



Archaeological Explorations in Syria 2000-2011

Proceedings of ISCAACH-Beirut 2015

edited by

Jeanine Abdul Massih and Shinichi Nishiyama

in collaboration with

Hanan Charaf and Ahmad Deb



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KHALED AL-ASSAAD, GIRO ORITA, AND ANTOINE SULEIMAN

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and

the Lebanese University Archaeological Mission of Cyrrhus-Syria

**International Syrian Congress on Archaeology and Cultural Heritage
(ISCACH): Results of 2000-2011**

December 3-6, 2015

Beirut, Lebanon

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And to the staff of the Rotana Gefinor Hotel (Hamra, Beirut, Lebanon)

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Introduction

Jeanine Abdul Massih and Shinichi Nishiyama

Syria has been a major crossroads of civilizations in the ancient Near East since the dawn of human kind. The importance of its cultural heritage is not only crucial for the Middle East but also for the entire world history. Archaeology in Syria, especially for the last several decades, has provided a plethora of significant discoveries of human civilizations from the Paleolithic to the Islamic periods. Until the current crisis began in 2011, Syria was one of the foremost pioneers for investigating past human knowledge, diversity, and identity. However, due to the ongoing war, archaeological excavations came to an abrupt halt. Since then, we have heard countless alarming reports of damage or destruction inflicted on archaeological, historical, and museum sites. The destruction of the cultural heritage of Syria represents a mindless act that for ever robs humanity of vast swathes of history and knowledge.

Since the crisis began, numerous international organizations and academic institutions have organized conferences, symposia, and workshops dedicated either to the preservation of the cultural assets in Syria that are currently endangered, or to lament those that were totally lost. By contrast, few academic gatherings have focused on what has most recently been found and recorded, namely, the results of fieldwork carried out immediately prior to the present conflagration.

With so many investigations of archaeological sites and of other aspects of the Syrian cultural heritage having been conducted by both Syrian and international scholars in the years leading up to 2011, we believe it is both timely and desirable to share those results with the scientific community and the general public.

The **International Syrian Congress on Archaeology and Cultural Heritage (ISCACH)**, held from 3rd–5th December 2015 in Beirut, Lebanon, was jointly organized by the Japanese Society for West Asian Archaeology and the Syrian-Lebanese Archaeological Mission to Cyrrhus (Nebi-Houri), along with other Lebanese Archaeological Missions in Syria. The main aim of this Congress was to bring together those international scholars who have directed or participated in archaeological expeditions in Syria and our colleagues from Syria. By doing so, we could not only share and discuss the results of years of archaeological investigations and cultural heritage management in Syria, but also strengthen our friendship and collaboration during this turbulent

period. Through this Congress we also aimed at reviving and stimulating the scientific dialogue among specialists for the future rehabilitation of the Syrian cultural heritage.

The focus during this Congress on the scientific aspects of each explored site and region allowed researchers to examine in detail each heritage site and recognize its characteristics and identity. Based on archaeological and scientific observations, as well as investigations and documentations offered by specialized scholars, we hope to implement further excavations, exploration, protection, and rehabilitation programs dealing with the future of the cultural heritage in Syria.

In this Congress, we search for a collaborative way of thinking to manage scientifically the future, and to give efficient tools for Syrian colleagues who are (or will be) in charge of these different regions, in order that they might provide immediate interventions or plan future developments.

This objective can only be realized through the revival of scientific dialogues and the exchange of information between the international community and Syrian scholars and specialists. This will lead to more efficient actions, both physically and scientifically, for saving the cultural heritage in Syria.

During this Congress, more than 85 researchers were present from more than 12 countries, presenting results from more than 80 major sites and hundreds of surveyed areas spread all over the Mouhafazat of Syria. 35 Syrian scholars from various excavation teams, universities, and the Directorates General of Antiquities attended this meeting and shared with international scholars their researches covering the Paleolithic to the Islamic periods. Dialogues were established between the specialists and an exchange of information and publications were made directly during the meeting.

This present publication consists of two parts. The first part presents the results of archaeological investigations conducted between 2000 and 2010. The second part comprises abstracts of papers and posters presented during the Congress. We hope that this book will represent an important contribution to the scientific dialogue between international and Syrian scholars, and will appeal to the general public interested in the culture and history of Syria.

THE EXCAVATIONS IN SYRIA 2000-2010

Aleppo

The Paleolithic Excavations at the Dederiyeh Cave, Afrin Valley (1989-2011)

Takeru Akazawa and Yoshihiro Nishiaki

Tokyo University

Abstract

The Paleolithic cave site of Dederiyeh is located northwest of Aleppo in Wadi Dederiyeh that transects the hilly limestone plateau (450 m above sea level) of the Jabal Samman and leads to the Afrin Valley that runs into the Mediterranean Sea. The survey located a dozen Paleolithic caves in the Afrin Valley, among them Dederiyeh, intensively excavated in 1989-2011 (Akazawa and Muhesen (eds) 2002; Nishiaki *et al.* 2012; 2011a). Excavations revealed a long cultural sequence spanning late middle to latest Pleistocene deposits containing a succession of Lower, Middle, and Epipaleolithic cultural layers. In addition, well-preserved Neanderthal remains were recovered in association with Middle Paleolithic faunal and lithic assemblages. These discoveries have established Dederiyeh Cave as a prime locale for defining Paleolithic and paleoanthropologic events in the northern Levant.

The Dederiyeh Cave, located approximately 60 km north of Aleppo, in northwestern Syria, is one of the largest Paleolithic cave sites excavated to date in the Levant. It is approximately 10-20 m wide, 60 m long, and 10 m high (Figures 1-2). Excavations at this site were carried out continuously from 1989 to 2011 by a joint Syrian-Japanese archaeological mission, first directed by T. Akazawa and S. Muhesen, later joined by Y. Kanjou and Y. Nishiaki. The excavations representing a rare, long-term Paleolithic field campaign in this part of the northern Levant, yielded significant data that shed new light on the behavioural and physical evolution of archaic and modern humans (Akazawa and Muhesen 2002). In particular, the Dederiyeh Cave became internationally known following the discovery of two sets of well-preserved fossilized Neanderthal remains in the early 1990s and another set in the 2000s (Akazawa and Muhesen 2002; Kondo *et al.* 2011). Excavations between 1989 and 2001 were mainly conducted at the far end of the cave where the Neanderthal fossils were unearthed. The publication of a monograph on the Neanderthal research conducted during this period provided momentum for expanding in 2003 the research plan (Akazawa and Muhesen 2002). The new plan expanded the excavations over the entire area of this massive cave with the goal of studying its overall occupational history (Figure 2). Results indicated that humans occupied this cave not only during the period of the Neanderthals but also during the previous and later periods. This paper lists and describes the major discoveries made inside the cave with a focus on the occupational history of the site.

The Dederiyeh Cave is located on the left bank of Wadi Dederiyeh which cuts across Jabal Samaan, a limestone

massif, and flows into the Afrin River (Figure 1). The cave is situated at an elevation of approximately 500 m above sea level in an area with an annual precipitation of about 500 mm. The surrounding limestone plateau, which was once covered with Mediterranean open woodlands, is today sparsely vegetated, the result of overgrazing by goats. The cave is shaped like a tunnel and has two entrances; these gave the site its name, Dederiyeh, which means 'two entrances' in Kurdish. While the main entrance¹ faces the wadi, the other entrance is a shaft in the roof at the back of the cave (Figures 2-4). Dederiyeh is a so-called karst cave; water continues to seep out from the cave walls until today. The cave floor slopes approximately 25 degrees from the chimney area to the entrance area.

Excavations Inside the Dederiyeh Cave

A grid system comprising 2 m x 2 m squares was implemented during the excavations. Excavations carried out between 1989 and 2001 focused on the chimney area and covered a total surface of 84 m², out of which 24 m² reached the bedrock. Deposits from the Middle Paleolithic were approximately 4 m thick. A stratigraphic sequence of 15 layers was identified. Fossils of Neanderthals No. 1 (Figure 5) and No. 2 were discovered respectively in Layers 11 and 3. However, other Neanderthal fragments were found in five of the 15 stratigraphic layers. All archaeological remains in the chimney area seem to have been left by Neanderthals,

¹ For terminology convenience, the area around the opening facing the wadi is referred to in this text as the entrance area, the space around the shaft as the chimney area, and the space between the entrance and chimney areas as the central area.

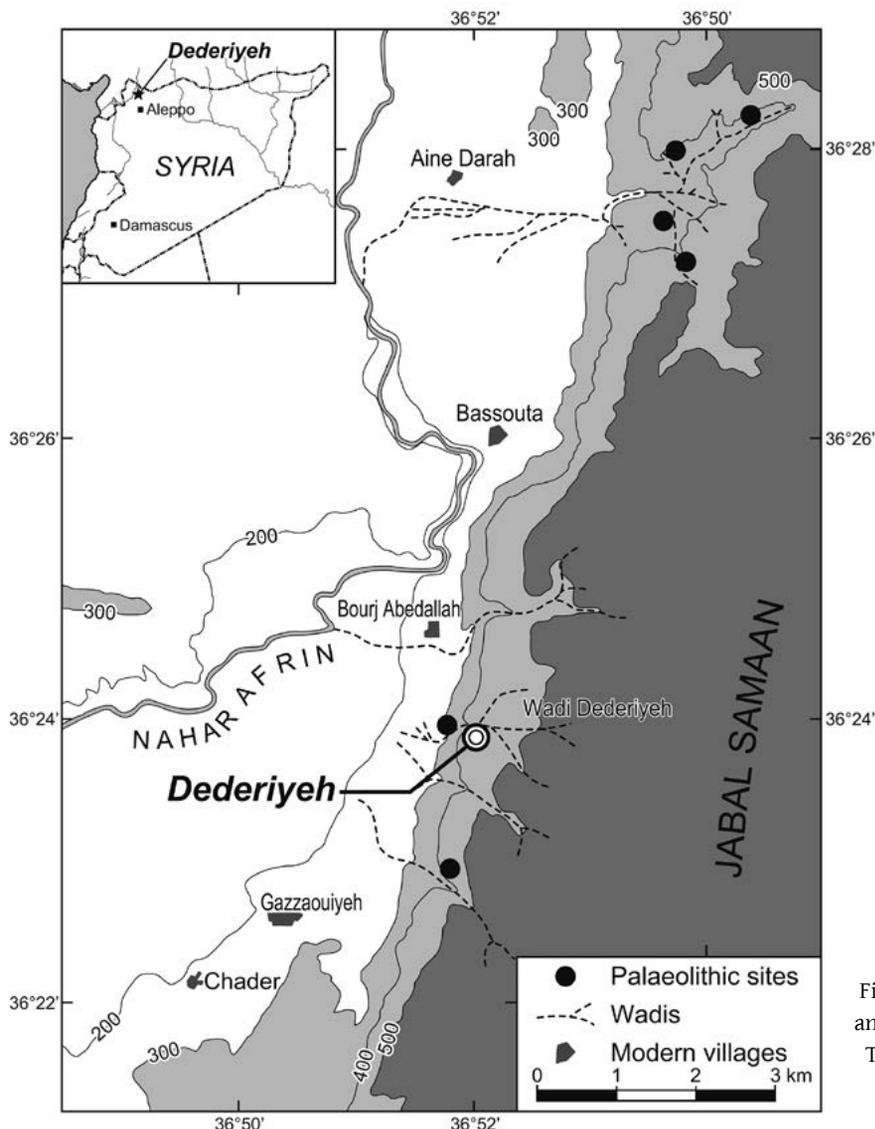


Figure 1: The map of the Afrin Valley and location of the Dederiyeh Cave (© The Syrian-Japanese archaeological mission).

approximately 50,000 to 70,000 years ago (Nishiaki *et al.* 2012).

During the second phase of the research (2003-2011), a new project was implemented to extend the excavation area to cover almost the entire cave, in order to conduct a more comprehensive study of the cave’s occupational history. Additional excavations in the chimney area were also conducted (Figure 3: C9-E9), and led to the discovery of Neanderthal No. 3 (Kondo *et al.* 2011). Results proved that while the chimney area was only occupied during the latter half of the Middle Paleolithic, longer and thicker occupational layers from earlier and later periods were found in the entrance area. Excavations indicated also a very limited use of the central area of the cave, since it lacked sunlight (Figure 2).

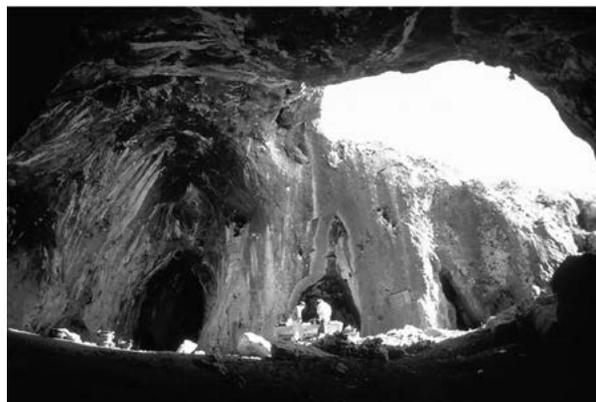


Figure 2: The chimney area of the Dederiyeh Cave (© The Syrian-Japanese archaeological mission).

The discussion above suggests that humans continued to use the Dederiyeh Cave from the Lower Paleolithic,

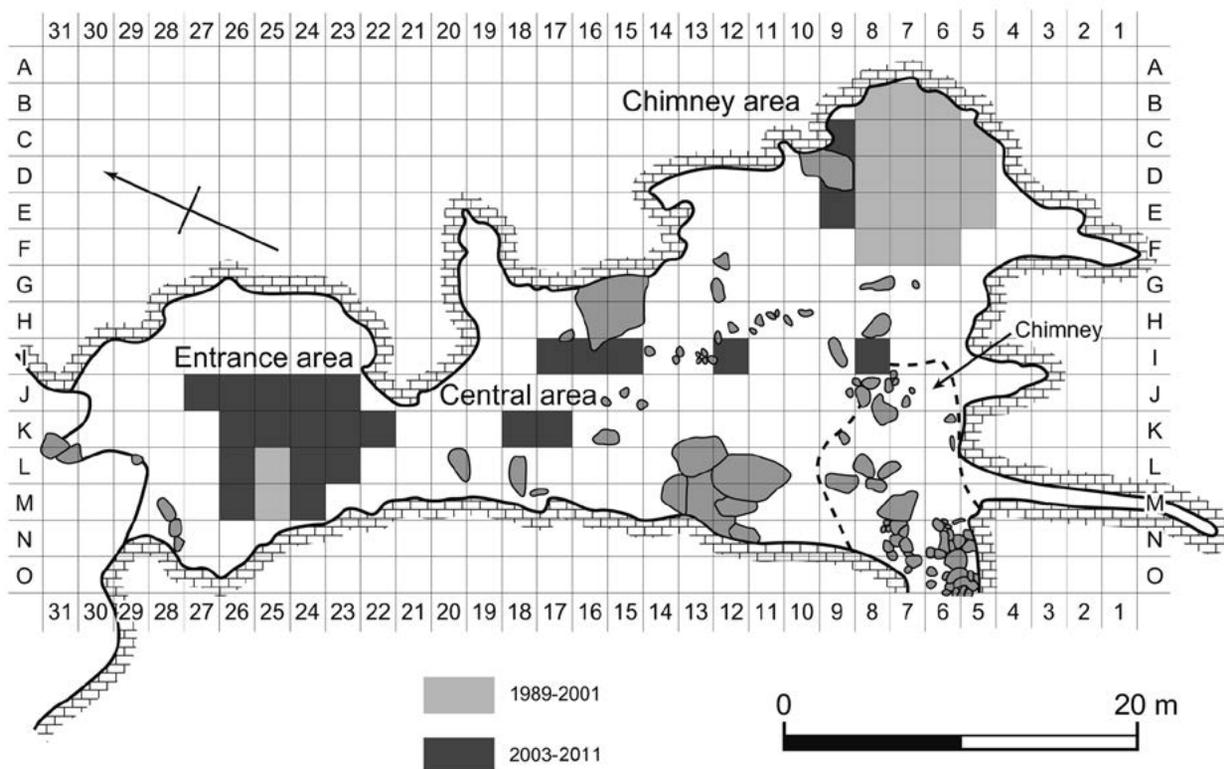


Figure 3: The plan of the Dederiyeh Cave showing the excavation sites (© The Syrian-Japanese archaeological mission).

moving the main habitation area inside the cave from one location to another over time. The chimney area was occupied at a later period, compared to other areas, because the chimney was closed during earlier periods. The occupation of the chimney area began in the latter half of the Middle Paleolithic, MIS 4, during which the chimney opened up completely and sunlight could reach inside the cave (Nishiaki *et al.* 2012).

The Human Occupations at the Dederiyeh Cave

Lower Paleolithic

A burned Natufian building dating back to the Epipaleolithic was discovered in the entrance area (described below). Since a decision was made to preserve this building and others that were found on top of one another, layers predating the Epipaleolithic were exposed only in three squares (Figure 3: K22, K23, and J27). Occupation deposits from the Lower Paleolithic were found in the lowest layers of these three squares (Figure 4). The majority of the lithic artefacts were side scrapers and other flake tools manufactured on thick, non-Levallois flake blanks (Figure 6). Another important characteristic of these side scrapers is the presence of secondary modification using a steep Quina-type retouch. While some of the scrapers were made on bifacial blanks, the so-called hand axes were very rare (Figure 6: 5, 7). Such technical characteristics

warrant the identification of these assemblages with the Yabrudian Cultural Complex dating back to the end of the Lower Paleolithic.

The Yabrudian is a distinct culture between the Acheulean of the Lower Paleolithic, which produced mainly bifacial stone tools, and the Levantine Mousterian of the Middle Paleolithic, characterized by Levallois-type tool blanks. Dating results from Qesem Cave in Israel place the Yabrudian between approximately 380,000 and 280,000 years ago (Falgueres *et al.* 2016; Gopher *et al.* 2010). While in central and southern Levant caves, Yabrudian is often associated with the Amudian/Pre-Aurignacian and Final Acheulean cultures comprising the Acheulo-Yabrudian Complex at Dederiyeh, none of these latter periods was recognized. Given that the Yabrudian of Dederiyeh is the first discovery of its kind in the northern Levant, it may reflect a specific regional cultural diversity, which should be further discussed to interpret the meaning of the complicated cultural patterns found at the end of the Lower Paleolithic.

Middle Paleolithic

The Middle Paleolithic layers were discovered in both the entrance and the chimney areas, whereas deposits from earlier periods were found only in the entrance area. Lithic assemblages of this period are often

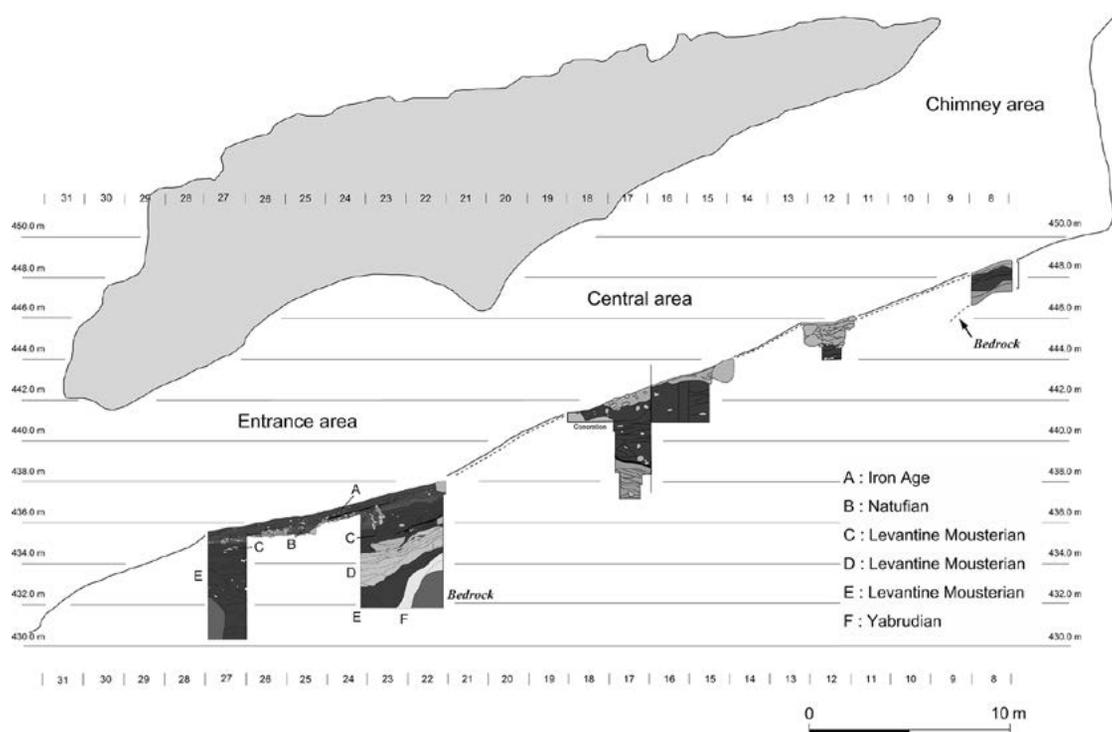


Figure 4: The stratigraphy of the longitudinal section of the Dederiyeh Cave (© The Syrian-Japanese archaeological mission).

classified into three types, Tabun D, C, and B, based on stratigraphic evidence from the Tabun Cave in Israel (Bar-Yosef and Meignen 2000). While all assemblages have in common the frequent use of the Levallois method, large quantities of elongated blades of Tabun D-type, wide flakes of Tabun C-type, and small, sharp flakes of Tabun B-type are known to have been prevalent in the tool blanks. Technologically speaking, the cores of Tabun D, C, and B types are distinguished respectively by one-axis, multidirectional, and convergent flaking.

At the entrance area of the Dederiyeh Cave, all these different types of assemblages were found in succession (Figure 7). While assemblages corresponding to Tabun B type were poorly preserved and are believed to be the result of redeposition, earlier assemblages assigned to Tabun D and C were found in good stratigraphic sequences. Until recently, the only sites with Early to Late Levantine Mousterian assemblages found in one stratigraphic sequence were those located in the central Levant that were excavated on a large scale in the 1930s, such as the Tabun and Yabrud caves (Bar-Yosef and Meignen 2000). However, the discovery at the Dederiyeh Cave demonstrates that the same cultural succession occurred as well in the northern Levant, indicating a uniform cultural landscape of the Levant during this period (Nishiaki *et al.* 2011a).

As mentioned earlier, the well-preserved Late Levantine Mousterian deposits were discovered in the chimney area. Along with Neanderthal fossils, large quantities of flaked stone artifacts (Figure 7: 1-9) and animal fossils



Figure 5: The Neanderthal burial of Dederiyeh No. 1. 1: Limestone slab, 2: Levallois point (© The Syrian-Japanese archaeological mission).

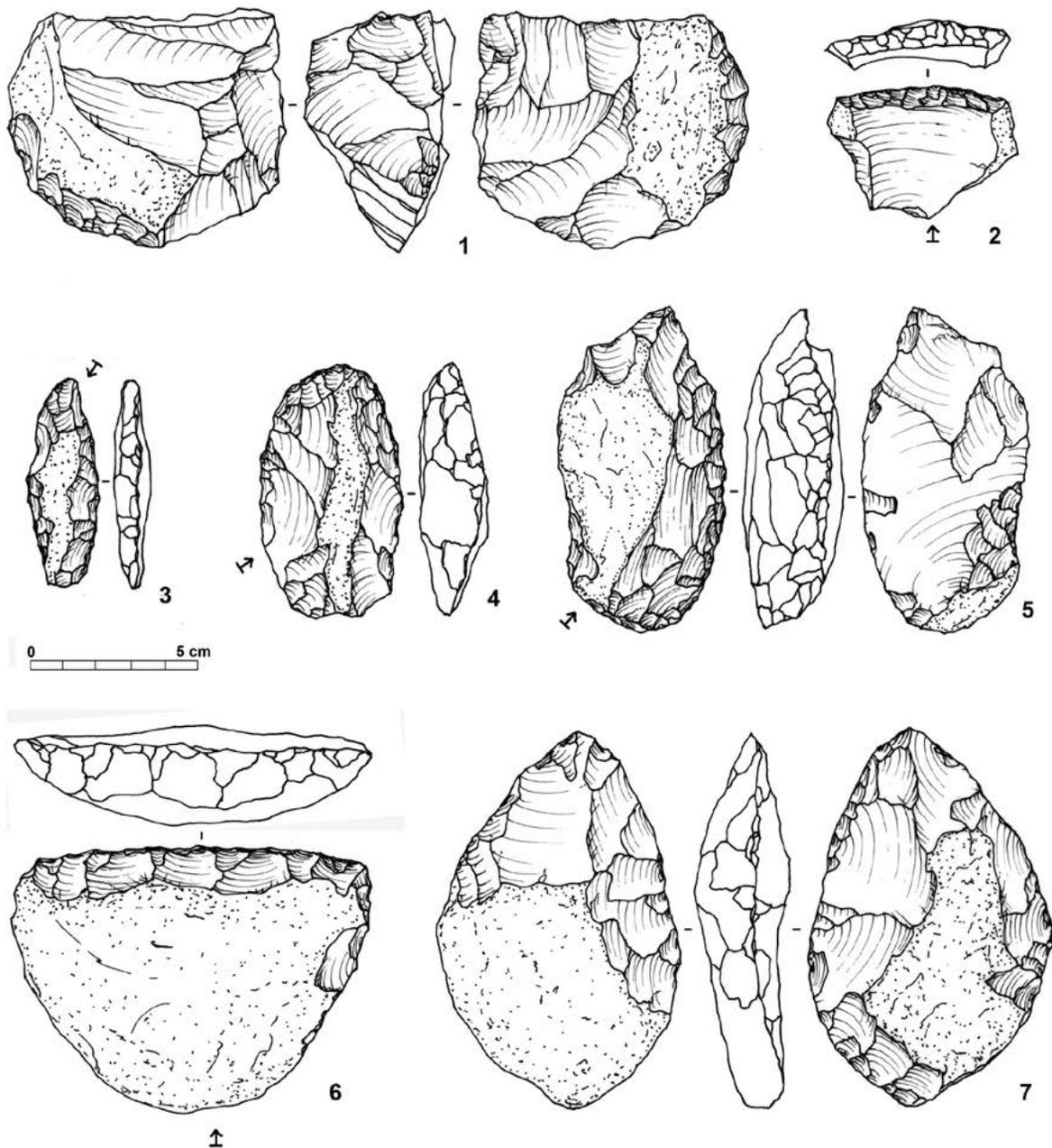


Figure 6: The Yabrudian lithic artifacts from the Dederiyeh Cave. 1: Core, 2-6: Side scrapers, 7: Biface
(© The Syrian-Japanese archaeological mission).

were found together with remains of numerous hearths (Griggo 2004; Nishiaki *et al.* 2012). All three nearly complete Neanderthal skeletal remains were of infants aged two to three years old. Since the full skeletal remains were articulated, they were most probably buried on purpose. Research on the rare material of infant Neanderthals contributed to the reconstruction of the life history of these hominins (de Leon *et al.* 2016).

Upper Paleolithic

No layers dated to the Upper Paleolithic have been found at the Dederiyeh Cave. Either the cave was

abandoned during this period or accumulated sediments from this period were removed by erosions. The only archaeological evidence is available from the final phase of the Upper Paleolithic when the Natufian culture flourished in the Levant.

Epipaleolithic

The Natufian is an archaeological culture of the Epipaleolithic period, and it represents one of the world's earliest groups of sedentary hunter-gatherers. It laid the groundwork for the subsequent emergence of the Neolithic society which was an economy centred on

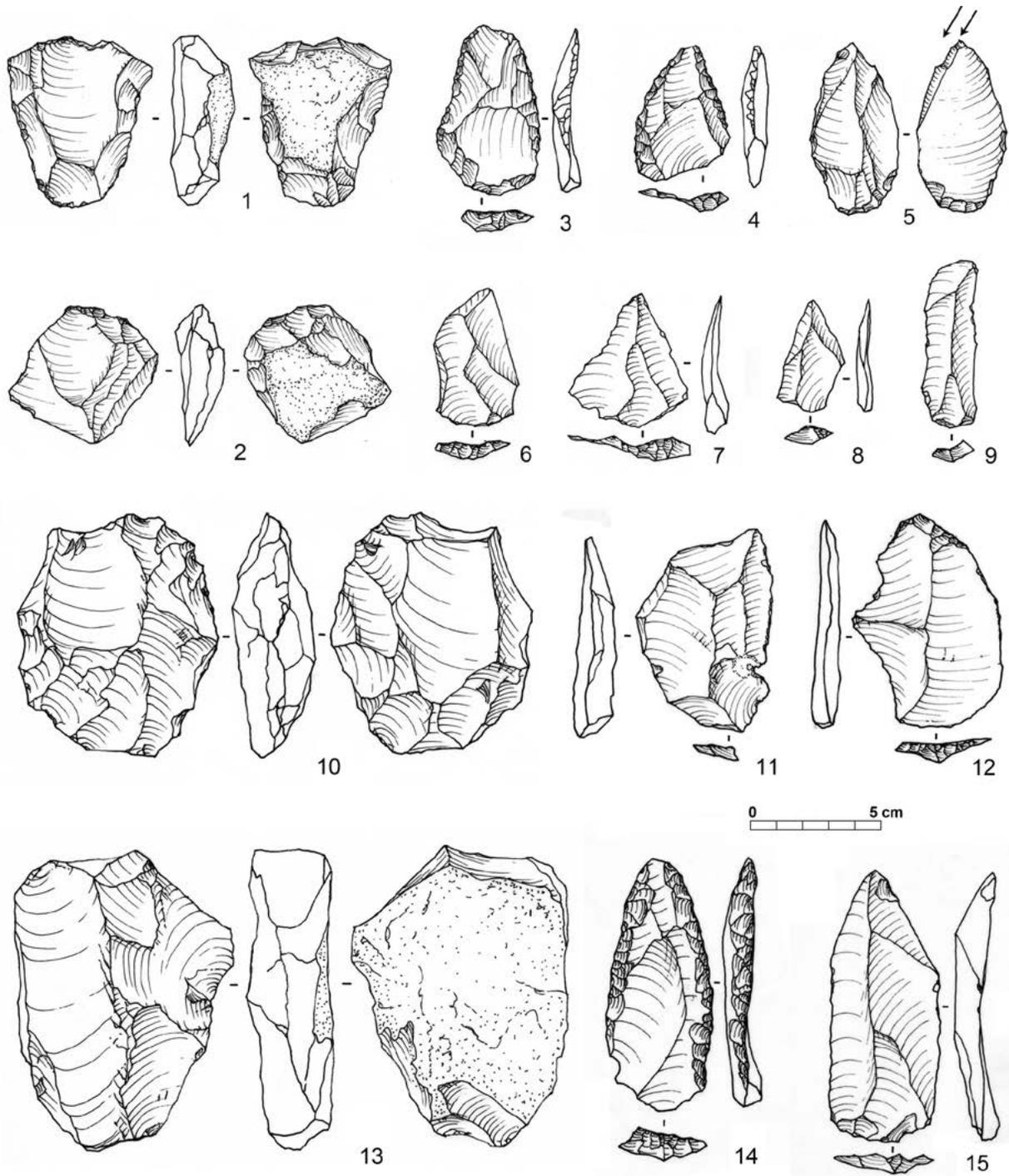


Figure 7: The Levantine Mousterian lithic assemblages from the Dederiyeh Cave. 1-9: Late Levantine Mousterian, 10-12: Middle Levantine Mousterian, 13-15: Early Levantine Mousterian (© The Syrian-Japanese archaeological mission).

food production. In general, the Natufian is considered to have originated in the southern Levant and spread in its late phase to the northern Levant (Bar-Yosef and Valla 2013) where the Dederiyeh Cave is located.

The evidence from Dederiyeh indicates that this cave is the northernmost example of the Natufian culture in the

Levant and serves as a reference point for determining the period in which this culture spread (Nishiaki *et al.* 2011b; Tanno *et al.* 2013). Radiocarbon dates obtained at Dederiyeh until now place this period between 13,000 and 14,000 years ago. This is noteworthy since these dates partially overlap with the Early Natufian in the southern Levant. While the Early Natufian at Dederiyeh

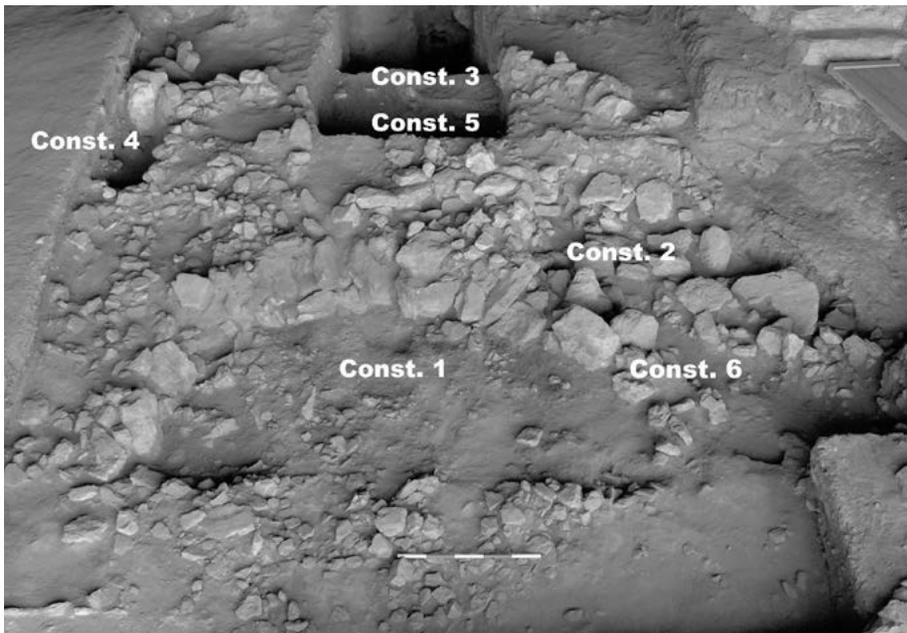


Figure 8: The burned Natufian structure in the Dederiyeh Cave (© The Syrian-Japanese archaeological mission).

is not as old as the oldest sites in the southern Levant, it suggests that the Natufian extended to the northern Levant immediately after its emergence.

Among the Natufian findings from Dederiyeh, a series of large semi-underground stone buildings (Figure 8) is particularly interesting. One of the buildings was burned, making it the first discovery of such a type of construction for the Natufian (Nishiaki *et al.* 2011b). Abundant carbonized remains of building materials, as well as numerous stone artefacts and animal and plant fossils, were found scattered across the floor. A detailed analysis of these remains will certainly help explain the use of space by its inhabitants, as well as their social structure.

Post-Paleolithic

Following the end of the Paleolithic period, the Dederiyeh Cave remained unoccupied for a long time. Between the Iron Age and Byzantine periods, the cave was used again sporadically, although it was no longer used as a residential site. Indeed, during the Iron Age and subsequent periods, the Afrin Valley saw an increase in the number of large archaeological sites that became tourist attractions, such as the Ain Dara Temple and the Church of Saint Simeon. The Dederiyeh Cave was then used by shepherds as a temporary shelter for goats and sheep. The remains of makeshift structures, such as hearths and pits for water storage, have been discovered in large numbers in this area.

Conclusion

The Dederiyeh Cave first attracted international attention with the discovery of Neanderthal fossils. In recent years, extensive excavations led to the discovery

of occupational layers from periods preceding and following the Neanderthal period, making the cave a key archaeological site for reconstructing 300,000 years of human history. Although it lacks deposits from the Upper Paleolithic, the Dederiyeh Cave contains a wealth of data documenting the physical and behavioural evolution of hominins during the late Middle and Upper Pleistocene, from the end of the Lower Paleolithic to the Epipaleolithic. This unique discovery, and the archaeological data accumulated over the last quarter of a century, deserve to be studied to maximize its potential.

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Bibliography

- AKAZAWA, T. and MUHESEN, S. (eds)
2002 *The Neanderthal Burials: Excavations of the Dederiyeh Cave, Afrin, Syria*. Kyoto, International Research Center for Japanese Studies.
- BAR-YOSEF, O. and MEIGNEN, L.
2000 The chronology of the Levantine Middle Paleolithic period in retrospect, *Bulletins et mémoires de la Société d'Anthropologie de Paris* 12/3-4: 1-18.

- BAR-YOSEF, O. and VALLA, F. (eds)
 2013 *Natufian Foragers in the Levant: Terminal Pleistocene Social Changes in Western Asia*. Ann Arbor, International Monographs in Prehistory.
- FALGUERES, C., RICHARD, M., TOMBRET, O., SHAO, Q., BAHAIN, J. J., GOPHER, A. and BARKAI, R.
 2016 New ESR/U-series dates in Yabrudian and Amudian layers at Qesem Cave, Israel, *Quaternary International* 398: 6-12.
- GOPHER, A., AYALON, A., BAR-MATTHEWS, M., BARKAI, R., FRUMKIN, A., KARKANAS, P. and SHAHACK-GROSS, R.
 2010 The chronology of the late Lower Paleolithic in the Levant: U series dates of speleothems from Middle Pleistocene Qesem cave, Israel, *Quaternary Geochronology* 5: 644-656.
- GRIGGO, C.
 2004 Mousterian fauna from Dederiyeh Cave and comparisons with fauna from Umm el-Tlel and Douara Cave, *Paléorient* 30/1: 149-162.
- KONDO, O., KANJOU, Y., ISHIDA, H., ISHII, M., OGUCHI, T., NISHIAKI, Y., NAKATA, H. and AKAZAWA, T.
 2011 A new Neanderthal infant burial from Dederiyeh cave, Syria, *Anthropological Science* 119(3): 293.
- DE LEÓN, M. S. P., BIENVENU, T., AKAZAWA, T. and ZOLLIKOFER, C. P.
 2016 Brain development is similar in Neanderthals and modern humans, *Current Biology* 26/14: R665-R666.
- NISHIAKI, Y., KANJO, Y., MUHESEN, S. and AKAZAWA, T.
 2012 Temporal variability of Late Levantine Mousterian assemblages from Dederiyeh Cave, Syria, *Eurasian Prehistory*, 9/1-2: 3-27.
- 2011a Recent progress in Lower and Middle Paleolithic research at Dederiyeh Cave, Northwest Syria. In: J.-M. Le Tensorer, R. Jagher, and M. Otte (eds), *The Lower and Middle Paleolithic in the Middle East and Neighbouring Regions*: 67-76. Liège, Université de Liège.
- NISHIAKI, Y., MUHESEN, S. and AKAZAWA, T.
 2011b Newly discovered Late Epipaleolithic lithic assemblages from Dederiyeh Cave, the northern Levant. In: E. Healey, S. Campbell, and O. Maeda (eds), *The State of the Stone Terminologies, Continuities, and Contexts in Near Eastern Lithics*: 79-87. Berlin, Ex oriente.
- TANNO, K., WILLCOX, G., MUHESEN, S., NISHIAKI, Y., KANJO, Y. and AKAZAWA, T.
 2013 Preliminary results from analyses of charred plant remains from a burnt Natufian building at Dederiyeh Cave in Northwest Syria. In: O. Bar-Yosef and F. Valla (eds), *Natufian Foragers in the Levant: Terminal Pleistocene Social Changes in Western Asia*: 83-87. Ann Arbor, International Monographs in Prehistory.

Archaeological Excavations at Tell Qaramel 1999-2011 (Aleppo-North Syria)

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Abstract

Tell Qaramel is located 25 km north of Aleppo, on the right bank of the Queiq River. The joint Syrian-Polish mission conducted excavations on the site from 1999 to 2011. The oldest period uncovered dated back to the early Neolithic period, around the beginning of 11,000 BC until the end of 9000 BC (Proto-Neolithic to Pre-Pottery Neolithic (PPNA)).

