt;sup>6</sup> As suggested by VELDHUIS 2004, 297, the element u<sub>s</sub>, which is found in many compound names for birds, denotes the aquatic variety of the correspondent ornithological species. On these premises, he identifies the u<sub>s</sub>-sim<sup>mušen</sup> with the wild goose (IDEM 2004, 263-264 and 296-297) and not with the swallow, recorded as sim<sup>mušen</sup> (OWEN 1981, 35). STEINKELLER 2015, 148 proposes to identify the u<sub>s</sub>-sim<sup>mušen</sup>, holy bird of the marsh goddess Nanše, with the cormorant, a known fish hunter. As for the kur-gi<sup>mušen</sup>, see the translation "crane" proposed by VON DER OSTEN-SACKEN 2015, 321-352; contra VELDHUIS 2004, 263-264; IDEM 2016, 169.

<sup>&</sup>lt;sup>7</sup> See the *topos* of "the pride of the marshes" (*simat appāri*) used by the Neo-Babylonian king Nebuchadnezzar II when describing the use of eggs, birds and fish as cultic offerings for the gods of Babylon and Borsippa (BEAULIEU 1991, 50-52 note 79).

<sup>&</sup>lt;sup>8</sup> SHARLACH 2017, 196-198. For the royal meal see BRUNKE 2014, 343-345.

<sup>&</sup>lt;sup>9</sup> Ea-niša: AoF 35 243 4 (Š 39 / IV) and OIP 115 58 (Š 40 / III / 7), Taddin-Eštar: NYPL 79. About Ea-niša see Sharlach 2017, 140-57 and WEIERSHÄUSER 2008, 206-211. On Taddin-Eštar see Sharlach 2017, 172, Molina 2012, 396-397, WEIERSHÄUSER 2008, 212. Similarly, bird consumption and donation of birds to royal elites, messengers and envoys can be also observed in the Ebla archive (BRUNKE 2014, 348; SALLABERGER 2019, 206).

# Michele Cammarosano<sup>a</sup> - Katja Weirauch<sup>b</sup> - Feline Maruhn<sup>b</sup> Gert Jendritzki<sup>c</sup> - Patrick L. Kohl<sup>d</sup>

THEY WROTE ON WAX wax boards in the ancient near east

#### Abstract

By dispensing with the need for ink while simultaneously providing a writing surface that retains plasticity over time, wax boards represent the precursors of modern tablets and one of the most relevant media in human history. Their origin can be traced back to the Ancient Near East, where they were used along with clay tablets in a variety of contexts, from administration to literary collections. Originating from the interdisciplinary research project "Cuneiform on Wax" at the University of Würzburg, the study combines the analysis of the available archaeological, philological and iconographical evidence with experimental results. Following a discussion of the phenomenology of wax boards and of the presence of honeybees and related products in the Ancient Near East, we first assess the role and diffusion of this medium in the various areas and periods under consideration, then examine the extant material evidence, and finally focus on the composition of the wax paste and the related writing techniques. The results presented include a reassessment of the terminology for wax boards in Bronze Age Anatolia, the reconstruction of an ivory diptych from Assur, and a new interpretation of the motif of the so-called "grooved stylus".

#### Keywords

Writing technology; beeswax; wax boards; cuneiform; ancient Near East; apiculture.

#### 1. Writing on Wax

#### 1.1. Introduction<sup>1</sup>

Aside from honey, the most valued product of bees is wax. Chemically, beeswax is a complex mixture consisting mainly of esters, fatty acids, and longchain alcohols. Over the millennia it was used in a variety of fields from medicine to art, from ritual to technology. One of the most interesting fields where beeswax has played a major role is writing. Having been used parallel to other media and without interruption over ca. four millennia for a variety of scripts in a number of different cultures, wax boards represent the longest-lived writing medium in human history. As Richard and Mary Rouse observed, "as a support for the written word, wax tablets had a longer uninterrupted association with literate Western civilization than either parchment or paper, and a more intimate relationship with literary creation".<sup>2</sup>

Two features were decisive in determining the fortunes of wax boards. First, wax boards allow to write by reshaping the writing surface itself, thus freeing the writer from the need for ink and related imple-

<sup>1</sup> The specific contribution of each author to the present study is defined in the following statement of authorship. Conceived and designed the study: MC, KW. Conceived and carried out the experiments, analyzed the resulting data: MC, FM, KW. Wrote the paper: MC, KW (§§1, 4.2-4.4, 5.4-5.5); MC, GJ (§3.4); MC, PK, KW (§2.1); MC (rest of the paper). If not otherwise stated, drawings and photos are by MC. The customary Assyriological abbreviations are used, see http://www.rla.badw.de/reallexikon/ abkuerzungslisten.html. For the Table of Contents, see p. V.

This study would have never been possible without the help and support of a number of colleagues and institutions. We are particularly grateful to Robert Fuchs, Doris Oltrogge and Heinrich Piening for their invaluable help in discussing with us a number of crucial issues related to the writing technology of wax board, to Markus Hilgert and Lutz Martin for granting access to the collections of the Vorderasiatisches Museum in Berlin, and to Astrid Nunn and Jürgen Tautz for decisive help and advice in the earlier stages of the project. Many colleagues generously shared with us ideas, informations and materials, collated tablets, and provided suggestions of various kind. For this, we are particularly indebted to Nawala al-Mutawalli, Gian Pietro Basello, Marco Bonechi, Georgios Boudalis, James and Sarah Burgin, Paola Corò, Jan Gerrit Dercksen, Eckart Frahm, Mary Frazer, Alessandra Gilibert, Jochen Griesbach, Suzanne Herbordt, Ivan Hrůša, Michael Jursa, Christina Kiefer, Massimo Maiocchi, Federico Manuelli, Gianni Marchesi, Joachim Marzahn, Craig Melchert, Dirk Paul Mielke, Andreas Müller-Karpe, Astrid Nunn, Doris Prechel, Cemal Pulak, Michael Roaf, Andreas Schachner, Daniel Schwemer, Jürgen Seeher, Ursula Seidl, Miron Sevastre, Piotr Steinkeller, Charles Steitler, Jon Taylor, Marie-Louise Thomsen, Mathilde Touillon-Ricci, Theo van den Hout, Willemijn Waal, Klaus Wagensonner, Dirk Wicke, and Ilya Yakubovich. Several other colleagues and friends kindly provided advice and help of various kind, and we hope that they will accept these collective thanks.

Financial support from the Universitätsbund Würzburg (AZ 18-33) and from the chairs of Altorientalistik (D. Schwemer) and Didaktik der Chemie (E. Geidel) of the University of Würzburg is gratefully acknowledged. Section 2.4 was written in the frame of the DFG-funded project Hittite Local Cults (DFG project no. 298302760).

<sup>2</sup> ROUSE, ROUSE 1989, 220, also quoted in STALLYBRASS *et alii* 2005, 383.