Tell Qaramel is perched on a limestone hill situated 30 to 35 m above the river bed. It is 25 km north of Aleppo and 30 km east of the Turkish border. The tell is 443 m above sea level. The surface of the prehistoric settlement is almost 3.5 ha and is covered by an ovoid shape tell (190 m x 160 m). The tell is surrounded by rock mounds and red soil plains, fit for farming. It holds a strategic position along the road linking the two most important prehistoric areas of the southern Levant and Anatolia. This route is the same as the Silk Road and the Orient Express routes connecting Egypt, the Middle East, Anatolia, and Central Asia (Figure 1).

The Syrian-Polish joint mission worked in Tell Qaramel from 1999 to 2011, excavating more than 800 m² and revealing exceptionally rich archaeological remains of ancient occupations, the most important of which date back to Proto-Neolithic and Pre-Pottery Neolithic A (PPNA) periods. The architecture displays a large variety of residential houses, in addition to huge structures that include a set of buildings used for communal activities – civil and religious, such as the Communal/Shrine house and the Bucrania House – and defence architecture, such as the five towers (Mazurowski and Kanjou 2012).

To clearly determine the age of the settlement, 57 charcoal samples were selected. The results of radiocarbon dating confirmed the continuity of occupation from the Proto-Neolithic to the Pre-Pottery Neolithic A, i.e. from 10,700 BC until 9400 BC (Mazurowski *et al.* 2009). The major settlement horizons identified at Tell Qaramel are:

- Epipaleolithic (H-0): 14,000-12,000 BC. Only a number of ovens and the location of poles supporting tents were uncovered.
- Proto-Neolithic (H-1): 10,700-10,000 BC. The Neolithic settlement included a number of large circular houses, some of which were underground.
- Pre-Pottery Neolithic A (H-2, H3, and H4): 10,000-9300 BC. The settlement flourished and many architectural structures emerged.

- Early Bronze Age: This period yielded graves discovered on the western side of the tell, in addition to a number of structures.
- Later occupations were also found in Tell Qaramel, dating to the Iron Age and to the Hellenistic and Late Islamic periods.

Excavation results

Excavations conducted between 1999 and 2007 unearthed 600 m², c. 1.5% of the entire PPNA site. They included squares J-8b, J-8d, K-6a, K-6c, K-5b, K-5d, K-3b, K-4b, K-4d, L-3a, L-4a, and L-4c. In all sectors, traces of PPNA were found under layers of the Early and Middle Bronze Age and the Early Iron Age. The Tell Qaramel site revealed an exceptional richness and important settlement traces dating to the Proto-Neolithic and PPNA periods. A huge variety of circular houses (of rectangular shape during later periods) was revealed, along with five defensive towers and several public buildings used for civil and religious meetings. New designs were used integrating, however, older ones. In addition to the architectural innovations, excavations revealed also the artistic development manifested in the appearance of decorations and patterns engraved on chlorite stone (rock polishers), recognized as the symbols of the Neolithic revolution. More than 400 artistic stone pieces were discovered in Tell Qaramel, a substantial number when compared to the total number of such items found at other locations (Figure 2).

The graves

In all, 28 graves were discovered in Tell Qaramel, containing 36 skeletons (Kanjou 2012). These graves were distributed over squares K-4, L-4, and M4 in the southern part of the excavated area. It is intriguing to note that no graves were found in other squares (Figure 3). Burial style varied in these graves: individual (24 graves), collective (4 graves), primary burial (9 skeletons), and secondary burial (12 skeletons), in addition to burials containing either the full skeleton

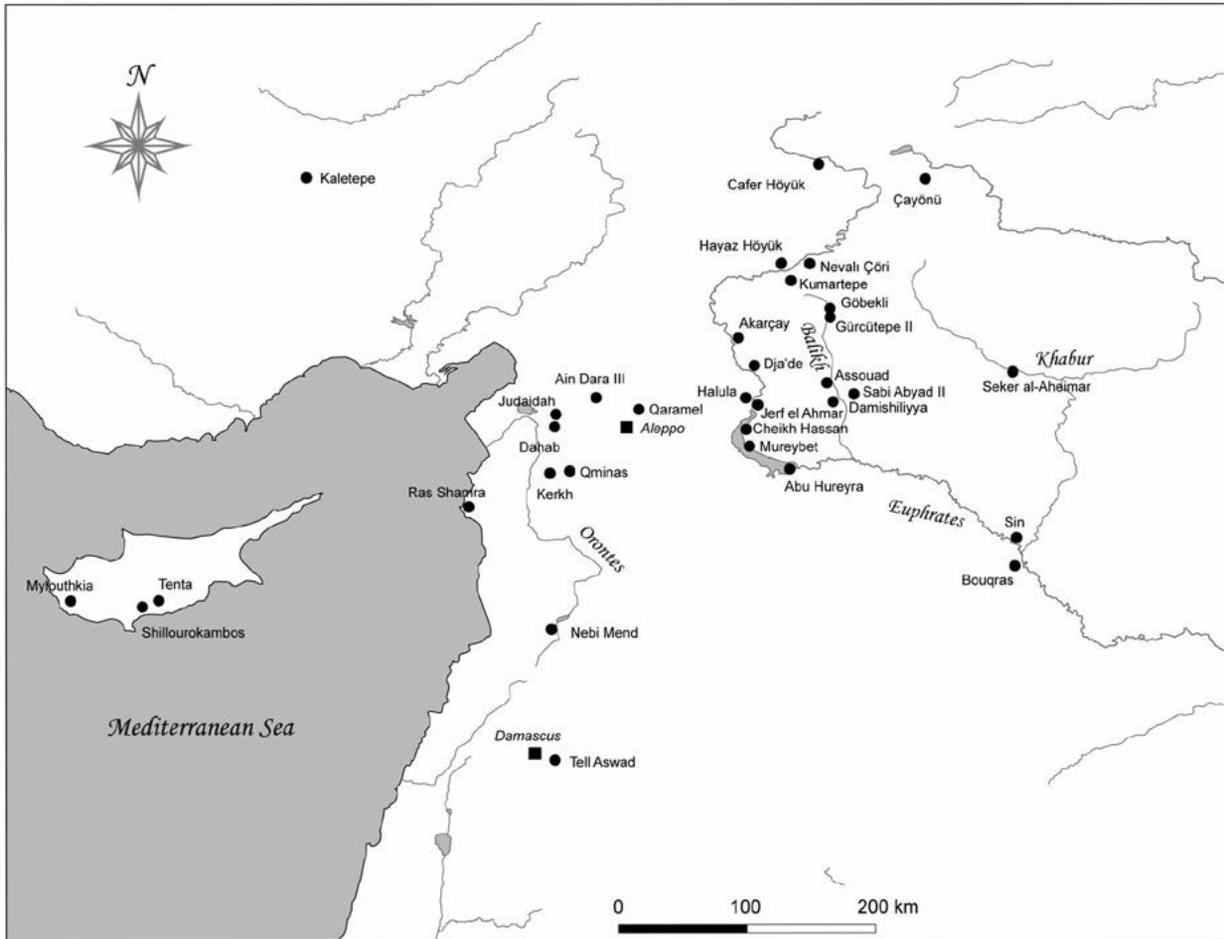


Figure 1: Tell Qaramel location among Neolithic sites (© The Syrian-Polish mission at Tell Qaramel).

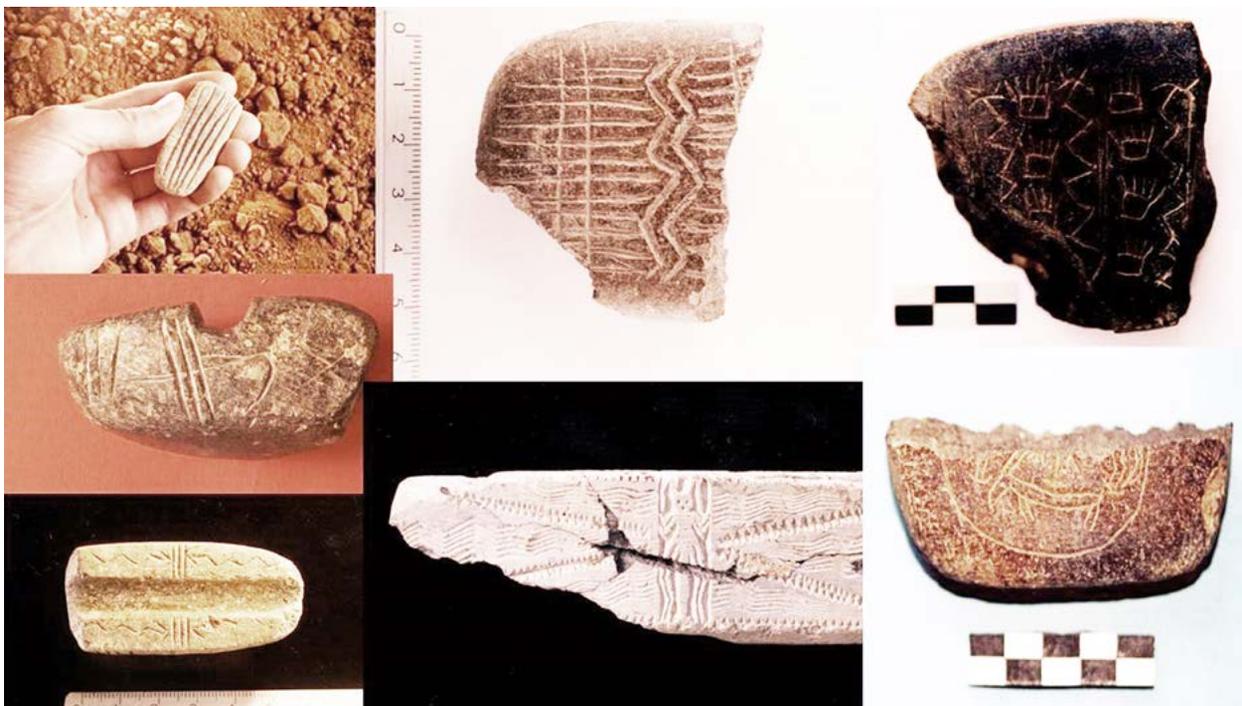


Figure 2: Geometric, vegetal, and animal designs on stone tools (© The Syrian-Polish mission at Tell Qaramel).

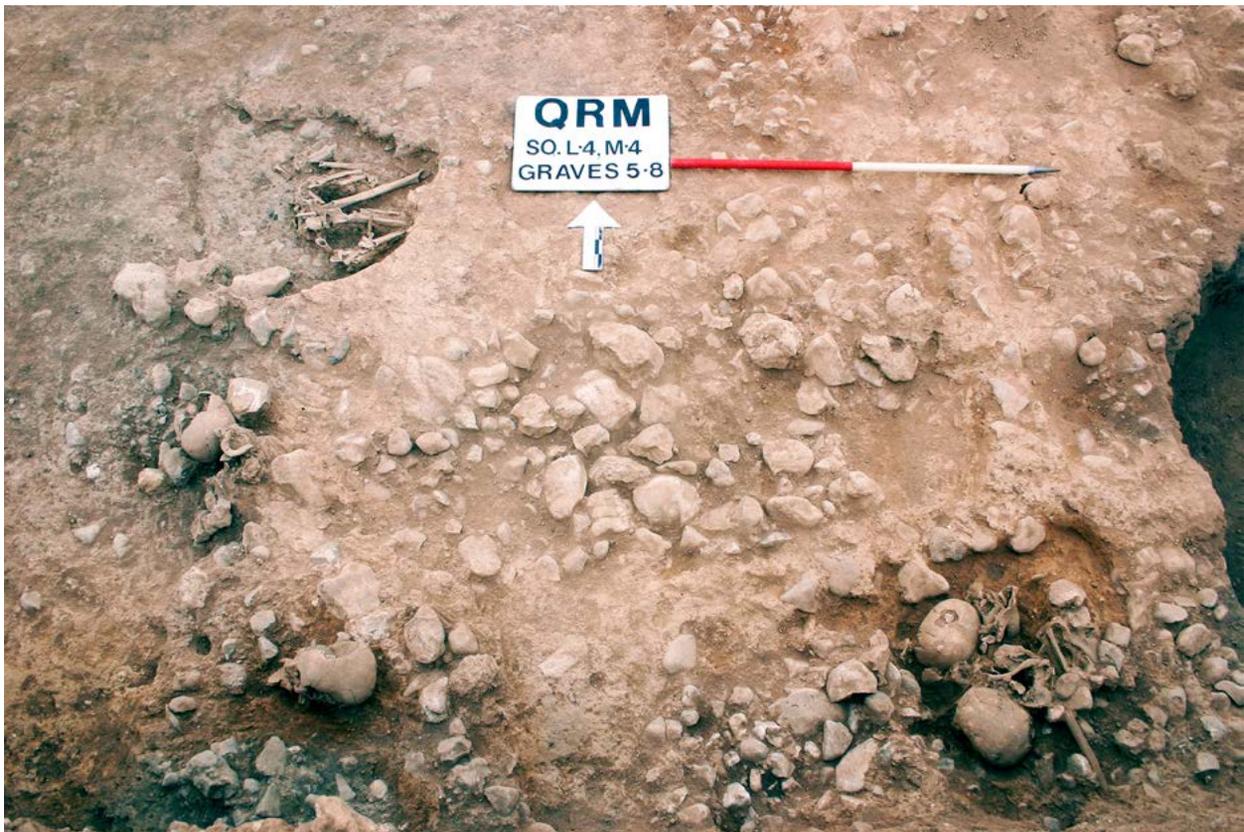


Figure 3: Distribution of Graves 5-8 (© The Syrian-Polish mission at Tell Qaramel).

(13 graves), skeletons without a skull (6 graves), or only containing a skull (11 separate skulls). All the skeletons were in fetal position. They included 7 men, 2 women, and 11 unidentified. All the graves were found underneath the floors of the houses, and were sometimes connected to 'public buildings'. No clearly identified funerary goods, such as jewellery or beads, accompanied the dead (Table 1).

Large architectural structures

These structures include public buildings used for civil or religious meetings and architectural structures related to the defensive system. Similar buildings and defensive constructions are known from several other PPNA sites. These structures were built in defined areas in the settlement, and are different from ordinary houses in terms of their internal organization adapted to their special functions. These structures in Tell

Qaramel include the Communal/Shrine house and the Bucrania House, along with five towers belonging to the defensive system.

Communal/Shrine House

In the southwest corner of the excavation squares, in squares K-4b, L-4a, and L-4c, an elongated building (10 m x 5 m), built on an east-west axis, was discovered. The lower walls were built in irregular, medium and large blocks of rock. Inside the edifice, a number of important finds were discovered such as Jericho-type flints, a female figurine made of white soft limestone, and a large hearth in the middle, in addition to an elliptical-shaped platform near the northern and southern walls. These indicate that this building had a ritual function.

The building consisted of three parts. The main central part had interior arrangements. It was elliptical in

Table 1: Skeletons and grave types.

Horizon	Full skeleton	Isolated skull	Skeleton without a skull	Type		Individual grave	Collective grave	Total	
				Primary	Secondary			Grave	skeleton
H3	7	5	3	6	5	13	2	15	17
H4	6	6	3	3	7	11	2	13	19
Total	13	11	6	9	12	24	4	28	36

shape with a maximum diameter of 5 m and contained a large hearth in the middle, surrounded on all sides except for the eastern one by a wall of pebbles. Inside the pit, there were long, partially burnt animal bones (Mazurowski and Kanjou 2012). Four human and two animal graves were discovered in this area. Grave 12 located near the hearth was an oval pit surrounded by pebbles and contained a human skeleton without a skull. Two other human graves (8 and 10) were discovered near the same hearth inside a pit and these were also surrounded by pebbles. Another grave (11) contained a skeleton without a skull and was found outside the building near the northern wall. In addition to these, incomplete wild oxen skeletons were regularly buried in the northern and southern walls inside the elliptical section of the building (Figure 4).

The building connected on the western side with an apse, a small, half-circular architectural structure that contained a central rock stele decorated with four recesses on the surface level (three are still intact). Inside the apse were three human and one animal graves (Kanjou, Gawrońska, and Grabarek 2012). Grave 9 is a collective inhumation placed against the western wall, precisely to the north of the stele, containing bone remains of three adults. Grave 14 contained the skeleton of a predator, probably a tiger. Grave 15 was an individual grave with greatly damaged bones, placed under the previous grave. To the north of the stele and near the wall, Grave 13 revealed a skeleton of a deceased buried in a fetal position.

On the eastern side, the building was attached to a rectangular annex, probably a utility room, constituted of a number of parallel stone walls dividing the inside space in a grid and surrounded by outside walls built in the same type of masonry. This room is considered to be the front of the building and might have been used as an entrance. Inside this, only one grave (7) was found among the parallel walls.

Towers

These are five chronologically consecutive towers built successively in the same place. The last tower (Tower 1) was semi-circular, with a diameter of 6.5 m. Its walls, almost 1.5 m wide, were built with two rows of stones. A hearth occupied the centre of the tower. All these towers might have served either as part of a defence system or for ritual purposes, functions that might have changed over the years. One collective grave (To-04) was found to the southeastern side of Tower 1, among the stones of the walls. It contained four human skulls (To-04-1, To-04-2, To-04-3, To-04-4) and two lower jaws unrelated to the previous skulls (Figure 5).

Bucrania House

This circular house (loc. 36-37) with a diameter of 4.50 m is located at the northeastern corner of square K-7. It is built on the surface with walls 35 cm thick. Many types of construction material were used for these walls, such as pure mud mortar and mud mixed



Figure 4: Distribution of human and animal graves in the Communal/Shrine House (Numbers are for human graves and letters are for animal graves) (© The Syrian-Polish mission at Tell Qaramel).



Figure 5: Fifth tower in Tell Qaramel dated to the early Neolithic periods (© The Syrian-Polish mission at Tell Qaramel).

with stones of different sizes, some of which are more than 1 m in length. The floor is stacked with stones and filled with red soil mixed with mud. It covers the entire house and was composed of a level of stones covered by a compressed mud and clay layer. On the eastern wall, right under the floor level, a pit covered with pebbles contained a deposit of wild oxen skulls, along with a collection of horns and four opposite skulls placed in rows facing each other, as if somehow fighting each other (Figure 6).

Neolithic village plan

The excavated area covers only the northeastern part of the settlement and constitutes a tiny part of the total area of the prehistoric village. Despite this, we can trace the pattern of the village, especially in some of its advanced phases.

At the beginning, in the Proto-Neolithic phase (H1), the architecture of the Neolithic village seems a little scattered, reminding us strongly of a plan of an open camp. In the PPNA phase, a gradual concentration of the architecture, albeit with some gaps and pathways between certain structures, is observed. Regardless of the phase, some important elements never changed, such as houses clustered together in separate parts of the village. Each group consists of 1-3 houses, with

adjacent storage pits, hearths, platforms, or pavements, in addition to a number of domestic utilities. Such distribution is typical of earlier farmers' communities known in a number of PPNA sites, e.g. Ain Mallaha, Nahal Oren 2, Mureybet, and Jerf El-Ahmar. The second important element is the continuity of some architectural components. Although the concentration of buildings has changed throughout the different stages of the village development, certain architectural principles were observed in some sectors in all the settlement stages. The most notable example is the location of a number of interconnected houses stretching over seven consecutive levels in square K-6a and K-6c and in the central and northeastern part of square K-7. Same layouts were observed in other sectors where newer buildings damaged however the older constructions. Interestingly enough, the same architectural principle of continuity can be applied to the defence and religious structures.

This phenomenon does not only clarify the functional continuity of the village over a prolonged stretch of time, it also stresses the point that the residential houses within the village did not change (residential interconnectedness). This can be attributed to the possibility that customs and traditions were verbally passed down from one generation to another. There



Figure 6: Circular house discovered under the floors with bucranes from four oxen, in square K-7, dating to horizon 3 (© The Syrian-Polish mission at Tell Qaramel).

was a strong tradition and an ideological depth in rebuilding structures of ideological and defence importance (towers/communal house) in the same location over five consecutive chronological periods, despite the need to level up previous remains and deal with the aftermath of previous huge fires.

Analysis of results

All graves were found in squares located next to each other, with the majority found in the communal/shrine house. This could be attributed to the community allocating a specific area for burials and to the relation between this area and special buildings. 11 graves (including three animal graves) were directly related to the communal/shrine house, while five other were indirectly related to it; this makes a total of 16 graves out of a total of 28 on the site, meaning that 60% of the discovered graves were connected to the communal/shrine house. Therefore, this clearly indicates that the house had a special function when it was in use and continued to be of importance after being abandoned, with the community continuing to bury the deceased in the same place. This explains therefore the existence of graves H3 and H4 buried in the same location.

It is noteworthy to indicate that graves (for entire skeletons) were found usually outside special buildings,

whereas secondary graves (for skulls only, or skeletons without skulls) were directly related to these special buildings.

The graves in Tell Qaramel were adults' graves only (20 years of age and older). This indicates that burial areas were linked to the age of the deceased. Other yet undiscovered special areas for burying seniors or young people must have existed elsewhere. This can mean that there was no interest in burying seniors and those who died before puberty in special areas, i.e. the communal/shrine house.

Conclusions

In conclusion, at Tell Qaramel there were two types of human graves: a grave for the body and another for the head or the skull. This might be due to the symbolic importance of the latter, stemming from religious and social traditions that guided and controlled pre- and post-burial rituals (Cauvin 1978: 160). This meant that burial had to be performed in two stages. In the first stage, the entire body of the deceased, buried in a fetal position, is placed in an underground pit. In the second stage, the grave was opened and the skull removed and buried in a second grave. The skull burial, which usually contained a collection of skulls, was placed in an important area of the house or of any other building

(Stordeur 2003). The other grave for the rest of the body was located under the floor of the residential house, with the possibility of transferring the skull burial to another place, in case of changing residency (Kanjou 2009).

Studying the graves and skeletons discovered at Tell Qaramel revealed the existence of at least two ways of removing the skulls in the Neolithic period in the Levant. The first method was through the burial process, which was performed in two stages as mentioned above. The deceased was buried for a short time in a grave that was later reopened to remove the skull. This was clear, as the first cervical vertebra and the lower jaw remained attached to the skeleton placed in its original position, as seen in the case of grave T7-07. Detaching the skull, usually done by very skilfully twisting the head, took place shortly after burying the body, as the ligaments were still attached to the other bones. As a result, some skeletons were upside down, as found at sites such as Jericho and Al-Bayada (Cauvin 1978). The second method of detaching the skull from the body was by using a sharp flint tool to sever the head directly after death. The body is then inhumed without the head, while the head is buried somewhere else, not necessarily inside the house. At Tell Qaramel, this could be proven by the existence of the first cervical vertebra attached to the skull (Grave T5-07) as well as the traces of cutting through the second vertebra. The latter evidence of cutting is exceptional among all other Neolithic sites and was only observed at Tell

Qaramel. It is the oldest decapitation case discovered to date. Through microscopic analysis at the University of Tokyo, it was established that decapitation occurred using a flint tool due to its 'V' shape, not to mention that three cuts, parallel to each other, were made on the cervical vertebra. Two other cuts were also made on a lower jaw discovered within the walls of the towers. Studies showed also that the inhabitants of Qaramel were experienced, as they performed decapitation many times and that decapitation took place directly after death (Kanjou *et al.* 2013) (Figure 7). Another case which might be similar is that of a skeleton from Jerf El-Ahmar, without a head but with hands and legs spread apart, discovered under the floor of the communal house (EA30) in the red soil (PPNA), buried in a way that conveyed a sacrifice or a human offering. This skeleton with no skull had all the cervical vertebrae, with no traces of cutting through them (Stordeur and Abbès 2002).

The current study of the Qaramelian architecture confirms the unique status of Tell Qaramel in the Proto-Neolithic period in the Near East. Ten years of excavation results bridged a gap in the documentation of Proto-Neolithic settlement in the eastern Euphrates, and in the relationship between the studied area and other sites. It also revealed more information on a previously unknown architecture. The most prominent architectural results from Tell Qaramel are summarized below:

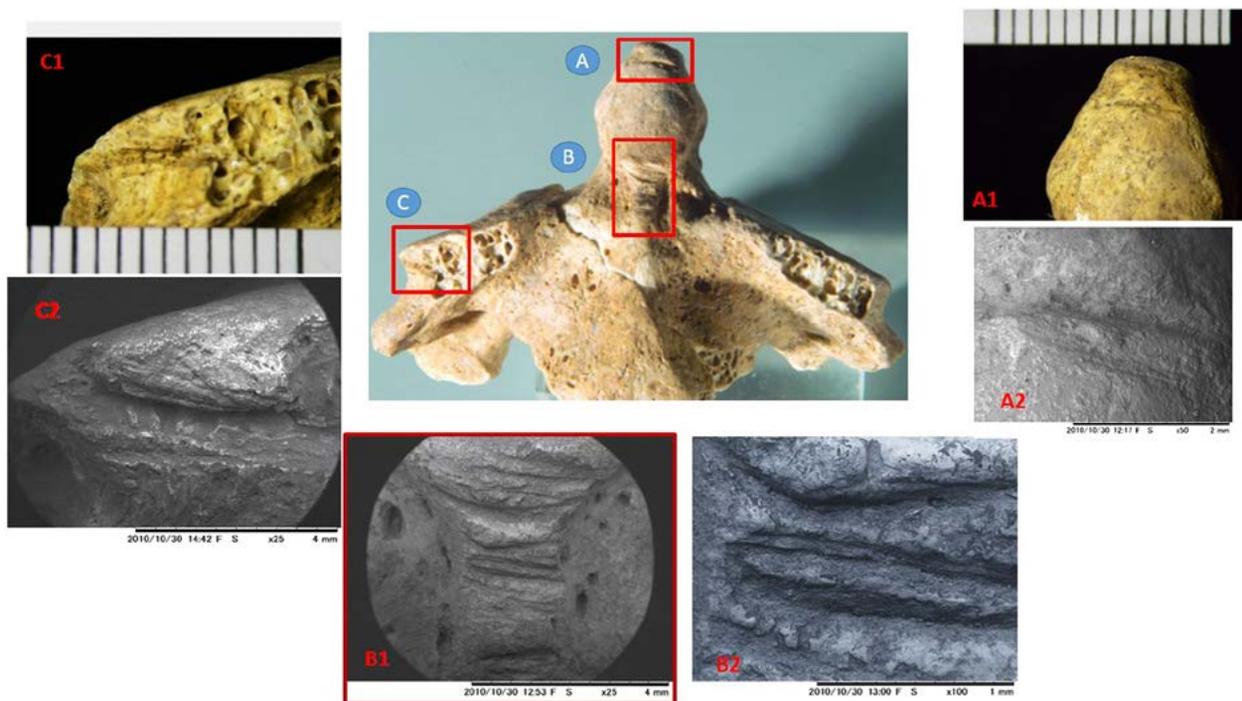


Figure 7: Traces of cuts in the second cervical vertebra in Grave 2. Letters A, B, and C indicate the location of the cuts on the vertebra. Numbers 1, 2, and 3 indicate microscopic enlargements of each cut (© The Syrian-Polish mission at Tell Qaramel).

1. The early development of massive structures that had defence and religious functions, built in a special and a practically unique way.
2. The huge difference in types of buildings, especially residential ones. Quick and intense experiments promoted the early and relatively extensive use of the rectangular plan, although there was a correlation between the period and similar developments in other PPNA centres in the Near East.
3. The quick development of construction techniques depending on local raw materials, as noticed in the early patterns of settlement on the site. Experimentation most probably led to inventing completely new techniques, such as the technique of building structural walls which became a distinctive, unique characteristic of Qaramelian architecture.
4. Total ignorance of the use of sun dried mudbricks. Additionally, there was no evidence of forming regular limestone blocks by the use of flint axes, as was the tradition with the cigar-shaped red brick.

Bibliography

- CAUVIN, J.
1978 *Les premiers villages de Syrie-Palestine du IX^e au VII^e millénaire av. J.-C.* Collection de La Maison de l'Orient Ancien 4. Lyon, Maison de l'Orient.
- KANJOU, Y.
2012 Anthropological results examination of human bones in Tell Qaramel. In R. F. Mazurowski and Y. Kanjou (eds), *Tell Qaramel 1999-2007. Protoneolithic and Early Pre-pottery Neolithic Settlement in Northern Syria: Preliminary Results of Syrian-Polish Archaeological Excavations 1999-2007*: 106-111. Polish Centre of Mediterranean Archaeology 2, Warsaw, University of Warsaw.
- 2009 Study of Neolithic human graves from Tell Qaramel in north Syria, *International Journal of Modern Anthropology* 2: 25-37.
- KANJOU, Y., GAWROŃSKA, J. and GRABAREK, A.
2012 Human and animal graves in Tell Qaramel. In: R. F. Mazurowski and Y. Kanjou (eds), *Tell Qaramel 1999-2007. Protoneolithic and Early Pre-pottery Neolithic Settlement in Northern Syria: Preliminary Results of Syrian-Polish Archaeological Excavations 1999-2007*: 60-71. Polish Centre of Mediterranean Archaeology 2, Warsaw, University of Warsaw.
- KANJOU, Y., KUIJT, I., ERDAL, Y. S. and KONDO, O.
2013 Early Human Decapitation, 11,700-10,700 cal BP, within the Pre-Pottery Neolithic Village of Tell Qaramel, North Syria, *International Journal of Osteoarchaeology* 25: 743-752.
- MAZUROWSKI, R. F. and KANJOU, Y. (eds)
2012 *Tell Qaramel 1999-2007. Protoneolithic and Early Pre-pottery Neolithic Settlement in Northern Syria: Preliminary Results of Syrian-Polish Archaeological Excavations 1999-2007*. Polish Centre of Mediterranean Archaeology 2. Warsaw, University of Warsaw.
- MAZUROWSKI, R. F., MICH CZYNSKA, D. J., PAZDUR, A. and PIOTROWSKA, N.
2009 Chronology of the early pre-pottery Neolithic settlement Tell Qaramel, northern Syria, in the light of radiocarbon dating, *Radiocarbon* 51: 771-781.
- STORDEUR, D.
2003 Des crânes surmodelés à Tell Aswad de Damasçène (PPNB-Syrie), *Paléorient* 29: 109-115.
- STORDEUR D. and ABBÈS F.
2002 Du PPNA au PPNB: mise en lumière d'une phase de transition à Jerf el Ahmar (Syrie), *Bulletin de la Société préhistorique française* 99/3: 563-595.

The Last Excavation at Arslan Tash/Shiran

Serena Maria Cecchini and Fabrizio Venturi

Syro-Italian Archaeological Mission at Arslan Tash

Abstract

New excavations in Arslan Tash started in 2007. The first two campaigns were devoted to the identification of ancient buildings through a topographical-geophysical survey of the site. During the 2009 campaign, a sounding was made in the area of the 'Bâtiment aux Ivoires', revealing walls of this palace and two more ancient Neo-Assyrian building phases.

A joint study project of the General Directorate of Antiquities and Museums of Syria, the University of Bologna, and the Musée du Louvre aimed at studying and restoring the Arslan Tash engraved ivories, unearthed by French archaeologists in the so-called 'Bâtiment aux Ivoires'. Recovered in 1928, these ivories are displayed in the Archaeological Museum of Aleppo and in the Musée du Louvre. Additional ivories, sold on the antiquities market, are now exhibited in international museums, such as the Badisches Landesmuseum in Karlsruhe, Germany, the Metropolitan Museum and the collection of Leon Pomerance in New York, the Bible Lands Museum and the École Biblique in Jerusalem, and the Museum für Kunst und Gewerbe in Hamburg. In the framework of this study a joint Syro-Italian archaeological expedition of the General Directorate of Antiquities and Museums of Syria and the University of Bologna operated in 2007-2009 at Arslan Tash/Shiran.¹ Already in 1928, French excavations of the Musée du Louvre, directed by F. Thureau-Dangin, brought to light palaces, city walls and their gates, temples, and inscriptions. The inscriptions on the lions of the gates enabled the site to be identified with the Assyrian city of Khadatu, a provincial centre of Til Barsip/Kar Salmanu-asharedu, a new town founded, or re-founded, by Ninurta-bel-usur, a district chief of Kar-Salmanu-asharedu and a eunuch of the turtānu Shamshi-ilu.² The results of the French archaeological activities were quickly published (Thureau-Dangin *et al.* 1931). But unfortunately, the Arslan Tash excavations report lacked any reference to the material culture, and neither the pottery findings nor the field notes were available for us to consult. One of the aims of the new archaeological research was to look for the missing data

concerning the stratigraphical (archaeological) context of the ivory finds discovered during the 1928 seasons.

Survey Results

During two different campaigns at Arslan Tash in 1928, Thureau-Dangin brought to light various buildings: the Assyrian Palace of Tiglath-pileser III and the 'Bâtiment aux Ivoires' on the acropolis, which marked the northern boundary of a marshy open area – the so-called 'marais', a temple in the lower town, and three city gates with parts of the fortification wall. The topographic survey of the site was the first step in the archaeological project in 2007. The primary problem in identifying a possible excavation area was in placing these buildings in a context which is now markedly very different from the evidence presented by the French excavations. In fact, today, the modern village completely covers the surface of the tell.

The uninterrupted occupation of the site from the time of the Thureau-Dangin excavation onwards, and the lack of topographical information on the original plan, such as, for example, sea-level measurements, left no reliable fixed point to position the buildings on the village map. However, a new approach to solving this problem was implemented: 1) The approximate positions of the east and west city gates were noted from older villagers' reminiscences; 2) Topographical organization of the modern site, which could be reminiscent of ancient structures, was analysed. The external southwest street appears to follow the ring shape of the ancient city wall and the 'marais' still remains today a low, open area collecting the waste water from the nearby houses. On the low hill to the north of the 'marais', the western N-S road, whose position cannot be far from the Babanu sector of the Assyrian Palace, has a sudden bent axis which appears to trace the ancient entrance to this building. Moreover, contour lines of the Thureau-Dangin plan were compared with those of the modern village, and apart from some obvious discrepancies, the latter showed many common traits with the ancient morphology of the tell. The sum of all this data enabled us to propose a hypothetical position for the buildings

¹ This communication summarizes, with some variations, our paper presented at the 7th International Congress on the Archaeology of the Ancient Near East, April 12 to April 16, 2010, London (Cecchini and Venturi 2012). The project team during the 2007-2009 seasons was composed of: Director: S. M. Cecchini and M. Zarhal; Field Director: F. Venturi; Archaeological staff: G. Affanni, A. Di Michele, and R. Trojanis; Geo-physical survey: F. Boschi and M. Silani; Topographical survey: M. Mascellani and I. Mascellani. Sections and plans were drawn by R. Trojanis. Pottery drawings were made by S. Martelli.

² For the Assyrian and Aramaic inscriptions, see Galter 2007 and 2004; Röllig 2009. For the Luwian inscription, see Hawkins 2000.

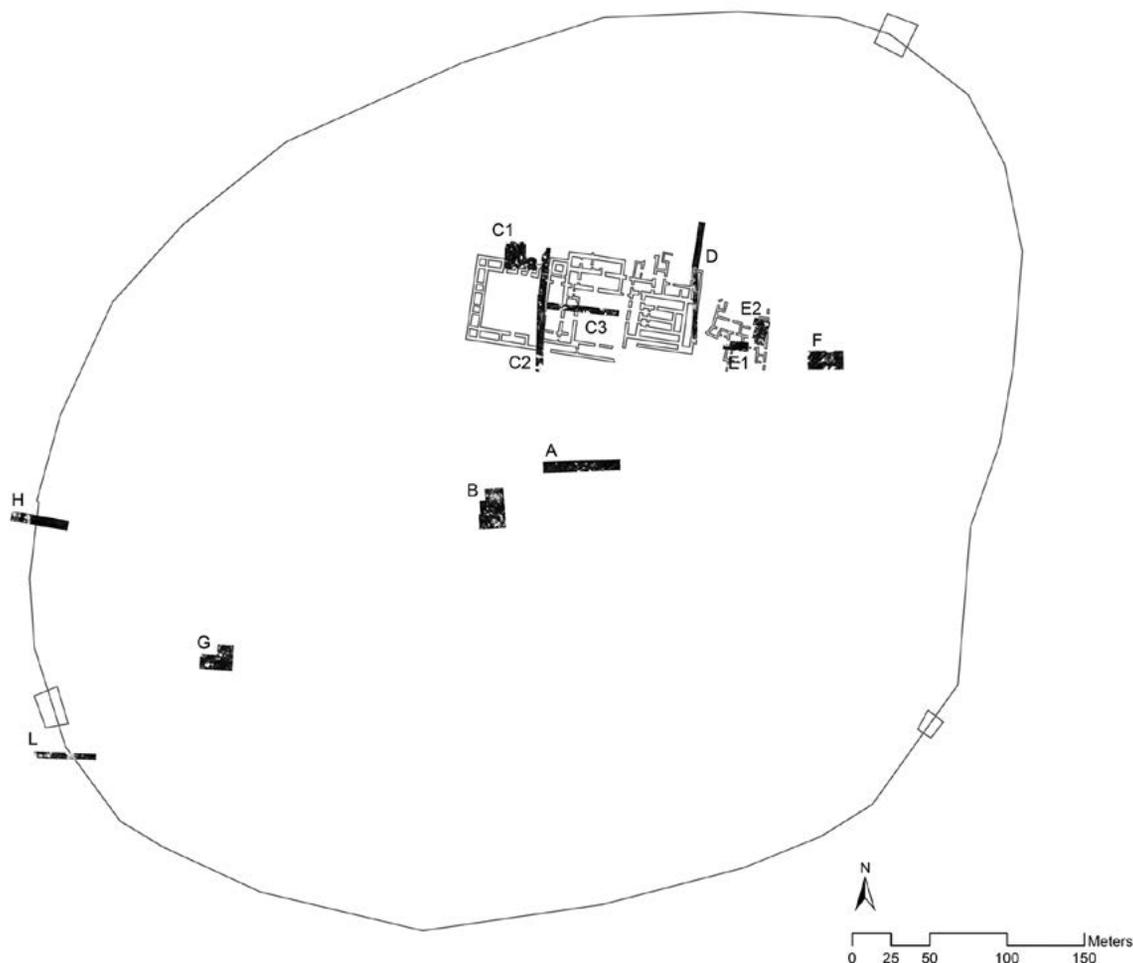


Figure 1: The Arslan Tash map with the geophysical surveyed areas
 (© The Syro-Italian Archaeological Mission at Arslan Tash).

excavated by Thureau-Dangin. On the basis of such positioning, we then identified nine areas in the street network, which were the subject of a geophysical radar survey during the 2008 campaign (Figure 1). The processing of the data gave interesting results in areas H-L and E2. Below these two E-W axes at the junction with the ring road bordering the village, the shape of an almost 5 m-thick structure is clearly visible, which identified as the Khadatu city wall. The survey in area E2, which should be located in correspondence to the 'Bâtiment aux Ivoires', gave also several indications of probable walls with a N-S orientation.

Excavations Results

The topographical position and the good results from the geo-radar survey led us to choose area E2 for excavation. This elongated trapezoidal open courtyard would more or less correspond to the rooms situated to the north-northeast of the paved court of the 'Bâtiment aux Ivoires'. Consequently, we decided to open a two-square, 10 m x 4 m trench there. Structures related to Phase I appeared 40 cm below the topsoil. Two walls

with a nearly north-south and east-west orientation defined two rooms opening to the east onto a larger space (Figure 2). The composition of these walls left few doubts on their identification with those of the 'Bâtiment aux Ivoires', as described by Thureau-Dangin. A different use of materials and architectural techniques distinguished the latter from the Assyrian Palace: red mudbricks for the Assyrian Palace walls *contra* very compact whitish-yellow mudbricks laid on a rough stone base for the 'Bâtiment aux Ivoires'. The walls of the building, which originally rose to a height of 2 m, have disappeared and the only trace of them was represented by feature US2, a compact 15-20 cm whitish layer consisting of clay and fragments of bricks, which sealed the entire excavated area (Figure 3). The thickness of their bases is 1.20 m and corresponds to the standard average thickness of the walls of the 'Bâtiment aux Ivoires'. These bases, in the description of Thureau-Dangin, were made of two courses of stone for a total height of 40-50 cm, but the new excavations brought to light more information. The lower course was made of medium-size rough stones, and the upper one, which represented the lower bed for the bricks, used larger



Figure 2: Phase I. The stone bases of the *Bâtiment aux Ivoires* (© The Syro-Italian Archaeological Mission at Arslan Tash).

blocks for the external alignments made of limestone, or reused fragments of basalt basins or grinding stones, and a fill composed of clay and small stones (Figures 3-4). This base of the building, as described by Thureau-Dangin, was built on a mudbrick foundation, made with the same 38 x 38 cm whitish-yellow mudbricks used for the walls. The only difference is the manner in which they were laid, which, in the case of the foundation, was less careful. Indeed, thick layers of grey mortar clay divided the brick joints, and the external face of the courses was irregular. Our foundation US14 does not stop, as the bases do, in correspondence with the doors, but is a continuous, unique structure (Figures 4-5).

Thureau-Dangin correctly identified this structure as a sunken brick foundation and not as a more ancient wall related to a previous architectural phase. The cut of the foundation trench is clearly visible, and at the top of the wall, it is possible to see the irregular half-bricks used to fill the gap between the cut and the foundation. Thureau-Dangin wrote also that these foundations were composed of c. four to six courses of bricks and could reach 1 m in depth (Thureau-Dangin *et al.* 1931: 49-50, fig. 16). Our US14 had eight courses of bricks for a depth of 120 cm (Figure 3). The brickwork follows the same pattern as the 120 cm-thick walls illustrated by Thureau-Dangin (1928, fig. 14), i.e. alternated courses: one of three square bricks and one of two external half bricks with two square bricks in the middle.

The floors of the '*Bâtiment aux Ivoires*' joined the walls at the level of the lower course of the base. In the excavated area we found no evidence of these floors. Thin horizontal layers of reddish clay, such as US7 for example, were found in all three rooms. They join the lower course of the stone base and are sealed by US2. These layers could, perhaps, be interpreted as preparation for floors which have since disappeared. The only sign of an original floor comes from the southern room and corresponds to US17, a small portion of flooring made of black pebbles (Figure 5, in the upper left). We surmised that these black pebbles could possibly be the remains of the floor of the main court of the palace, which was paved with alternating squares of white and black pebbles in a checkerboard pattern (Thureau-Dangin *et al.* 1931: 43-44). Thureau-Dangin states that the cobbled floor of this open space was at a lower level than that of the adjacent rooms 1 and 6, as is evident also in the rest of the section D-E published in his book. The pebbles found in recent excavations (US17) are indeed tied to the stone base at the height of his bedding, while the compacted clay (US7), perhaps evidence for the presence of the floor

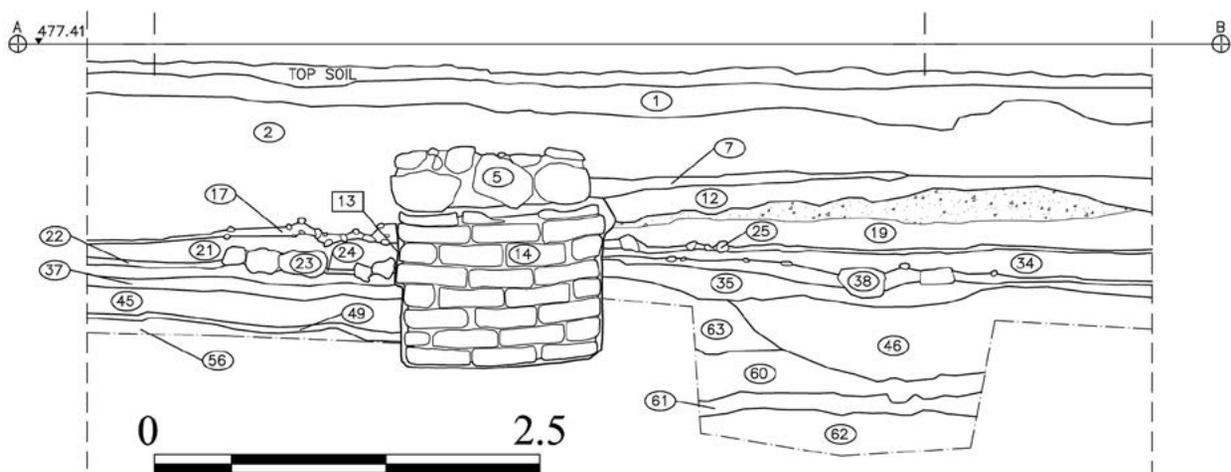


Figure 3: The western excavation section (© The Syro-Italian Archaeological Mission at Arslan Tash).



Figure 4: Phase I. The stone base and the brick foundation of the *Bâtiment aux Ivoires* (© The Syro-Italian Archaeological Mission at Arslan Tash).



Figure 5: The structures of phase III and the *Bâtiment aux Ivoires* brick foundation (phase I) (© The Syro-Italian Archaeological Mission at Arslan Tash).

in the northern area, was at a higher level (Figures 3-4, on the left). According to this suggestion a tentative location for the excavated rooms could be proposed; the southern room would, thus, correspond to the court, the northern room to vestibule 1, and the eastern space to room 6. However the exact position of the area remains conjectural (Figure 6).

After removing part of the foundations of the ‘*Bâtiment aux Ivoires*’, two more ancient phases cut through by the foundation trench were identified. Phase II is represented by an irregular, cobbled floor (US26) which extends over all the excavated area. A simple installation was located in the southeastern portion of the area. It consists of a small depression lined by two

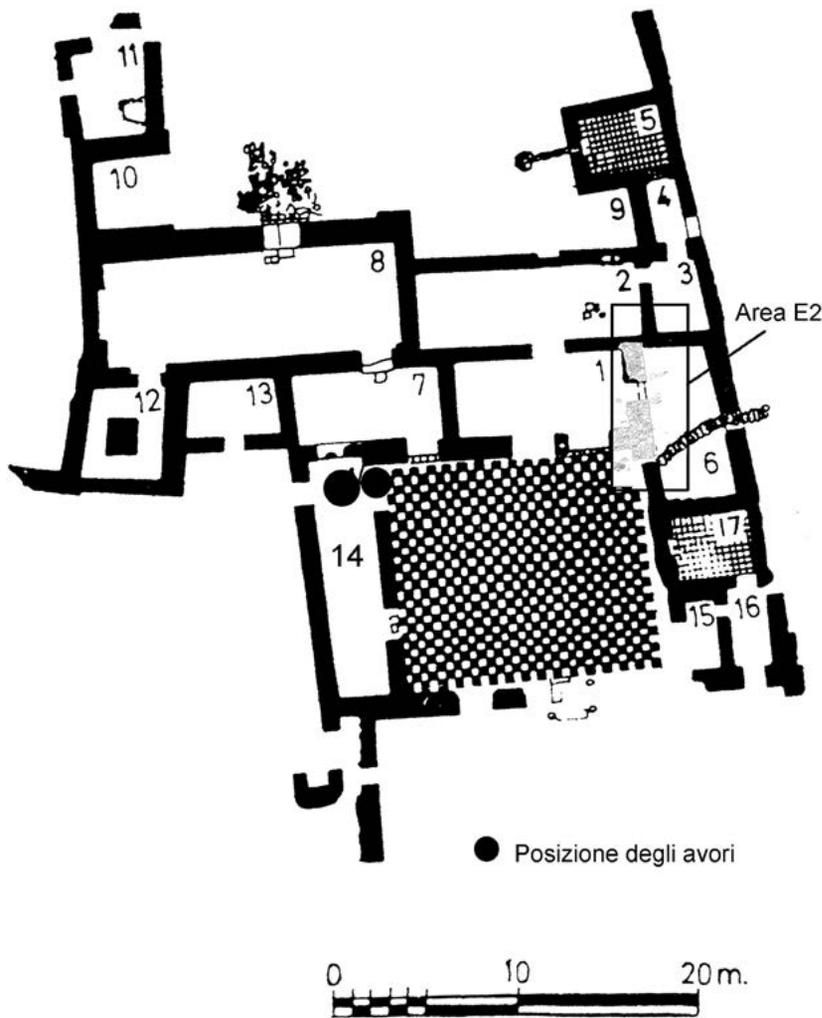


Figure 6: The plan of the *Bâtiment aux ivoires* (after Thureau-Dangin 1931) with a tentative location for the new excavated area E2.

walls 50 cm thick made of reddish and gritty bricks with a completely different appearance compared to those of the 'Bâtiment aux Ivoires'. The presence of a layer of black ash inside the structure, and a cooking pot found in the vicinity, suggest a function related to cooking activities.

Most of the installations in phase III were located in the southern square. The area east of the foundation of the 'Bâtiment aux Ivoires' was occupied by a 2 x 2 m room, oriented NW-SE (Figure 5, bottom). The floor of this small space was completely taken up by two sunken fire installations, consisting of large storage jar bodies from which the base had been cut away. The mouths of the fireplaces were lined with bricks. This room was probably in some way connected on the west to the greyish floor US49 (Figure 3) and to a 'tannour' (also cut by the foundation trench of phase I). The walls were 50 cm thick and they were cut through by the foundation trench of the 'Bâtiment aux Ivoires'. These structures show the same NW-SE orientation of that of phase II and use the same reddish and gritty clay for mudbricks. Moreover these walls have no stone base. All these

features mark a difference between the architecture of phases II-III and that of the 'Bâtiment aux Ivoires'.

To the north, an open area was cut by a 70 cm deep circular rubbish pit. The ashy fill included a good number of pottery sherds, among which we found the only example of painted decoration. The pit was sealed later with mudbricks lined by a semi-circular lower stone wall that was integrated into the pebble floor US26 of phase II. Phase II floor was laid on a homogeneous whitish layer 20 cm thick (US35) covering all of the phase III structures. The most important object was found in the homogeneous whitish layer which sealed phase III structures; the upper half of a broken barrel-shaped cylinder seal (AT.09.1), in black serpentine with an antithetical scene (Figure 7). A very similar scene decorates some Neo-Assyrian seals. The style, shape, and pattern would seem to indicate a date in the 9th century BC, perhaps in the second half, as suggested by parallels from the Assyrian heartland and from Tell Knēdiḡ in Upper Mesopotamia (Cecchini 2011). It represents a definite *terminus post quem* for the construction of the 'Bâtiment aux Ivoires'.



Figure 7: The Neo-Assyrian cylinder seal AT.09.1 (phase III) (© The Syro-Italian Archaeological Mission at Arslan Tash).

The complete removal of the foundation of the 'Bâtiment aux Ivoires' in the northern part revealed a very clean light yellow layer (US 60) with no apparent anthropic signs (Figure 3). A trench 2 m wide confirmed our hypothesis that phase III is the oldest archaeological evidence in this area.

The pottery collected shows homogeneous features throughout the three excavated phases.³ Open shapes in common ware are characterized by plates with simple rim, and bowls with triangular inturned rim. Jars have triangular or outwardly thickened rim; hole-mouth cooking pots have simple or inward thickened rims (Figure 8).

The chronological relationship between the Assyrian Palace and the 'Bâtiment aux Ivoires' is still an unresolved problem. From a stratigraphic point of view, the fact that the floors of the latter lay 4.60 m below that of the *bitānu*'s court of the Assyrian palace (Thureau-Dangin *et al.* 1931: 42) might indicate an earlier construction of the 'Bâtiment aux Ivoires'.

Near the edge of the acropolis, Thureau-Dangin discovered the structures of a more ancient building which he called 'Bâtiment B'. Its walls had whitish-yellow bricks and stone bases. They were used as foundations for the red brick walls of the Assyrian Palace. Below these structures lay the walls belonging to a third building called 'Bâtiment A'. He defined 'Bâtiment A' as the most ancient structure identified on the acropolis. Evidence for the existence of an earlier building is probably also indicated in the northern part of the Assyrian Palace. The sector, called 'Bâtiment Z', had thinner walls and its floors, situated 2 m below, were linked to the palace through a ramp built in room 49. In this case 'Bâtiment Z' was not destroyed but

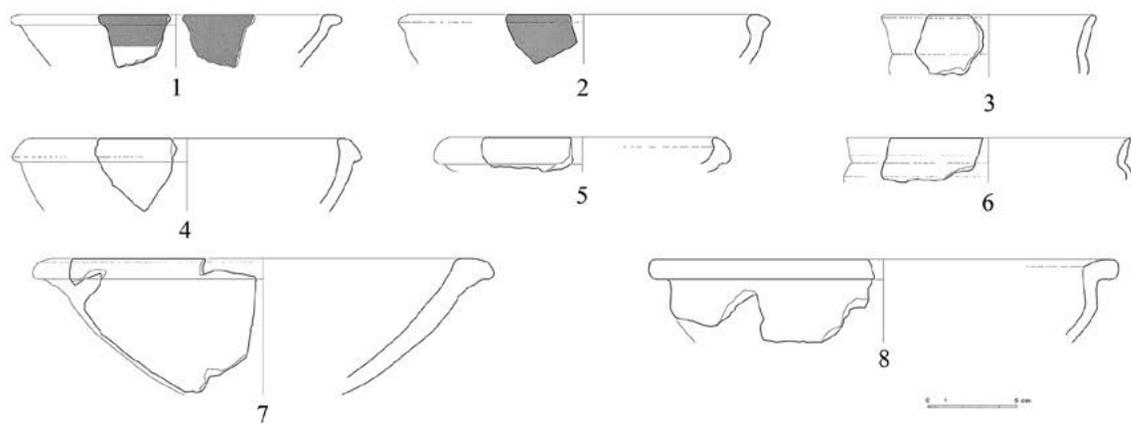
partly preserved and connected to the Assyrian Palace. 'Bâtiment B' confirms the existence of an important architectural phase prior to that of the Assyrian Palace, and characterized by the same materials and techniques used for the 'Bâtiment aux Ivoires'. It supports, therefore, the hypothesis of an earlier date for its construction. Unfortunately, the lack of any direct connection between the two buildings prevents us from determining with certainty whether the 'Bâtiment aux Ivoires' was integrated into the Assyrian Palace system, like 'Bâtiment Z', and thus existed until the final destruction of the town, or whether it was obliterated, like 'Bâtiment B', at the time of the palace's construction. However, taken together, the evidence leads us to a plausible reconstruction of the building sequence on the acropolis. The Assyrian Palace was built on top of the mound, partly by cutting into the previous structures, and partly by integrating them. In his report Thureau-Dangin (1931: 42-43) identified the throne room (8) and the courts of the *babānu* and *bitānu* in the plan of the 'Bâtiment aux Ivoires', underlining the features which linked it architecturally to an Assyrian palace. Nevertheless, the plan and the construction techniques clearly show the local background against which it was conceived. The two juxtaposed wide rooms (1-2), one of which opened to the *bitānu* court with a one-column passage, clearly recall the *hilāni* type.

Conclusion and chronology

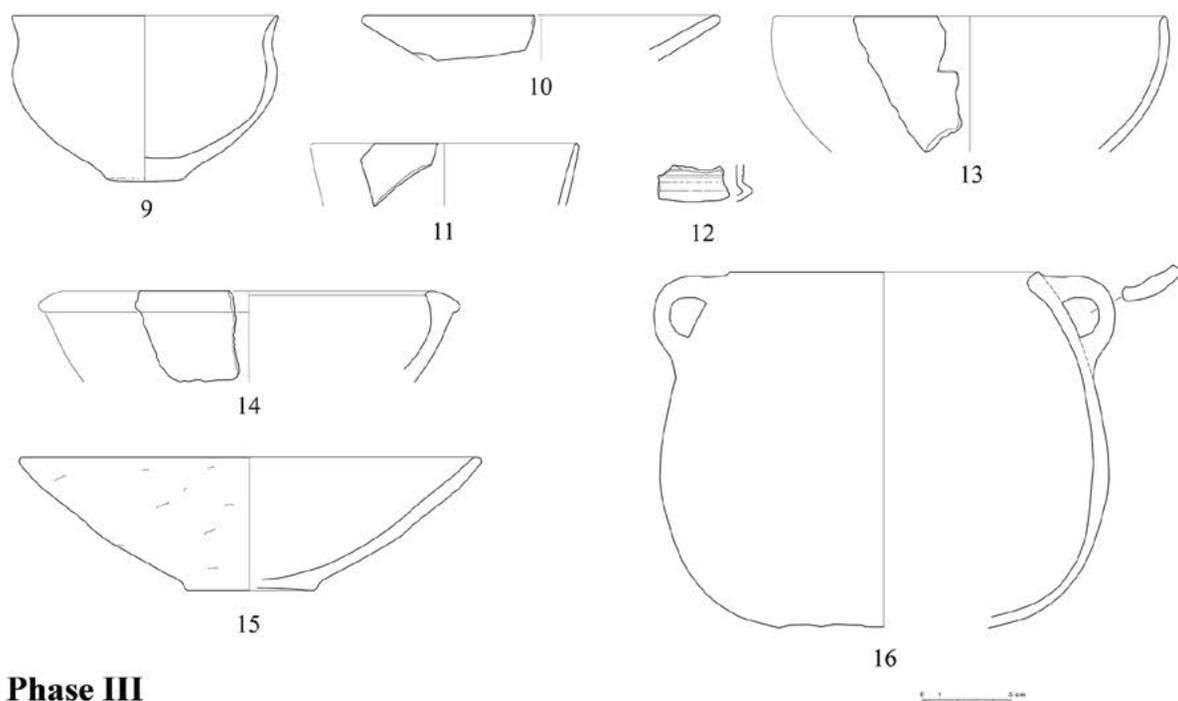
The date of the construction of the 'Bâtiment aux Ivoires' (and 'Bâtiment B') can only be speculated. It must be placed in a period before the construction of the Assyrian Palace, which presumably was built in the second half of the 8th century BC, and after phases III-II of area E2, dated by the Neo-Assyrian seal to the second half of the 9th century BC. According to archaeological data, the pebbled pavement with checkerboard pattern was in use in south Anatolian and northern Syrian territories from the second half of the 8th century BC. At nearby Tell Ahmar, however, a pebbled court discovered

³ A part of this corpus, not yet quantified and drawn, and stored in the house of the mission in Saraqeb, is likely lost because of the tragic events that overtook Syria in 2011.

Phase I



Phase II



Phase III

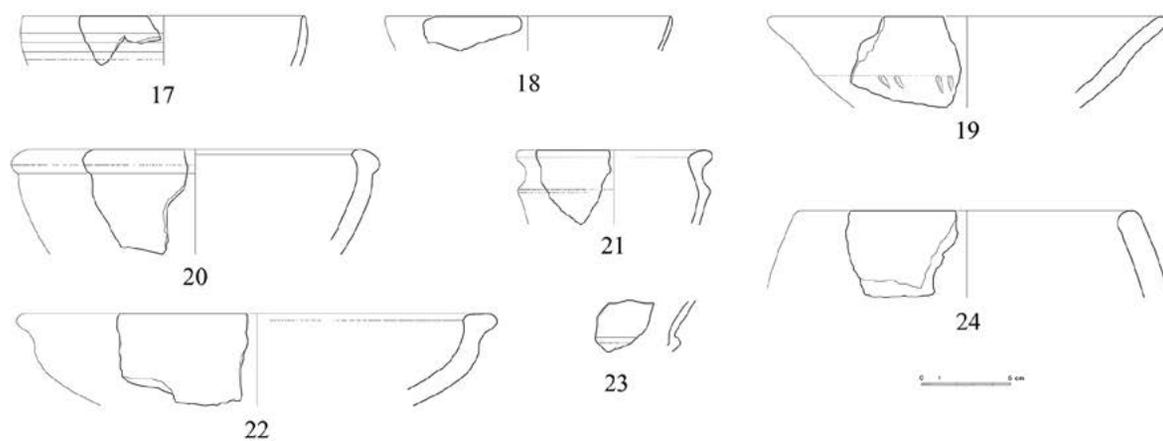


Figure 8: The pottery of phases I-III (© The Syro-Italian Archaeological Mission at Arslan Tash).

on the western slope of the acropolis (area M) is dated stratigraphically to phase 5, corresponding to the first Assyrian occupation of the city in the second half of the 9th century BC (Bunnens 2009: 73-74). A date in the first half of the 8th century BC fits well with the hypothesis of an important building phase which occurred during the government of Shamshi-ilu and Ninurta-bel-usur. Nevertheless, we cannot exclude an earlier date during the period when Shalmaneser III transformed Til Barsip into the provincial Assyrian capital Kar-Salmanu-asharedu. The 'Bâtiment aux Ivoires', which displays a mix of local and Assyrian features, could have been built during this first stage of the Assyrian occupation in the region.

On the basis of these considerations, we would tentatively outline three main stages in the history of the city. A village already existed on the hill of Arslan Tash in the 9th century BC as an outpost on the Assyrian road leading to Til Barsip/Kar-Salmanu-asharedu. This period is represented by our phases III-II. During the long, powerful administration of the western province by *turtānu* Shamshi-ilu and his eunuch Ninurta-bel-usur, the site became Khadatu and attained the status of a provincial capital with the construction of the city fortifications and important buildings, most likely including the 'Bâtiment aux Ivoires' and 'Bâtiment B'. This period corresponds to our phase I and must be dated to the beginning of the 8th century BC, although the possibility of an earlier construction at the time of Shalmaneser III cannot be ruled out. During the first two stages, even though under Assyrian control, the city enjoyed great political autonomy, and the role of local powers and culture were dominant. Ninurta-bel-usur, although a district chief of Kar-Salmanu-asharedu and a eunuch of the *turtānu* Shamshi-ilu and, then, an Assyrian official, acted as a ruler. He also defined himself as a native of Sirani and Halahhi and, therefore, seems to belong to a local dynasty (Galter 2004: 454-456; Bunnens 2006: 98, note 76). The situation probably changed at the time of Tiglath-pileser III, to whom the construction of the Assyrian Palace should be attributed, when the new imperial programme led to a direct control over the western provinces through a politic of centralisation. Its foundation by Ninurta-bel-usur could be directly related to the safeguarding of this road (Thureau-Dangin *et al.* 1931: 7). This event, based on the activity of Shamshi-ilu in Syria, could therefore be dated to 780 BC, as generally suggested (Galter 2004: 450; Röllig, 2009: 270). Hypothetically, we could also place the activity of Ninurta-bel-usur in the period of maximum autonomous power of Shamshi-ilu, under Ashur-dan III (771-754 BC), when the *turtānu* was the only powerful man in the empire, as recently proposed by Liverani (2008: 758).

Thus, the ivory furniture found mainly in room 14 may have been donated to Ninurta-bel-usur during this

period by Shamshi-ilu, after the campaign of Damascus in 773 BC, when the *turtānu* added an inscription to the back of his Pazargik stele stating that the tribute received from King Hadyan of Damascus included a seat and a royal bed (Donbaz 1990). However, given the fact that some of the ivories appear to belong stylistically to an artistic context, most probably to be dated to the second half of the 8th century (Cecchini 2005), we cannot exclude that some of the ivory artefacts belong to one or more objects that reached Khadatu during the reign of Tiglath-pileser III. As noted above, the chronological and architectural relationship between the Assyrian Palace and the 'Bâtiment aux Ivoires' is still an unresolved problem. If the 'Bâtiment aux Ivoires' was still in use at the end of the 8th century, new furniture decorated in ivory may have been received at the time of the reign of Tiglath-pileser III.

Bibliography

- BUNNENS, G.
2009 Assyrian Empire Building and Aramization of Culture as seen from Tell Ahmar/Til Barsip, *Syria* 86: 67-82.
2006 *A New Luwian Stele and the Cult of the Storm-God at Til Barsip-Masuwari*. Publications de la Mission archéologique de l'Université de Liège en Syrie. Tell Ahmar II. Leuven, Peeters.
- CECCHINI, S. M.
2005 Area E3: il quartiere artigianale della fine del III millennio a.C. In: S. Mazzoni *et al.* (eds), *Tell Afis, Siria 2002-2004, Egitto e Vicino Oriente* 28: 45-52.
2011 Un sigillo neo-assiro con scena di culto da Arslan Tash. In: C. Lippolis and S. de Martino (eds), *Un impaziente desiderio di scorrere il mondo. Studi in onore di Antonio Invernizzi per il suo settantesimo compleanno*: 85-90. Monografie di Mesopotamia XIV, Le Torino, Le Lettere.
- CECCHINI, S. M. and VENTURI, F.
2012 A sounding at Arslan Tash. Re-visiting the 'Bâtiment aux Ivoires'. In: R. Matthews and J. Curtis (eds), *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East* 3: 325-341. Wiesbaden, Harrassowitz.
- DONBAZ, V.
1990 Two Neo-Assyrian Stelae in the Antakya and Kahramanmar~Museums, *Annual Review of the Royal Inscriptions of Mesopotamia Project*: 5-24.
- GALTER, H. D.
2007 Die Torlöwen von Arslan Tash. In: M. Köhbach, S. Procházka, G. J. Selz, and R. Lohlker (eds), *Festschrift für Hermann Hunger zum 65. Geburtstag gewidmet von seinen Freunden, Kollegen und Schülern*: 193-211. Wiener Zeitschrift für die Kunde des Morgenlandes 97. Wien, Institut für Orientalistik.
2004 Militärgrenze und Euphrathandel. Der sozio-ökonomische Hintergrund der Trilinguen von Arslan Tash. In: R. Rollinger and Ch. Ulf (eds), *Commerce*

- and Monetary Systems in the Ancient World. Means of Transmission and Cultural Interaction. Proceedings of the Fifth Annual Symposium of the Assyrian and Babylonian Intellectual Heritage Project. Held in Innsbruck, Austria, October 3rd-8th, 2002: 444-460. Melammu Symposia 5. Stuttgart, Franz Steiner Verlag.*
- HAWKINS, J. D.
2000 *Corpus of Hieroglyphic Luwian Inscriptions*. Band I. Berlin, De Gruyter.
- LIVERANI, M.
2008 Shamshi-ilu, Ruler of Hatti and Gutu, and the Sefiré and Bukan Stele. In: D. Bredi, L. Capezzone, W. Dahmash and L. Rostagno (eds), *Scritti in onore di Biancamaria Scarcia Amoretti II: 752-762*. Roma, Edizioni Q.
- RÖLLIG, W.
2009 Die Inschriften des Ninurta-bēlu-ušur, Statthalters von Kār-Salmānu-ašarēd. Teil I. In: M. Luukko, S. Svärd, and R. Mattila (eds), *Of God(s), Trees, Kings, and Scholars. Neo-Assyrian and Related Studies in Honour of Simo Parpola: 265-278*. Studia Orientalia 106. Helsinki, The Finnish Society.
- THUREAU-DANGIN, F.
1928 Fouilles d'Arslan-Tash, *Comptes Rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 3: 24.
- THUREAU-DANGIN, F., BARROIS, A., DOSSIN, G. and DUNAND, M.
1931 *Arslan Tash I-II*. Bibliothèque historique et archéologique 16. Paris, Geuthner.

Unfinished Work at Tell Ahmar. Early and Middle Bronze Age Finds

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Abstract

Three areas of research were under investigation when the outbreak of violence in 2011 prevented their completion. Firstly, research was conducted to the west of the Early Bronze Age tomb known as 'l'hypogée' ('hypogeum'), following the French excavations conducted by F. Thureau-Dangin in the 1930s, in order to recognize its architectural context. Another investigation concerned an Early Bronze Age temple discovered on the eastern slope of the tell. Lastly, a Middle Bronze Age stone tomb, partly extending into the baulk, was discovered as part of the residential complex covering the temple.

The 'Hypogeum' complex

The monumental chamber tomb excavated by the Thureau-Dangin expedition was still visible when excavations resumed at Tell Ahmar in 1988 (Bunnens (ed.) 1990: 15-16; Thureau-Dangin and Dunand 1936: 96-119). Later excavations, under the auspices of the University of Melbourne, demonstrated in the late 1990s, that the tomb was part of a larger complex which went through several phases of use (Baccarin 2012 and 2014; Bunnens 2002-2003: 165-166; Roobaert and Bunnens 1999: 164-166). It included, besides the 'hypogeum' itself, a lower chamber to the northwest, accessible through a flight of steps, and, in a first stage, one room, subsequently two, to the north of the 'hypogeum', as well as a possible paved open space to the east.

In 2010, after the Tell Ahmar project had become part of the Liège University Archaeological Expedition to Syria, two square rooms, referred to as Building M10, were excavated to the west of the 'hypogeum', from which this building was separated by an old trench of the French excavations.

Interesting correlations could be made between the two structures:

1. The rooms of Building M10 were in line with the rooms to the north of the 'hypogeum' in the last phase of its existence.
2. The bottom of their walls was at approximately the same level as that of the north wall of the 'hypogeum' complex.
3. The space between the complex and Building M10 had approximately the same size as the two rooms of Building M10, in such a way that a third room might have linked the complex of the 'hypogeum' to Building M10, and that a still larger structure might have integrated the 'hypogeum' in its last phase of existence.

This discovery must be mentioned in conjunction with a puzzling feature of the plan of the so-called 'niveau araméen' ('Aramaean level') of the French excavations (Thureau-Dangin and Dunand 1936: plan C) which actually amalgamated Bronze and Iron Age structures. To the west of the 'hypogeum', the plan of the 'Aramaean level' shows a kind of pavement or, rather, a short flight of steps as would be indicated by the north edge of the stones, which has been shown slightly thicker than the sides (Figure 1). Nothing is said in the French excavation report about these steps, but they are in line with the steps that go down to the chamber to the northwest of the 'hypogeum', and they may represent an extension of these steps to bring them to the same elevation as the floor of the last phase of the 'hypogeum' complex. In its last phase of use, the 'hypogeum' complex might thus have been much larger than it originally was (Figure 2). It is most unfortunate that circumstances did not permit the further investigation of the area between the 'hypogeum' complex and Building M10, already partly removed by the French excavations, to clarify the relationship existing between the two structures.

Results thus far obtained emphasize nonetheless the symbolic meaning – whatever the symbolism was – of the 'hypogeum'. The chamber tomb was originally a partially above-ground structure, around which additional rooms were built, thus progressively burying it and making it the focus of an expanding ensemble which was visible from a distance in the Euphrates Valley. Smaller cist graves were dug in its close vicinity. Quite remarkably, however, the 'hypogeum' received only two bodies, interred together – or not long after each other. It is the quality or status of the deceased that conferred its significance to the tomb, and not its use as the mausoleum of an outstanding family. The high visibility of the complex and the prestige of the two persons buried inside that turned the 'hypogeum' complex into a distinctive feature of the Euphrates Valley.

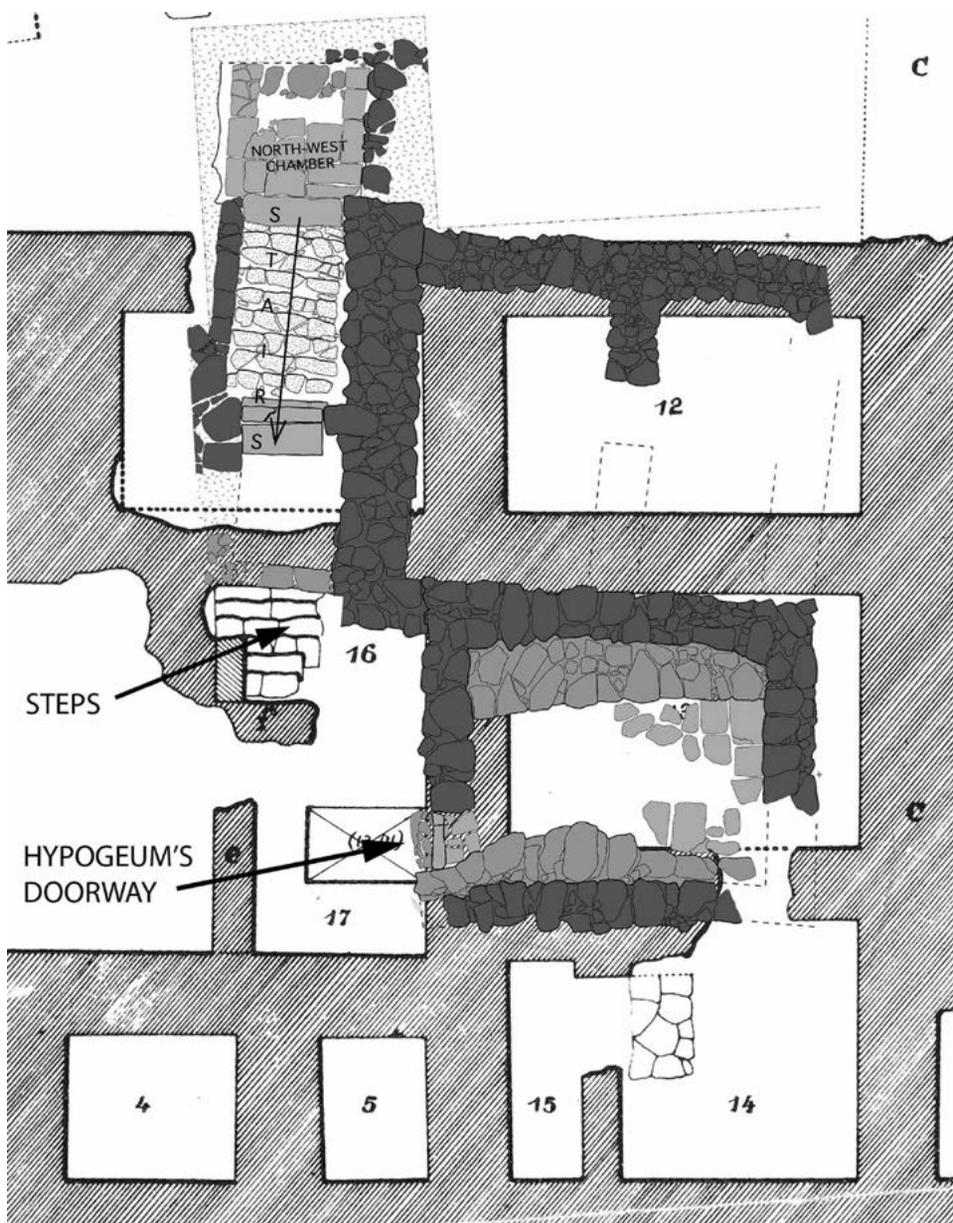


Figure 1: Plan of the last phase (Phase A) of the Hypogeum superimposed on a detail of the plan of the 'niveau araméen' of the French excavations to show the possible correlation of the steps in room 16 of the 'niveau araméen' with the stairs to the northwest of the Hypogeum
 (© Liège University Archaeological Expedition).

An Early Bronze Age Temple

The presence of an exceptional building had been observed in the late 1990s, in a trench dug on the southeastern slope of the tell (Area S), but it was only after removing almost 2 m of archaeological accumulation that it was realized that this building was a temple. Its exploration begun in 2009 but had to be left unfinished in 2010. However, enough of the building was excavated to draw a plan of the structure (Figure 3) (Bunnens 2016). The southern end of the building was lost, probably removed by the deep sounding in which the French found Chalcolithic pottery sherds. In its present state of preservation it is a monocellular building, of which the inner dimensions are about 6 m from east to west and more than 9 m from north to south. A noticeable feature of the excavated remains

was the number of wooden beams lying on the floor, which had obviously fallen from the roof. They have been identified as *Populus euphratica* (Euphrates poplar) by P. Gerrienne of Liège University. It is a local species readily available. None of them was long enough to cover the entire inner space of the temple. As no pillar or column has been uncovered – although it cannot be excluded that some may have existed in places where the excavation did not reach the floor – we may surmise that these beams were assembled in a kind of timber framework.

A complex system of benches and platforms was set against the north wall (Figure 4a), and two low benches ran along the east and west walls. The north wall must have been the most important part of the temple and the focus of attention for anyone coming in. The floor

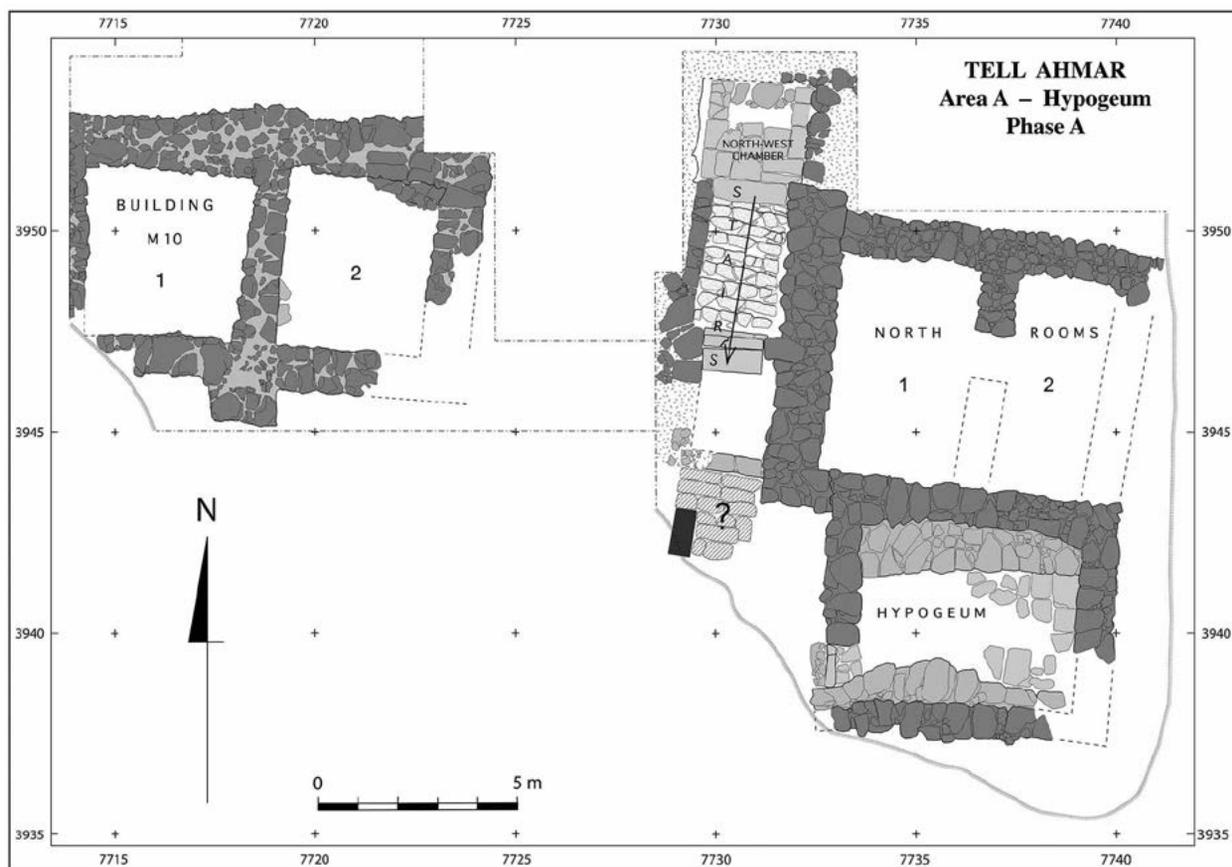


Figure 2: Plan of the last phase (Phase A) of the Hypogeum and of Building M10 (© Liège University Archaeological Expedition).