<sup>&</sup>lt;sup>a</sup> Julius-Maximilians-Universität Würzburg, Ancient Near Eastern Studies. <sup>b</sup> Julius-Maximilians-Universität Würzburg, Chemistry Didactics. <sup>c</sup> Staatliche Museen zu Berlin, Vorderasiatisches Museum. <sup>d</sup> Julius-Maximilians-Universität Würzburg, Animal Ecology and Tropical Biology.

ments.<sup>3</sup> Second, the writing surface retains plasticity over time, and therefore can be easily erased and reinscribed at any time - a significant advantage over most other media, including clay tablets.<sup>4</sup> Thus, long before the invention of paper and graphite pencil, wax boards provided a way to write (and re-write) with great ease even under conditions where it would have been otherwise difficult if not impossible to do so, e.g. on stage and when riding or walking. Furthermore, wax boards allow hands to be kept clean and are easy to transport. These facts explain the intellectual fascination they exerted on scholars and philosophers even after the decline of this technology. Wax boards have been used as a metaphor for the human memory starting at the latest with the Greek tragedian Aeschylus,<sup>5</sup> but even still in 1925, Sigmund Freud's well-known essay on human memory "Notiz über den Wunderblock" was inspired by a peculiar kind of wax tablet.<sup>6</sup>

Apart from all the variations and differences that characterize their appearance and use in specific periods and contexts, wax boards share some common features. The boards are normally made of wood or ivory, sometimes consisting of a single leaf, but most often consisting of multiple leaves being hinged together to form diptychs, triptychs, or polyptychs. A layer of beeswax, mixed with other substances (henceforth "wax paste"), is poured into the carved-out portion of each page and the signs can be scratched or impressed into it, depending on the script used.

Importantly, the composition of the wax paste and the relevant writing techniques not only depend on know-how and material and technical constraints, but also on the nature of the script, on cultural preferences, and on specific demands posed by the kind of text which is to be inscribed.

Ancient Near Eastern wax boards have been dealt with in several studies in the past.<sup>7</sup> Still, the relevant literature is scattered in a great number of publications, which sometimes contain contrasting views and problematic assumptions. See, for example, the statement according to which cuneiform on wax would have been "scratched" instead of being impressed, found in the reference work Materiale Textkulturen,8 or the frequently encountered assumption according to which wax boards would be best inscribed while the wax paste is still in the process of hardening, thus shortly after coating<sup>9</sup> (for a discussion of these aspects see §5.4). Such misunderstandings are primarily due to the lack of experimental investigation. The project "Cuneiform on Wax" at the University of Würzburg aims to provide an interdisciplinary investigation of the use and technology of wax boards in the Ancient Near East.<sup>10</sup> This article presents the main results of this project. After an overview on the use of wax boards in history and related methodological considerations ( $\S1.2-1.3$ ), the study proceeds to the investigation of the zoological and philological

evidence ( $\S$ 2), then of the archaeological finds ( $\S$ 3), of the wax paste ( $\S$ 4) and finally of the writing technique ( $\S$ 5).

#### 1.2. Wax Boards in History

Wax boards were first invented in the Ancient Near East, where their existence can be traced back to the 22<sup>nd</sup> century BCE, §2.2.2. They enjoyed growing popularity in the cuneiform cultures of Mesopotamia, Anatolia, and the Levant, with a peak in the Neo-Assyrian and Neo-Babylonian periods. In the Ancient Near East, wax boards appear to have been used primarily for writing cuneiform script, but secondarily also for linear scripts such as Anatolian hieroglyphs and Aramaic. They were widely used for a range of different genres, both documentary and literary. The most ancient archaeological find comes from the Uluburun shipwreck and dates back to the 14<sup>th</sup> century BCE, while the boards from the Palace of Sennacherib at Nimrud (8th century BCE) represent the oldest example on which a part of the inscribed wax layer is preserved.

From the Ancient Near East the use of wax boards spread through the Mediterranean basin via the Phoenicians and others. One of the terms referring to wax boards in Mesopotamia is the Akkadian word *daltu* "door leaf", which could be used to indicate the leaf of a (wax) board book.<sup>11</sup> This figurative meaning was present also in Ugaritic and Phoenician, and the word was loaned into Greek precisely with this sense  $(\delta \epsilon \lambda \tau \circ \varsigma$  "(wax) board").<sup>12</sup> While the wax board from

<sup>8</sup> So JÖRDENS *et alii* 2015, 374, "diese Zeichen [wurden] jetzt [im Unterschied zu den Tontafeln] nicht mehr eingedrückt, sondern eingeritzt".

<sup>9</sup> See WISEMAN 1955, 5, an assumption to which Nemet-Nejat 2000, 253, SEIDL 2007, 124, and now Ponting, George and Spedding in TOMLIN 2016, 286 give credit; similarly PAYNE 2015, 109; cf. also POSTGATE 1986, 24.

<sup>10</sup> The project is directed by M. Cammarosano and K. Weirauch, see for information and materials www.osf.io/urpuf.

<sup>11</sup> STOL 1998, 343-344.

<sup>&</sup>lt;sup>3</sup> Despite the existence of inkhorns and similar portable inkwells (attested already in ancient Egypt), writing with ink in open air contexts has always proved to be a challenging operation.

<sup>&</sup>lt;sup>4</sup> On the advantages of wax over clay, see already e.g. MAL-LOWAN 1954, 100.

<sup>&</sup>lt;sup>5</sup> Degni 1998, 16-17, 147-148.

<sup>&</sup>lt;sup>6</sup> On wax boards as metaphor of the human mind, see the philosophical use of the expression *tabula rasa* as well as JULIÃO *et alii* 2016.

<sup>&</sup>lt;sup>7</sup> For the Ancient Near East, see especially SAN NICOLÒ 1948, HOWARD 1955, WISEMAN 1955, POSTGATE 1986, PAYTON 1991, SYMINGTON 1991, STOL 1998, NEMET-NEJAT 2000, MACGINNIS 2002, SEIDL 2007, and WAAL 2011. The most comprehensive study on wax boards is BULL 1977; for further literature on wax boards in the post-Ancient Near Eastern age, see CAMMAROSANO, WEIRAUCH in print.



Pl. 2 - The ivory board VA Ass 3545.1-2 with the two bars VA Ass 3545.4-5. (© *Staatliche Museen zu Berlin-Vorderasiatisches Museum /* Olaf M. Teßmer).

#### Federico Zaina\* - Pietro Baraldi<sup>•</sup> - Vittoria Cardini<sup>+</sup> - Marzia Cavriani<sup>\*</sup> - Paolo Zannini<sup>•</sup>

# ARCHAEOMETRIC CHARACTERIZATION OF A BLUE INGOT FROM THE PALACE OF SARGON II AT KARKEMISH (TURKEY) AND THE DISTRIBUTION AND FUNCTION OF EGYPTIAN BLUE IN THE NEAR EAST DURING THE IRON AGE

#### Abstract

Several fragments of a blue ingot were found during the 2016 excavation campaign at Karkemish in the Iron III palace of Sargon II (Area C). In order to identify it as Egyptian blue, the microstructure and chemical composition of the ingot have been investigated by means of X-ray fluorescence (XRF), Raman microspectrometry and FT-IR spectroscopy. Moreover, we analyzed the archaeological context from which they have been recovered to tentatively provide its functional interpretation. Lastly, we compared the Karkemish ingot with other published specimens from stratigraphically defined contexts, with the aim of understanding the distribution and function of the Egyptian blue in the Near East between the early Iron Age and the Achaemenid period. Finally, we discussed the chronological, geographic and functional trends in light of the historical events of these periods.

#### Keywords

Archaeometry; Egyptian blue; Iron Age; Karkemish.

# I. Introduction, aims and research methodology (MC)

The Turco-Italian Archaeological Expedition at Karkemish is a multidisciplinary project led by the Universities of Bologna, Gaziantep and Istanbul under the direction of Nicolò Marchetti. The project aims to implement a long-term integrated research strategy seeking to elucidate the history of the town, to explore its urban layout and cultural sequence through the ages, to contextualize the site within its landscape and to conserve and present the site to the public.<sup>1</sup>

In this respect, the renewed investigations are of importance to further investigate the role of the city during the Late Bronze Age II (1400-1200 BCE, hereafter LB II) as a major center of the Hittite Empire, the Iron Age I-II (1200-720 BCE, hereafter IA) as the capital of a Neo-Hittite kingdom, the IA III (720-550 BCE) as part of the Neo Assyrian Empire and the Achaemenid period (550-330 BCE) when Karkemish shrunk to the size of a relatively small village (Fig. 1).