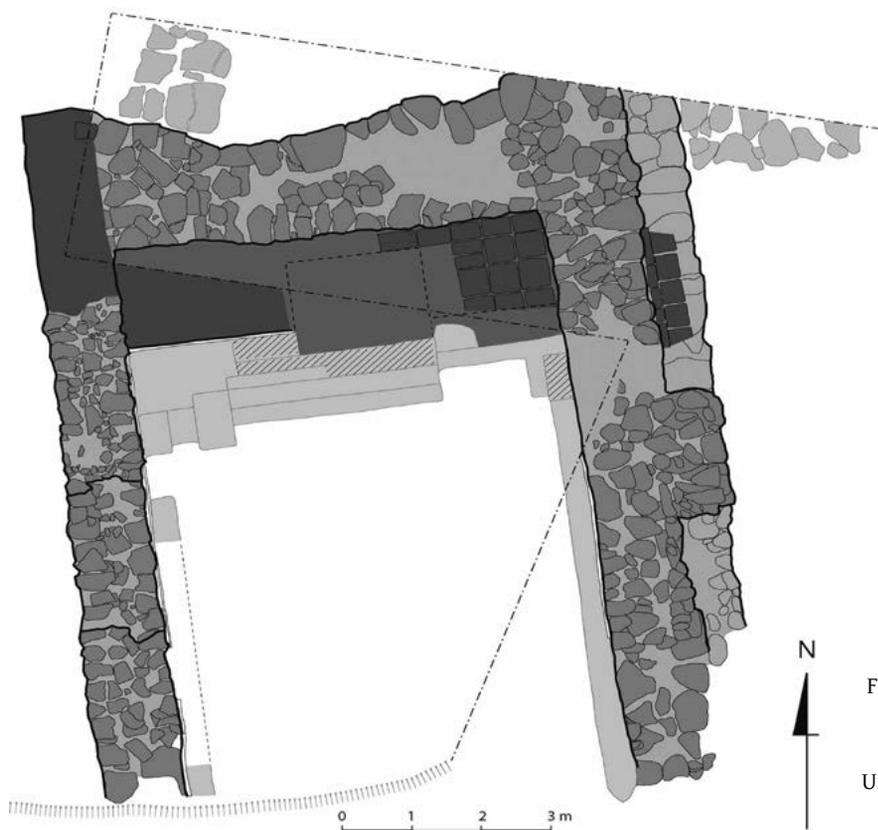
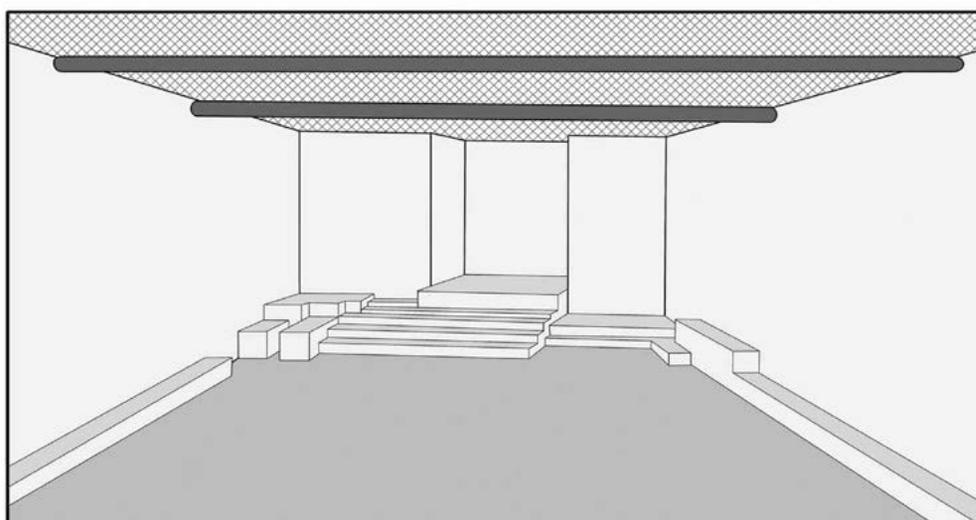


Figure 3: Plan of the Early Bronze Age temple in trench S14 on the south-eastern slope of the tell (© Liège University Archaeological Expedition).



a



b

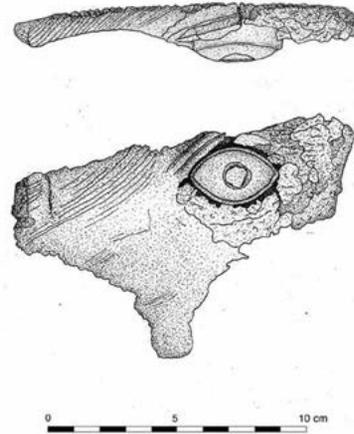
Figure 4: Benches and platforms set against the north wall of the temple (a: photograph looking north; b: tentative reconstruction) (© Liège University Archaeological Expedition).

could only be reached on a narrow strip, about 1 m wide, along the benches and platforms. Given the importance of this part of the temple it was probably also the place where the most significant finds could be made.

A puzzling feature is the thick mass of bricks placed between the actual back wall, of which the stone base is preserved, and the combination of benches and platforms in front of it. Its function is hard to explain. However, faint traces observed in the eastern part of the benches seem to indicate that the central part of the installations was higher than those which were placed either side of it. A possible explanation would be either that there was a kind of podium in the middle of the rear wall on which a cultic symbol might have stood, or that the raised platform extended into a niche which itself extended into the mass of bricks (Figure 4b). In such a case the only function of these bricks would have been to offer enough space to accommodate the niche between the back wall and the installations. The reconstruction of the original plan of the temple is problematic. Given that *in antis* temples were a common form of temples in Bronze and Iron Age Syria, a reconstruction with a niche right in front of the entrance is very likely.

Much pottery was recovered from the narrow excavated strip along the benches and platforms (Baccarin 2016). By far, the largest pottery type was a kind of small cup not very different from the modern tea glasses used in Syria. One vessel stood out by its decoration. It was a large jar with incised motifs showing two snakes, two lions, the head of which was applied in relief, and all sorts of animals, including quadrupeds, birds, and fish (Figure 5a). The vessel was entrusted to the conservation laboratory of the Damascus Museum at the end of the 2010 season. However this must also remain an unfinished work, because it is very likely that more pieces are still buried. Other remarkable finds are fragments of wooden sculptures (Roobaert, forthcoming). The best preserved of them features a bull's head (Figure 5b); it is carved in high relief and must have belonged to a panel decorating a wall or a piece of furniture.

The cultic function of the building cannot be doubted. However, its identification as a temple *stricto sensu* – i.e. the place where an anthropomorphic deity was supposed to reside and be worshipped – is difficult to ascertain. It may have been a construction where rites were performed, for instance ceremonial banquets,



a

b

Figure 5: Small finds from the temple (a: sherds from a decorated vase; b: wooden sculpture of a bull's head (© Liège University Archaeological Expedition)).

but not specifically associated with a particular deity. Architecturally, it stands at the confluence of two traditions. One is North Syrian: temples of the long-room type are known in the region from the Early Bronze Age down to the Iron Age. But it stands out by the complexity of the combined niches and platforms, quite unusual in Syria, and much closer to the northern as well as southern Mesopotamian tradition. The temple stood on a raised podium, the face of which consisted of irregular stones originally coated with white plaster. It has been exposed on a width of 1.5 m, and a height of more than 3 m, without reaching its base. Its position, on the southeast slope of the tell, made it another monument visible from a long distance in the river valley, in the same way as the 'hypogeum' complex. Rather than a fort, as it has been suggested (Peltenburg 2013: 238 and *passim*), Tell Ahmar looks more like a ceremonial centre of some significance for the people of the valley. The temple was violently destroyed and never rebuilt. There is surely more to

recover and it is most regrettable that it must remain as another unfinished work.

A Middle Bronze Age tomb

While removing Middle Bronze Age remains in 2008 to reach the level of what turned out to be the Early Bronze Age temple, a triangle made up of roughly hewn stones was exposed protruding from the north baulk of the excavation trench (Figure 6). This was obviously a tomb that must have been associated with the Middle Bronze Age remains that were being cleared out. An attempt to excavate the tomb from the side offered the opportunity to expose it on its full length down to about 50 cm below the ridge (Figure 7a). The tomb consisted of two lines of three slabs slanting inwards, with long narrow stones forming a kind of ridge. The interior of the tomb was about 60 cm wide and 1.60 m long. At the far end, the wall seems to have consisted of only one stone, in contrast to the other end where

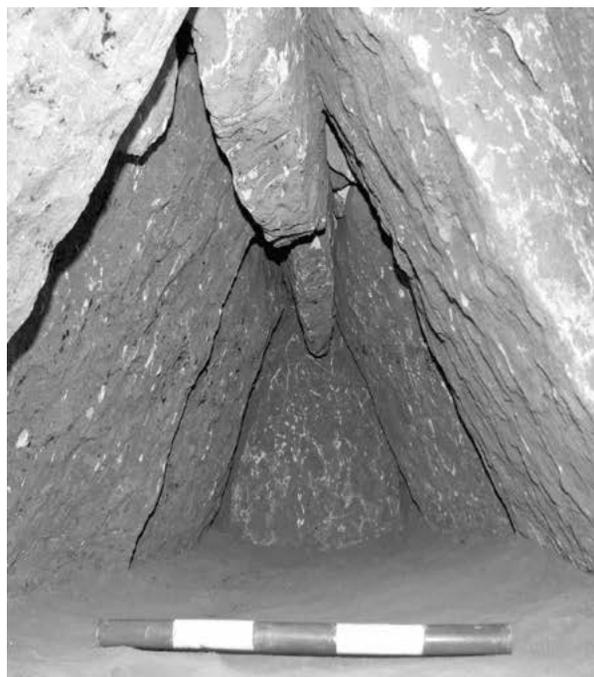


Figure 6: Southern end of the Middle Bronze Age tomb F14.207 (© Liège University Archaeological Expedition).

several stones were assembled to close up the tomb. Only the southern part of the tomb could be excavated down to the stone pavement (Figure 7b). Cracks in the covering slabs showed that it was too dangerous to excavate it entirely. From what has been explored, the biggest surprise was the accumulation of disarticulated human bones from several individuals. There were four human skulls belonging to three adults and one younger individual. The bones were piled up without order and packed against the south wall. This may represent secondary interment, or, more plausibly, successive burials in the same tomb. At each deposition of a corpse earlier remains were pushed back to make room for the new burial. We may therefore hypothesize that it was a family funerary structure. Mixed with the human bones there were also animal remains, which, we may assume, were food offerings made at the time of burial. We know from other Middle Bronze Age evidence in Syria that animal bones can be found mixed with human skeletons (Cordy *et al.* 2009). Very little material was recovered from the excavated part of the tomb: it amounts, practically, to one ceramic bowl.

The tomb is associated with previously excavated Middle Bronze Age architecture (Figure 8). Its top lies immediately below the floor level of a well-preserved Middle Bronze Age settlement, of which one house has been entirely excavated (Bunnens 2010: 116-117). The tomb was either part of a second house, or, judging from what could be excavated, it may have been an independent structure associated with a kind of funerary chapel. The access to the tomb was almost surely located at its northern end, as deduced from the following observations:

1. There is no room to the south to dig an access pit.
2. The bones were piled up against the south wall as if they had been pushed away from the north wall.



a



b

Figure 7: Two views of the inside of tomb F14.207 showing the upper part of the stone slabs which cover the tomb (a) and the floor with bones still lying on the pavement (b) (© Liège University Archaeological Expedition).

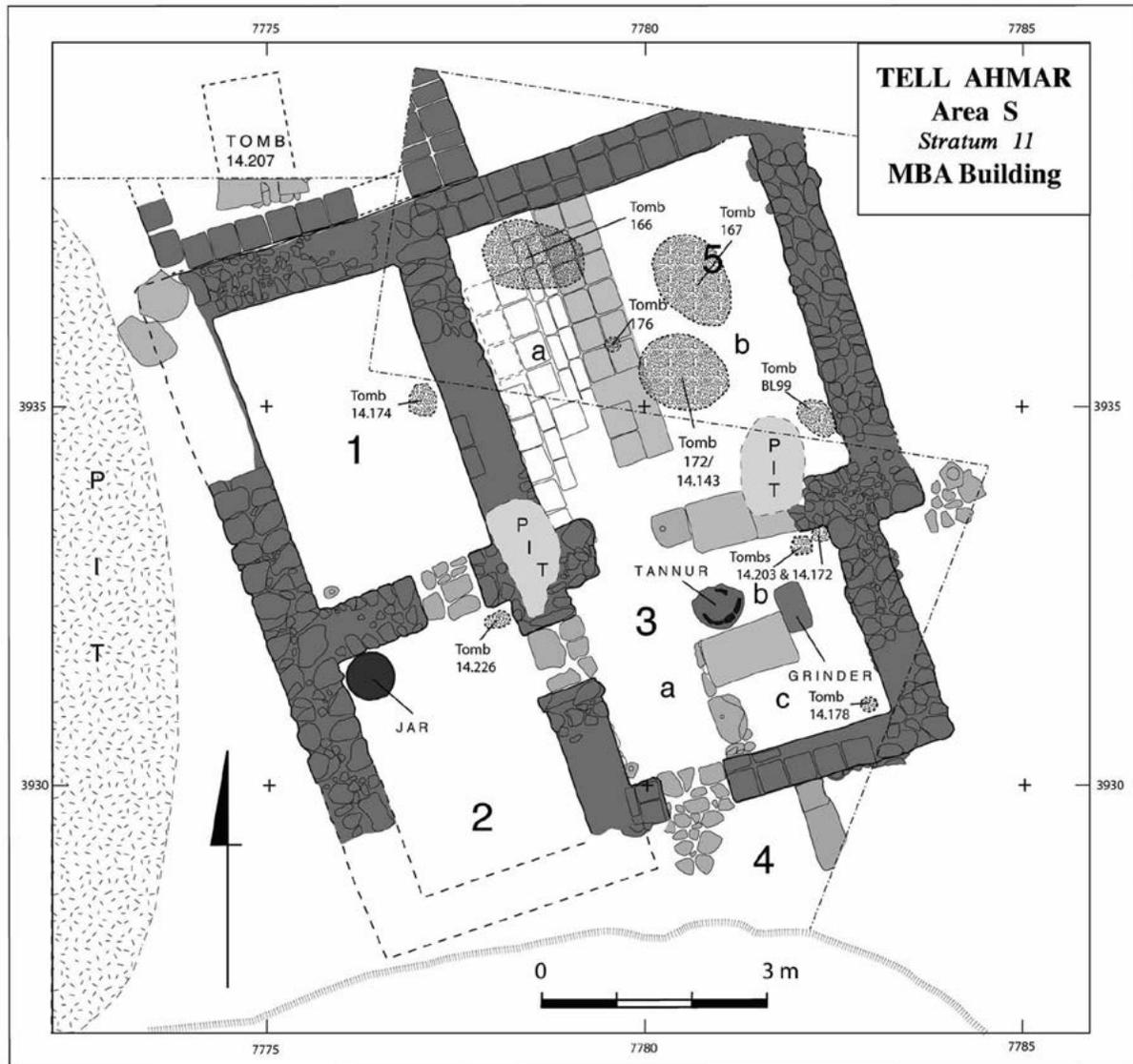


Figure 8: Plan of the Middle Bronze Age constructions in trench S14. Tomb F14.207 is in the northwest corner of the plan (© Liège University Archaeological Expedition).

3. The north wall consisted of only one stone, which was easier to remove than the five or six smaller stones that were assembled to form the south wall.

A solution to these problems could only result from an extension of the excavation towards the north. Years 2009 and 2010 were devoted to removing the archaeological stratification covering the tomb in order to be able to excavate it from above, and, at the end of the 2010 season, the excavation was just a few centimetres above the top of the tomb, but, here again, it had to be left unfinished.

If we look at the entire Middle Bronze Age remains discovered at Tell Ahmar (Bunnens 2010: 111-117), we get the impression that, in the Middle Bronze Age II, the

site was a kind of regional administrative centre. The large building excavated on top of the tell – probably a storage building – and the residential structures exposed on the southeast slope of the tell, of which one has been entirely excavated, along with the burials (Jamieson 1998; Otto 1998; Roobaert 1998), of which the stone tomb described above is the most prominent example, all concur to show that Tell Ahmar must have been a place where well-off officials were living and working.

Bibliography

- BACCARIN, C.
2016 Consumption in a Temple? An interpretation of the ceramic repertoire of the Early Bronze Age temple at Tell Ahmar (North Syria). In: O. Kaelin and

- H.-P. Mathys (eds), *Proceedings of the 9th International Congress on the Archaeology of the Ancient Near East 3*: 163-176. Wiesbaden, Harrassowitz.
- 2014 The Hypogeum of Tell Ahmar: An analysis of the monumental burial complex in the context of the Early Bronze Age funerary practice, *Ancient Near Eastern Studies* 51: 213-225.
- 2012 Burial practices in the middle Euphrates area during the early Bronze Age: The contribution of the hypogeum of Tell Ahmar (North Syria). In: F. Borrel Tena, M. Bouso García, A. Gómez Bach, C. Tornero Dacasa and O. Vicente Campos (eds), *Broadening Horizons 3. Conference of Young Researchers Working in the Ancient Near East*: 137-149. Barcelona, Bellaterra.
- BUNNENS, G.
 2016 A third millennium temple at Tell Ahmar (Syria). In: O. Kaelin and H.-P. Mathys (eds), *Proceedings of the 9th International Congress on the Archaeology of the Ancient Near East 3*: 187-198. Wiesbaden, Harrassowitz.
- 2010 Tell Ahmar in the Middle and Late Bronze Age. In: P. Matthiae, F. Pinnock, L. Nigro and N. Marchetti (eds), *Proceedings of the 6th International Congress on the Archaeology of the Ancient Near East II*: 111-122. Wiesbaden, Harrassowitz.
- 2002-2003 Til Barsib before the Assyrians, *Annales Archéologiques Arabes Syriennes* 45-46: 163-172.
- BUNNENS, G. (ed.)
 1990 *Tell Ahmar 1988 Season*. Supplement to *Abr-Nahrain* 2. Louvain, Orientaliste.
- CORDY, J.-M., LÉON, S. and TUNCA, Ö.
 2009 Les offrandes animales dans les tombes ordinaires de l'âge du Bronze à Chagar Bazar (chantiers F, H et I): Rapport préliminaire, *Akkadica* 130: 53-73.
- JAMIESON, A. S.
 1998 Ceramic vessels from the Middle Bronze Age jar burial F167 at Tell Ahmar, *Abr-Nahrain* 35: 106-119.
- OTTO, A.
 1998 A Middle Bronze Age cylinder seal from the jar burial F167 at Tell Ahmar, *Abr-Nahrain* 35: 120-134.
- PELTENBURG, E.
 2013 Conflict and exclusivity in Early Bronze Age societies of the Middle Euphrates valley, *Journal of Near Eastern Studies* 72(2): 233-252.
- ROOBAERT, A.
 forthcoming Fragments de sculptures en bois retrouvés dans un temple du III^e millénaire à Tell Ahmar (Syrie). To be published in a Festschrift volume.
 1998 The Middle Bronze Age jar burial F167 from Tell Ahmar (Syria), *Abr-Nahrain* 35: 97-105.
- ROOBAERT, A. and BUNNENS, G.
 1999 Excavations at Tell Ahmar-Til Barsib. In: G. del Olmo Lete and J.-L. Montero Fenollós (eds), *Archaeology of the Upper Syrian Euphrates: The Tishrin Dam Area*: 163-178. Barcelona, Sabadell.
- THUREAU-DANGIN, F and DUNAND, M.
 1936 *Til-Barsib*. Bibliothèque Archéologique et Historique 23. Paris, IFAPO.

A Colonnaded Building in a Commercial Area at Seleucid Jebel Khalid

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Abstract

One building in a possible commercial area at Seleucid Jebel Khalid on the Euphrates has a colonnaded portico, making it a building of some importance. This paper discusses its location and function on the site, as well as the implications for the status of Jebel Khalid.¹

Jebel Khalid on the Euphrates was excavated by an Australian team from 1986 to 2010 when excavation ceased due to the political crisis. The Seleucid site lies on the west bank of the river, guarding a crossing place where the river narrowed. The site was founded early in the 3rd century BC, probably by Seleucus I, and totally abandoned in the 70s BC. No structures earlier than the 3rd century BC have been found, and the site was not taken over by the Romans in the 1st century BC. Thus, Jebel Khalid provides an invaluable source of information about Hellenistic buildings in the Near East and life under the Seleucids.

The 50 ha site, guarded on all but the steep river side by 3.4 km of wall punctuated with towers, has yielded, since excavations began in 1987, a Main Gate (Connor and Clarke 2002), a palatial building on the Acropolis (Clarke 2002), a Temple (Clarke forthcoming 2016), a complete housing insula (Jackson 2014), a Palaestra (Clarke forthcoming 2016) and a building complex called Area S (Figure 1). No Agora has yet been located.¹

This paper focuses on a colonnaded building within Area S and the part it may have played in defining the status of Jebel Khalid. The colonnade itself was first excavated in 1989 by the late P. Connor. In 1995 teams working there were transferred to the housing insula, where excavations were of priority, and it was not until 2006 that excavations resumed there under the author's directorship. The size of the whole complex has now been defined, but much remains to be excavated inside (Figure 2).

Area S: Building Complex

Area S is located on flattish land at the base of the more northern of the two hills of the *jebel*, some 800 m north of the Acropolis (see Fig. 1). Like the housing insula, and indeed conforming to the grid of the whole site, it was laid on a north-south grid between two major

roads running north-south. The walls surrounding it constitute a block measuring 77.5 m north-south and 35.5 m east-west; the latter dimension is close to that of the housing insula, and may represent the standard block width at Jebel Khalid. The northern and western boundaries had no access; in fact, the northern boundary was a double wall separating the complex from a quarry (Figure 2). Two minor entries were found in the only trench excavated on the southern boundary. The eastern boundary, on the river side, is largely obscured by a tangle of tertiary and last phase structures. However, at least two entries, one of which substantial, were located here. The entry on the east suggests preferred access to and from the river. This access would have been via a steep wadi leading down to the river bank where quays were visible under water before the construction of the Tishreen Dam altered the flow and depth. Steps had been cut into the rock within the wadi, undoubtedly to make transport of goods by mules, donkeys, or people easier. Entry was not impossible from the landside, i.e. the Main Gate at the west of the site (Figure 1), but the route would have been more devious.

The chronology of Area S, suggested by coins, lamps, stamped amphora handles, and datable fine wares clearly ranges from the early 3rd century BC to the abandonment in the 70s BC, consistent with other areas excavated at Jebel Khalid (Jackson forthcoming 2016: 51-4.) There, four phases within the Hellenistic period were identified (Figure 3):

1. An early phase belonging to the 3rd century BC that is irrecoverable, apart from the thick boundary walls of the whole complex and a few cut-down wall traces inside of it.
2. A main phase contemporary with the primary form of the colonnaded building (CB) and associated structures. This phase might have possibly begun during the reign of Antiochus III.
3. An intermediate phase recognised by a higher floor and new structures on the floor. Walls of this phase are orthogonal and well built. ESA was

¹ A fuller version of this paper will be published in the next volume of the series *Jebel Khalid on the Euphrates, Volume 5, Excavations 2000-2010*.

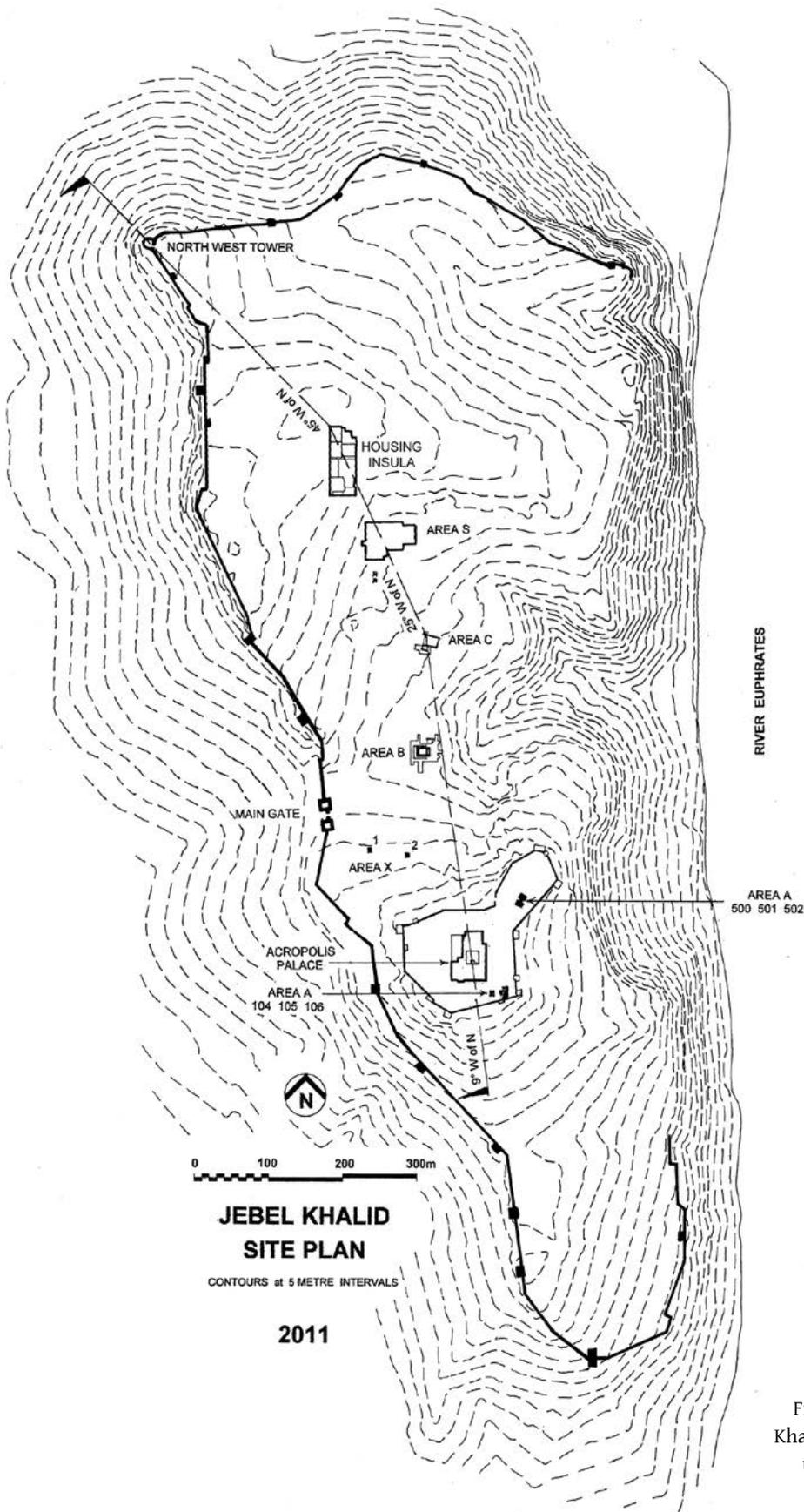


Figure 1: Contour map of Jebel Khalid, showing sites excavated up until 2010 (B. Rowney 2011).

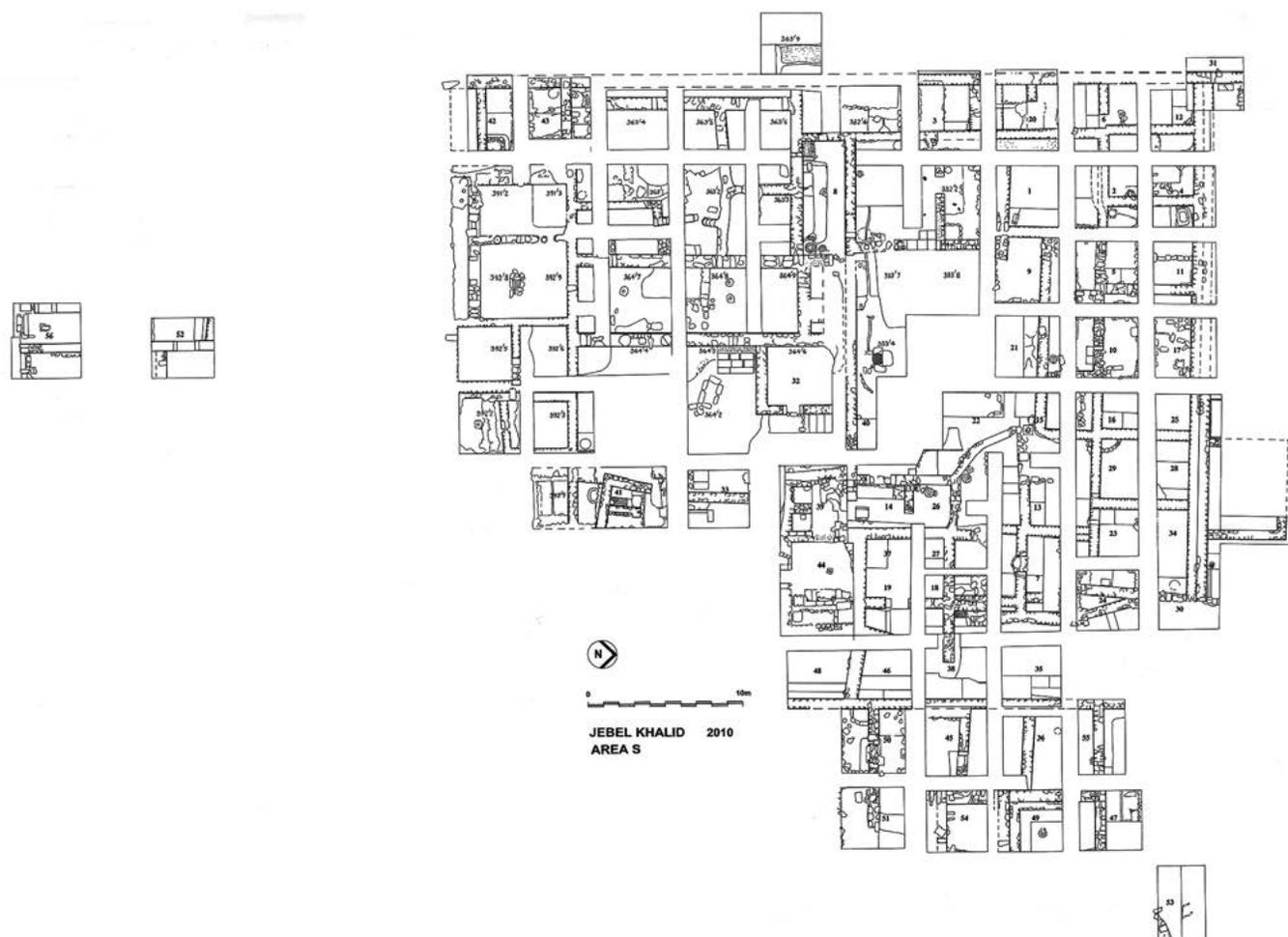


Figure 2: Plan of trenches excavated in Area S (B. Rowney 2010).

often found in the fill below these new floors, so this phase is post 150 BC.

4. A late phase distinguished by higher floors, or the re-using of the latest floor, and with non-orthogonal structures re-using building material, probably from already collapsed buildings. In other parts of the site this is usually dated to the first quarter of the 1st century BC and associated with the latest coins, i.e. the Metropolitan Antioch issues (92-72 BC) (Nixon 2008; 2002).

The Colonnaded Building

Fig. 3 shows the position of the colonnaded building (designated CB on the plan) facing east onto the large courtyard A. The colonnaded porch fronts a large rectangular building with interior dimensions of 14.2 m x 9.6 m (133 m²), enclosed on all sides except for the east portico and a minor door in its north wall into the adjacent wing. The dimensions of the original form of the colonnaded portico are difficult to establish, as the stylobate, beautifully structured at the south, degenerates, as its excavator noted, 'into a pile of rubble at the north.' One can suggest, however,

that the stylobate originally extended to the primary east-west wall to the north. This assumption gives an original north-south length of 17.4 m; the east-west width of usable floor space in the colonnade is 5 m. Two column bases were found resting on the stylobate of ashlar blocks, approximately 80 cm in diameter and 2.8 m apart (measuring from the centre of each), although measurements cannot be exact due to the degradation of the stone (Figure 4). If this was their original placement, we can calculate that six columns may have been used, with one on either side of the three steps, 2.5 m wide, leading up to the floor of the portico. A fluted Doric capital was found *ex situ* on the floor of the porch, to its south. The shaft of the capital measured 46 cm in diameter, with the standard Doric 20 flutes. The column bases appeared unfluted, but it is possible that the easily damaged lower shaft was left plain, as in the Northern Stoa at Priene (Winter 2006: fig. 176). However, in the adjacent trench, a larger Doric capital of an unfluted column, inverted, and re-used as a quern or pot stand, was found on the floor of the portico. The diameter of this shaft was 64 cm. It seems more likely that the columns on this stylobate were entirely unfluted and that the fluted capital belonged elsewhere. Indeed, it was later found to match fluted,

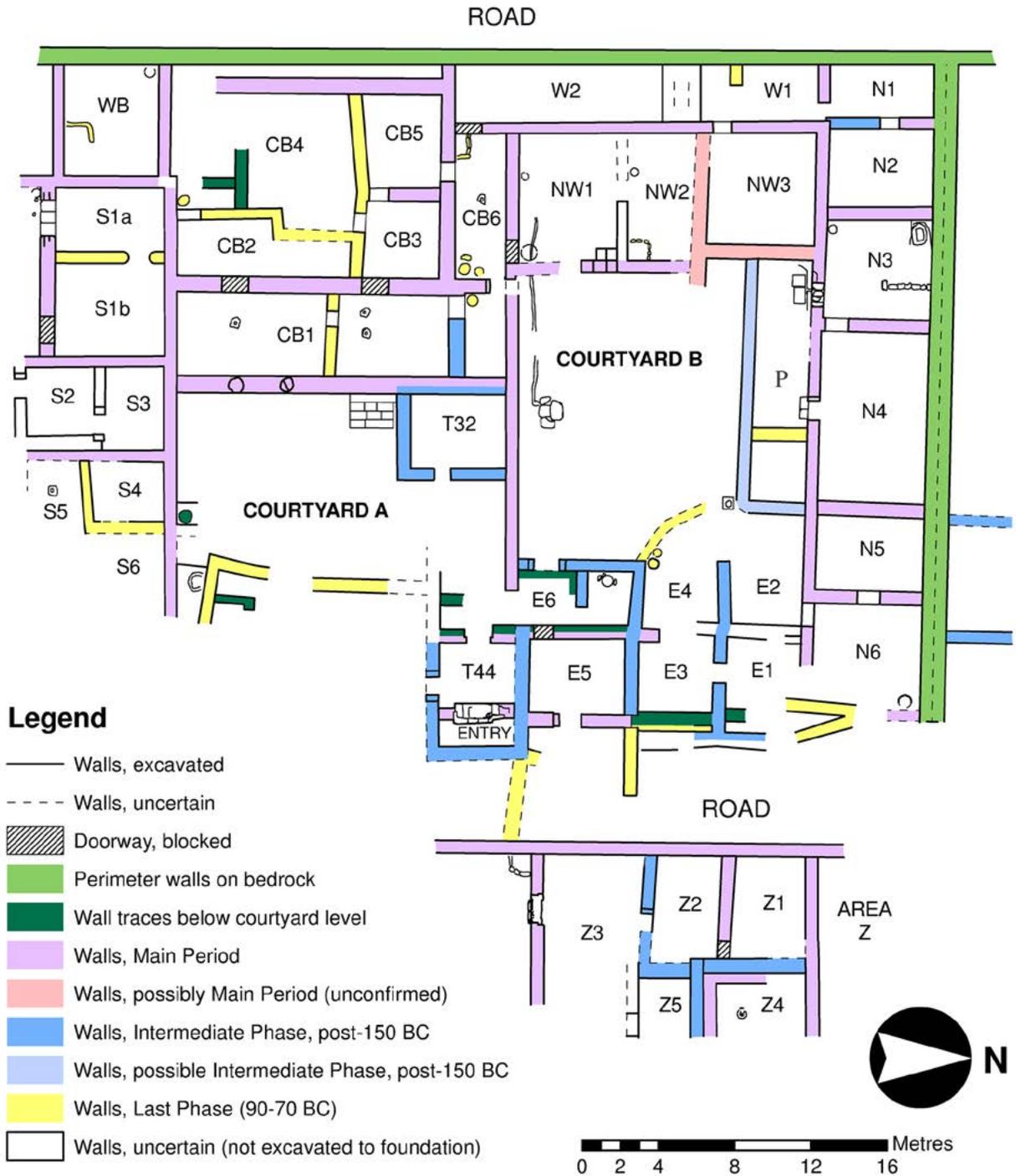


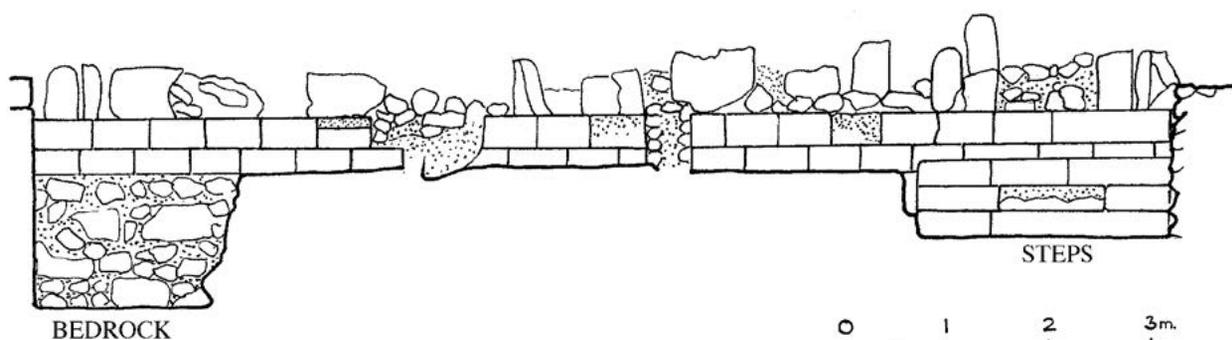
Figure 3: Plan showing reconstruction of phases in Area S (B. Rowney, H. Jackson, and M. Negus Cleary 2015).

smaller columns in a room to the south of the CB. Also found ex situ on the stylobate was an unfluted column drum tipped sideways and one other possible capital, severely modified and used as a quern in the latest phase. A fragment of an architrave with well-spaced dentils was found on the surface in front of the stylobate. Dentils are more usually associated with the Ionic order, so this find is a little puzzling. The dentils also do not conform to Vitruvius' ideal dimensions for dentils, being further apart than half the depth of the

projection (Vitruvius 3.5.11). Either this fragment's use was somewhere else, which seems unlikely from its findspot directly in front of the stylobate, or a composite mixing of orders was employed. F. Winter comments that 'problems posed by the elements of the Doric frieze could be avoided by placing an Ionic entablature over the Doric columns'. In view of the fact that not a single fragment of Doric triglyph or metope was found, this seems a likely explanation. The Temple site had preserved fragments of its Doric frieze, in spite



Figure 4: Stylobate with two column bases. View to the north (P. Connor 1989).



N-S SECTION LOOKING WEST ~ AREA 5
JEBEL KHALID

Figure 5: Section of east face of stylobate (B. Rowney 1990).

of severe robbing (Clarke forthcoming 2016: 20, figs. 2.12-2.13). The effect of an Ionic entablature would be simpler and perhaps less expensive. According to J. Coulton (1976: 119), 'the use of Ionic features in the Doric order is a general characteristic of the Hellenistic architecture of Asia Minor.' This mixing of orders was not confined to stoas, as the Bouleuterion at Miletus (Winter 2006: 24, 223) and the Council House at Herakleia (Winter 2006: 144) attest.

The floor of the portico was not paved, but was constituted of packed earth covered with finely-crushed limestone on a fill of limestone chips and rubble. The stylobate itself consisted of a levelling layer of thin ashlar blocks topped by more substantial ashlar blocks, averaging 55 cm in width (Figure 5).

The building is accessed by two doors. The three steps onto the porch are in line with the more northern of the two. The dimensions of this latter doorway are unclear because the baulk has not been cleared, but the more southern door in the same wall, blocked with rubble, was 1.3 m wide. Therefore, one could suggest that this was also the width of the northern door, taking the Hellenistic love of symmetry into account. The tentative reconstruction proposed here adopts this hypothesis (Figure 6).