During the 2014-2016 excavation campaigns in the eastern sector of the Palace of Sargon II (Area C), a monumental structure has been recovered,<sup>2</sup> consisting of two groups of rooms arranged on the two sides of a long rectangular central hall.

A fragment of blue ingot has been found in the deposit covering one of the rooms of this building (Fig. 2). This find, together with others excavated by both the British<sup>3</sup> and Turco-Italian<sup>4</sup> expeditions at Karkemish underline the Egyptian influence over the city of Karkemish in the IA III.

The primary aim of this study is to characterize the chemical composition of the ingot from Karkemish so as to identify it as Egyptian blue and to understand its provenance. To do so, we will first provide an overview on the previous approaches, discoveries and challenges in the study of Egyptian blue. Then, the methodology applied for the characterization of microstructure and chemical composition of the blue ingot, including the use of X-ray fluorescence (XRF), Raman micro-spectrometry, FT-IR spectroscopy and the results will be illustrated.

A second aim is to define the type of context and the possible function of the blue ingot. To this end, we will provide a detailed description of other archaeological contexts from which the ingot fragments have been retrieved and their possible functional interpretation. Th third aim is to try to understand the distribution and function of the Egyptian blue in the Near East between the early IA and the Achaemenid period. To do so we will compare the type of context and function of the Karkemish ingot with the other published examples from stratigraphically defined contexts.

<sup>\*</sup> Department of History and Cultures (DiSCi), University of Bologna. • Department of Chemical and Geological Sciences (DCG), University of Modena and Reggio Emilia. + Department of History and Cultural Heritage (DSSBC), University of Siena.

<sup>&</sup>lt;sup>1</sup> Макснетті 2012; Ідем 2013; Ідем 2014; Ідем 2015; Ідем 2016; Рекег 2016; Zaina 2018.

<sup>&</sup>lt;sup>2</sup> Marchetti 2016.

<sup>&</sup>lt;sup>3</sup> Woolley 1921; Idem 1939; Woolley, Barnett 1952.

<sup>&</sup>lt;sup>4</sup> Cavriani 2015; Idem unpublished; Marchetti 2015; Zecchi 2014a; Idem 2014b.



Fig. 1 - Topographic map of Karkemish (\* marks the place of the retrieval of the ingot).

#### II. State-of-the-art on the Egyptian blue (VC)

The Egyptian blue is a multi-component synthetic inorganic pigment (chemical formula Ca Cu Si<sub>4</sub>  $O_{10}$ ) produced since the 3<sup>rd</sup> millennium BCE in Egypt and the Near East.<sup>5</sup> This material was used predominantly as a dye, although small objects were also decorated with it. Despite the distinctive chemical character of this pigment, the term "Egyptian blue" has often been used in the archaeological literature to denote pigments of the same color without performing proper archaeometric identifications.<sup>6</sup> According to Moorey,<sup>7</sup> many of the materials from the excavations in the Near East carried out between the end of the 19<sup>th</sup> cen-

tury and the beginning of the 20<sup>th</sup> century fall into this category. However, recent researches demonstrated that the identification of the Egyptian blue is possible only through archaeometric analyses including XRF, Raman, VIL etc.<sup>8</sup>

<sup>&</sup>lt;sup>5</sup> MOOREY 1994, 186-189.

<sup>&</sup>lt;sup>6</sup> Golani 2013; Lee, Quirke 2000, 108-111.

<sup>&</sup>lt;sup>7</sup> Moorey 1994, 186-189.

<sup>&</sup>lt;sup>8</sup> Hatton, Shortland, Tite 2008; Ingo *et alii* 2013; Jaksch *et alii* 1983; Riederer 1997; Thavapalan, Stenger, Snow 2016; Verri 2009.

# ENRICO FOIETTA\* MOVABLE ALTARS AND BURNERS IN STONE FROM HATRA

#### Abstract

This paper presents some results of an ongoing study about the movable altars and burners in stone from Hatra (2<sup>nd</sup>-3<sup>rd</sup> cent. AD). The catalogue comprehends all the published objects from the Iraqi Expeditions and burners from the Building A and the North Street discovered by the Italian Expedition at Hatra. The find-spots, the possible functions and the comparisons will be analysed in order to shed light on this interesting class of objects.

#### **K**EYWORDS

Altars and burners; Hatra; Parthian period; religion.

#### 1. Introduction

The main purpose of this paper is a study of the movable stone altars and incense burners discovered at Hatra. The idea for this article came to me after reading the well-known article of Javier Teixidor on the topic, written about fifty years ago. Teixidor published several medium and large stone altars recovered by Iraqi excavations in the Temenos area of Hatra in the journal Sumer. His hope in publishing these preliminary descriptions was 'to present the monuments for further scholarly studies.' My curiosity was likely aroused by the fact that many other altars had come to light at Hatra (interestingly, these were not always recovered from religious contexts) and I saw the need for treating these finds, which had been published in various articles by the later archaeological excavations at the site but not thoroughly studied, in a work specifically dedicated to this class of objects. The decision to undertake this study was likely strengthened by the availability of three completely-documented altars, one of them previously unpublished, from the Building A and North Street excavations undertaken by the Italian Expedition at Hatra (Figs. 1-2; no. 24, Pl. 2).1

In this paper, Teixidor's preliminary research will be extended with the aim of defining a typology of stone altars and burners, and to analyse their function and find-spots. This is intended as a first step in the creation of a complete catalogue of altars and burners from Hatra, which will include a direct study of the specimens and new documentation of the items, preserved mainly at the Iraq Museum in Baghdad.

The majority of the altars and burners described by Teixidor, as well as some other stone altars unfortunately remained at the site of Hatra, which was under ISIS/Daesh control for several months in 2016, and it will be necessary to ascertain their preservation and precise location.

The total number of altars and burners has increased considerably from the 17 specimens first quoted by Teixidor, to the 43 objects presented in the catalogue of this paper.<sup>2</sup> This group shows a broad heterogeneity of shape and decoration, which would in itself be an interesting research topic with the potential to shed light on the rites undertaken during the Parthian period. The movable altars and burners in stone (limestone or alabaster-gypsum) will be discussed exclusively here, from widely varying find-spots within the city (including the Temenos, Small Shrines, and houses), as these are different in shape, dimensions and features in comparison to the fixed, unmovable altars seen in the main temples and in some Small Shrines, which will be analysed in a future paper. All the movable altars and burners are related, according to the archaeological data acquired, to the so-called 'Great Hatra' period of the 2nd and 3rd centuries AD, when the settlement reached its broadest extension of c. 300 hectares, and served as the capital of an important buffer state between the Roman and Parthian Empires.<sup>3</sup>

#### 2. Terminological note: altars or burners? What was the Hatran name for this type of object?

There is recurring debate regarding the word employed for the class of objects here analysed, which have heretofore usually been briefly described in preliminary reports and not discussed as an entire group in devoted studies. The term 'altar', which is deliberately general, is used by scholars when the carved cup for burning the incense (or other perfumed

<sup>\*</sup> Università degli Studi di Torino.

<sup>&</sup>lt;sup>1</sup> I would like to thank R. Ricciardi Venco, Director of the Italian Excavation at Hatra, for her constant help in the redaction of this paper and for the material of the Italian Expedition. See § 3.