Two doors may imply two different rooms but here we have a problem. The original layout of the interior is unclear and it is obvious that the space was remodelled many times. The space is far too large (14.2 m N/S x 9.6 m E/W) to not be supported by interior walls or



Figure 6: Reconstruction of front of colonnaded building. View to the west. (S. Young 2016).

supports. However, there are no indications of any support, and the walls excavated are largely late-phase and built on the packed-earth floor and not on the bedrock. P. Connor assumed a dividing wall running the full east-west width of the interior, based on the existence of two main doors (Connor 1995).

The interior of this building must have been very dark, as there seems little opportunity for windows, in that the western wall is built right up against the perimeter wall, with only a narrow gap between, and both north and south walls have structures built against them. If those latter structures were single-storey and the CB was a higher building, then clerestory-style windows placed high in the north and south walls would have been possible. Otherwise, the only light would have come from the two main doors in the eastern façade. This must be borne in mind when considering function, e.g. too dark for manufacturing activities?

The function of the CB is uncertain. Its short length and the depth of the rectangular building behind it rule out 'stoa'; it is not 'a great deal longer than it is... deep' (Coulton 1976: 4). It was built entirely of stone – no ashlar blocks have survived from the façade and the other external walls were of fieldstones. The building was roofed with Corinthian tiles; large deposits of these were found in the excavations. The architectural evidence of the colonnaded façade, the two wide entrances, and the amount of space inside, suggests a public building of some importance. But the artefactual evidence is mainly from the latest phase and is similar to that of the same phase in the housing insula, e.g. tannours, grinders and pounders, and loomweights. Several large deposits of the latter were found, notably on the portico floor (80 total) and inside the building in the NW corner room CB5 (approximately 60). Although these numbers may not suggest industrial-scale weaving (Jackson 2014: 565-573), the rare discovery of a

substantial fragment of woven material in a late-phase 'bin' in CB6, a room which had access into this building, does perhaps add evidence to such activity, but only for the last phase. In this last phase, the portico floor was partitioned off in two places by walls of reused masonry, perhaps sheltering weaving activities in good light or preparation of grains, as evidenced by the querns and pounders found. Large jars and amphorae were dominant in the pottery from this building, but again, most of the evidence is from the late phase, when the portico was at least partially ruined.

Courtyard A

Courtyard A, located to the east of the colonnaded building, must be closely associated with the function of the building. Its full dimensions are uncertain but it originally extended the full north-south width of the colonnaded building, i.e. 17.4 m inside the walls. The east-west measurement at the north must have extended originally to the entry room in the eastern boundary wall in T44, to a length of 17.4 m from the actual entry, which makes it equal to the north-south dimension. It is unknown if this is a coincidence or a planned symmetry. Whether it was originally a full rectangle, worthy of being the approach to the colonnaded building, is uncertain as its south-east quadrant is unexcavated. What is certain is that later structures were built in this courtyard but on various floors. Courtyards notoriously have their surfaces renewed fairly frequently. The floor contemporary with the base of the steps into the colonnaded building is a very thick, strong limestone floor and must have been the floor of the main period of occupation. It was also the floor associated with a substantial threshold in what is probably the original eastern boundary of the complex (Figure 7). It has an external dimension of 2.5 m, allowing an internal access width of 2 m, although the wooden doorposts indicated by the square sockets



Figure 7: Threshold in T44. View to the west. (S. Hay 2010).

might have further reduced that dimension. This threshold and the associated wall are separated from the bedrock, located some 25 cm below them, by a deep layer of ashy soil. This is one of the indicators that the complex it gives entry to was not the earliest structure here.

The character of this courtyard A is of interest. Only on the latest floor was a typical courtyard installation found, in the form of a rectangular enclosure roughly made of reused masonry, probably a rubbish pit or *kopron*. Also on the latest floor was a large stone vat and a large circular basalt stone with a central hole for the insertion of a beam, possibly belonging to a press. Both are perhaps indicative of some industrial activity in the late phase. Only a small area of the courtyard floor contemporary with the foundation of the CB has been excavated, but it yielded nothing indicating typical courtyard use as seen in the houses. Unlike the domestic courtyards it does not give access to a variety of rooms encircling it. It was enclosed at the north and probably at the south (the southern wall is unbroken for the length of its excavation) in the main period. There is no sign of a cistern or drainage. With a formal, lockable entry in T44, possibly with the rebuilding of its western wall making it into an entry room rather than giving direct access to the courtyard, one wonders why access to this courtyard and ‘public’ building was restricted. The threshold, while impressive, is not, at 2 m, wide enough for more than a small cart. Plus, there are no wheel marks on the threshold. In summary, Courtyard A gave privileged access to the CB and seems not, at the current level of excavation, to have been a workaday courtyard in the phase associated with the foundation of the CB.

Interpretations on the function of the colonnaded building

At this point, one needs to look at the relationship of the CB and Courtyard A with the rest of the complex (see Figs. 2-3). Directly adjacent to Courtyard A is Courtyard B to the north, but with no access to Courtyard A until the latest phase. Unlike Courtyard A, Courtyard B had a cistern and was surrounded by rooms on three sides. Those on the east are late-phase structures but those on the west and north belong to the main period. They can be interpreted as a series of rooms with, in each case, one larger room giving access to smaller rooms with more evidence of activities (Jackson forthcoming 2016: 67-9, 73). While jars and amphorae were relatively more common than tableware in these rooms, no storage pithoi were found. However, in 1995, a trench to the east, further down towards the river, had unearthed two very large pithoi, with the possibility of more in the same room left, however, unexcavated. It is possible that this constituted a storage area, intermediary between Area S and the river quays. Excavation to the east of Area S had also unearthed, in Area Z, rows of large rooms with some evidence of industrial activity (Jackson forthcoming 2016: 69-71).

Interpretation of Area S has always been influenced by the title given to it when it was first published in 1995 (Connor 1995: 122), i.e. ‘commercial buildings/stoa complex’. Jebel Khalid needs a commercial area, but is this it? It was stated earlier that an agora has not been located, but it is difficult to believe that Area S located far from the Main Gate, Temple, and Acropolis, is the agora. A more likely position for the agora would be between the Main Gate and the Temple, an area where

a short-lived Roman camp was built in the 4th century AD. Apart from the location, the use of space within this complex (e.g. two separate courtyards with possibly different functions) does not resemble that of an agora, even if one adduces a Near Eastern influence, such as claimed for the agora at Dura-Europos (Ward-Perkins 1981: 347-350).

There is no doubt that the CB dominates Area S, physically and powerfully, with its façade, tiled roof, and position. It may have been visible from the river. The river is an important factor here. Visitors or traders arriving by river at this point would choose, depending on their business, whether to climb up to the Temple, and thence to the Acropolis via the southern wadi, or to Area S via the northern wadi (Figure 8). Any goods brought by river could more easily be carried to Area S or the intervening Area Z, where the pithoi were found; the Temple route would involve circumventing the *temenos*. Here at Jebel Khalid, the river narrows, making it suitable for a crossing point, where ships might stop to unload, or to load goods coming from inland (e.g. Antioch). This makes Jebel Khalid very suitable as a control point for river traffic and possibly for collecting tax revenue imposed on river trade. With a suggested population of only c. 4500-7500 persons (Clarke forthcoming 2016: 444), many of whom were employed in the garrison rather than in agriculture, the site would have been 'dependent on an extensive regional *chora* and the cheapest and easiest form of transport from the productive riverine area was by river' (Clarke, personal communication). It was suggested earlier that the CB was founded in the reign of Antiochus III, whose conquest of Coele Syria and Phoenicia must have opened up trade routes further south into the Middle Euphrates, which would have been of prime economic importance after the Romans deprived him of all territories north of the Taurus, including the access ports in Asia Minor (Kosmin 2011).

At other Hellenistic sites, the design of the CB, i.e. a rectangular building with a short colonnaded façade, is difficult to parallel. At Assos, a rectangular colonnaded building of larger proportions, the bouleterion, opened on to the agora. There are difficulties with identifying the CB as a bouleterion. Firstly, in a military settlement such as Jebel Khalid (and Dura-Europos), administrative issues of the settlement would presumably have been discussed in the headquarters of the military governor on the Acropolis, and not in this distant building. Secondly, the interior shows no signs of seating for a *boule*, although rows of wooden seats, such as those at Assos, would have not survived (Steele 1992: 49; Winter 2006: 146). Thirdly, a bouleterion would have access to the agora or a street, whereas at Jebel Khalid, it opens to a courtyard, although this argument is weakened by the existence of colonnaded courts outside the 'Assembly Hall' at Priene, the magnificent Bouleterion

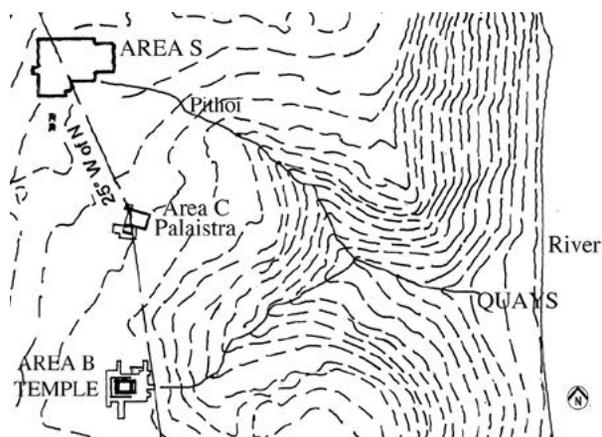


Figure 8: Detail of paths to river (B. Rowney 2011).

at Miletus, and the 'council house' at Herakleia under Latmos (Winter 2006: 144-145). However, these latter 'courts' are much larger than Courtyard A.

Could the complex have housed 'offices' that administered distribution of goods? There is a noticeable pattern, provided by the northern wing (Courtyard B), of 'units' comprising several inter-communicating rooms, usually with one larger room at the hub, and with associated workrooms. These are not small shops open to the street in a row. At Dura-Europos there were no Hellenistic colonnaded façades, and the agora, now known to have been constructed only in the 2nd century BC (Leriche 1996), housed two unpretentious market halls whose design does not at all resemble that of the CB. There the buildings resembled covered Oriental bazaars, with shops on both sides. Early excavators suggested that the rest of the space was filled with temporary stall holders (Rostovtzeff and Brown 1944: 15, 42). Perhaps Courtyards A and B could have housed awnings and stalls, but their operators would have had to gain access through the eastern doors. Closed market courts did exist in Hellenistic times, notably the North Market at Miletus bordered on the east side by a wall with a central propylon-type gate in the 1st century BC (Coulton 1976: 174, fig. 86). The reconstruction of Dura-Europos' agora also shows an enclosed space with three doors to the south (admittedly much wider than the T44 door) and one each on the east and west sides (Cocqueugniot 2011: 300, fig. 5). Market halls in the great Hellenistic cities of Asia Minor were stoa-like, massive colonnaded lengths, often multi-storey, and bordering the civic agora. The Market Hall at Miletus had three rows of 39 rooms behind a Doric façade (Köse 2005: 141). In Pisidia, even the relatively minor settlements, e.g. at Selge (Machatschek and Schwarz 1981: 55-58) and Pednelissos (Köse 2005: 144), had multi-storey market halls associated with the agora and much larger than the CB at Jebel Khalid. Granted, Jebel Khalid was a relatively small settlement, which might not have needed a large facility. The CB does not fit the image,

with its deep, rectangular building behind the short colonnade. But even so, it might be worth considering that this was one of its possible functions.

Another function to be considered for a building that was designed to be prominent is that of a public dining room. The domestic houses excavated at Jebel Khalid located near Area S, did not feature an identifiable *andron*, and it was suggested that there may have been some military mess-type arrangement for formal dinners (Jackson 2014: 556). But this would surely have taken place in the administrative building on the Acropolis, where the splendid Room 20 (and the stacks of plates found in an adjacent room) suggests banqueting on a grand scale. Parallels to this room are found in the Palace at Macedonian Vergina and in the administrative building at Kedesh (Berlin and Herbert 2012: 27; Berlin *et al.* 2014; Clarke 2002: 42-43). If there was a dining room, whom would it have served: port officials, market officials such as weights and measures inspectors, important merchants, or traders? The artefactual evidence does include fragments of drinking cups and plates in common ware, but these appear on all sites. In comparison with the housing insula, the pottery corpus of the CB is dominated by large jars, and the fine-ware cups and plates are relatively few.

To return to the possibility that Area S is a commercial trading area, it is conceivable that controlling Antioch was using Jebel Khalid's position as an intermediary port to send goods arriving overland from the west down the river to other Seleucid settlements, such as Nicephorion and Dura-Europos. Certainly, masses of Eastern Sigillata A pottery (probably made near Antioch) and Antiochene moulded bowls reached not only Jebel Khalid but also Dura-Europos and further south. In the other direction, green-glazed ware from downriver reached Antioch, almost certainly via Jebel Khalid (Jackson 2016; 2011). Such a use as a river port could justify the hypothesis that the original function of the colonnaded building was as a commercial administrative centre, perhaps involved in collecting river and port taxes. This would imply that the original military garrison had taken on a new or additional role apart from safeguarding river traffic, which would be a natural development of its position on this busy river. Such a facility, along with the Palaestra and Temple, adds to the impression that Jebel Khalid was no mere *phourion*, but had at least some of the characteristics of a *polis*.

Bibliography

BERLIN, A. and HERBERT, S.
2012 Excavating Tel Kedesh, *Archaeology* 65.3: 24-29.
BERLIN, A., HERBERT, S. and STONE, P.
2014 Dining in state: the tablewares from the Persian-Hellenistic Administrative Building at Kedesh. In: P.

Guldager-Bilde and M. L. Lawall (eds), *Pottery, People and Places. Study and Interpretation of Late Hellenistic Pottery*: 307-321. Aarhus, Aarhus University Press.

- CLARKE, G. W.
Forthcoming 2016 Area C: The palaestra. In: G. Clarke, H. Jackson, C. E. V. Nixon, J. Tidmarsh, and K. Wesselingh, *Jebel Khalid on the Euphrates Volume Five: Report on Excavations 2000-2010*: 37-48. Meditarch Archaeology Supplement 10. Sydney, Meditarch.
2002 The Governor's Palace, Acropolis. In: G. Clarke, P. Connor, L. Crewe, B. Frolich, H. Hackson, J. Littleton, C. E. V. Nixon, M. O'Hea, and D. Steele, *Jebel Khalid on the Euphrates Volume One: Report on Excavations 1986-1996*: 25-48. Mediterranean Supplement 5. Sydney, Meditarch.
COCQUEUGNIOT, G.
2011 The Oriental Agora: the case of Seleucid Europus-Dura, Syria. In: A. Giannikouri (ed.), *The Agora in the Mediterranean, from Homeric to Roman Times. International Conference, Kos 14-17 April 2011*: 295-309. Athens, Hypourgeio Politismou kai Tourismou, Archaologiko Instituto Aigaiakon Spoudon.
CONNOR, P. J.
1995 Commercial buildings/stoa complex. In: G. W. Clarke and P. J. Connor, *Jebel Khalid on the Euphrates: 1993 season, Mediterranean Archaeology* 8: 122-124.
CONNOR, P. J. and CLARKE, G. W.
2002 The Main Gate. In: G. Clarke, P. Connor, L. Crewe, B. Frolich, H. Hackson, J. Littleton, C. E. V. Nixon, M. O'Hea, and D. Steele, *Jebel Khalid on the Euphrates Volume One: Report on Excavations 1986-1996*: 17-24. Mediterranean Supplement 5. Sydney, Meditarch.
COULTON, J. J.,
1976 *The Architectural Development of the Greek Stoa*. Oxford, Clarendon Press.
JACKSON, H.
2016 forthcoming Area S. The Commercial Area. In: G. W. Clarke, H. Jackson, C. E. V. Nixon, J. Tidmarsh, K. Wesselingh, *Jebel Khalid on the Euphrates Volume Five: Report on Excavations 2000-2010*: 49-76. Meditarch Archaeology Supplement 10. Sydney, Meditarch.
2014 *Jebel Khalid on the Euphrates Volume Four: The Housing Insula*. Sydney, Meditarch.
2011 The Green-Glazed Wares. In: H. Jackson and J. Tidmarsh, *Jebel Khalid on the Euphrates Volume Three: The Pottery*: 431-485. Sydney, Meditarch.
KÖSE, V.
2005 The origin and development of market buildings in Hellenistic and Roman Asia Minor. In: S. Mitchell and C. Katsari (eds), *Patterns in the Economy of Roman Asia Minor*: 139-166. Swansea, Classical Press.
KOSMIN, P. J.
2011 The foundation and early life of Dura-Europus. In: G. Hoffman and L. Brady (eds), *Dura-Europus: Crossroads of Antiquity*: 150-176. Chicago, University of Chicago Press/McMullen Museum of Art.

- LERICHE, P.
 1996 Le Chr ophylakeion de Doura-Europos et la mise en place du plan hippodamien de la ville. In: M.-F. Boussac and A. Invernizzi (eds), *Archives et sc aux du monde hell nistique. Archive e sigilli nel mondo ellenistico*: 157-169. BCH Supplement 29. Ath nes, Ecole fran aise d'Ath nes.
- MACHATSCHEK, A. and SCHWARZ, M.
 1981 *Bauforschungen in Selge*. Vienna, Verlag der  sterreichischen Akademie der Wissenschaften.
- NIXON, C. E. V.
 2008 Jebel Khalid: Catalogue of Coins 2000-2006, *Mediterranean Archaeology* 21: 119-161.
 2002 The Coins. In: G. Clarke, P. Connor, L. Crewe, B. Frolich, H. Hackson, J. Littleton, C. E. V. Nixon, M. O'Hea, and D. Steele, *Jebel Khalid on the Euphrates*. Volume One: Report on Excavations 1986-1996: 291-335. Mediterranean Supplement 5. Sydney, Meditarch.
- ROSTOVTZEFF, M. I. and BROWN, F.
 1944 *The Excavations at Dura-Europos. Preliminary Report of the Ninth Season of Work 1935-1936. Part 1. The Agora and Bazaar*. New Haven, Yale University Press.
- STEELE, J.
 1992 *Hellenistic Architecture in Asia Minor*. London, Academy Editions.
- WARD-PERKINS, J. B.
 1981 *Roman Imperial Architecture*. New Haven, Yale University Press.
- WINTER, F. E.
 2006 *Studies in Hellenistic Architecture*. Toronto, University of Toronto Press.

The Monuments of Cyrrhus - Nebi Hourī

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Abstract

From 2006 to 2011, the Syrian-Lebanese Archaeological Expedition worked in Cyrrhus, investigating the territorial *intra* and *extra muros* occupation of the city, the fortifications, and the evolution of the town planning. The implementation of the research program started after exploring the visible monuments uncovered by the previous French mission and which remained largely unpublished. Kyrrhos/Cyrrhus was founded during the Hellenistic period and was annexed to the Roman Province of Syria until the middle of the 3rd century AD. The city declined following this period and was partly abandoned mainly due to the several and repeated incursions of the Parthians and the Sassanids. In the 5th century AD, Cyrrhus reappeared in the writings of Theodoret, Bishop of Cyrrhus, as an important centre for Christianity. The site recovered its importance in the 6th century AD under the reign of Justinian (565-527) before the Arab conquest in 637 AD that put an end to the city in 1150 AD, under the reign of Nur Al-Din Al Zengui. The site was known under many names: *Nebi Hourī*, *Nebi Huri*, *Herup-Pchimber*, *Chorres*, *Coros*, *Qorosh*, *Qurus*, *Guris*, *Corcia*, *Hagiopolis*, *Cyr*, *Cyrus*, *Cyrrhus*, and *Kyrrhos*.

Today the site is best known as: Nebi Hourī, Qorosh, Cyrrhus, or by its Turkish or Kurdish name Herup-Pchimber (Chapot 1907: 340). In 1607, H. Maundrell, in his book *A Journey from Aleppo to Jerusalem at Easter* (Maundrell 1810: 2), employed the name 'Corus' under which the city was commonly known in Islamic Period sources. In 1745, R. Pococke referred also to Corus in his text and proposed to identify the site with the antique city of Cyrrhus, capital of the entire region of so-called Cyrrhestica (Pococke 1745: 2, 153). A. Drummond, in 1754, endorsed this identification: '*Corus, anciently Cyrus, is a city of Cyrestice, of which the famous Theodoret was bishop. By Ptolomey it was called (Κυρρῶς), and in the council of chalcedon (Κυρῶς) and thence the country around acquired the name of Κυρρεστική, or Cyrestice*' (Drummond 1754: 200).

Research history

The exploration of Cyrrhus started in 1952 with the French Archaeological Expedition directed by E. Frézouls.¹ The survey and documentation of the site were initiated then. Studies and excavations were conducted on the Theatre (Figure 1) and many surrounding monuments, such as the Eastern Church, the main street, the southern temple, and the western houses. In 1955, the study of the fortification and the citadel were inaugurated with several excavations implemented on the defensive walls and on the northern and southern gates of the city. Unfortunately, neither the excavation's logbooks nor the publications mention these interventions. Only the field observations and some architectural plans testify to the operations done

on the fortifications. Outside of the defensive walls, the necropolis was investigated along with the Mausoleum. Soundings were opened on the main roads running to the south of the site between the Mausoleum and the Southern Gate. Results of the study of the main routes around the site led to the discovery of the tetrapylon and the mapping of the ancient bridges. The explorations of the French Mission were practically unpublished and few articles described the site, its history, and its monuments, with the exception of the Theatre (Frézouls 1997; 1983a; 1983b; 1969; 1954-1955; 1953).

In 2006, the Syrian-Lebanese Archaeological Expedition of Cyrrhus/Nebi-Hourī started again research and investigation of the site after more than 10 years of interruption. The main objectives of the new scientific program were the study of the entire historical occupation of the site from its foundation in the Hellenistic period to its destruction at the end of the 12th century AD, including the examination of unexplored monuments and analyses of the territorial occupation of the city, *intra* and *extra muros*. Investigations on the site revealed traces of the previous excavations, underlining the lack of information in the old publications. In order to fully understand the previous work done on Cyrrhus, the entire archives of the French Expedition² were studied and published in a first volume dedicated mainly to the theatre of Cyrrhus (Abdul Massih 2012).

¹ The mission was established by H. Seyrig, Director of the French Archaeological Institute of Beirut, and directed by E. Frézouls, first for the French Institute and later on for the University of Strasbourg, until 1995.

² My warmest gratitude goes to Mrs Andrée Frézouls for handing over the personal archives of her husband. I am also indebted to the Institut de Recherche sur l'Architecture Antique (IRAA), N. Bresch, M.-G. Froidevaux, and D. Longepierre, for allowing access to the graphic documentation of the French mission of Cyrrhus. This documentation work was made possible through a generous grant from the *Shelby White-Leon Levy Program for Archaeological Publications*.



Figure 1: The excavations in the Theatre (French Archaeological Mission, E. Frézouls, archive 1953).

Geography of the site

The ancient city of Cyrrhus is located in northwestern Syria, 70 km north of Aleppo and just a few meters from the Turkish border. The site is implemented in a fertile, hilly landscape on the northern end of the Kurd Dagh Mountain which extends to the east of the Amanus Mountains. The city is situated on a natural promontory overlooking the entire region and is bordered by the bed of the river Saboun Souyou, a tributary of the Afrin River, the *Oinoparas*³ of Strabo (Strabo: 16.2.8, cf. Honigmann 1923: I, n° 70, 164 and II, n° 262, 9-10). The site is thus naturally delimited to the east and the north by the river bed deeply dug into the limestone bedrock, and on its southeastern side is protected by two steep hills, the Qalaa and the Golgovan. The Qalaa, the lower

of the two mounds, is occupied by the Acropolis and later on by the Citadel, and dominates the plateau sloping towards the valley. It is on this plateau as well as on the Qalaa, that the city of Kyrrhos was established (Figure 2).

The original foundation and urbanism of the city

The Hellenistic site is implemented in a naturally fortified environment with a citadel playing the role of the acropolis. The citadel and the lower town were fortified by stone walls built on a polygonal foundation similar in construction technique to the ramparts of Antioch and Apamea on the Euphrates (Figure 3). Today, the original Hellenistic fortification is covered by later walls dated to different phases of construction. The shaped stone walls were mainly constructed during the 6th century AD under the program of reinforcement of the *Limes* by emperor Justinian. However, additions and restorations are dated to the latest occupation phases,

³ Frézouls 1977: 164-197. The *Oinoparas* is the transcription from the Aramean *'ain ap-ri-e*. *'ain*=spring is well spread in the Semitic toponymy and is transcribed in Greek as *oino* (Bousdroukis 2003: 15-18).



Figure 2: The Citadel and the Wadi of the Saboun River, view from the south (© Syrian-Lebanese Excavation).



Figure 3: The masonry of the fortification, segment of the rampart in the Citadel (© Syrian-Lebanese Excavation).

corresponding to the Islamic periods between 637 AD and the end of the 12th century AD, the date of the abandonment and dismantling of the site.

The Hellenistic fortification wall

Built on the edges of the plateau the city wall encircles the entire lower city and the Acropolis. However, an absence of polygonal masonry was observed on the eastern rampart of the citadel and on a portion of the southern wall of the lower city (Figure 4). The recent excavations of tower 3 of the Citadel⁴ revealed in its foundation a polygonal tower of rectangular shape overlapping the rampart. Regular segments of polygonal masonry were also observed in the foundation walls of the citadel and over nearly the entire fortification. Only a segment of the southern rampart, running from tower 5 to tower 10, and comprising the Southern Gate, lacked this type of masonry. Investigations on this segment of the fortification revealed an early line of defence developing much more to the north of the current city wall.⁵ This new line of fortification is characterized by regular segments, 50 m long,⁶ built of polygonal masonries. The rectangular tower overlapping the rampart has the same dimension (approximately 16.80 m long and 11 m wide) as the tower laying underneath tower 3 of the Citadel (Gelin in press). The early wall revealed the presence of a line of fortification running from the slope of the Acropolis towards the northeast and connecting where the main street undergoes a change in direction. The changes

⁴ Research led by M. Gelin (CNRS-France).

⁵ Research led by J. Abdul Massih (UL), M. Gelin (CNRS-France), and S. Al Shbib (DGAMS).

⁶ Observations and drawings made by J. Humbert.

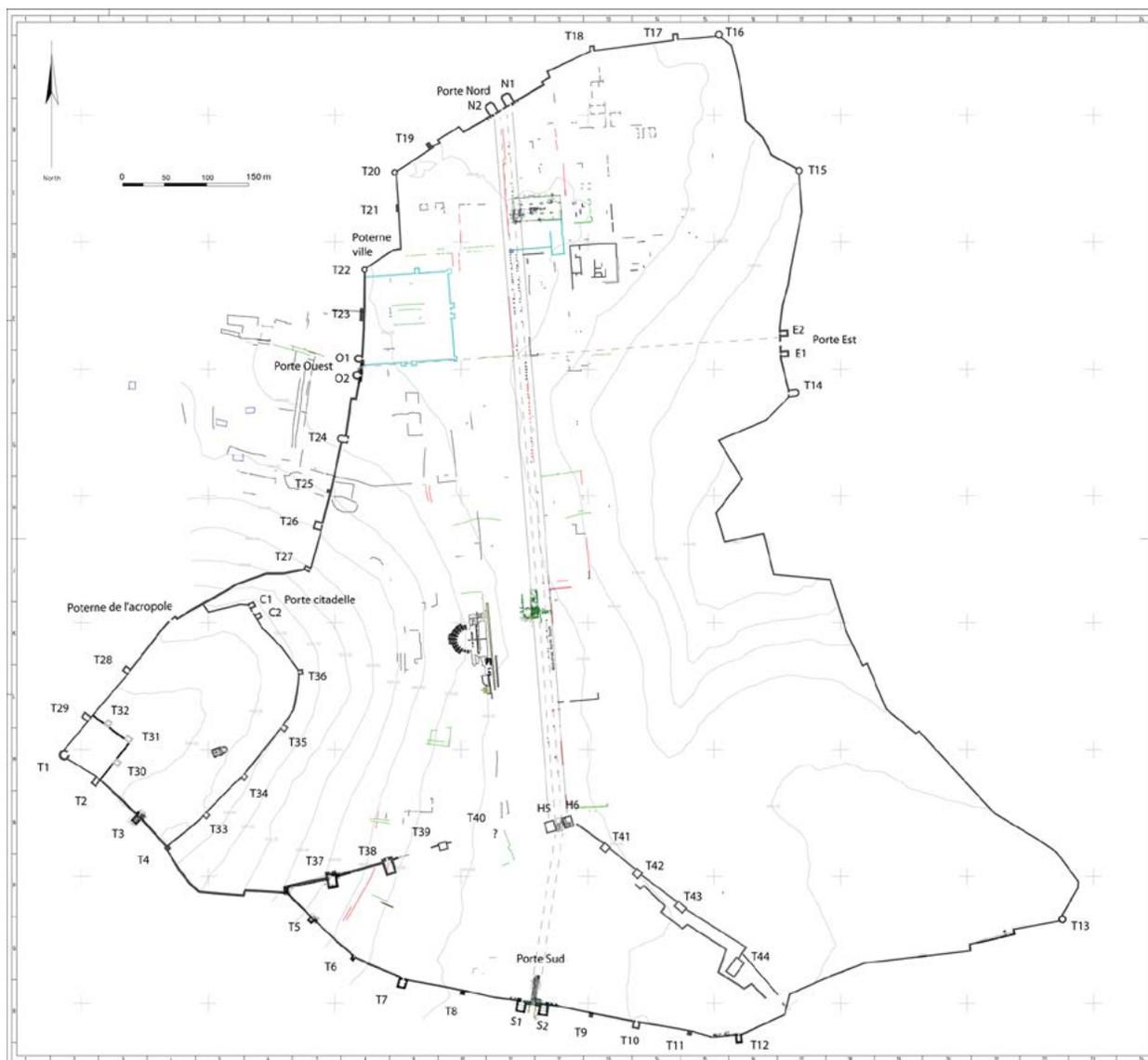


Figure 4: Map of the site of Cyrrhus (Syrian-Lebanese Excavation, S. Baier and S. Knetchel).

observed in its linearity in the southern part of the site were elucidated by the discovery of evidence of the first main gate of the city,⁷ corresponding to the alignment of the uncovered first fortification wall (Abdul Massih in press) (Figure 5).

The Hellenistic town planning

These evidences were then reinforced by the geophysical survey⁸ conducted in the southern part of the city and by investigations on the alignment of the main street (Figure 6). The general town planning of the city followed an orthogonal grid taking the direction of the north-south Main Street. Indeed, inside the walls

the city is planned on a north-south axis, materialized by the main street that gives the general direction to the entire orthogonal urban plan. Orthogonal secondary streets created islands dividing the surface of the site where monuments from the different periods of occupation were built.

Cyrrhus, the Roman city

It is on this original urban plan that the Romans established their city. After the conquest of Pompey and a period of instability that marked the end of the Hellenistic era, the city is attested again in the written sources under its Roman name Cyrrhus. Under Roman rule, the Main Street was fitted with porticoes and a colonnaded street; another new street, perpendicular to the main one, linked the eastern gate to the western one. These streets were entirely paved with basalt

⁷ Research on the first gate led by J. Abdul Massih.
⁸ The geophysical survey was undertaken by C. Benech (CNRS-France).

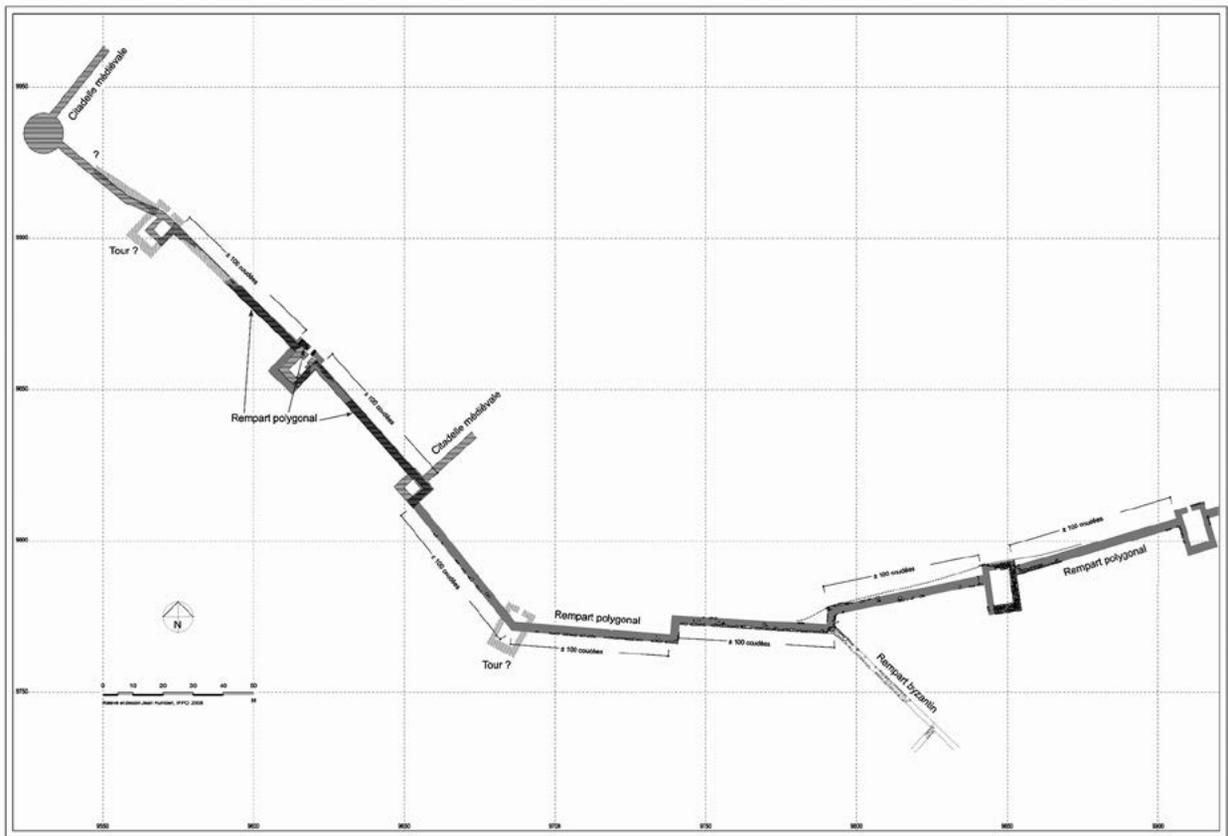


Figure 5: Map of the southern polygonal fortification (Syrian-Lebanese Excavation, J. Humbert).



Figure 6: Map of the geophysical survey in the southern part of the city (Syrian-Lebanese Excavation, C. Benech).



Figure 7: Aerial view of the Theatre (Syrian-Lebanese Excavation, Y. Guichard).

slabs. They delimited the major monuments that were integrated into the original islands of the Hellenistic plan (See Fig. 4).

The military and economic aspects

Cyrrhus played a military role due to its geographical position near the Roman *Limes*. The city became, as during the Hellenistic Period, a military centre established against the Parthians. Several military inscriptions and stelae discovered in Cyrrhus attest to the important Roman military presence in the city. The presence of the *Legio X Fretensis* in Cyrrhus, attested by numerous sources,⁹ confirms the military role of the city.¹⁰ E. Frézouls (2012: 91) endorsed in his writings the military importance of Cyrrhus but underlined the absence of any economic inscription or text even if the city was established on a major axis of communication. At the end of the Roman period, the major trade route passed, indeed, way south of Cyrrhus and connected the Mediterranean Sea to the Euphrates through the city of Hierapolis (modern Pamukkale). Cyrrhus lived and prospered partly from its military position, as well

as from the northern axis of communication leading to the kingdom of Commagene.

The documentation of the monuments helped us to identify the Roman camp, mainly due to the occupation plan and the repartition of the rooms. The presence of an important room entirely paved with very fine mosaics was discovered. This room suffered from many lootings and destructions. Nevertheless, the richness of the pavement and the plan of the room suggest that it might be in the *Principia* of the Roman Camp (see Fig. 4). These observations can only be confirmed by further excavations on the site.

The prosperity of the city

The prosperity attested by the numerous monetary issues which succeeded one another over 150 years, from Trajan to the Philippians, is reinforced by the richness of the monuments, notably by the architectural and sculptural wealth of the Theatre.

The Theatre

Built in the mid 2nd century AD, the Theatre is the second largest Roman theatre in Syria (Frézouls 1989), being nearly 100 m in diameter (Figure 7). Its lower seats, cut from a beautiful white limestone, were

⁹ Tacitus, II, 57: *Cyrrhi... apud hiberna decumae legionis*.

¹⁰ In 2008, investigations made in the immediate surroundings of the site revealed the installation of the military Roman camp in the northwestern part of the site, outside the city walls.

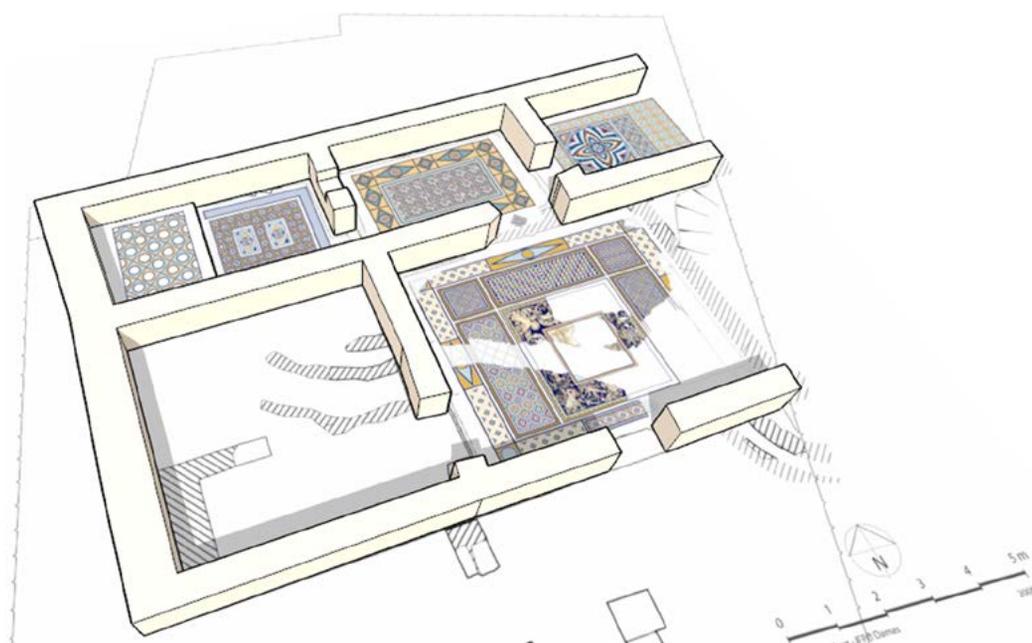


Figure 8: Restitution of the mosaic pavement of the Roman House (Syrian-Lebanese Excavation Mission, R. Yassine).

preserved along with the orchestra that is surrounded by a high parapet and a passage giving access to small steps in the hemicycle. The stage (*scenae*) wall alternates with graceful niches and side entrances that were once vaulted. Under the preserved benches the foundations of the monument made of stone and rubble are still visible. This masonry supported rows of seats, still discernible until row 24. Beyond, a large gallery allowed the circulation of spectators between the lower and the upper part of the Theatre.

On row 24 the lowest seats are made of benches cut from stones and fitted with armrests decorated with dolphins, and a back on which the names of privileged spectators were carved. From the upper part of the edifice, only the remains of the substructures, constituted of stone pillars that supported a second and possibly third flight of steps, were preserved. In the orchestra, a multitude of architectural blocks were uncovered. They were carved from a variety of coloured stones, such as granite cipolin, marble, and different limestone varieties, testifying to the richness of the decorations of the monument. This richness in decoration was also observed in the Roman House.