<sup>&</sup>lt;sup>3</sup> For the city development and the chronology of Hatra: GAWLIKOWSKI 2013; FOIETTA 2018, 443-483.

grains or items) is lacking on the top surface, and signs of fire have not been identified. Conversely, the terms 'burner', 'perfume-burner' or 'incense-burner' are used when clear signs of burning are identifiable upon the object, or when it bears a carved cup or hole on its top surface. This main morphological and functional distinction, usually unexpressed in studies by archaeologists, is maintained in this paper. For the function of these objects, more detailed observations are reported in §5.

The terms used in Hatran to define this category of object derive from the Akkadian terminology.<sup>4</sup> PRK/ PRYK', from Akkadian *parakku*, is usually translated as 'altar'; MKN', from Akkadian *makannu*, has been translated with the words 'placement or stele' by Basil Aggoula and more recently by Aleksandra Kubiak with the word 'altar'. PTR' is translated by Riccardo Contini and Paola Pagano as 'altar-table'<sup>5</sup>, which would correspond better to the fixed altars of the temples, which have a broad top surface. The inscriptions which mention this kind of object are few in number (H40, H42, H62?, H298, H340, H202-V, H202-VI, H202-VIII, H202-XVIII, H202-XXI, H232). They usually consist of dedications carved on various faces of the altars and burners.

Some small incense burners in metal and pottery are attested at Hatra as well. They have been studied in detail by Antonio Invernizzi in an article devoted to all the types of smaller burners in use during the Parthian period. This group of objects, although they performed the same function as the types carved from stone, are not included here on the basis of their respective shapes and dimensions, although some are quoted as examples in the section relating to the function of stone altars/burners.

#### 3. Catalogue

The altars have been divided into four types, defined by their main morphological features: the horned altars; the horned pediment altars; the horned acanthus altars and other miscellaneous types. For each type, the undecorated specimens are presented before the ones with relief carvings on the altar's faces. These reliefs usually represent particular gods or standards, often identified as the god Samya at Hatra.<sup>6</sup> For each object is reported in a standardized form the identification number used in this study, the 'general definition' (as a burner, or the more generic 'altar'), the expedition inventory number and the museum inventory number, the material, the findspot, the dimensions, references to plates and drawings included in this paper, a short description, the inscription number (following the latest numbering of Hatran inscriptions if applicable<sup>7</sup>), and the bibliographical references.8

#### HORNED ALTARS

1) Altar; 1/Ha/60; alabaster stone (?); Small Shrine 1; h. 77 cm; Pl. 1

Medium horned altar. The top surface is flat and wide in comparison to other specimens. The shaft takes the form of a parallelepiped. A moulded cornice divides the top from the shaft. The base has the same dimensions as the top. Several inscriptions are engraved on the altar faces (H8-H10) including graffiti representing stylized altars and a man dressed in the Parthian style with a knife in his left hand and a spear in his right hand. Inscription H10 testifies that this object was originally located in another place.

Inscriptions: H8-H10

Bibliography: Safar 1951, 176; Safar 1953, 10; Safar, Mustafa 1974, 190; Aggoula 1991, 9.

**2)** Burner; limestone; Small Shrine 9; base 33 cm; shaft h. 53 cm, w. 30 cm; mouldings t. 3-4 cm; Pl. 1

Horned medium burner. There are two moulded cornices, between the base, the top and the shaft. At the top is located a carved cup for burning. The left part of the main face is partially broken and abraded. The inscription is 16 x 27 cm in size and begins 49 cm from the base. The letters of the first line are 4 cm high, whereas they are 3 cm high in the second line. Inscriptions: Latin inscription (no. 79)<sup>9</sup>

Bibliography: Oates 1955, 39-40, fig. 1, Marico 1957, 288-289; Aggoula 1991, 183, pl. XXXIII.

3) Burner; limestone; Small Shrine 13; Pl. 1

Horned medium burner. The shaft takes the form of a parallelepiped. Moulded cornices divide the head and the base from the shaft. A long inscription is carved on the main face of the burner. The head and top are partially broken.

Inscriptions: H409

Bibliography: Al-Salihi 1990, 34-35; Beyer 1998, 104.

**4)** Altar; limestone; Temenos – in front of the niche, west of the Square Temple; h. 93 cm, w. 40 cm, t. 34 cm; Pl. 1

<sup>&</sup>lt;sup>4</sup> For the words PRK and MKN': KUBIAK 2016, 138. For the Akkadic loans in Hatran: CONTINI, PAGANO 2015 144-145.

<sup>&</sup>lt;sup>5</sup> Ibidem, 145.

<sup>&</sup>lt;sup>6</sup> For the god Samya at Hatra: DIRVEN 2005, 119-136.

<sup>&</sup>lt;sup>7</sup> The numbering system employed for Hatran inscriptions follows the recent revision proposed by Ilaria Bucci, Marco Moriggi and Enrico Marcato: MARCATO 2018, 17-19; MORIGGI, BUCCI 2019, chapter I.2.

<sup>&</sup>lt;sup>8</sup> Any lacking information has been omitted. Only a new survey of the altars and burners preserved in Iraqi museums and at the site will complete the data contained in this article.

<sup>&</sup>lt;sup>9</sup> For the numbering of the three Latin inscriptions: OATES 1955, 39-43; AGGOULA 1991, 183.



Fig. 1 - Altar no. 10 (Italian Expedition at Hatra) - Building A – S20H.

Medium horned altar. The lower part is broken. The shaft takes the form of a parallelepiped; the head is divided from the shaft by a simple moulded cornice. The topmost surface is decorated with a carved roundel between the horns.

Inscriptions: H202, III

Bibliography: TEIXIDOR 1965, 88, Pl. III; AGGOULA 1991, 97.

5) Altar; limestone; Temenos – in front of the niche, west of the Square Temple; h. 85 cm; w. 39 cm; t. 30 cm: Pl. 1

Medium horned altar. It was discovered broken in almost three parts. The shaft takes the form of a parallelepiped. On the main face is carved a long inscription.

Inscriptions: H202, IV

Bibliography: SAFAR 1962, 62; TEIXIDOR 1965, 88; Aggoula 1991, 97-98.

6) Altar (?); limestone; Temenos – in front of the niche, west of the Square Temple; h. 97 cm; w. 37 cm; t. 25 cm; Pl. 1

Large horned altar. The shaft is shaped as a parallelepiped. The base is broken. The cornice carved between the shaft and the head is moulded. A roundel was likely carved between the horns on the main face.

Inscriptions: H202, XVIII

Bibliography: TEIXIDOR 1965, 86-87, Pl. II, 1; AGGOUla 1991, 100.

7) Altar; limestone; Temenos – in front of the niche, west of the Square Temple; h. 120 cm; w. 36 cm; t. 26 cm; Pl. 1

Large horned altar; almost complete. The shaft takes the shape of a parallelepiped. The base is flat. A moulded cornice delimited the head from the shaft. Between the horns is carved a roundel. On the main face is engraved an inscription.

Inscriptions: H202, XIX

Bibliography: TEIXIDOR 1965, 87, Pl. II, 2.3: AGGOULA 1991, 100, pl. XV.

8) Burner; limestone; North Gate – in front of the Eagle niche; h. 29 cm; w. 15 cm; t. 15 cm; Pl. 1 Small fragmentary horned burner. The base and part of the left side are broken. The surface is abraded. The shaft takes the form of a parallelepiped. The head is delimited with a moulded cornice. On the main face is engraved a long inscription.

Inscriptions: H337

Bibliography: AL-SALIHI 1978, 71; AL-SALIHI 1980; Aggoula 1991, 156.

9) Burner (?); limestone; North Gate – close to the Eagle niche; h. 58 cm; w. 30.5 cm; Pl. 1

Medium horned burner. The shaft takes the form of a parallelepiped. The base is low and similar to the simply moulded cornice which divided the shaft from the head. The head is decorated with horns with a roundel carved between them. The surface is abraded. An inscription is engraved on the main face. Inscriptions: H340

Bibliography: AL-SALIHI 1978, 73; AGGOULA 1991, 157.

10) Burner; gyspum/alabaster stone; HAT02-18; Building A - S20H; h. 29.4 cm; w. 15.8; t. 15.6; Pl. 1

Small horned burner. The shaft takes the form of a parallelepiped. Three parts are carved. Moulded cornices delimited the base and the head. Four carved horns decorate the head of the altar. A cone with a hollow irregular hole for burning carved in it is located on the top. Several signs of carved decoration are visible on the surface. It was discovered broken in three fragments.

Bibliography: unpublished.

11) Burner; limestone; Hk. II House - courtyard 2 (room); h. 22 cm; Pl. 1

Small horned burner. On the top is carved a hollow cup. The base and the head are delimited by moulded cornices. Only a drawing of the burner has been published.

Bibliography: AL-ASWAD 1997-1998, pl. 6.

12) Burner; limestone; IM119664; HE-102/16; Hatra (?) or Ashur (?);<sup>10</sup> h. 50; w. 19-17; Pl. 1

Medium horned burner. The shaft takes the form of a parallelepiped. The base and head are delimited by

<sup>&</sup>lt;sup>10</sup> According to C. Müller-Kessler the altar was originally discovered at Hatra but removed to the Ashur Museum in 1989, where it was photographed for the first time by K. Kessler. In 2004 the same altar was present in the Iraq Museum in Baghdad, according to the Italian survey of the sculpture from Hatra (courtesy of R. Ricciardi Venco).

# Ahmad Addous\*

# THE FOUNDING OF THE FIRST ARAB-ISLAMIC CITIES ACCORDING TO ANCIENT ARAB SOURCES. THE MODEL OF KŪFA

#### Abstract

This study looks at the foundation and development of the Arab-Islamic city according to the main ancient Arab sources and focuses on the town planning model of the city of Kūfa which, after a short period of being a military field camp involved in an unstoppable expansionist process of conquests (or *futu*h, "openings", as Arab chroniclers referred to it), was one of the first sites to be planned and transformed into a genuine city. A series of political, economic, social and strategic reasons, such as the centralizing of power, the consolidation of the emerging state, the influx of substantial economic resources and the presence of specialized skilled workers within new borders, made a profound contribution to the foundation of a primary nucleus of urban centres which, in the years to come, would become powerful cities. The study recounts and analyzes these reasons, which made Kūfa the urban centre par excellence, where a new concept of Arab-Islamic society was revealed and an organization of space was conceived whose general model was then repeated and renewed in different geographical and environmental contexts. Furthermore Kūfa, which in the first century of the *Hiğra* was repeatedly at the epicentre of political and religious rebellions and revolts involving the entire Muslim world, was a cosmopolitan city and a genuine melting pot, together with the neighbouring rival Basra, of Arab-Islamic culture for over four centuries.

#### Keywords

Arab-city; Kūfa; tamşīr; traditional sources.

The main ancient sources in studying the ex novo founding of Arab-Islamic cities and the relevant formation processes in the early decades of the *Hiğra* are the works composed in the first six centuries of the expansion of Islam.<sup>1</sup> These constitute an immense amount of historical and literary material, compiled by Arab authors who were contemporary to the events or from later periods.<sup>2</sup> The collection of a new mass of documents and their continuous updating reached its peak at the end of the 4<sup>th</sup>/10<sup>th</sup> century with the compilation of a corpus of historical literature which continues to be the basis and the primary source of any research into this subject.<sup>3</sup> In precisely that period, there was the birth of a literary genre which resulted in a series of works known as *'Ilm al-masālik wa* 

'l-mamālik ("Science of Itineraries and Kingdoms"), Futūh al-buldān ("Conquest of Nations"), Mu'ğam al-buldān ("Encyclopaedia of Nations"), Kitāb albuldan ("The Book of Nations"). In these can be found an enormous quantity of historical, geographical, ethnographical and scientific data.<sup>4</sup> Together with these works there are others which refer to individual cities, among the most notable being Tārīh madīnat Bagdād ("The History of Baghdad") by al-Hatīb al-Baġdādī, al-Azraqī, Kitāb ahbār Makka ("Book of the News from Mecca"), the history of Aleppo by Ibn Šaddad and Ibn al-'Adim, and the description of Cairo by al-Maqrīzī.<sup>5</sup> Although the best in this genre, as well as being of enormous merit, is the vast work by Ibn 'Asākir, Tārīh madīnat Dimašq ("The History of Damascus") in eighty volumes.6

<sup>5</sup> The works on the cities of Aleppo and Cairo, as with that on Palermo by Ibn Hawqal and al-Idrīsī, are complete volumes, parts of encyclopaedias dedicated exclusively to these cities.

<sup>6</sup> Only the introduction to this work has been translated into French, *La description de Damas d'Ibn 'Asākir*, Damas 1959.

<sup>\*</sup> Università di Bologna.

<sup>&</sup>lt;sup>1</sup> The contribution of works from periods after the 6<sup>th</sup>/12<sup>th</sup> century are notably inferior and of secondary importance, since a large amount of their content was a summary of previous texts.

<sup>&</sup>lt;sup>2</sup> The style is that of the Islamic tradition: every event is recounted orally by eyewitnesses and passed on to the author through a series of intermediates.

<sup>&</sup>lt;sup>3</sup> A small number of sources of Greek, Aramaic, Armenian and Coptic origin have been used by some authors to fill in lacunae in the Arabic sources.

Among the most important, see Ibn Sa'd, Tabaqāt aş-şahāba ("Classes of the Companions"); al-Tabarī, Kitāb tārih ahbār al-umam wa 'al-mulūk ("The Book of the History of the Nations and Kings", the Annals); Baladuri, Futuh al-buldan ("Conquest of the Nations") and Ansāb al-ašrāf ("Genealogy of the Nobility"); Ibn al-Faqīh al-Hamadānī, Muhtaşr kitāb al buldān ("Compendium of the Book of Nations"); Ya'qūbī, al-Buldān ("The Nations"); Yāqūt, Mu'ğam al-buldān ("Corpus of the Nations"); Ibn Miskawayh, Kitāb tağārib al-umam ("The Experiences of the Nations"); Ibn Qutayba, 'Uyūn al-ahbār ("Book of Choice Narratives"); Ibn al-Faqīh, Kitāb al-buldān (Book of the Nations): Ibn Hurdādbih, Kitāb al-masālik wa 'al-mamālik ("Book of the Itineraries and Kingdoms"); al-Iştahrī, Şūrat alaqālīm ("Routes and Realms") and Masālik al-mamālik ("Itineraries of the Kingdoms"), a copy of this last work is conserved in the University Library of Bologna. Works of this genre, but from later than the 11th century include: al-Bīrūnī, Kitāb al-Hind ("Book of India"); al-Qazwīnī, Kitāb 'Ağā'ib al-buldān ("Book of the Wonders of the Nations"); Ibn al-Mungid, Kitāb al-i'tibār ("Book of Examples"); Ibn al-Atīr, al-kāmil fī'l tarīh ("The Complete History").