The Roman House

The discovery made in 2008 of the remains of a Roman house¹¹ (Figure 8), dated from the end of the

2nd century AD/beginning of the 3rd century AD, highlighted again the richness and prosperity of the end of the 2nd century AD period at Cyrrhus. This house, mostly destroyed in its elevation, revealed stunning architectural decoration. The quality of the mosaic pavements and the wall paintings confirms the presence on site of skilled craftsmen and artisans who could compete with artisans from major centres, such as Antioch and Zeugma.

Unfortunately, all these prosperous cities in Northern Syria will be destabilized, starting from the 3rd century AD, by the growing threat of the Sassanids. In 256, Shapur I enters the region with the aim of conquering Antioch, destroying on his way many cities, i.e. Hatra and Dura-Europos. Cyrrhus vanishes, at that time, from all written sources. Excavations, however, yielded no indications of destruction, and archaeological remains attest to an absence of battle or any direct confrontation with the Sassanids. Nevertheless, a partial abandonment is a possible hypothesis that would have resulted in a complete degradation of the city and its prominent installations.

Cyrrhus, centre of Christianity

At the beginning of the 5th century AD, the city reappears in the writings of Bishop Theodoret (423-457 AD)¹² as the centre for an entire region. The Christian

¹¹ In 2010, the exterior walls of the house were rebuilt, preserving the floor plan and the decorative features, and illustrating the various phases of excavations and occupations of the Roman House. The

project was funded by the World Monument Fund/Wilson Foundation Challenge Program.

¹² Theodoret: *Histoire ecclésiastique*, II, Livres III-V; *Correspondance*

diocese extended over 103 km² and comprised more than 800 churches, implying a high population density and a great territorial authority administered by the city of Cyrrhus. However, the dilapidation of the city is reported by the Bishop, who completed numerous constructions and restorations. Of the city itself, scarce information is present in his writings; only a few buildings are mentioned, such as the basilica of Saint Cosmas and Saint Damian, the Chapel of the Apostles, the Chapel of the Prophets, and the neighbouring cloister. Despite the presence of a great number of churches and chapels identified on the site, none of the above-mentioned monuments could be identified with certainty.

In the 6th century AD, a wide program of embellishment and reconstruction was established by Justinian (527-565). It is most certainly under his reign that Cyrrhus/Hagiopolis¹³ enjoyed renewed prosperity. The fortifications and numerous religious monuments were rebuilt and restored.

The city wall

The reconstruction of the fortifications by Justinian is reported by Procopius, and the inscriptions carved on the southern gate and on the citadel gate dedicated to Justinian, Theodora, and Belisarius (Jalabert and Mouterde 1929: nos 145-147; Procopius, II, 11) (Figure 9). Another metric inscription discovered in the *Cardo Maximus* expresses the recognition of the city towards Justinian and the *Domestikos* Eustathius for the reconstruction of the fortification (Alpi 2011).

The study of the rampart showed that the reconstruction of the city wall followed mainly the construction line of the early rampart. However, on the southern part, the surface area of the city was extended by implementing a new line of fortifications joining in a straight line towers 3 and 10. On this new defence segment many buttresses¹⁴ were implemented, along with a completely new Southern Gate¹⁵ that was built to the southwest of the alignment of the main street. Repairs and reconstructions were visible over the entire southern fortifications, as well as on the Citadel. However, it seems that the eastern limit of the Citadel was totally rebuilt in a new location, away from the



Figure 9: Inscription dedicated to Justinian on the Citadel Gate (© Syrian-Lebanese Excavation).

initial alignment. The original eastern limit remains unidentified despite several investigations¹⁶ conducted in the upper Citadel.

The chapel of the Citadel

During the archaeological investigations, a small church c. 10 m long by 5 m wide was discovered. Built of rubble stones, the chapel consists of a single rectangular space delimited in its eastern extension by an apse. The access door is located in the centre of the southern wall. Its attribution to the Christian period rests solely on the plan and orientation of the building. The archaeological material does not give a precise indication, since the chapel is located on the breaking slope of the upper city. This type of chapel is not unique on the site. Another small one was discovered during excavations of the original city gate and was attributed to a late period in the Byzantine era or to the early Islamic occupation (7th century AD).

(Epist. Sirm) (SC 98, 111); *Ep. Ad Anatolium magistrum militum* PG 84, col. 746-749 (ACO, I, 4, 160-161). Four previous bishops preceded Theodoret as head of the archbishopric of Cyrrhus.

¹³ The name Hagiopolis is related to the pilgrimage site, i.e. Cyrrhus, where Saint Cosmas and Saint Damian were believed to have lived. Bishop Theodoret reports that they were probably buried in the basilica named after them.

¹⁴ The fortifications of Cyrrhus in the Byzantine period were mainly studied by S. Al-Shbib (DGAMS) for his PhD dissertation defended successfully in 2015.

¹⁵ This gate is composed of two towers protecting the entrance of the city and was entirely paved with slabs of basalt and limestone.

¹⁶ By M. Gelin (CNRS-France).



Figure 10: The Pillar Basilica and the Cathedral, aerial view (Syrian-Lebanese Excavation, Y. Guichard).

Many religious monuments dated to the 6th century AD dominate the landscape of the city, i.e. the Cathedral, Basilica, and Church of the Theatre.¹⁷

The Cathedral

The cathedral is a large square monument protected by a rectangular enclosure built against the western fortification to the south of the western Gate (Figure 10). Its three doors are flanked by low towers, most likely built with reused blocks extracted from the second floor of the theatre. The centre of the enclosure is occupied by the remains of a Christian basilica (41 m long and 23 m wide) facing east. While the plan is still recognizable, with a porch fitted with fluted columns¹⁸ and visible bases, and an apse flanked by two sacristies, the remains are poorly conserved. It is likely that this edifice was destroyed by the reusing of the stones for the construction of the great Umayyad mosque of Aleppo (Ibn Al-Chihna 1933: 57).

The Pillar Basilica

The description of the Chapel of the Prophets and the neighbouring cloister seems to correspond to the so-

¹⁷ The names given to these monumental churches are those used by the archaeologists of the French Mission and do not imply a definitive identification.

¹⁸ The church was most probably built on the remains of a previous temple. The geophysical investigation yielded no results and the monument has not yet been excavated.

called 'Basilica', located along the eastern side of the main street, leading to the northern gate. The basilica measures 57 m in length and is 25 m wide, and includes pillars. It has three square naves oriented towards the east. An imposing architectural ensemble, probably a cloister, was added to the south of the Basilica (Figure 10). The Byzantine basilica was installed on ancient Roman monuments: at least two levels of flooring covered with mosaics were discovered inside the church but were, unfortunately, completely looted. At a later period, after it was abandoned, the building appears to have been occupied by presses. It is also quite possible that the old church was reused as a mosque in the Islamic period. Current researches¹⁹ focus on understanding the various transformations of the building and on identifying the occupational chronological sequence.

The Church of the Theatre

The church is located to the east of the Theatre along the main street parallel to the north-south axis of circulation. It was built on a previous rectangular monument corresponding to the first phase of occupation, when traffic on the main street occupied the entire width of the street and its porticoes (Figure 11). In a second phase the building extended to the east, to the detriment of the porticoes. Indeed, a platform and a monumental staircase overlooking

¹⁹ The study of the Pillar Basilica was carried out by N. Panayot-Haroun (Balamand University, Lebanon).



Figure 11: The Church east of the Theatre (Syrian-Lebanese Excavation, Y. Guichard).

the street were built on the location of the western portico. The encroachment of the church on the main street's porticoes, in the last phase of occupation of the Christian monument, reduced the width of the edifice. The incorporation of the porticoes into various monuments on the site is observed on many religious buildings in the northern part of the city, i.e. the basilica, as well as on the segment of the main street near the southern gate. Many edifices of this late period were built according to the visible old urban plan, even if several of them along the main street encroached on the porticoes. This continuity in respecting the original urban plan on the site is to vanish, however, during the last phase of occupation at Cyrrhus.

In 637 Arab armies conquered the city of Cyrrhus/ Qurus. The Arabs settled down in the fortified limits of the city and occupied many monuments of the site. The circulation in the main street was reduced to a narrow, earthen street. The site occupation was centred then around the Citadel, Theatre, and Southern Gate, where

geophysical imagery revealed the presence of an entire quarter of commercial installations, built most probably in this last phase along the main street. The direction of these constructions followed the segment of the main street that runs towards the south-west, giving to the area a completely different alignment to the original general plan. This new area was delimited towards the north by a semi-circular line representing the line of the first fortification, which must have been destroyed at that time but was still marking the territory.

The precise date of these installations cannot be confirmed without further excavations, given that the site was reoccupied by the Byzantines in the early 11th century AD, but re-conquered and totally dismantled by Nur Al-Din Al Zengui in 1150 AD.

Today, the site is known by the local population of the region as Nebi Hourî (Figure 12), the Roman Mausoleum that was reused as a burial place for a legendary Muslim in the 14th century AD (Al-Harawi 1957).



Figure 12: The Nebi Huri (credits???)

Bibliography

Ancient sources

IBN AL-CHIHNA

1933 *Les perles choisies d'Ibn Ach-Chihna: matériaux pour servir à l'histoire d'Alep*. Translation, J. Sauvaget. Beyrouth.

PROCOPIUS

De aedificiis. Ed. and trans. H. B. Dewing (LCL). Cambridge and London 1954. II, 11.

STRABO

Geography. Ed. and trans. H. L. Jones (LCL). Cambridge and London 1954. VII, Books XV-XVI.

TACITUS

Annales. Livres I-II, Ed. and trans. H. Goelzer (CUF). Paris 1938.

THÉODORET

Histoire ecclésiastique. II, Livres III-V. Ed. A. Martin and trans. P. Canivet (SC 530) Paris 2009.

Correspondance (Epist. Sirm.). Ed. and trans. Y. Azéma (SC 98, 111). Paris 1964-1965.

Ep. Ad Anatolium magistrum militum (= Synodicon aduersus tragoediam Irenaei, CXXXIII [221]), PG 84, col. 746-749 (ACO, I, 4, 160-161).

Modern studies

ABDUL MASSIH, J. (ed.)
In press *Cyrrhus 3*.

2012 *Cyrrhus 1. Le théâtre de Cyrrhus d'après les archives d'Edmond Frézouls*. Bibliothèque archéologique et historique 196. Beirut, IFPO.

AL-HARAWĪ

1957 *Guide des lieux de pèlerinage*. Ed. and trans. J. Sourdel-Thomine. Damas.

ALPI, F.

2011 Base de statue de Justinien ornée d'une inscription métrique (Cyrrhus, Euphratésie), *Syria* 88: 341-349.

AL SHBIB, S.

2015 *Les fortifications de Cyrrhus-Nebi Hourī, de la période hellénistique à la reconstruction par Justinien*. Unpublished PhD dissertation, Université de Paris 1.

BOUSDROUKIS, A.

2003 Les noms des colonies séleucides au Proche-Orient, *La Syrie Hellenistique, Topoi*, suppl. 4: 9-24.

CHAPOT, V.

1907 *La frontière de l'Euphrate de Pompée à la conquête arabe*. Paris, A. Fontemoing.

DRUMMOND, A.

1754 *Travels through Different Cities of Germany... and Several Parts of Asia as far as the Bank of the Euphrates*. London, W. Strahan.

FRÉZOULS, E.

2012 *Cyrrhus dans l'histoire de la Syrie du Nord*. In: J. Abdul Massih (ed.), *Le théâtre de Cyrrhus d'après les archives d'Edmond Frézouls*: 77-102. Bibliothèque archéologique et historique 196. Beyrouth, IFPO.

1997 Les maisons à l'ouest du théâtre de Cyrrhus. In: C. Castel, M. Al-Maqdissi and F. Villeneuve (eds), *Les*

- maisons de la Syrie antique du IIIe millénaire aux débuts de l'Islam*. Pratiques et représentations de l'espace domestique. Actes du Colloque International, Damas 27-30 juin 1992: 167-172. Beyrouth, IFPO.
- 1989 Les édifices des spectacles en Syrie. In: J.-M. Dentzer and W. Orthmann (eds), *Archéologie et histoire de la Syrie. II, La Syrie de l'époque achéménide à l'avènement de l'Islam*: 385-406. Saarbrücken, de Boccard.
- 1983a Cyrrhus, *Le Monde de la Bible*, 28 mars-avril 15-17.
- 1983b Les édifices de spectacle, *Le Monde de la Bible*, 28 mars-avril: 35-37.
- 1977 Cyrrhus et la Cyrrestique jusqu'à la fin du Haut-Empire. In: *Aufstieg der römischen Welt*, 8: 164-197. Berlin, Walter de Gruyter.
- 1969 L'exploration archéologique de Cyrrhus. In: J. Balty (ed.), *Apamée de Syrie: bilan des recherches archéologiques 1965-1968*, Actes du colloque tenu à Bruxelles les 29 et 30 avril 1969: 81-91. Bruxelles, Centre belge de recherches archéologiques à Apamée de Syrie.
- 1954-1955 Recherches historiques et archéologiques sur la ville de Cyrrhus, *Annales Archéologiques Arabes Syriennes* 4-5: 89-128.
- 1953 Inscription de Cyrrhus relative à Q. Marcus Turbo, *Syria* 30: 245-278.
- GELIN, M.
In press Cyrrhus-Nebi Hourri. La première limite de la ville, étude archéologique et géophysique des fortifications. In: *Actes du colloque de l'ANR PROGECESA* (Juin 2012).
- HONIGMANN, E.
1924 Historische Topographie von Nordsyrien im Altertum. [2], *ZDPV* 47: 1-64.
1923 Historische Topographie von Nordsyrien im Altertum [1], *ZDPV* 46: 149-193.
- JALABERT, L. and MOUTERDE, R.
1929 *IGLS 1, Commagène et Cyrrestique*. Bibliothèque archéologique et historique 12. Paris, Geuthner.
- MAUNDRELL, H.
1810 *A journey from Aleppo to Jerusalem at Easter A.D. 1697*. London, printed at the Theatre for A. Peifley.
- POCOCKE, R.
1745 *A description of the east and some other countries*. Vol. 2. London, Bowyer.

Archaeological and Architectural Studies in Northern Syria (Dead Cities): General Presentation with Three Missions in El-Bâra and Ruweiha

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Abstract

The 'dead cities', as they used to be called, in northern Syria constitute one of the most wonderful archaeological sites in the world. They consist of over 700 sites dating to the Roman and Byzantine periods and extend over a wide area between Turkey in the north, Apamea in the south, the Afrin and Orontes valleys in the west, and the Aleppo plain in the east. They also occupy a number of the Limestone Mountains called the 'Limestone Block'. The surface area of this block is about 2000 km² and comprises the Simeon and Halaqa mountains in the north, Barisha and A'ala in the central area, and the Zawiya in the south.

The significance of the sites of the Dead Cities does not lie in their number but rather in their rural nature. They are not cities but old villages from the Roman period surrounded sometimes by stonewalls forming cadastral networks. The civilizations that date back to the end of the classical period are definitely urban civilizations, but they relied fundamentally on the rural areas in which the vast majority of people lived and worked and which essentially determined the level of their wealth. The villages and rural areas of the Roman and Byzantine periods are not well known: on one hand, textual sources were written by city dwellers who did not know the rural world very well, and, on the other, archaeological remains of those villages are largely destroyed. But the case is the exact opposite in northern Syria, where such ruins have been exceptionally preserved. The villages that are better preserved are often in full-integrated groups.

As of 1994, the French mission has become a joint Syrian-French mission which allowed enhanced cooperation with the Department of Museums and Antiquities, in the framework of real scientific partnership. New excavations were launched in El-B ra (2006) and in Ruweiha (2008) and a project for an archaeological reference map of the geographical area was created.

Excavations at El-B ra Village

El-B ra is situated in one of the most fertile areas of the Limestone Block in a valley whose soils are formed of the decomposition of the limestone and the basalt. This village is the biggest ancient town in the Jebel Al-Zawiya. It covers an area of about 2 km from north to south and 1 km from west to east. Since 2007, an

ambitious research program was created at El-B ra. It deals with the method of occupation and development of this big rural town that differs from the other villages of the Limestone Block on several points: 1) its dimension (more than 50 ha) similar to the ones of an authentic town, even though its organization is that of a traditional village; 2) its development, which seems to be different chronologically from the other villages in the Limestone Block; 3) its numerous post-Byzantine archaeological remains that show a sustained occupation well after the Arab-Islamic conquest and probably until just after the Umayyad era.

The archaeological excavations spread over an area of c. 1 ha located in the central part of the ancient town composed of two large buildings excavated between 2007 and 2010, public baths which were converted into housing, and a fully preserved large mosque identified thanks to a *mihrab*.

The baths

Excavations have shown that there were four main phases of occupation: 1) the construction of the Proto-Byzantine baths; 2) the conversion of these baths into hammams at the beginning of Islam; 3) a phase when the baths were abandoned during the 11th century AD; 4) The conversion of the baths into housing during the Mameluke period.

The mosque

In its initial condition, the mosque consisted of a much larger architectural grouping. For a long time it has been considered as belonging to the Medieval period,

but it could have been built at the beginning of the Abbasid period. Established on older constructions, it is part of the centre of a town, of which one of the first phases of occupation could be prior to the Proto-Byzantine buildings.

In its early phase, the mosque could have been contemporary with the public baths that used to operate like common baths before they were changed into hammams. In spite of the small, still cleared surface area, the outsides seem to have been planned to constitute the beginning of road works in the surroundings of a huge mosque, which was built in the early Abbasid period within the context of an urbanization plan for a large village.

The Ruweiha Village Excavations

Ruweiha is a large village characterized by its elevated position northeast of Jebel Al-Zawiya. It is surrounded by valleys, separating it from Jerade village and agricultural plains. It contains perfectly preserved archaeological buildings made of local limestone. Most of the village dates to the Byzantine period. Ruweiha village is home to several important historic buildings, including the Church of Bissos to the northeast, dating to the 6th century AD. Two tombs flank the church: one is in the form of a Roman temple dating to the 4th century AD and the second has a dome. Another church from the 5th century AD is located to the south. To the east, a tomb, dating to the end of the 4th century AD, has also the shape of a temple. The village is additionally abundant in large residential buildings that are still well preserved.

Ruweiha contains Roman ruins located particularly in the western part of the village, as well as in its centre. For example, House 13 was built following construction techniques different from those adopted in the other dwellings belonging to the Byzantine era. Its decorations, moreover, indicate that it dates to the pre-Christian era. In comparison with both Serjilla and El-Bâra, Ruweiha is one of the most undisputed archaeological sites in the region, given that numerous assumptions have been presented regarding El-Bâra site in terms of the nature of settlement in the Roman era and during the transition period to the Byzantine era. However, systematic archaeological excavations should be carried out at the site to fully understand the Roman presence.

Some researchers, such as H. C. Butler and G. Tchalenko, suggested the existence of public open spaces or agoras (marketplaces) in some of the villages of the Limestone Massif, for example at Dehes and Dar Quita in Jebel Barisha and Ruweiha in Jebel Al-Zawiya. Previous studies conducted by Tchalenko indicated that Ruweiha village witnessed the beginning of urban planning, as

evidenced by Building 22, consisting of a two-story portico, located in the centre of the village. It is thought to be a market or a commercial exchange centre. In addition, wealthy landowners built large villas, made of stone, in the late 5th century AD and during the 6th century AD.

Notwithstanding these hypotheses, G. Tate believes that those structures were merely residential buildings. He argued that Butler's proposition was based on the existence of squarely shaped public buildings whose sides are 40 m in length. Tate refuted this hypothesis on the grounds that the data was not valid, as the sides of the buildings are 35 m long not 40. These measurements are customary in the houses of Jebel Al-Zawiya, especially in Ruweiha.

The Syrian-French mission working in Ruweiha village carried out the following work: 1) conducting archaeological field surveys in Ruweiha using topographic equipment in order to record and draw the ruins located in the agricultural fields surrounding the site; 2) conducting archaeological excavations in Building 22; 3) studying the decorative elements in the residential buildings at this site and the neighbouring ones. Excavations in Building 22 in Ruweiha, were carried out in order to test the above-mentioned hypotheses. In addition, various parts of the building and its surroundings were inspected, which proved its occupation during the Byzantine period up until the Islamic era.

Selective bibliography (publications since 2010)

- ABDULKARIM, M.
 2013 Ruweiha, un village du massif calcaire de la Syrie du Nord: nouvelles études archéologiques, *Topoi*, Suppl. 2: 271-284.
 2012 Les parcelles antiques dans la région de Ruweiha au nord de la Syrie, *Syria* 89: 195-211.
 2011a *Les villages antiques du massif calcaire du Nord de la Syrie*. Guide archéologique 9 (in Arabic). Beyrouth, Presse de l'IFPO.
 2011b Serjilla: a village of north Syria during the Roman-Byzantine period, *Journal of Historical Studies*: 89-123.
 2001 The Problem of Emessa, Homs and its refoundation in the Hellenistic period, *Annales Archéologiques Arabes Syriennes*, 44: 193-196 (in Arabic).
 ABDULKARIM, M., BILDGEN, P. and GILG, J.-P.
 2004a Télédétection et Géo-Archéologie: Étude des caractéristiques géologiques, hydrogéologiques et des terroirs des villages antiques du Gebel Siman en Syrie du Nord, *Photo-interprétation* 40/1: 17-26.
 2004b Comparaison des potentialités naturelles d'accueil du Gebel Siman et Zawiye, vis-à-vis des choix d'implantation des sites antiques romano-

- byzantins de Syrie du Nord, *Photo-interprétation* 40/1: 27-35.
- 2003 Les systèmes d'alimentation en eau au voisinage et dans les terroirs des villages antiques du Gebel Zawiyé, *Annales Archéologiques Arabes Syriennes* 45-46: 359-379.
- ABDULKARIM, M. and CHARPENTIER, G.
- 2012 Les fouilles archéologiques à Ruweiha dans le massif calcaire au nord de la Syrie, *Chronique archéologique en Syrie* VI: 339-342.
- 2010 Fouilles dans les bains d'El-Bara au nord de la Syrie, *Adyat Halab* 14: 7-19.
- 2009a Une première campagne d'étude sur la mosquée d'El-Bâra. In: Fr. Bloch (ed.), *Transformation Processes between Late Antiquity and Early Islam in Bilad al-Sham*, Proceedings of the International Conference held at Damascus 2006: 46-56. Damascus, German Archaeological Institute.
- 2009b La gestion de l'eau dans un village des campagnes de la Syrie du Nord. In: M. Al-Dbiyat and M. Mouton (eds), *Stratégies d'acquisition de l'eau et société*: 149-156. Bibliothèque historique et archéologique 186. Beyrouth, Presses de l'IFPO.
- ABDULKARIM, M. and OLESTI-VILLA, O.
- 2007 Les centuriations dans la province romaine de la Syrie, *Syria*: 249-276.
- 2011-2012 L'alimentation en eau de Serjilla en Syrie du Nord (époque romaine et byzantine), *Annales Archéologiques Arabes Syriennes* LIII-LIV: 77-89.
- BRAEMER, F., CASTEL, C., GEYER, B. and ABDULKARIM, M.
- 2010 *Conquest of new lands and water systems in the western Fertile Crescent (Central and Southern Syria)*. London, Springer Science.
- TATE, G., ABDULKARIM, M., CHARPENTIER, G., DUVETTE, C. and PIATON, C.
- 2014 *Serjilla. Village d'Apamène*. Beyrouth, Presses de l'IFPO.

Damascus

A New Place of Worship Dedicated to Zeus *Theandrios* inside the Temple Precinct of Damascene Jupiter

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Abstract

Recent archaeological work in 2009 uncovered important new remains well preserved in situ, inside a house near the present day Umayyad mosque which occupies the location of the temple of Jupiter. This structure has several notable architectural elements (pedestals, columns, ionic capitals, an arch, etc.) and a Greek inscription on a pedestal dedicated to the god Zeus Theandrios dated to 151 AD.

Location

The newly discovered structure is situated in the ancient city of Damascus, on the east side of the Umayyad mosque (Al-Rihawi 1963). It was hidden inside House no. 323, a few meters from the east wall of the mosque, inside the temenos and near the eastern gate of the temple of Jupiter, currently known as the Bāb Ġairūn (Figure 1).

Background

The ruins of the Jupiter Temple in Damascus have been well studied by many specialists since the early 20th century.¹ This temple has acquired a unique importance in the study and research of the city of Damascus as a sacred place that functioned uninterruptedly until the present day. An important question in its study concerns the problem of the time when the pagan sanctuary was transformed, first into a church and then into a mosque, with many of its architectural elements either lost or modified.

The most active research has focused on elements of the temple preserved within the Umayyad mosque, although there has also been work on written sources and inscriptions mentioning the temple (Bounni 2004). Some archaeological soundings were also done in the 1950s, behind the southern wall of the mosque,² but they did not uncover any new element belonging to the temple. Some years later, a new excavation took place

on the southern side of the Mosque.³ This excavation uncovered a new, hitherto unknown, element – the base of a fountain dated to the 2nd century AD (Al-Maqdissi 1995: 195) located in the southern part of the temenos. A reconstruction of this fountain was published in 2008.⁴ In the 1990s, a Syrian expedition conducted further soundings inside the mosque's courtyard. The objective of this work was to find the foundations of the temple, and reach the Bronze Age level.⁵ While we do not yet know the full results of this excavation, no major new elements were found that would alter the temple plan created by German researchers in 1921.⁶

The last archaeological work, carried out in 2009, uncovered important new remains well preserved in situ (Saad 2010). These new results allowed us, on one hand, to understand the organization of space inside the temenos and around the sanctuary cella, and on the other, to date the temple more accurately. In addition, they shed new light on previously unknown aspects of the temple cult.

The Discovery

In 2009, during the restoration work in the private house no. 323,⁷ part of an arch hidden under a coating of clay began to emerge in the western wall of the

¹ For research concerning the temple and the Roman city, see: Abd El-Kader 1949; Dussaud 1922; Sack 1989; Sauvaget 1946; Watzinger and Wutzinger 1921; Will 1994.

² In the archive of the Directorate General of Antiquities and Museum of Syria (DGAMS), the present author found a photograph from the 1950s recording the above soundings, carried out by J. Sauvaget. Unfortunately, no publications concerning it have been traced.

³ The digging site is located just 5 m from the southern wall of the mosque, in a location named Souk al-Ṣāḡah.

⁴ Results of this restoration were published in Arabic by 'Aqīli 2008: 27-36.

⁵ The work of the mission was led by A. Bounni. The results have not yet been published.

⁶ The plan, drawn by the Germans in 1921 (Watzinger and Wutzinger 1921), is the most complete one and is still being used by virtually all researchers.

⁷ The house had been abandoned for five years and its new owner had officially requested its restoration via the Council and the Department of Archaeology of Damascus.

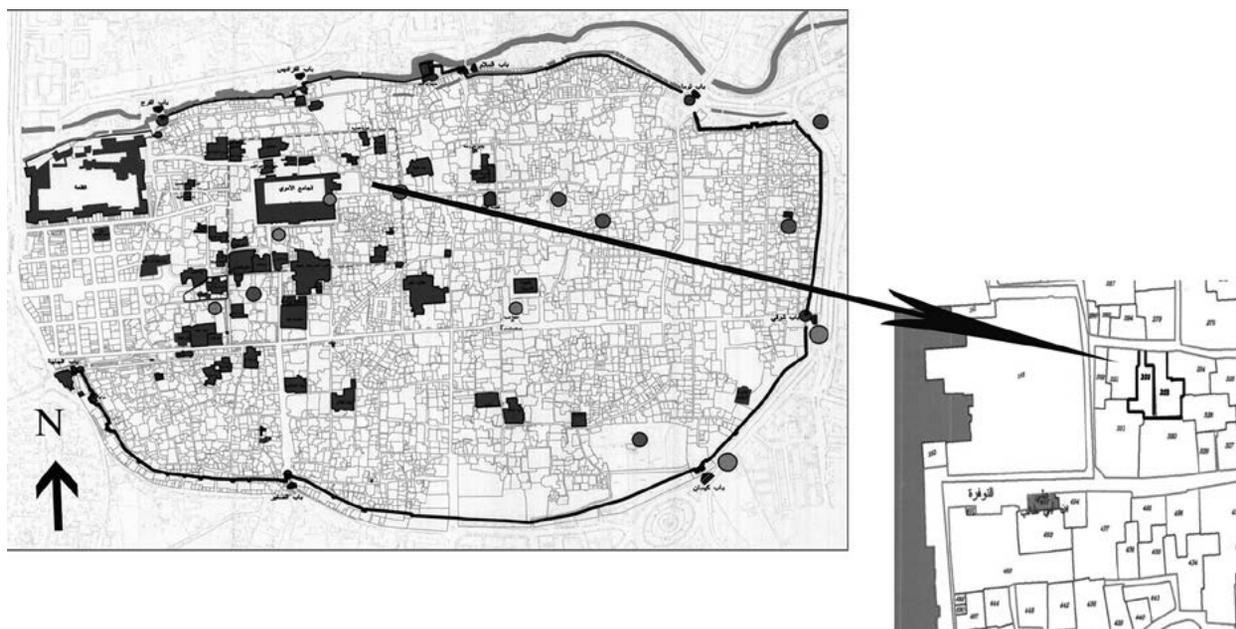


Figure 1: The location of the remains discovered on the map of Damascus (A. Dali).

courtyard.⁸ The house consists of two storeys: a ground floor (measuring nearly 100 m²) and a first floor. In the ground floor, the entrance is to the north, leading to a small courtyard with a fountain in the middle. This courtyard, surrounded by walls to the south and west, abuts two bedrooms to the east, and is accessible from the north, where a staircase leads also to the upper floor (Figure 2).

Fieldwork

Restoration work inside the house began on the western wall. The first element to be discovered was part of an arch (Figure 3). It was then deemed necessary to remove some more recent additions to continue the work of freeing the arch from the coat of clay. Once this work was completed, the removal of plaster remains uncovered columns in situ, although their bases were invisible due to the current ground level. Initial observations following this discovery helped clarify the existence of an earlier structure hidden behind the walls and under the present floor of the house.

The west wall

The length of this wall is 16 m. It is in this wall that the first remains were found (part of the arch). The process of cleaning the wall led to the uncovering of a well-preserved building in situ. This included the lower part

of the entablature of a part of a curved arch with four monolithic columns (A, B, C, and D), capped with Ionic capitals (Figure 4). In the northern part of the wall, near the entrance, a large stone building has been cut: At 4 m high, it bore the weight of the first floor. This structure marks the present boundary of the house on the north side where there is a small road. Inside the first floor room the capital of column D and part of the arch were found.

Following the appearance of the columns with capitals and the cleaning of the wall, four holes in front of the base of each column were dug in order to find if the bases remained and to establish the original floor level. These soundings, A, B, C, and D, were each 1.30 x 1.30 m, and 1.33 m in depth.

The results of the first sounding (A) brought to light the complete rectangular pedestal still well preserved in situ. Similar pedestals were found in all the other soundings. However, a precious discovery was made in sounding B in front of column B: a Greek inscription of five lines carefully engraved on the pedestal (Figure 5). This pedestal, rectangular like the others, was 0.35 x 0.74 m and with a height of 1.09 m. The text translates: 'To Zeus Theandrios, the lord, Publius Aelius Ariston son of Apollinarios dedicated (this) piously, 462',⁹ (150-151 AD).

Two other soundings were also carried out in the northern and southern ends of the wall. In the northern

⁸ The house is in the neighbourhood known as 'Amārah Ćaūāniha and has the number 323 in the cadastre of Damascus. The west wall of the house is also the wall of the neighbouring house, No. 322. From this, we can infer that the two houses were originally one, but were divided into two before 1925. Similar situations are well known, and are widespread in Damascus.

⁹ My thanks go to J.-L. Fournet, Director of Studies at the Ecole Pratique des Hautes Etudes and professor at the Collège de France, who helped translate the Greek text.

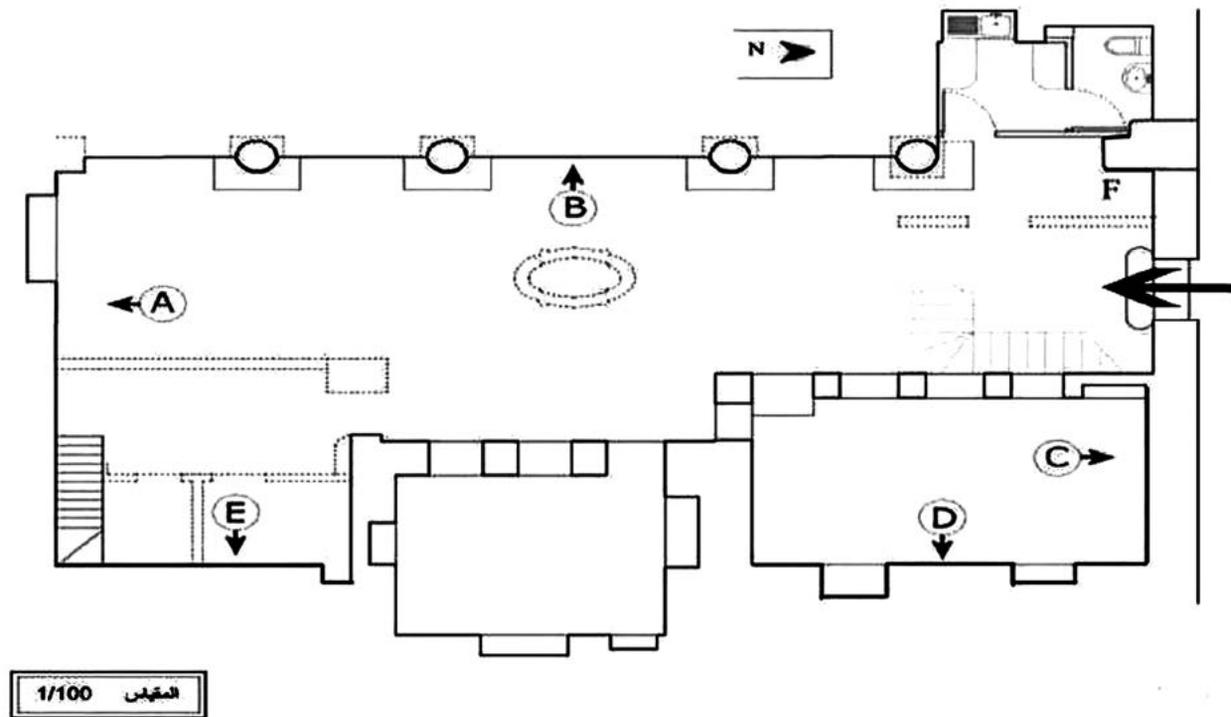


Figure 2: The current house plan (A, B, C, D, E, and F mark the location of the remains) (A. Dali).



Figure 3: The first element discovered on the western wall (photo: H. Saad).



Figure 4: The remains discovered inside the western wall (columns with Ionic capitals) (photo: H. Saad).

end, the height reaches 4 m; this end consists of five regular courses of large stones, carved from a corner, which were re-purposed as a pillar in the modern structure. The survey work uncovered here an intact pedestal cut into the same corner angle, as well as the stone pavement below.

In the southern end, the wall elevation is preserved to 7.85 m in height from the ground level of the house,

similar in construction to that on the northern one. It consists of five regular courses of large stones carved in the shape of a corner, with the corner topped by carved Ionic capitals on the outer sides. This capital serves to support the entablature to the west and south. The sounding carried out here also uncovered a corner pedestal with the slab pavement still in situ, well cut and well preserved, and identical to that found in the north.



Figure 5: Greek inscription on the pedestal (photo: H. Saad).

The south wall

The south wall is linked to the west wall, and is 7.50 m in length, 5.62 m in height from the current floor level of the house. The first uncovered element was the corner pillar topped by a joint capital with the west wall and by an *architrave clavée* in situ, although the position is slightly different from that on the opposite wall. At the bottom of this architrave there was a rear door 4.68 m high and 1.68 m wide. This door was later blocked with small stones and its upper part was used as a niche (Figure 6).

The sounding has demonstrated that the wall continued at the same level as the pedestal on the western wall. The foundation of the southern wall survives at the same level as the western one and the wall itself is recessed 10 cm relative to the foundation.

The results of this work led us to realize that the corner pillar and entablature relate to the western wall elements, but the door and certain parts of the wall are of a more recent period than the corner pillar and entablature.

The east wall

This wall was 15.62 m long and served as the boundary wall of the two ground floor bedrooms of the modern house. Removal of the clay coating and cleaning have shown that this is a wall built with large stones, and therefore, similar to those of the southern wall.

In the southern part of this wall, there is a semi-circular niche, 2.30 m high and 0.96 m wide, built into the wall at a height of 0.80 m from the present day ground level. Adjacent to it, to the north, there is another rectangular niche 2.20 m high and 0.96 m wide; part of this niche is hidden in the wall of the next room. Two other niches



Figure 6: The southern wall, with an architrave in situ. (Photo H. Saad)

of the same shape and size and in the same order are found in the northern part of the wall. The survey here demonstrated the continuation of the foundations of the wall at the same level as those of the western and southern walls, with identical construction to the southern wall.

The north wall

The entrance to the house is built into this wall, in addition to the staircase leading to the first floor. The cleaning operation has shown that much of the wall was destroyed and replaced by modern construction. Unfortunately, no sounding could be made here to check the foundation. In the middle of the wall was a corner pillar by the door of the modern house, which is linked to the western wall. We would expect the pillar to be topped by a capital similar in size and shape to the one uncovered in the southern part of the west wall, but it was lost, probably due to the destruction of the original structure. This wall marks the boundary with the street or later construction.

Results

The Jupiter Temple in Damascus was one of the most important temples in the region in Roman times. Originally, it was a sanctuary dedicated to the Aramaic god Hadad, mentioned twice in the Old Testament.¹⁰ Unfortunately, we have no remains of this Roman temple except an orthostat found reused in the foundations of the northern wall of the present mosque.¹¹

¹⁰ See in particular Dussaud 1922: 219-250.

¹¹ The orthostat is made from basalt and stored in the National Museum of Damascus. Emir Djafar published his study on it in 1949 (Abd el-Kader 1949: 191-195).

Textual sources and archaeological remains from the temple in the Persian and Seleucid periods are rare and fragmentary (Dussaud; 1922: 221; Watzinger and Wulzinger 1921: 41). Archaeological excavations uncovered no remains from these periods, apart from two Persian capitals. From the 2nd century BC there is some information regarding Damascene Jupiter from two inscriptions, found in Italy, and mentioning this god; one from Pozzuoli and the other from Rome.¹²

To the present author's knowledge, no inscriptions dedicated to Jupiter have been found in Damascus, so this temple was identified based on the inscription mentioned above, as well as some later literary sources (Seyrig 1950). Another inscription from the imperial period found in Bosra, south of Damascus, was dedicated to Damascene Zeus, rather than Jupiter (Aliquot 2008-2009: 89). An inscription dated to 90-91 AD found in Damascus attests the name of Zeus Damascene. This inscription mentions that the *Gamma*¹³ was built at the expense of Lord Zeus. Other inscriptions have been found but without references to specific gods, but rather indicating the construction of the sanctuary in several phases under Tiberius, Caligula, and Domitian, between the years 15 and 91 AD (Seyrig 1950). Other research confirms that the final plan of the temple was completed during the time of the Severan dynasty (Freyberger 1989), and that the temple was converted into church after the year 391 AD (Will 1994: 12).

The structure discussed here is dated by the inscription to 151 AD, and is the only inscription unearthed in Damascus to date. This was during the reign of Antoninus Pius, and there is little information on Damascus in this period in historical sources. Reconstruction of the architectural elements clearly show that we have a columned façade with a bow and a corner pillar on each side of the west wall, attached to the course of the walls at its northern and southern ends (Figure 7).