There is another literary genre, comparable to the city-planning works in which the authors began to elaborate their concept of the city and theorise models of reference for the construction of new urban centres. The most ancient such work (2nd/8th century), and perhaps the most original, is that by Ibn Abī al-Lama<sup>c</sup>, Sulūk al-mālik fi tadbīr al-mamālik ("The Manners of the Ruler in Administering People"), in which the author treats political, social, ethical and philosophical aspects in an organic manner, integrating them with practical methods for the anthropisation of the numerous territories spread over vast areas conquered in the first century of the Hiğra. He establishes six essential requirements which the authority has to take into consideration for the foundation of new cities (abundant availability of drinking water, provisions of foodstuffs and raw materials, good climatic conditions, nearby pasture and wood for building and heating, a naturally protected site, fortification of the houses and a wall surrounding the whole city)<sup>7</sup> and for the planning he provides eight requirements (the creation of a water supply system, the creation of a proportional road network, the main mosque must be central and easy to reach for all the citizens, locate the governor's seat in the periphery, the construction of an adequate number of markets for commercial and craft activities, the grouping of citizens in residential quarters must be based on relative reciprocal cohesion rather than contrast, transfer into each a sufficient number of scholars and teachers for instruction, surround the entire city with a defensive wall).8

Other precious information and detailed descriptions of the most important cities in the Islamic world come from the diaries and chronicles of many Arab-Muslim medieval travelling writers who chose to face long voyages<sup>9</sup> all over the known world. The most noted are Ibn Hawgal, Sūrat 'l-ard ("Representation of the Earth"), al-Idrīsī, Nuzhat al-muštāg fi 'ihtirāg al-āfāq ("A Diversion for the Man Longing to Travel to Far-Off Places"), al-Maqdisī, Ahsan at-taqāsīm fi ma'rifat al-aqālīm ("The Best Divisions for Knowledge of the Regions"), Mas'ūdī, Murūğ al-dahab ("The Meadows of Gold"), Ibn Ğubayr, Rihlat Ibn Gubayr ("The Voyage of Ibn Jubayr"), Ibn Battuta, Tuḥfat an-nuẓẓār fī ġarā'ib al-amṣār wa 'aǧā'ib alasfar ("A Gift to Those Who Contemplate the Wonders of Cities and the Marvels of Travelling") or simply al-Rihla ("The Travels").

In the ten years (634-644) of governance of the second Caliph, 'Umar bin al-Hattāb, and following two military events – the defeat of the Byzantine army in Syria and of the Persian one in Iraq – there began an unstoppable expansionist process of conquering new territories further and further afield from the confines of Arabia.<sup>10</sup> Such conquests drove the authorities of the new Islamic state to undertake a series of projects to found new cities and urban centres capable of hosting the troops and the numerous population which moved into the new territories.

The first to be founded were in Iraq: Başra, Kūfa e Mawşil (Mosul) respectively in 15/653, 17/637, 21/641; Fusțāț (ancient Cairo) in Egypt in 21/641 and Qairawān in the south of present-day Tunisia in 50/670. Among these, and for a series of reasons which will be returned to later, the most important is the city of Kūfa, which began life as a military camp for the first campaign of conquest of the whole of Iraq, and in a few years became one of the most imposing Arab cities.

The centralising of power and the consolidation of the state (dangerous rebellions by powerful tribes spread across the Arab peninsula were put down<sup>11</sup> and crushing victories achieved over the two great empires of the time), as well as the influx of huge economic resources<sup>12</sup> and a specialised workforce within the new borders, contributed greatly to the foundation of cities under official acts, and thus with regular planning. The first city of this type was Kūfa, in origin a highly important military camp a few kilometres from the right bank of the river Euphrates. Then, a few months after the fall of the capital of the Sassanian Empire, Seleucia-Ctesiphon (al-Madā'in) in 637, on the direct orders of Caliph 'Umar<sup>13</sup> through his lieutenant Sa'd bin Abī Waqqāş, there began the process of tamsir (establishment of the quarters) and the building of a new urban centre.<sup>14</sup> The urban plan-

<sup>10</sup> Cf. CAETANI 1905-1926, vol. II and III, which analyse the chronicles of the various schools (Medinese and Iraqi) of Arab historians.

<sup>11</sup> In the annals of Arab historians, these are noted as "*hurūb ar-ridda*" (the wars of apostasy) because the chiefs of some powerful tribes, recently converted, quickly abandoned Islam after the announcement of the death of the prophet Muhammad.

<sup>12</sup> As regards this influx from the Iraqi province into the *bayt al-māl* (the treasury) of Medina and its redistribution and use in construction projects, see TABARI 2005, 639-640.

<sup>13</sup> All the historians affirm that the city was founded on the wish of Caliph 'Umar. See BALADURI 1901, 284-296.

<sup>14</sup> The critical and historical reconstruction related to the founding of Kūfa, a subject tackled by numerous scholars, questioned the reasons which motivated the Arabs to found a new city when nearby there was the ancient Arab city of Hīra, or the motivation behind the refusal to settle in the immense Sassanian capital, Seleucia-Ctesifonte (al-Madā'in), which had been stormed a few months earlier, even though convincing logic would have led them to follow their predecessors, the Seleucids, Parthians and Sassanians. See CAETANI 1905-1926, vol. III, 834-843; TABARI 2005, 648-651.

<sup>&</sup>lt;sup>7</sup> Ibn Abī al-Rabī<sup>(\*)</sup>s work influenced writings on the city by numerous medieval Arab historians. Among these of particular note is the medieval historian Ibn Haldūn, who six centuries later developed his theory on the city. See IBN KHALDUN 2004, vol. I, 338-345.

<sup>&</sup>lt;sup>8</sup> Cf. Ibn Abī al-Rabī<sup>c</sup> 2010, 33-34.

<sup>&</sup>lt;sup>9</sup> Such voyages were a widespread phenomenon throughout the Middle Ages and were undertaken by literary or highly cultured individuals, some of whom dedicated their entire lives to such travelling.

ning and overall structure of Kūfa not only became a sort of ideal city and a reference model on which to base conformity of urban structure and the construction of the cities founded ex novo, but it also revealed a social concept that gave rise to a spatial organisation whose general lines would be repeated and renewed in different geographical and environmental contexts. Here the success of the rapid process of becoming sedentary might lead one to wonder whether the centuries-old lifestyle of nomadism of many tribes was nothing more than a necessity forced on the desert inhabitants.15

On Kūfa, apart from painstaking modern studies, there is abundant textual information and documentation from traditional Arab sources.16 The city was the focus of various campaigns of exploration and archaeological excavations between 1938 and 1957, which will be examined later.<sup>17</sup>

This celebrated city was founded in 17/338 and over the following periods, under the Umayyads and Abbasids, there were various phases of construction, reorganisation and enlargement; an intense, rapid development confirmed by many texts<sup>18</sup> and by the results of the excavations carried out on the remains of the Umayyad palace.<sup>19</sup>

Among the most ancient written Arabic sources, describing in great detail the start of the founding of the city, the initial topography and the geographical distribution of the population among the quarters, there is the exceptional, rich narration by the historian Sayf b. 'Umar (d. 796):20

When they had agreed on the building plan of al-Kūfa, Sa'd sent a message to Abū 'l-Hayyāğ and informed him of 'Umar's letter containing instructions for the roads. 'Umar had ordered that main thorough fares of forty cubits ( $dir\bar{a}^{c}$ ) in width be planned. In between these there should be (other) roads each thirty cubits wide, and between the former and the latter (again others) twenty cubits wide; finally, the side alleys should be seven cubits wide, no passageway should be narrower than that. The plots of land had to measure sixty cubits [...]. The first thing to be marked out in Kūfa and that was subsequently erected, when they had finally decided to make a beginning with building, was the mosque. It was situated in what is now the market area [...]. Its ground plan was traced out. Then a man stationed himself in the center of this ground plan. He was an archer of prodigious strength. He shot (one arrow) to his right and ordered that anyone who wanted could start building for his own beyond where the arrow had landed. Then he did the same with an arrow that he shot to the left. Next he shot an arrow straight ahead of him and one in the opposite direction and ordered that anyone who wanted could start building for himself beyond where these two arrows had landed.

لمّا أجمَعوا على أن يَضعوا بُنيان الكوفة، أرسلَ سَعد إلى أبي الهياج فأخبرهُ بكتاب عُمَر في الطُرق، أَنَّهُ أَمَرَ بِالمَّنَاهِجِ أَربَعِينَ ذِراعًا، وممَّا يليها ثلاثينَ ذِراعاً، وما بين ذلك عِشرينَ،

وبِالأرقةِ سَبِع أَذَرُع، ليسَ دونَ ذلكَ شيء، وفي القطائع ستينَ ذِراعاً [...] فأوّل شيء خطّ بالكوفة وبُنِيَ حين عز موا على البناء المَسجِد، فوضعَ في موضِّع أصحاب الصابون والتمارين من السَّوقَ [...] فاختطوه، ثمَّ قامَ رَجُلٌ في وَسطِهِ، رامٍ شديد النزع، فَرِمي عن يَمينهِ فأمرَ مَن شاء أن يَبني وراء مَوقِع ذلك السَّهم، ورمي مِن بينَ يَدِيهِ ومن خَلْفَهِ، وأمرَ مَن شاء أن يبني وراء موقِع السّهمَين.

Thus they left a square for the mosque that the people could enter from all sides. Over its front part, a roof structure was built, that had no walls at either side, nor at the front or back. The whole square was meant for the people to congregate in, but in a way that they need not stand packed. In the same manner, other mosques were laid out, except the *al-Masğid al-harām*; in those days they did not try to emulate that out of respect for its holiness. The roof structure of al-Kūfa's mosque measured two hundred cubits in width supported by columns of marble. Its ceiling, resembling the ceilings in Byzantine churches, was (taken from a palace formerly belonging) to the Persian kings. They marked the outer perimeter of the congregation area by means of a ditch, lest anyone should inadvertently and boldly embark on building inside that perimeter for his own. They built a house for Sa'd, separated from the mosque by a narrow alley of two hundred cubits in length. The treasure chambers were incorporated in this house.

It is the present-day citadel of al-Kūfa.

فتركَ المسجدَ في مُربّعة غلوة من كلّ جوانِبهِ، وبنى ظلَّة في مُقدَّمه، ليست لها مجنبات ولا مَو اخير، و المُربّعة لاجتِماع النّاس لئلا يز دحموا، وكذلك كانت المساحِدُ ما خلا المسجد الحرام، فكانوا لا يُشبّهونَ به المَساجد تعظيماً لحُر مته، وكانت ظلّتهُ مائتي ذراع على أساطينَ رُخام كانت للأكاسرة، سَماؤها كأسمية الكنائس

<sup>&</sup>lt;sup>15</sup> Cf. DJAIT 1986, 105-106.

<sup>&</sup>lt;sup>16</sup> Semantic developments have affected many urban planning, architectural and administrative terms. For example, manāhiğ (street, road) has become program or study course, misr (a big city) has become Egypt; madīna (a small town) has become a city. See al-Maqdisi 1991, 121-122; Cuneo 1986, 78-79. <sup>17</sup> Muştafa 1954, 73-74; al-Janābī 1978, 189-190; Djait

<sup>1986, 430-431.</sup> 

<sup>&</sup>lt;sup>18</sup> See YAQUT 1993, vol. IV, 492.

<sup>&</sup>lt;sup>19</sup> For the excavation campaign in the *qaşr*, see MUSTAFA 1954, 73-85; IDEM 1956, 3-32 (trans. by Kessler 1963, 36-64).

<sup>&</sup>lt;sup>20</sup> See ȚABARI 2005, 649-650.

# NOTIZIARIO BIBLIOGRAFICO

NICOLA CRÜSEMANN, MARGARETE VAN ESS, MARKUS HILGERT, BEATE SALJE (eds.), *Uruk: First City of the Ancient World*. J. Paul Getty Museum Publications, Los Angeles, 2019. ISBN 978-1-60606-444-3, 394 pp., 374 figg. a colori e 68 figg. in B/N, \$ 80.

Nel 2013, in occasione del centenario dell'avvio della prima spedizione archeologica tedesca presso il sito di Uruk, il Vorderasiatisches Museum di Berlino ha ospitato l'esposizione "Uruk: 5000 Years of a Megacity". Sei anni dopo, il volume in accompagnamento della mostra è stato tradotto in inglese, dando vita ad un'imprescindibile pubblicazione di raccolta dei principali dati storici e archeologici relativi al più antico e celeberrimo centro urbano mesopotamico.

A partire dalla prima missione dell'inverno 1912-1913, organizzata dall'Orient-Gesellschaft, più di 40 spedizioni archeologiche tedesche, attualmente ancora in corso sotto la direzione del DAI (Deutsches Archäogisches Institut), si sono succedute presso il sito, fornendo un'incredibile mole di dati storici e archeologici dettagliatamente raccolti e riassunti all'interno di questa pubblicazione.

Da questo volume emerge dirompente l'esigenza di evidenziare l'inestimabile valore del patrimonio artistico, architettonico e storico del centro di Uruk, in passato spesso offuscato dalle indagini presso Babilonia e le capitali assire, interpretate come archeologicamente preminenti dagli stessi studiosi tedeschi già a partire dall'inizio del '900.

Tradizionalmente riconosciuta già nel mondo mesopotamico come città mitica e antichissima, Uruk fondò la sua incredibile crescita insediativa sul progresso nelle tecniche di sfruttamento idrico e agricolo nella regione, forse avvantaggiata da favorevoli variazioni climatiche generali. Fu fondata alla fine del V millennio, benché le sue fasi più antiche risultino attualmente ignote, avendo le analisi stratigrafiche al momento restituito dati archeologici coerenti solo a partire dalla metà del IV millennio. Prosperità e sviluppo sociale hanno dato vita ad uno straordinario patrimonio architettonico e artistico cittadino, evidenziato tra le pagine di questo volume da un ricchissimo e pregiato apparato grafico, e reso ancora più eccezionale dalla limitatissima conoscenza attuale dell'area archeologica (esplorata solo per circa il suo 5%). Centro religioso dedicato al culto di An e Inanna, creò a sostegno del suo complesso tessuto urbano e sociale una incredibilmente vasta rete commerciale. Millenaria fu la sua floridezza, avendo attestato i primi gravi sintomi di una crisi economica e demografica solo nel corso del II millennio a.C., a cui seguì una significativa ripresa nel millennio successivo allorquando Uruk assunse il ruolo di insostituibile centro di snodo commerciale, ancora gestito dall'Eanna, tra la Babilonia e l'area del Golfo. Il definitivo abbandono dell'area si data all'inizio del IV secolo d.C., benché già da tempo gli abitanti si fossero trasferiti in aree limitrofe rispetto al centro principale di Uruk, in conseguenza anche a significative modifiche degli impianti artificiali di canalizzazione.