The first question to resolve is related to the identification of these elements, their function, and their dating. It was initially thought that they were part of a portico, but after the discovery of all the elements, we have abandoned this assumption for two reasons: first, the columns of the portico of the temenos, which are still visible in situ in some streets today appear on the German plan. They are larger than those of our building, and they are not monolithic. Second, the reconstruction of this new building clearly demonstrates that it is not aligned with any of the porticoes of the larger complex. Owing to this, as well

¹² For more information on these two inscriptions, see Aliquot 2008-2009: 83; V Tran tam Tinh 1972: 151-152.

¹³ Gamma: a market on the west side, and north of the outer wall of the temple. Its name comes from its resemblance to the Greek letter in shape.



Figure 7: Reconstruction of the remaining elements (Yves Ubelmann).



Figure 8: Western gate of the temple (photo: H. Saad).

as its location, it must have constituted an independent structure.

In fact, the arched façade, with columns and pillars at angles, reminds us of examples in small temples of the same period and in monumental façades – especially with regard to the shape of the arch – which are especially common in the eastern part of the Roman Empire (Donceel 1966). The shape of the arch resembles those on the western gate of the temple, where they still survive in situ (Figure 8). The same arch shape is also found in the reconstructed temple of Bel in Palmyra (Seyrig *et al.* 1968-1975), in the temple of Dumeir near

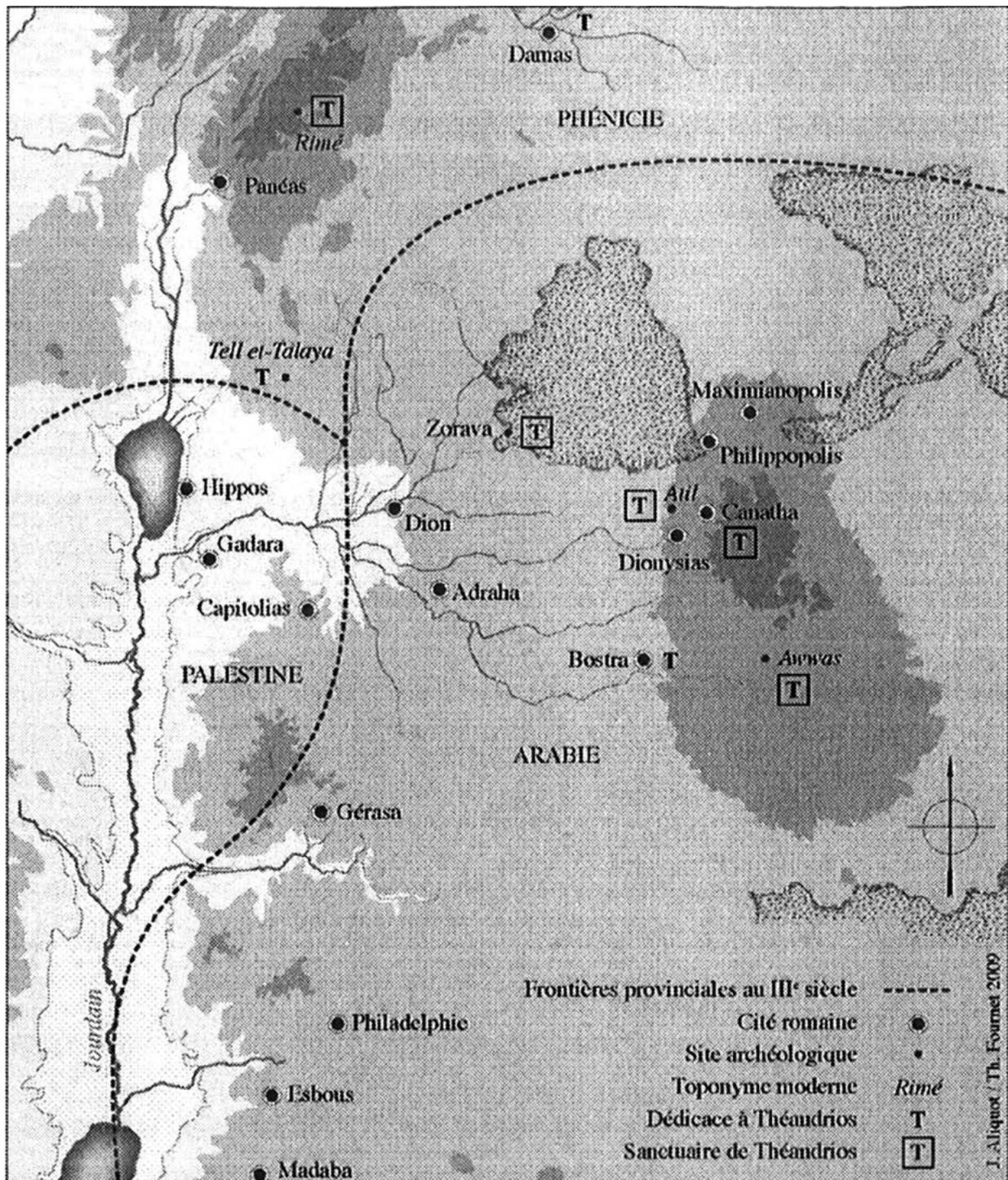


Figure 9: Map showing the worship places of Theandrios in Southern Syria (Aliquot 2010: 374).

Damascus,¹⁴ and in the temple of Zeus Baetokaïke ('Aqili 2008: 30; Klengel 1976: 166-170). Looking at other small temples from the same period, the arched façade of Damascus can be compared with that of the Temple of Hadrian in Ephesus (Krinzinger *et al.* 2008) dated to

the first half of the 2nd century AD, and the façades of several temples in Hatra, such as Maran (Parapetti and Ricciardi 2000, Fig. 5) where one can observe a similar structure. Temple façades containing an arch without a pediment are also depicted on Roman coins, such as those from Bosra. This kind of arch is referred to as

¹⁴ This temple is known from texts as Zeus Hypsistos. See P. Roussel 1943: 248.

'Syrian',¹⁵ and seems very close to that of the building under discussion here.

The clues we have allow us to suggest that this structure be identified as a small temple, or a place of worship, especially in view of the Greek inscription on one of the pedestals. The translation, given above, shows that it was dedicated to Zeus Theandrios. Aliquot's 2010 study has demonstrated that the cult of Theandrios is well attested in the region of southern Syria (Figure 9), and his name is present on several inscriptions, as well as in a quotation from the Neoplatonic philosopher Damascius the Diadochus, who evokes Theandrios as 'Theandritès' and indicates that Isidore honoured him near Bostra. He presents him as 'the masculine god who inspires in one's soul the taste for a virile life' (Aliquot 2010: 364). This god has several sanctuaries in southern Syria, including Atil, Awas, Canatha, and Zorava (Sourdél 1952: 78-81) and is invoked alongside two Arab deities, Ares and Dusares. While he originated in southern Syria, under the empire his worship spread, along with that of another local god, Manaf, to North Africa and Pannonia (Aliquot 2010: 365).

In Damascus, we see from the dedication that Theandrios was associated with Zeus, indicating that the worship of this god was certainly present among the people of Damascus in this period. As we have seen above, our structure was probably one of his cult sites, dedicated to him under the name of Zeus Theandrios, as indicated on the surviving inscription.

To conclude, this discovery allows us to identify new structures within the complex of the great temple of Damascus. On the other hand, it also brings to light new information about the cult of a god known elsewhere, but attested for the first time in Damascus. In addition, these findings encourage us to extend the work to neighbouring houses, where we will be able to uncover further remains of this building, in particular the external façade, which will allow us to understand the function of the structure in relation to the larger temple, and to trace the limits and phases of its use within the temenos.

Bibliography

- ABD EL-KADER, J.
1949 Un orthostate du temple de Hadad à Damas, *Syria* XXVI: 191-195.
- ALIQUOT, J.
2010 Dans les pas de Damascius et des Néoplatoniciens au Proche-Orient: culte et légendes de la Damascène, *Revue des études anciennes* 112 (2): 363-374.

- 2008-2009 La diaspora damascène aux époques hellénistique et romaine, *Annales archéologiques arabes syriennes* 51-52: 77-92.
- AL-MAQDISSI, M.
1995 Chronique des activités archéologiques en Syrie (II), *Syria* 72 (1-2): 159-266.
- AL-RIHAWI, A. K.
1963 Une recherche autour de la mosquée des Omeyyades, *Annales archéologiques arabes syriennes* 13: 53-70 (in Arabic).
- 'AQILI, T.
2008 *La mosquée des Omeyyades à Damas* (in Arabic). Damas, département archéologique de Damas.
- BOUNNI, A.
2004 Du temple païen à la mosquée: note préliminaire sur le cas de la Mosquée des Omeyyades de Damas, *Antiq. Crist.* (Murcia) XXI: 595-605.
- CHRETIEN-HAPPE, I.
2004 Les représentations de temples et sanctuaires sur les monnaies romaines de Décapole et d'Arabie, *Syria* 81: 131-146.
- DONCEEL, R.
1966 Recherches et travaux archéologiques au Liban (1962-65), *L'antiquité classique* 35 (1): 222-261.
- DUSSAUD, R.
1922 Le temple de Jupiter Damascénien et ses transformations aux époques chrétienne et musulmane, *Syria* III: 220-234.
- FREYBERGER, K. S.
1989 Untersuchungen zur Baugeschichte des Jupiterheiligtums in Damaskus, *DaM* 4: 61-86.
- KLENGEL, H.
1976 Höson es-Soleiman: Ein Heiligtum in Syriens Küstenbergen, *Altertum* 22: 160-174.
- KRINZINGER, F. ERTUG, A. LADSTATTER, S. and CORMACK, S.
2008 *Ephesos: Architecture, monuments and sculpture*. Istanbul, Ertuğ and Kocabiyik.
- PARAPETTI, R. and RICCIARDI, R.
2000 L'architettura del santuario metropolitano di Hatra, *Topoi* 10 (1): 111-142.
- ROUSSEL, P.
1943 Deux inscriptions gréco-latines du temple de Dmeir (Syrie), *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 87 (2): 246-248.
- SAAD, H.
2010 *Rapport préliminaire sur les sondages de Bustan Sukar*. Damas, département archéologique de Damas.
- SACK, D.
1989 *Damaskus, Entwicklung und Struktur einer orientalisches-islamischen Stadt*. Mainz am Rhein, Von Zabern.
- SAUVAGET, J.
1946 Le plan antique de Damas, *Syria* XXVI: 314-358.
1932 *Les monuments historiques de Damas*. Beyrouth, Imprimerie catholique.
- SEYRIG, H.
1950 Antiquités syriennes, *Syria* XXVII: 34-37.

¹⁵ The Syrian arch appears on coins from Phoenicia, Syria, Palestine, Arabia, Cyprus, Anatolia, and rare Greek examples from the reign of Trajan. See Chrétien-Happe 2004

SEYRIG, H., AMY, R. and WILL, E.

1968-1975 *Temple de Bêl à Palmyre, Vol. II. Paris*, Geuthner.

SOURDEL, D.

1952 *Les cultes du Hauran à l'époque romaine*. Bibliothèque historique et archéologique 53. Paris, IFAPO.

TRAN TAM TINH, V.

1972 *Le culte des divinités orientales en Campanie: en dehors de Pompéi, de Stabies et d'Herculanum*. Leyden, E. J. Brill.

WATZINGER, C. and WULZINGER, K.

1921 *Damaskus, die alte Stadt*. Berlin, De Gruyter.

WILL, E.

1994 Damas antique, *Syria* LXX I: 1-43.

Al-Qaryatayn in the Heart of the Syrian Desert: Deir Mar Elian Al-Sheikh

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Directorate General of Antiquities and Museums

Abstract

Al-Qaryatayn is an ancient city dating to the 3rd-2nd millennium BC. It is mentioned in the inscriptions of Mari (modern Tell Hariri). It was known as the city of 'Nazala', 'Hasr Einan' in the Aramaean period, and 'Korada' in the Roman period.

Al-Qaryatayn is located in the heart of the Syrian Desert steppe, on the road connecting Damascus to Palmyra, via Qasr Al-Hayr Al-Gharbi and Kharbaka (Harbaqa), the Roman dam, Hawwarin, Hammam Abo Rabah, Sadad, and Homs to the west. It formed an important station on the route of traders and pilgrims between Mesopotamia and the Mediterranean.

Located south of Al-Qaryatayn, a tell dating to the mid-2nd millennium BC (Figure 1) is characterized by the presence of huge stones on top of the mound, belonging most probably to the foundations of a structure (temple) dated to the Roman period, c. the 2nd and 3rd centuries AD. Along with the remains of the temple, an old water system of channels runs throughout the city, as observed in an aerial photograph taken in 1958. This system is known as 'Fukara' and consists of a set of conduits with a number of plungers connected with each other for ventilation, allowing the water to pass through these conduits. The Fukara dates to the Roman Empire. Indeed, the Romans were famous for their irrigation systems, allowing them to bring water often from distant sources. These systems were present in all the Syrian cities under Roman rule, including Al-Qaryatayn, which was one of the resting posts on the Silk Road. This ancient city was an oasis where water was provided to passing caravans, which, during Roman times, were protected by garrisons stationed inside Al-Qaryatayn.

The prominent status of the city continued during the Byzantine period when Al-Qaryatayn's commercial and religious importance increased, because it was an important stop for pilgrims heading from the northern Levant to Jerusalem. Many churches were built on the pilgrimage route, such as that of Mar Elian Al-Sheikh, which will be discussed in detail below.

Several other important historical buildings surrounded Al-Qaryatayn, including temples, churches, khans, hammams, khirbets (ruins), etc. Examples include Hawwarin, Al-Hadath, Al-Ghonthor, Harbaqa Dam, Mahin, Sadad, to mention only a few. Some of the classical temples were later turned into churches. The



Figure 1: Tell of the 2nd millennium BC

huge religious compound at Al-Qaryatayn is a true testimony to the important religious status of the city during the 5th and 6th centuries AD.

Al-Qaryatayn remained an important site until the Islamic period, when khans (caravanserais) started to spread out in great number. The city had seven khans, including Khan Enaba and Khan Al-Manqura, dating to the 14th and 17th centuries AD. Nowadays Al-Qaryatayn has lost its importance and became one of the forgotten and neglected cities, to the extent that even the planned road project to Palmyra was cancelled.¹ In addition, lack of water made this region unsuitable for farming or herding.

The Monastery of Mar Elian Al-Sheikh

The monastery of Mar Elian Al-Sheikh is located 4 km west of the oasis of Al-Qaryatayn (Wadi Al-Ayn). The

¹ The Directorate General of Antiquities and Museums of Syria plans to explore the tell of Al-Qaryatayn with the hope that such endeavour will not only rehabilitate the history of the ancient city but help modernize the modern modest town.

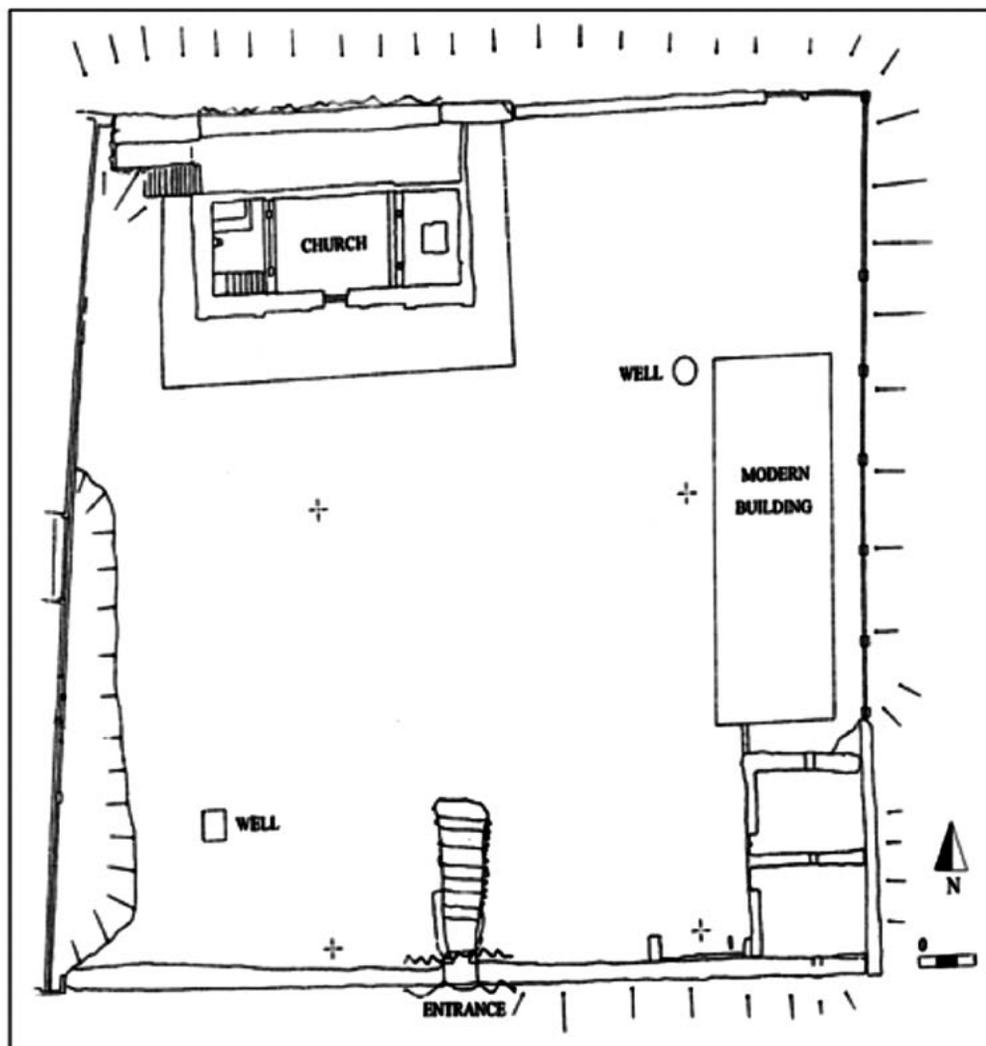


Figure 2: Plan showing the church location.

monastery was named after Saint Elian, frequently mentioned in many odes written by his disciple Saint Efreem the Syriac who wrote 24 odes praising his master.² Saint Elian is also known from his biography written by the historian (Al-Korsaihi 1980). Saint Elian was born in the Ruha area (modern Şanlıurfa). He was well known for his asceticism, fasting, and his miraculous powers to heal ailments. He was also famous for inhabiting the caves of the Ruha Mountains, accompanied by 100 disciples who shared with him this life of worship and solitude. Inscriptions from the 17th century AD indicate that he passed away in 364 AD and was buried by one of his monk disciples near Al-Qaryatayn. The disciples then built a small church around the marble tomb and constructed a monastery nearby which marked the beginning of their ascetic life in this part of the Syrian Desert.

² The Afram Syriac. *Odes in the Praise of St. Mar Elian* was translated in 18 AD into Latin by Y. Lami and translated in 2002 into Arabic by Fr. B. Kassab.

What mostly distinguishes this site is the preservation of several structures. The most important of these is the church, dating to 1938, although it is at risk of collapse due to stability problems in its foundations (Figure 2). Inside the church, a tomb includes a marble rectangular sarcophagus 185 cm long and 66 cm wide (Figure 3). This tomb dates to the 4th century AD and is known to be that of Saint Elian Al-Sheikh. The church is surrounded by a rectangular brick wall, 44 m long, 39 m wide, and 6 m high. The southeastern corner is occupied by a 9 m high mudbrick tower with a destroyed upper section.³ The edifice includes two rooms on the ground level and one on the upper floor.

The monastery has a small, beautifully decorated door in the southern wall (Figures 4-5). The cedar frames are skillfully decorated and fixed by nails on a smooth wooden panel to show the ornamentations of its background. Each of the two shutters of the door has five

³ However, Fr. J. Murad and his congregation restored it.



Figure 3: Mar Elian Al-Sheikh sarcophagus dated to the 4th century AD.



Figure 5: This part was found in Fredrich Museum in Germany.



Figure 4: The church door dated to the 7th century AD (National Museum, Damascus).

square and rectangular panels decorated with stylized floral and animal ornamentations. The decorations are similar to those found in Rome's Saint Sabine Church. The small size of the door is not only intended to instil awe in the visitor, but also protect the site from attack. This door dates to the 7th century AD and is displayed today in the National Museum in Damascus. It is one of only six preserved wooden church doors from the same period in the entire Mediterranean region.

Excavations⁴

A field survey, where glass and pottery fragments were collected, was the first intervention on the site, followed by a geophysical survey that showed some anomalies that needed to be identified (Figure 6). A network of squares (5 m x 5 m) was implemented inside and outside the entire monastery (Figure 7). In the 2008 and 2009 excavation seasons, six strata dating to the Roman, Byzantine, and Islamic periods (Abbasid, Ayyubid, and Mameluke periods) were identified. A general plan was established marking the different periods, as well as the architectural evolution and succession of the different structures overlapping each other, and what remained of each period.

Islamic Period

Ottoman Period

A church, continuously used over the 16th, 17th, and 18th centuries AD, was discovered under the foundations of the 1938 collapsed church. The courtyard of the church revealed a number of rooms with brick masonries, built on stone foundations, that served the monastery (including votive rooms). Agricultural facilities were also discovered, with one of these small rooms containing silos, large pithoi, and

⁴ The aim of the excavations was to reveal the historical and archaeological identity of the site. The present author, who submitted the project to the Directorate General of Antiquities and Museums in 2001, was in charge of a Syrian mission to conduct the excavations.

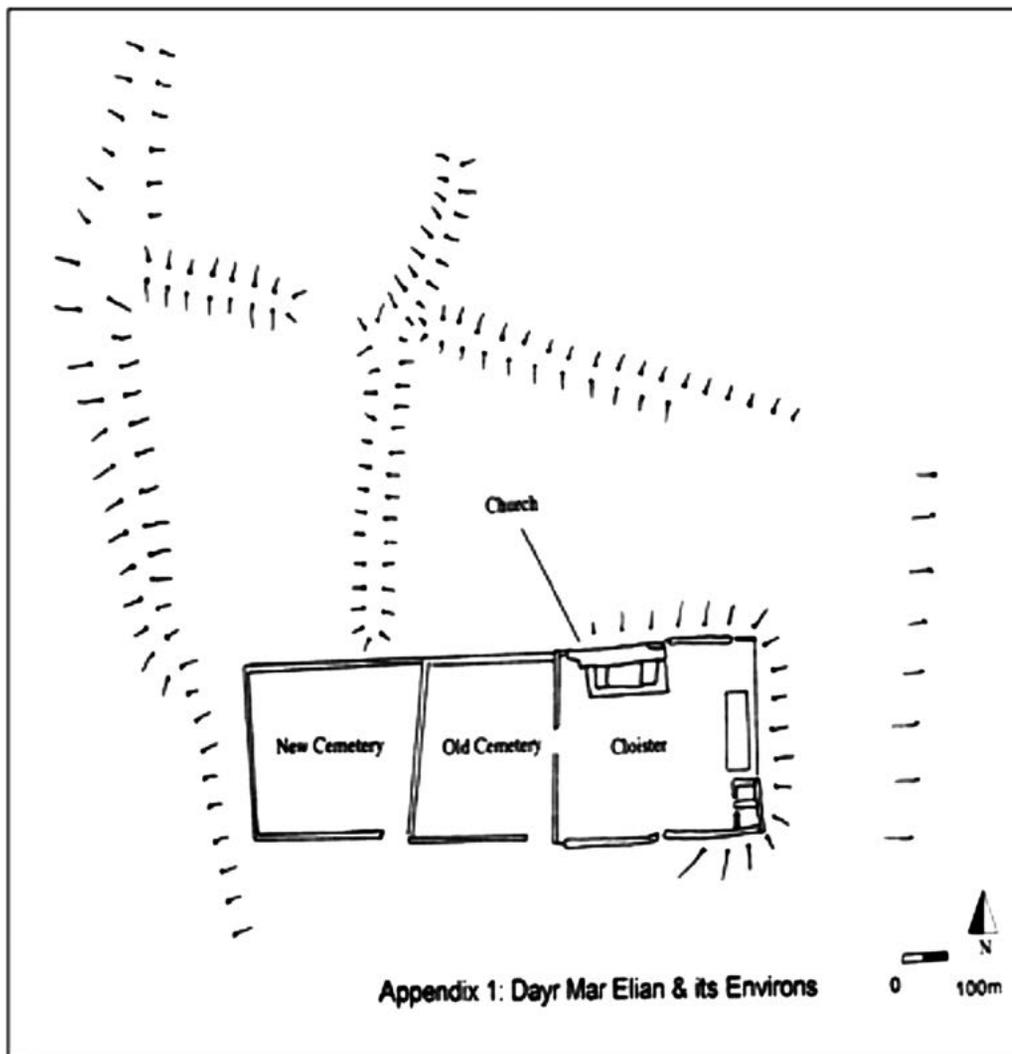


Figure 6: A plan showing the anomalies detected in the geophysical survey.



Figure 7: Excavations in the monastery.

basins for milling grain, along with numerous tools. The numerous Ottoman finds included the following important artefacts: jars of different sizes, clay and glass plates, clay oil lamps, glass pieces, bronze coins, and basalt objects for grinding (Figures 8-9).

Mameluke Period

A cemetery for the clergy ('Monks' Cemetery') with individual graves was attributed to the Mameluke period. It is located behind the southern wall of the church, which dates to the 17th and 18th centuries AD. It is situated next to the church door and extends to the south. A stone pavement - a corridor leading to the 18th-century church - was identified. In extending the excavation, a 'T'-shaped cemetery of the 13th and 14th centuries AD was discovered. Excavations also uncovered residential spaces belonging to the monastery, most of which consisted of living rooms dedicated to visitors fulfilling their votive offerings.



Figure 8: Location of storage jars in the storage rooms.

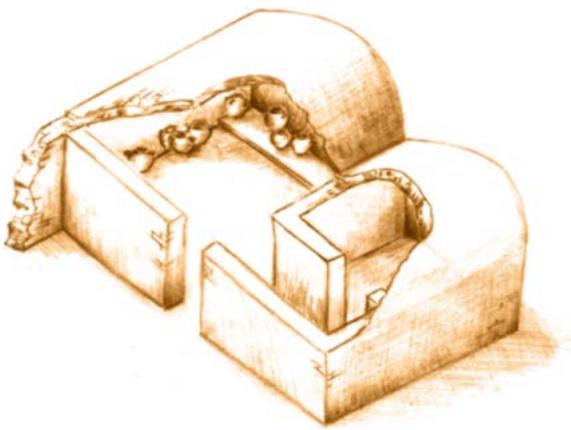


Figure 9: Drawing showing the location of the storage jars inside the storage rooms.

The use of these rooms was assumed on the basis of the huge quantities of animal bones (calves, camels, and male goats) found in them, along with stone sharpeners. In addition to these, each room had a fire pit, cooking-pot fragments, glass pieces, and coins. This indicates that animal offerings were slaughtered in these areas. These religious rituals were being performed in the monastery throughout the Mameluke and Ottoman periods. The most important findings from this period are clay oil lamps, bronze crosses, bronze coins, glass pieces, and intact pottery vases. An inscription dated to the 14th century AD on a stone above the small door of the monastery mentions the protection of the monks who resided in this monastery.

Ayyubid and Abbasid Periods

Churches with two or three altars might belong to these periods. However, this needs to be verified in future excavations. The most important findings are bronze coins and pottery.

Byzantine Period

The foundation of a Roman wall was used as the entrance to the church and it remained the main entrance throughout the Abbasid, Ayyubid, and the beginning of the Mameluke periods. Some modifications were made to the shape of the entrance, but not to its function. The most important artefacts found are Saint Elian's sarcophagus, some Byzantine coins, the stone church screen with a carved cross, glass pieces, the lid of a tabernacle, and the church door made of cedar wood, as mentioned above.

Roman Period

The foundations of a large, black-bluish rock wall oriented south-north was discovered. Unfortunately the wall was not complete. Apparently it was used as a quarry in later periods, judging from the irregularly curved southern section used as the church entrance in the Byzantine period. It seems that most of its stones were quarried and cut into smaller stones for the construction of structures of different periods. The same type of stones, dated to the Roman period, and similar to those from the foundation of the Roman wall, could be recognized within the perimeter of the area at Khan Al-Enabeh and Khan Al-Manqora, located c. 30 to 45 km southeast of Al-Qaryatayn. Among the most important finds from this period are bronze coins and architectural elements reused in later periods (marble columns, lintels, and stones).

From all of these historical periods (Figure 10), the most important discovery in the monastery are the remains of Saint Elian in the marble sarcophagus, in a good state of preservation and without embalming. The monastery of Mar Elian Al-Sheikh is considered one of the most prominent and distinguished landmarks, both historically and archaeologically, due to the richness of the remains and to the exceptional conservation of the holy tomb. The sarcophagus was opened before 1938, as mentioned by the people of Al-Qaryatayn. H. Al-Tahhan, a parishioner, wanted to build a new church as an offering, and, with the approval of the bishop, the tomb was opened, revealing, according to the people of the town, the holy body intact inside. It is also mentioned that the tomb was robbed several times, but the body was repeatedly seen intact within it.

The Sarcophagus of Saint Elian

Made of marble in a rectangular shape, it is 185 cm long and 66 cm wide, and is decorated on its front side with four circles (see Figure 3 and Figure 11). The two smaller circles are located in the middle and contain no ornamentation. The other circles on the sides have hooked crosses forming a rose. The lid is curved with four pillars. The lid is 185 cm long and 66 cm wide, with

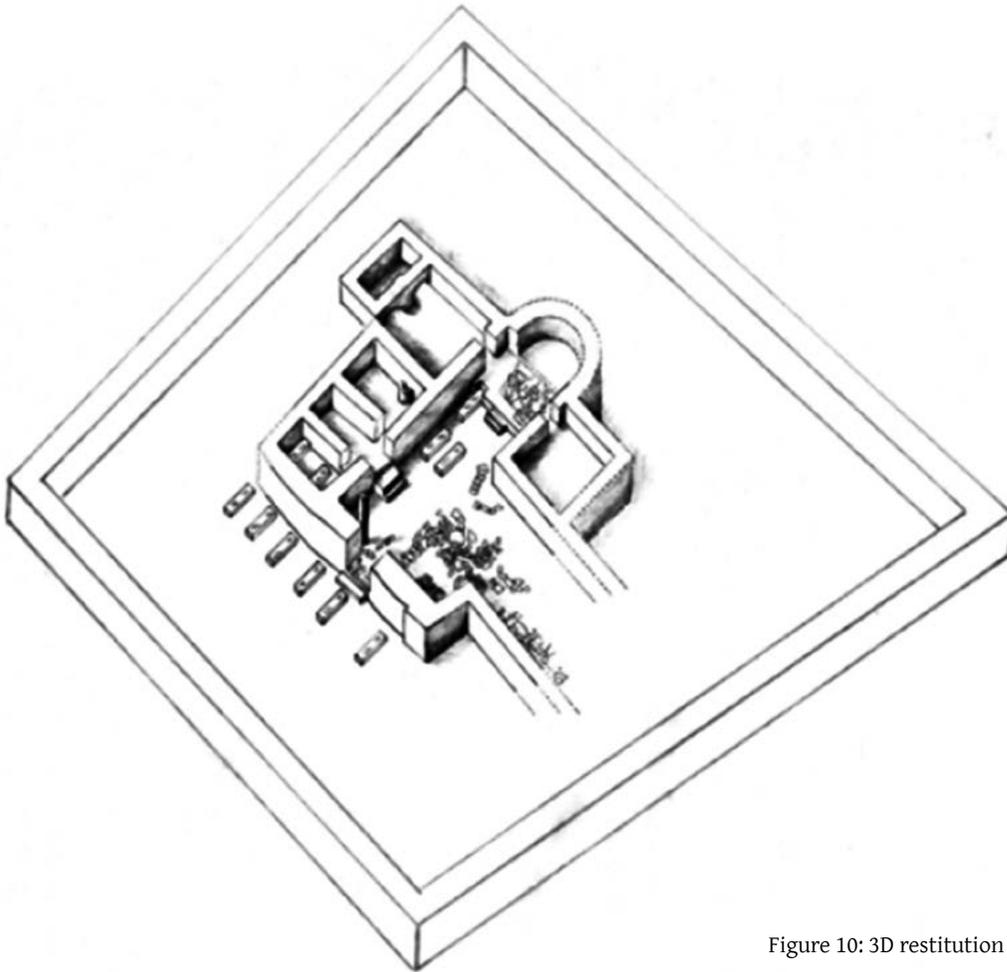


Figure 10: 3D restitution of the church.



Figure 11: Church dating back to the 16th and 17th centuries AD.

the curved section being 186 cm long and 73 cm wide. The sarcophagus has Syriac inscriptions that date to more recent periods (Figures 12 and 14). Fr. Barsom, the bishop of the Syriac Orthodox church in Al-Qaryatayn, has translated some of these texts into Arabic and mentions that some date to the 17th century AD, while others are from the 19th century AD or from the current century.

Discovering the sarcophagus

The people of Al-Qaryatayn have always talked about the sarcophagus of Saint Elian and his miracles and how his body rests in the tomb. The oral tradition heard and spread from previous generations repeatedly mentioned Saint Elian's grave and its miracles, stimulating much local fascination.

During investigations, we undertook some soundings aimed at revealing occupation levels that might have been contemporary with Saint Elian. The discovery of the monks' cemetery, mentioned above, gave us conclusive evidence of the existence of another, older church inside the monastery courtyard. The most

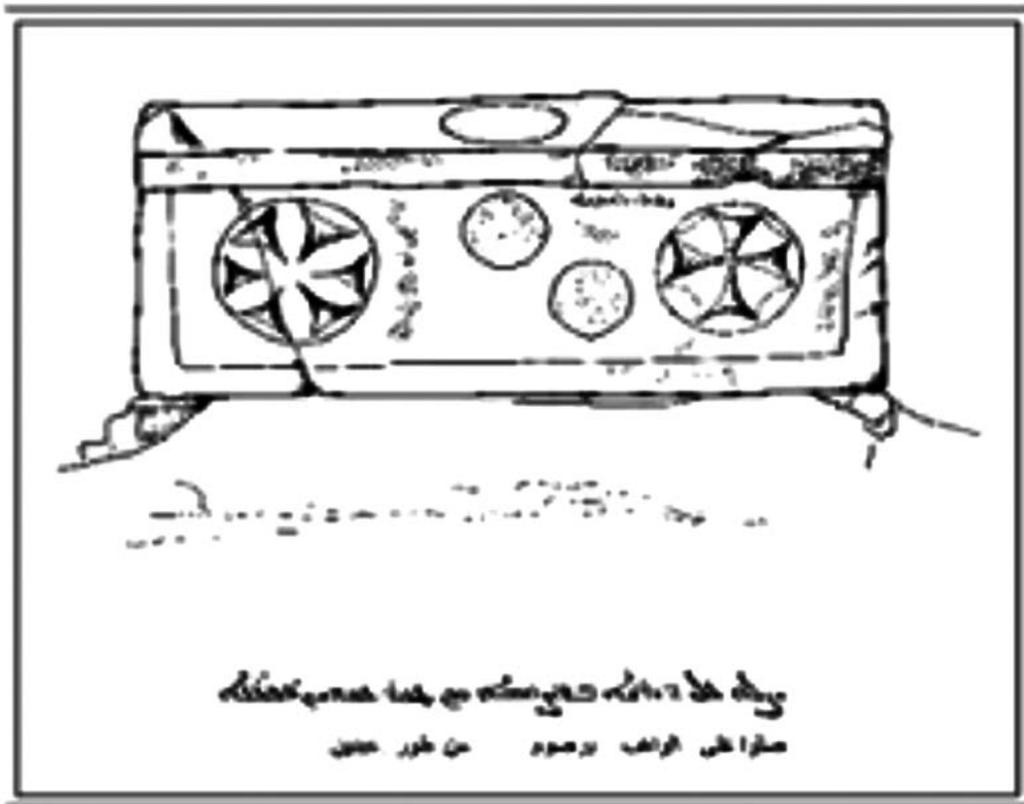


Figure 12: Drawing of the Mar Elian Al-Sheikh sarcophagus.



Figure 13: Internment of a monk showing the remains of a coffin.

intriguing and important element in this discovery is that all the tombs contained well-preserved skeletons with fragments of clothes and strands of hair, reminding us of Saint Elian’s grave (Figure 13).⁵ At that point, the opening of the sarcophagus became a priority. The exploration was conducted by R. Kasoha, A. Khoury, Fr. J. Murad, and the present team. The broken corner of the sarcophagus was lifted and a camera inserted inside the tomb to document the contents. The pictures revealed that the foot of the skeleton still had some flesh on the bones (Figure 15), and there were parts of a wooden cart with, apparently, a metal wheel. At the beginning of the 2008 season (in April), the structures of the Byzantine church, which dated to the time of Saint Elian, were successfully uncovered.

Current situation

The precarious status of conservation of the sarcophagus dictated the immediate preservation of the saint’s body, especially in light of the fact that the main cause of its deterioration was the removal of the air-tight sealing of the sarcophagus. Unfortunately, a few years after our excavations the sarcophagus was opened by looters. The body of the sarcophagus cracked and there were several fractures to the lid, a situation that will definitely lead to the decay of the body. Therefore this issue was raised with His Holiness, Bishop Mar Theophilus Jurjus Kassab, with the suggestion to move the body and create a team of specialists to offer solutions as to how to secure the sarcophagus and study it, specifying that such a project must not underestimate the importance and sanctity of the sarcophagus and the monastery. On the contrary, the project would show to a world-wide audience the miracle of the saint’s preserved body, helping to strengthen the faith of the people living in the area and revive the relationship between believers and this sacred shrine, which played a pivotal role in the history of the Syriac church. It would also promote internal and external religious tourism (pilgrimages), positively impacting on the financial and economic livelihood of the people of Al-Qaryatayn. However, very sadly, the project will remain in the imagination: the sarcophagus is now destroyed and in the hands of the terrorists operating in Syria.

Conclusion

In conclusion, the majority of the excavation works within the monastery revealed successive historical periods and simple structures that reflect the spirit of the area and the continuity of monastic life and religious rituals starting from Byzantine times throughout the

⁵ One question was raised by one of the workers, a parishioner, who helped excavate the monks’ cemetery: ‘Why don’t you uncover the sarcophagus of Mar Elian, now that you have discovered tombs that contain intact skeletons. Isn’t Saint Elian more important?’



Figure 14. The Syriac inscription found on the Sarcophagus



Figure 15: Flesh remains on the foot of the saint.

Abbasid, Ayyubid, Mameluke, and up to the Ottoman periods. Excavations offered important insights on Christian religious architecture and rituals performed during the Islamic periods. There were a number of important discoveries as a result of the excavations, such as the discovery of the 4th-century AD church built during the life of Saint Elian, confirming what was mentioned in the 17th- and 18th-century AD manuscripts on the burial of Saint Elian inside this monastery. Other discoveries included the 4th-century AD sarcophagus of Saint Elian, the 7th-century AD door of the monastery church, and the inscriptions carved on the interior stone above the small door of the monastery that date to the 14th century AD. All of this evidence underlines the importance of the monastic life from the foundation of the holy site until today.

Selective bibliography

AFRAM SYRIAC
 2002 *Odes in Praise of St. Mar Elian* (translated in 18 AD into Latin by Yousef Lami (Vol. III: 837-936), and translated in 2002 into Arabic by Father Barsoum Kassab).
 AL-KORSAYHI, T.
 1980 *God’s Elect* (translated from Greek by Father Adriyanos). Beyrouth.

AL-ZAKIMI, J. M.

2006 *Al-Qaryatayn: Nazala-Hasr Aynan*. 1st edn. 6-7 (in Arabic).

ATHANASIUS, M. H.

Middle Syria: Homs and Hama Governorates. *Historical and Archaeological Encyclopedia of the Patriarchate of Anatolia-Christian Syria in the First Millennium AD*. Volume III (I) (in Arabic).