Le indagini archeologiche effettuate, le tecniche di analisi adottate e i risultati raggiunti nel corso dei decenni di lavoro sul campo rappresentano il filo conduttore di molte delle sezioni in cui il volume risulta suddiviso, con stimolanti approfondimenti dedicati ai risultati degli studi di telerilevamento e prospezioni geofisiche e geomorfologiche effettuati nell'area archeologica. Molte di queste analisi sono state realizzate nel corso della forzata interruzione delle attività stratigrafiche in conseguenza ai conflitti militari in terra irachena tra gli anni '80 e gli anni 2000. Proprio nel corso di questo lungo intervallo di sospensione dei lavori è stata avviata una sistematica e progressiva pubblicazione dei dati di scavo; si ricordano in tal senso i venticinque volumi pubblicati sotto la supervisione di R. Boehmer.

L'affascinante storia delle spedizioni occupa meritatamente una significativa porzione delle sezioni introduttive, dalle prime visite sul sito di W. Loftus, alle attività di R. Koldewey e W. Andrae, J. Jordan e C. Presseur, con la descrizione delle interruzioni dovute alle conseguenze militari e politiche dei conflitti mondiali, alle spedizioni di A. Nöldeke e H.J. Lenzen, accompagnando la descrizione con la presentazione delle storicamente notevolissime fotografie degli scavi datate tra gli anni '60 e gli anni '80.

I dati archeologici relativi al sito sono approfonditamente presentati all'interno di ampi macro-capitoli dedicati ai diversi aspetti in connessione con la città e la sua storia; Uruk rappresenta il punto di partenza per analizzare l'universo mesopotamico dal punto di vista artistico, amministrativo, tecnologico, domestico e sociale.

Il contesto architettonico e urbano, accompagnato dalla presentazione di numerosi modellini e ricostruzioni tridimensionali, risulta assoluto protagonista della trattazione con descrizione, distribuita su base cronologica, dei principali edifici e livelli stratigrafici indagati, a partire dalle monumentali evidenze del IV millennio fino alla fioritura architettonica finale in epoca seleucide.  $\star$ 

Grande attenzione viene inoltre riservata all'aspetto religioso, centrale in una città simbolo del culto mesopotamico e delle sue prerogative politiche e amministrative, dalla storia dell'elaborazione del mito di Gilgamesh, presentata dal punto di vista filologico e artistico, fino alle evidenze pubbliche e private del culto di Inanna.

La presentazione delle principali classi di materiali diffuse presso il sito (tra queste la ceramica, i sigilli, le terrecotte, le tavolette, le placchette in avorio, i depositi di fondazione). così come delle iconografie e delle tecniche adottate, fornisce lo spunto per approfondire gli aspetti storici, sociali e tecnologici connessi agli oggetti, al loro valore e al loro utilizzo.

I capitoli relativi ai diversi temi affrontati sono intervallati da stimolanti approfondimenti dedicati ai più svariati argomenti: si citano a titolo esemplificativo la descrizione del commercio del legname funzionale alle grandi opere architettoniche, la presentazione dei principali materiali da costruzione nell'edilizia mesopotamica, le tecniche di lavorazione della pietra e la

LEILA BADRE, EMMANUELLE CAPET ET BARBARA VITALE, *Tell Kazel au Bronze Récent: études céramiques*. Bibliothèque archéologique et historique - Tome 211, Presses de l'Institut Français du Proche-Orient, Beyrouth, 2018. ISBN 978-2-35159-740-8, 256 pp., 6 figg. b/n, 55 tav. b/n, 4 tav. c., 1 carta, 2 piante, € 45,00.

La piana di Akkar nel corso del Bronzo Medio e Tardo si trovava all'incrocio dei flussi commerciali lungo l'asse nord-sud seguendo la costa levantina e i percorsi di accesso verso l'entroterra siro-palestinese. Si tratta quindi di una regione di grande interesse per lo studio delle penetrazioni culturali dall'area cipriota e dal Mediterraneo orientale all'interno di una regione crocevia di contatti fra il mondo levantino, ittita, mitannico ed egizio prima degli sconvolgimenti che coinvolsero la regione all'inizio dell'Età del Ferro. Il presente volume si inserisce all'interno di questo orizzonte storicoculturale ponendosi come elemento di riferimento per le ricerche nell'area. Basandosi sul materiale ceramico rinvenuto nel corso degli scavi di Tell Kazel, integrato con i dati provenienti dal vicino sito di Tell Arga (Irgata), il volume presenta una sintesi ragionata e un compendio di fondamentale importanza per gli studi sull'orizzonte ceramico della regione di Akkar e delle aree limitrofe nel corso del Bronzo Tardo.

Il volume, diviso in due parti principali, raccoglie due studi dedicati rispettivamente all'analisi del materiale ceramico di Tell Kazel nel corso del Bronzo Tardo e delle importazioni cipriote rinvenute durante gli scavi archeologici nel sito.

Nel primo studio del volume (I - La céramique de *Tell Kazel au Bronze récent,* L. Badre, E. Capet con contributi di B. Vitale e R. Jung, pp. 11-163) viene preso in esame il corpus ceramico di Tell Kazel, notevole sua difficoltà di approvvigionamento, le tipologie di decorazioni architettoniche diffuse, il ruolo e gli strumenti del governo politico e amministrativo delle città mesopotamiche, fino alla presentazione delle rielaborazioni artistiche in chiave moderna dell'eredità culturale sumerica.

Conclude la lunga e dettagliata presentazione del patrimonio culturale del sito di Uruk, un'amara descrizione dell'attuale stato conservativo dell'area archeologica, danneggiata e deteriorata dai pressanti fenomeni erosivi e dalla diffusione, seppur meno marcata rispetto ad altri siti della Mesopotamia meridionale, delle attività di scavo clandestino.

Un ricchissimo apparato bibliografico finale, unitamente alla significativa mole di dati archeologici presentati, rende questa pubblicazione un solido sostegno al lettore e un imprescindibile punto di partenza per il prosieguo dello studio e l'ulteriore approfondimento della città di Uruk e della sua millenaria storia insediativa.

Eleonora Quirico

per quanto concerne sia la quantità sia la qualità della ceramica rinvenuta, e di Tell Arqa. Viene definita una tipologia esaustiva della ceramica locale con un repertorio sintetico composto da 560 forme che comprende i tipi più frequenti e le rispettive varianti, i tipi più rari che costituiscono una particolarità regionale o di importanza cronologica e le forme associate a pavimenti o ad altri elementi stratigrafici di una certa importanza

per quanto concerne la sequenza di Tell Kazel. La prima parte dello studio è dedicata al contesto storico e archeologico dell'area di Akkar e ai suoi rapporti con le aree limitrofe. Segue poi la descrizione del materiale ceramico utilizzato, sia precedentemente pubblicato sia inedito, integrato da osservazioni dirette alle collezioni attraverso gli archivi ceramici messi a disposizione dalle missioni archeologiche. In questa sezione viene presentato a titolo di esempio gualche inventario tipologico del materiale rinvenuto nel corso delle indagini nell'abitato di Tell Kazel fornendo un riassunto delle proporzioni del materiale e delle diverse percentuali dei tipi ceramici riconosciuti (Tableau 1: pourcentage de vases par catégories à travers quelques ensembles stratifiés de Kazel, p. 16). Sebbene si riscontrino alcuni problemi legati alla metodologia adottata nella quantificazione e alle difficoltà ben note di definire il rapporto fra il complesso ceramico "in vita" e quello rinvenuto in scavo, la tabella è molto interessante in quanto fornisce un'immagine complessiva del materiale in contesto. Essa fornisce inoltre informazioni sul rapporto fra le diverse classi e tipi e fra le importazioni e produzioni locali all'interno di alcune delle aree di scavo. La parte più cospicua dello studio riguarda poi la descrizione degli impasti ceramici, delle tecniche utilizzate, dei tipi di cottura e soprattutto delle forme documentate. Per quanto concerne la definizione degli