BISHOP AKAK

Mar Elian's Biography. Mardin, Deir Al-Zaafaraan Mardin Library.

FIRERA, R. F.

2004 *Christian Symbols in Ancient Syria*. Lebanon (in Arabic).

IBN A'IBRĪ

1890 *Ta'riḥ Muḥtaṣar al-Duwal*, A. āli ānī (ed.). Beyrouth, Imprimerie catholique.

SATAH, F. H.

2007 *Al-Qaryatayn in Spotlight and the Hidden Truths: Extended Critical Study* (in Arabic).

YAQUT AL-HAMMOUI

1956 *Kitāb Mu'jam al-Buldān*, 1226. Beirut.

Manuscripts

Al-Shorfah Library (Al-Khor, Bishop of Armaleh). A-6/11, Saints' Stories.

Catalogue

2012 *Syria in Byzantine Times. Megaron, Athens Concert Hall. Exhibition, October 2011 - January 2012: 103-104*. Athens.

Daraa/Suweida

A Survey of Prehistoric Sites in Daraa, Southern Syria

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Abstract

The region of the Hauran has long attracted the attention of archaeologists and researchers for its numerous classical sites such as Bosra, Shahba, Qanawat, and many more. Conversely, sites of the prehistoric periods remained virtually unknown despite a few attempts at establishing an idea of the chronology of Hauran prehistoric occupations in comparison with what has been done elsewhere in Syria. In this article, we will introduce the prehistoric sites discovered during an archaeological survey in southern Daraa and a preliminary study of the collected stone tools.

History of prehistoric research in Daraa

The southern region of Syria in general, and the Daraa area in particular, lacked sufficient research on prehistoric periods. The general interest of archaeological exploration focussed mainly on the classical periods, based on the abundance of major classical sites that have significantly marked the history of the region, such as Bosra, Shahba, Qanawat, and many more.

Research on prehistoric periods was sparse and sporadic and was to a great extent integrated within the Bronze Age investigations. In 1901, G. Smith initiated the exploration of the region and many sites of the Bronze Age were discovered, such as Al-Touti, Tell Shehab, and Sheikh Saad. In 1913, G. Schumacher undertook the first excavation at Tell Al-Ashara (Braemer 1984: 222). The identification of prehistoric tools was later confirmed by J. Nasrallah in the study of the domed buildings of the Bronze Age in the region of Hauran. The collected tools were, according to the researcher, made of granite and composed of blades, scrapers, and circular tools (Nasrallah 1950: 322-323). Some of the stone tools were assigned to the Ghassulian culture (Muheisen 1997: 45). The exploration soundings carried out by M.-C. Cauvin on the site of Tayybeh near Daraa are considered to be the primary work on a prehistoric site in this region. In 1962, Cauvin revealed evidence for the existence of the Natufian culture on this site (Cauvin 1973). In the late 1980s, S. Muheisen, P. Sanlaville, and J. Besancon explored the area of Zayzoun in the Yarmouk Valley and found stone tools (flakes, choppers, and hand axes) dating back to the Al-Lataminah Age or to the Middle Acheulian (Muheisen 1997: 44).

However, these studies were still insufficient to create a clear chronology of the prehistoric civilizations in the area of Hauran, unlike other areas in Syria

where archaeological surveys on prehistoric sites established a clear sequence. Those surveys also took into consideration the geological and geomorphologic contexts for each site and their relationships with the environment (river beds, river terraces, and quaternary shores). Examples of such surveys include the survey of the basin of Nahr El-Kebir Al-Shemali (Copeland and Hours 1978), the survey of the Orontes Valley, which revealed many important sites, e.g. Kharmashi,¹ and the survey of the Euphrates Valley, identifying a number of sites that added a great deal to our knowledge of the life of prehistoric men and women (Besancon *et al.* 1980). The work carried out by F. Braemer at the site of Al-Qarassa, near Shahba, is considered the best research on the prehistoric era in the area of Hauran. The first excavation season started in 2007, after a survey conducted by F. Braemer found a number of Bronze Age and prehistoric sites (Braemer 1984: 219-250). Initial findings indicated that the site of Al-Qarassa dated to the Mesolithic and Neolithic Ages.²

The survey area

The surveyed area had already been identified by Y. Abou Nokta during his work at the Daraa Directorate of Antiquities. A joint team from the Department of Archaeology of Damascus University and the Directorate General of Antiquities and Museums surveyed the sites of southern Daraa between May 9-16, 2010.³ The survey included three adjacent areas: Wadi Sharar, Wadi Al-Khawabi, and Khirbet Al-Shayyah (Figure 1). These valleys are channels (branches or basins) capturing flowing water coming down from the hills located on the joint Syrian-Jordanian borders south of Daraa, and

¹ Report of the excavation mission at Al-Qarassa, 2007.

² Report of the excavation mission at Al-Qarassa, 2007.

³ The team consisted of Dr A. Diab, Dr S. Al-Hajji (lecturers in the Department of Archaeology, Damascus University), Y. Abou Nokta (Daraa Antiquities Directorate), and student A. Al-Qassem.

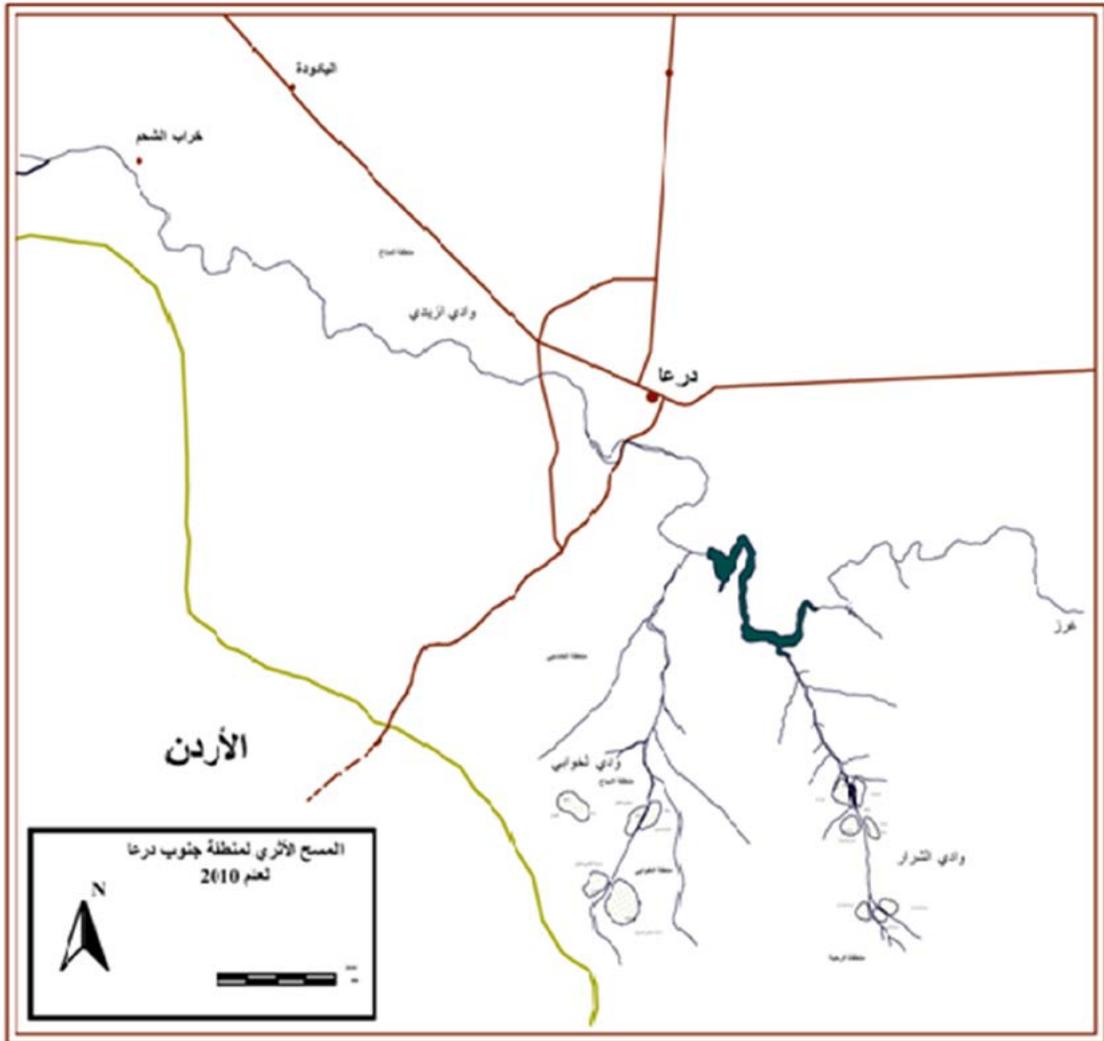


Figure 1: Map of southern Daraa sites (©Ahmad Diab).

stretching north towards Al-Zaidi Valley, near the centre of Daraa. Located 12 km within the Syrian territory, Al-Zaidi Valley is considered the largest water channel to pass through Daraa. In addition to the three valleys mentioned above, other smaller valleys, like Wadi Al-Rakheekh and Wadi Al-Zaater, flow into Al-Zaidi Valley, which feeds into the waters of the Muzeirib River and other various springs of the area before flowing into Al-Yarmouk Valley.

The surveyed area in each sector was 200 m x 200 m. Results revealed 18 sites in Wadi Sharar, 12 in Wadi Al-Khawabi, and two in Khirbet Al-Shayyah. A total of 1212 stone tools was collected from the surface of these 32 sites.

A. Wadi Sharar

Wadi Sharar is a small valley which goes down from the plateaus towards the Syrian-Jordanian border and pours south into Al-Zaidi Valley near the southern part

of Daraa. This valley is the richest surveyed area in the region in terms of the number and quality of tools discovered. It is located within farmlands covered with olive trees planted over the past two decades (Figure 2). 18 sites were discovered in this valley, including two major ones.

1) Wadi Sharar 1 (N32.33.677, E36.07.714) is located 7 km south of Daraa and is 567 m above sea level. It is the lowest site among the ones surveyed in this valley. It was the first site surveyed on the northern side of the valley that widens and deepens in this location (Figure 2). Wadi Sharar 1 is considered the most important site in this survey as it clearly shows the accumulation of numerous layers containing a large number of stone tools. The erosion due to the flow of the water on the western side of the valley contributed in revealing the accumulation of archaeological layers and silt over a thickness reaching up to 2 m at one point. The valley is half the diameter of the semi-circle constituting the entire site. Archaeological layers are very clear and



Figure 2: Wadi Sharar (©Ahmad Diab).



Figure 3: Accumulation of stone tools on the fringes of Wadi in Al-Sharar 1 (©Ahmad Diab).

easily recognizable because of the presence of stone tools (Figure 3). The surface of the valley is covered with large amounts of tools and patina-covered granite lumps, although dominated by Acheulian tools, especially hand axes. Slightly prolonged hand axes with tapered tips were the most typical tools found on the site, in addition to flakes and Levallois cores.

2) The second site was Khirbet Sharar 1, itself formed of three sites. Khirbet Sharar 1 is located c. 2 km south of Sharar, on the left side of the valley and 624 m above sea level. It is the highest location surveyed in this valley and the last location surveyed on the southern side (Figure 4). The western slope of Khirbet Sharar, facing the valley, is covered from top to bottom with many tools and black patina-covered granite cobbles, in different shapes and sizes. Due to the large number of these cobbles, the surface of Khirbet Sharar is predominantly black, although interwoven layers of granite and limestone were also noted. During the survey some thick flakes and broken stones, which might have been dug out from the granite layer and used as raw material for shaping tools, were noticed. This was clear from the great resemblance in colour between these stones and the stone tools. This confirms that the source (raw materials) of the discovered handmade stone tools was from this area and easily available to the inhabitants.

Even though these two sites are the main sites of this valley, 17 others were identified in their vicinity. Our team walked down the valley, following a horizontal path of about 2 km, and discovered sites spread around the main site, Sharar 1. Wadi Sharar is homogenous in terms of the availability of the raw granite used in forming the tools. Geomorphologically, there were semi-mountainous plateaus (567-581 m above sea level) linked to each other, which made Wadi Sharar a major conduit for rainwater dispersal. It is worth mentioning that the surveyed area has no caverns or caves, and



Figure 4: Flint bulk and nucleus on the site of Khirbet Al-Sharar (©Ahmad Diab).

although local shepherds have mentioned that the joint Syrian-Jordanian border areas do contain some caves, it was difficult to visit and verify such claims.

B. Wadi Al-Khawabi

Wadi Al-Khawabi is located c. 3 km to the northwest of Wadi Sharar. It is very much similar to the previous valley in being a small valley running down the southern plateaus to the Syrian-Jordanian border and pouring into Al-Zaidi Valley near Daraa (Figure 5).

The survey of this valley started from the north in Wadi Al-Khawabi 1 and headed south towards the Syrian-Jordanian border. It was impossible to survey the immediate vicinity of Wadi Al-Khawabi 1 because of the presence of a large quarry located there. In the valley, 12 sites were found resembling those of Wadi Sharar



Figure 5: Wadi Al-Khawabi (©Ahmad Diab).



Figure 6: The site of Khirbet Al-Khawabi 1 (©Ahmad Diab).

in terms of the spread of patina-covered stone tools on their surface and the availability of granite cobbles which constituted the raw material used in making tools. Additionally, the geomorphological shape of the area was also similar in terms of semi-mountainous plateaus (554-620 m above sea level) that are linked to shape the valley into a major conduit for rainwater.

The southern sites of Khirbet Al-Khawabi (1, 2, and 3) are the richest among the sites of this area in terms of the number of collected stone tools (a total of 147). Khirbet Al-Khawabi resembles also the site of Khirbet Sharar, with its dense spread of cobbles and the black surface colour resembling that of the granite tools (Figure 6).

C. *Khirbet Al-Shayyah*

This area is located southwest of Wadi Al-Khawabi and is considered as its extension. It is one of the plateaus around the wadi. Like the rest of southern Daraa, it is mainly covered with olive trees. Khirbet Al-Khawabi, as well as the other sites of Wadi Al-Khawabi and Wadi Sharar, are all located c. 600 m above sea level (Figure 7).

3. The chronology of the collected material

The number of tools collected reached, as mentioned above, 1212 finds. However, only 492 tools were sorted in the preliminary study, excluding those that were not obvious or clear. Flakes that were the result of the production process and lacked a clear shape were also excluded from the study. All of the tools were shaped from the available granite present in the area. They were diverse and dated back to different prehistoric phases. The most important characteristics and techniques used in shaping these tools will be highlighted below in an attempt to establish the chronology of the area.



Figure 7: Khirbet Al-Shayyah (©Ahmad Diab).

Lower Paleolithic period

The largest number of samples (138 tools) dates to the Lower Paleolithic and the finds are represented mainly by hand axes, thick flakes, and choppers. The hand axes belong to the Middle and Upper Acheulian.

1) The Middle Acheulian period

19 hand axes were found in the three surveyed areas: nine in Sharar 1, six in Wadi Al-Khawabi, and three in Khirbet Al-Shayyah. These tools display many characteristics allowing them to be dated to the Middle Acheulian period. All of them were made using a stone hammer that removed thick flakes and left deep scars, some of which were relatively big while others formed new surfaces for flake production (Figure 8). These axes have an elongated shape with often pointed tips. In some cases the tips were broken, probably from tumbling down during runoffs. The coating covering parts of the bodies was still visible on three axes. The

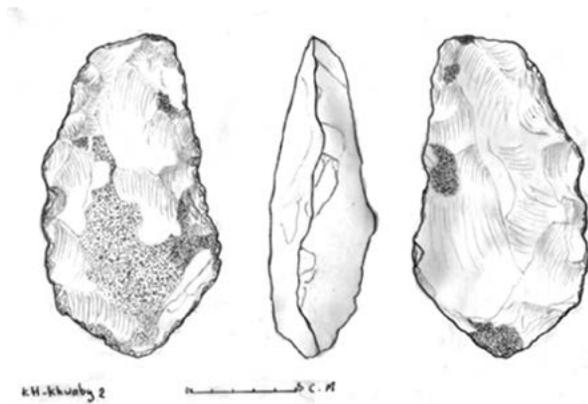


Figure 8: Axes from Khirbet Al-Khawabi 1 (©Ahmad Diab).

axe's two edges display a wavy and irregular line, topped generally with small cracks resulting either from a stone hammer or from usage. They also display a clear curve on the lower third of the thickest part of the tool. The 19 axes from the survey measured 16.5-18 cm long, 7.5-8.5 cm wide, and 5.5-6.8 cm thick.⁴

Evidence showed that the hand axes found in the surveyed sites date to the Middle Acheulian, or what is locally known as the Al-Lataminah Culture, which spread over a wide area of the Levant from the coast to the Syrian Desert. Thus the survey area could be assigned to the inland sphere of the Al-Lataminah Culture, whose existence S. Muheisen has already confirmed in the Zayzoun area, west of Daraa, c. 30 km from the present survey. Additionally, 13 choppers were found, made from cobbles with the use of a stone hammer, as shown by the relatively big marks on the surface of the tool (Figure 9). The assemblage included also six large, heavy cleavers.

The Upper Acheulian period

The corpus dating back to this period contained the largest number of tools, compared to those belonging to the Lower Acheulian period. There were 92 tools equally distributed over the three surveyed areas: 42 in Wadi Sharar, 37 in Wadi Al-Khawabi, and 13 in Khirbet Al-Shayyah.

The hand axes were not all of the same shape, but displayed variations of almond and oval shapes, with just three heart-shaped finds (Figure 10). The edges were also straighter than those of the previous period with more tapered tips. Along their edges there was a small curve in the body of the tool on both faces. The faces showed small areas where small flakes were removed during production, indicating the use of a soft hammer technique.

⁴ François Bordes' technique was used for measuring tools.

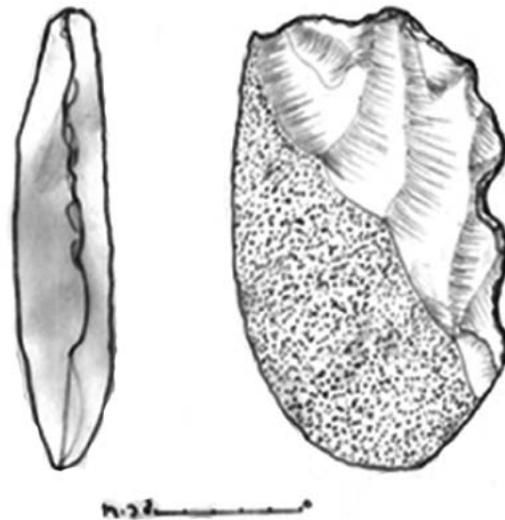


Figure 9: Chopper from Wadi Sharar (©Ahmad Diab).

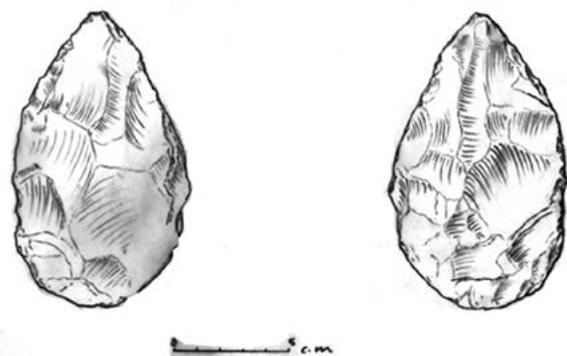


Figure 10: Almond-shaped axes from Al-Sharar site (©Ahmad Diab).

The sites of this period spread over a large area of the Levant, stretching from the coast to the Euphrates. Humans during this period inhabited the Syrian Desert at sites such as Al-Nadweyeh, Um Tellal, Al-Kharmashi in the Orontes Valley, as well as other sites, e.g. Tabun Cave (Stratum F) and Qafzeh (Stratum D) in Palestine, Ain Al-Assad and Al-Azraq in Jordan, and Ras Beirut in Lebanon (Diab 2005: 35, 38).

While surveying Wadi Sharar and Khirbet Al-Shayyah, eight small almond-shaped tools with slightly tapered tips were found. Their straight edges are slightly curved and thinner when compared to the previous tools (Figure 11). This assemblage is probably dated to the Late Acheulian, also known as Samoukiyeh Culture after the site of Misherfet Al-Samouk. Future excavations on the site of Sharar 1 could provide more information on the existence of this period in southern Syria. The

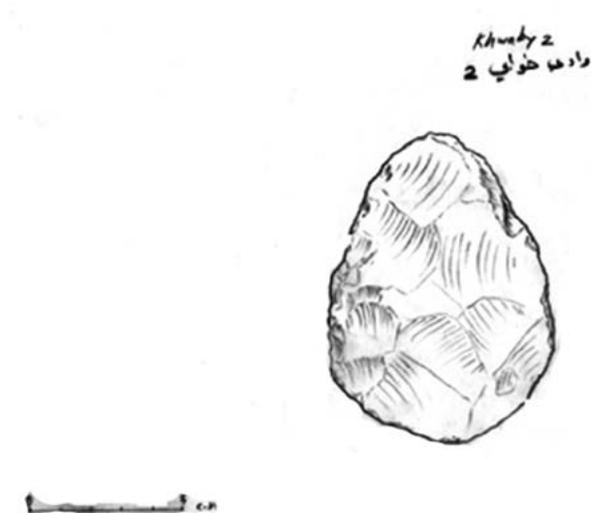


Figure 11: Small axes with almond shapes from Wadi Al-Khawabi (©Ahmad Diab).

Acheulian Culture, represented by Samoukiyeh, formed the transitional period between the Lower and Middle Paleolithic periods. It is attested at Mishrefet Al-Samouk, Nahr El-Kebir Al-Shemali, Tahounet Semaan on the Orontes, and the sites of Kadeer 23 and Nadwiyeh 1 in central Syria. The Levant is exclusively known for the existence of this transitional period between the Lower and Middle Paleolithic, with the local cultures of Samoukiyeh, Yabrudian, pre-Aurignacian, and Hummalian (Muheisen 1990: 58-59).

2) Middle Paleolithic period

The sites of the Middle Paleolithic are widely spread in Syria (the denser among the phases of the Paleolithic), including Al-Dederiyeh in the north, Al-Koum in the Syrian Desert, and Yabroud to the south. However, not a single Middle Paleolithic site was previously known from the governorate of Daraa.

The sample of the stone tools collected during the survey was composed of 320 tools identified in the following (Table 1):

The tools dating to this period were found on almost all surveyed sites. The cores were mostly found at Khirbet Wadi Sharar 1 and Khirbet Al-Khawabi, where granite cobbles are more common. Overall, the cores were

mostly flat and not thick, and made from larger granite cobbles. The cores were mostly used to make flakes (Figure 12). The Levallois flakes were the most common in the corpus. Their shapes were mostly oval with cracked edges on some of them. Most of these flakes (4.5 and 6 cm long, 3-4 cm wide, and 1.3 cm maximum thick) were made using the unidirectional thinning technique. The bases of these tools were mostly cracked. As for the complete ones, they had flat bases (Figure 12).

Levallois blades were also attested; they were made with the unidirectional thinning technique and had either flat or slatted bases, some of which were chipped on the edges.

As for the side-scrapers, they varied from the single convex (with the largest number of tools: 48), to double convex scrapers, double convex-concave scrapers, and single concave scrapers (Figure 12).

The preliminary study of these tools proves the existence of the Middle Paleolithic in the area. Therefore Daraa can be added to the list of sites in the Levant that date to the Middle Paleolithic, e.g. Al-Koum, Jabal Abdel Azziz, and Afrin. The tools from the survey are tentatively dated to Tabun B group, in accordance with L. Copeland’s divisions of the stone industries of this period from the site of Tabun (Copeland 1975).

3) Epi-Paleolithic period

The Upper Paleolithic was absent from the surveyed sites. Hence all surveyed sites at Daraa resemble other areas in the Levant that witnessed the absence, or scarceness, of the Upper Paleolithic.

As for the Neolithic and Epi-Paleolithic ages, M.-C. Cauvin had already identified them at Al-Taybeh in the Hauran area, as well as at the site of Al-Qarassa, where findings cover, so far, the Neolithic and the Epi-Paleolithic periods.

The corpus of tools found in the survey dates probably to the Epi-Paleolithic. It consists of 34 tools, mainly small blades, some of which were bladelets (broken blades). However, verifying their features and assigning them to a particular culture needs more systematic excavations. Therefore these tools were generally dated to the Epi-Paleolithic.

Table 1: Categorisation of tools from the survey.

Tool	Cores	Levallois flakes	Levallois blades	Fake Levallois head	Knife with natural back	Side-scrapers	Total
#	45	84	35	52	17	87	320



Figure 12: Lower and Middle Paleolithic Age tools from Al-Sharar site (©Ahmad Diab).

Conclusion

This survey is a first step to identifying prehistoric sites in southern Daraa to the south of Al-Zaidi. The preliminary study of the stone tools collected during the survey gives a first impression of the timeline of the prehistoric periods in southern Syria. It should be noted, however, that a very limited geographical area south of Daraa was surveyed. Only two creeks of the Al-Zaidi Valley were investigated, not to mention the fact that parts of these creeks were on the Jordanian border on one end, and on quarries on the other, which prevented us from following them along their total courses. Yet the area is generally abundant with many small mountain-like hills (Khirbet) covered with hundreds of cobbles and granite tools that made it impossible to survey. There is no doubt that excavating the site of Sharar 1 and surveying the rest of the areas to

the south and west of Daraa will enrich our knowledge of the Prehistoric periods in Syria.

Bibliography

- BESANCON, J., COPELAND, L., HOURS, F. and MUHEISEN, S.
1980 Géomorphologie et préhistoire de la moyenne vallée de l'Euphrate. Essai de chronologie du Pléistocène et du Paléolithique de Syrie, *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 290: 162-170.
- BRAEMER, F.
1984 Prospections archéologiques dans le Hawran (Syrie), *Syria* LXI: 219-250.
- CAUVIN, M.-C.
1973 Station Natoufienne dans Le Hauran (Syrie): Taibé près de Deraa, *Annales Archéologiques Arabes Syriennes* 23.1-2: 105-110.
- COPELAND, L.
1975 The Middle and Upper Paleolithic of Lebanon and Syria. In: F. Wendorf and A. Marks (eds), *Problems in Prehistory: North Africa and the Levant*: 317-350. Dallas, SMU Press.
- COPELAND, L. and HOURS, F.
1978 La séquence acheuléenne du Nahr El Kébir. Région Septentrionale du littoral syrien, *Paléorient* 4: 5-30.
- DIAB, A.
2005 *Western Asia in Paleolithic Age: Specialized study on stone tools*. Unpublished PhD dissertation. Faculty of Archaeology, Cairo University.
- MUHEISEN, S.
1997 Antiquities of prehistoric era in Southern Syria (Suweida and Daraa governorates), *Annales Archéologiques Arabes Syriennes* 41: 43-46 (in Arabic).
- 1990 The transitional Lower-Middle Paleolithic industries in Syria. In: T. Akazawa, K. Aoki and T. Kimura (eds), *The Evolution and Dispersal of Modern Humans in Asia*: 51-65. Tokyo, Hokusen-sha.
- NASRALLAH, J.
1950 Tumulus de l'âge du Bronze dans le Hauran, *Syria* XXVI: 314-333.
- REPORT
2007 Report of the excavation mission at Al-Qarassa (in Arabic).

Tell Al-Ashaari in Hauran Throughout the Bronze Age: The 2010 Excavation Results

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Abstract

Archaeological excavations at Tell Al-Ashaari started in 1998. They shed light on one of the most important tells in southern Syria dating back to the Middle Bronze Age I. Such excavations can be compared with others undertaken at several other sites, such as Tell Sakka in the Damascus Basin, Tell Dabet Breikeh and Tell Al-Mtounah in Suweida, and Tell Al-Tayyibeh in Al-Zaidi Valley in Daraa (Al-Mohammad 2014), to mention but a few.

Tell Al-Ashaari is located to the west of the Hauran Plain in what is known as 'Al Nuqra' (previously also known as 'Bashan'). It is 5 km northwest of 'Mzeireeb' and 14 km northwest of the city of Daraa, along Wadi Harir, one of the permanent streams of the Yarmouk River in the region, which forms a deep gorge in the Hauran Plain and is considered one of the natural borders. To the southeast of Tell Al-Ashaari there is a spring that flows past the southern end of the tell and precipitates some 90 m into the gorge. There are many other springs in the vicinity of the tell. The soil is very fertile on the tell, which is covered with vegetation in all seasons (Kropp and Al-Mohammad 2006: 129) (Figure 1).

The excavation took place on private farming land, to the east of the tell, after a local had reported a dug hole 1.5 m deep and containing numerous pottery pieces (Al-Mohammad 2010a). Excavations were undertaken by archaeologists A. J. Al-Zouabi, M. Al-Eshaat, and M. Hrayzeen, in addition to the painter F. Ayash. The survey of the location revealed a lateral opening at the bottom of the hole blocked with some stone pieces. The removing of the stones revealed a burial and a number of various pottery pots. Further investigations led to the discovery of 16 tombs dating to the Bronze Age and five tombs dating to the Roman period, in addition to c. 3000 pieces of pottery, bronze tools, and gems. Work lasted four continuous months from 27 January to 31 May 2010.

Before these discoveries, Tell Al-Ashaari had already attracted the attention of many western researchers and travellers crossing southern Syria in the 19th and early 20th centuries, such as G. Schumacher (1888; 1886: 204-206), who visited the tell in the years 1884, 1897, and 1913, G. A. Smith (1901) in the 1900, and W. F. Albright (1925) in 1924, leaving invaluable documentation of inscriptions that have since disappeared.

Tell Al-Ashaari in the Bronze Age

During the period between the late 3rd millennium and the 2nd millennium BC, the western plain of Hauran witnessed a remarkable demographic development.

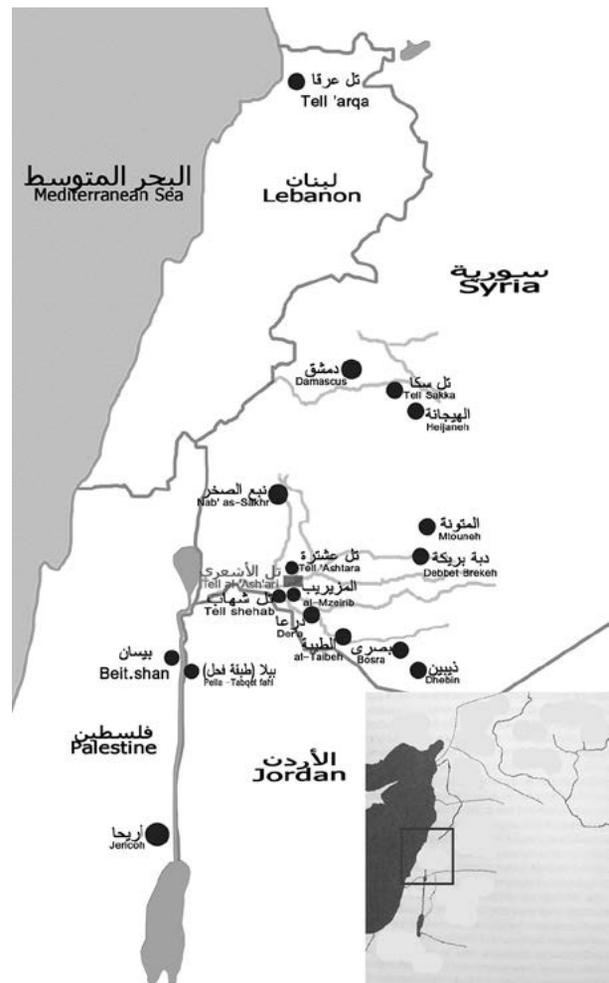


Figure 1: Tell Al-Ashaari Map with important Middle Bronze Age sites in Levant (© Qasem Al-Mohammad).

At that time, as is the case today, the population lived mostly in village communities and there were only a small number of strongly fortified urban centres, such as Tell Ashtarrah, Tell Shihab, and Tell Al-Ashaari. The area formed no exception in the microcosm of city-states of the Early and Middle Bronze Ages of the Levant (Kropp and Al-Mohammad 2006: 131-133).

From available sources, it is difficult to determine the name of the Bronze Age settlement at Tell Al-Ashaari. The oldest testimony on the topography of the Hauran comes mainly from the Egyptian Execration Texts dated to the 19th century BC, containing curses pronounced against foreign rulers mentioned by name, title, and place of residence. The Hauran is mentioned with two cities: 'Strtm (modern Tell Ashtarrah) and Bwsrnw (modern Bosra) (Dussaud 1927: 328-330). The Middle Bronze Age in the Levant coincided with the Middle Kingdom in Egypt and lasted for about 500 years under the rule of the 12th and 18th dynasties. Some of the most important cities built in Egypt were Tell Al-Yehudiyeh, Heliopolis, Tell Al-Maskhoutah, Tell Al-Dabaa and the capital Avaris (Wilson 1951: 125-165).

The Hauran is also featured in texts dated to the late Bronze Age, such as the Annals of Thutmosis III (second half of the 15th century BC). These mention some events that took place in the area of Tell Ashtarrah. Since the large settlement of Tell Al-Ashaari can hardly have passed unnoticed, it is very likely that it was mentioned as Musikha, Qanu, or 'Aruna. The last appellation is the most probable as it is written immediately before Tell Ashtarrah (Abou Assaf 1988: 25).

In conclusion, the old name given during the Bronze Age to Tell Al-Ashaari is still missing and the slight archaeological information about this period is taken into consideration in an attempt to identify the site.

Previous Excavation Works

In 1931, H. Seyrig excavated some tombs in what is called the 'Graveyard' (Seyrig 1931), located to the northeast of the tell, resulting in the discovery of a collection of important coinage. The most important of these were two unused coins belonging to the coinage of the 'City of Dion'. After decades of negligence, Tell Al-Ashaari was finally the focus of debate as a strong candidate for the ancient city of Dion. In 1991, and based on the notification of the owner of farm land east of the mound of Tell Al-Ashaari, the Department of Antiquities in the governorate of Daraa excavated the land. Two shaft tombs were uncovered, extending from the opening of the well towards the sides to form a 4 m x 3.5 m burial chamber. Inside the tombs, around 400 pottery pieces, as well as stone, metal, and bronze tools, were discovered, all dating to the Middle Bronze Age (Al-Maqdissi 1993).

In 1998, a survey conducted on the surface layer around the tell revealed an occupation of the Modern Stone Age (Al-Mohammad 1998: 1-20) while the walls of the city dated to the Bronze Age (Abou Assaf 1988: 25). These preliminary results confirmed the techniques and the date of construction of these fortifications, which appeared built of coarsely cut stones that could be



Figure 2: Tell Al-Ashaari, west side overlooking Yarmouk Valley (© Qasem Al-Mohammad).

clearly seen on the surface to the southwest, northeast, east, and south of the tell. The survey also revealed a huge tower (8 m x 7 m) made of basalt rocks, in addition to large sections of a wall running towards the east and west. These evidences suggest that the wall of the city was probably built sometime in the Bronze Age (Figure 2). The wall itself is remarkably well preserved. It is 2 m high on its southern side, and it provided information on the construction methods and techniques. It is possible that there was a local tradition in building practices defining proper construction methods in the region. The walls resemble in their size and shape the circular walls of Tell Ashtarrah (Abou Assaf 1969), located 3 km to the north and also dated to the Bronze Age (Kropp and Al-Mohammad 2006: 131-133). On the western and northern sides, the fortification wall seems inexistent as no traces of the wall were identified. This can be justified by the fact that the natural fortification of the settlement from these sides made it naturally defensible.

In the southern corner of the tell, there is a ramp that leads up towards the city gate that was paved with large slabs. The entrance consisted of a rectangular yard followed by stone stairs leading into the city. The architecture of the fortification of the site resembles to a great extent, in size and shape, those found at Tell Ashtarrah and Ebla. It also reminds us of the ramp found at Tell Dabet Breikeh that leads to the northeastern gate (Braemer 1991: 8) where no cemetery was found. Instead only the wall and towers were found (Abou Assaf 2004).

Between 1998 and 2004, the excavation works concentrated on the acropolis of the tell (northern part) resulting in uncovering the remains of archaeological buildings dating to the Roman periods (between the 2nd and 5th centuries AD). Excavations revealed also that the tell was a settlement during late Islamic times,

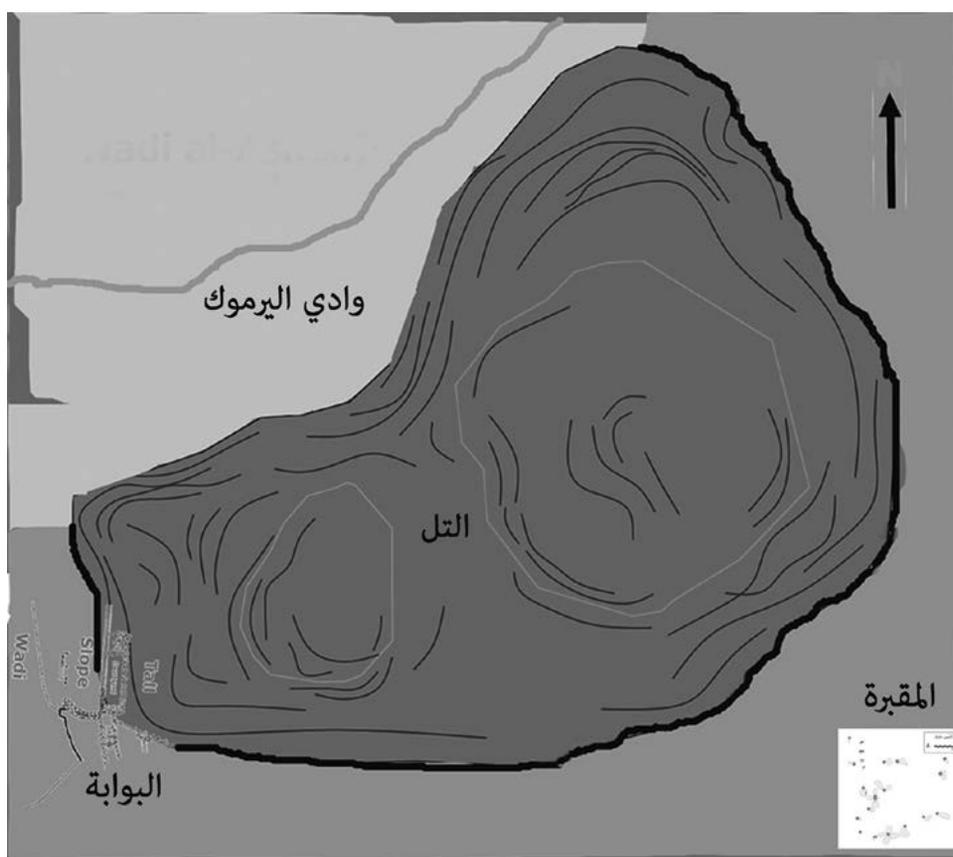


Figure 3: Topographic plan of Tell Al-Ashaari and the cemetery located to the east of the tell (© Qasem Al-Mohammad).

particularly the Ayyubid, Mameluke, and Ottoman periods.

During the excavation season of 2005,¹ a new area was investigated in the western part of the mound directly overlooking the wadi. A building was partially uncovered representing baths dating to the Roman period. Works on this structure lasted until 2009. In the season of 2007, a new area, c. 200 m from the baths, was opened to uncover the nearby theatre, adjacent to the baths on the southeastern side.

2010 Season: The Bronze Age Cemetery

The cemetery of the city of Tell Al-Ashaari, dated to the Middle Bronze Age and to the Roman Period, was located c. 200 m east of the tell (Figures 3-4). Cemeteries that dated back to the Middle Bronze Age extended beyond the borders of the old city (Al-Maqdissi 1986). The discovery of the cemeteries in the farming land, which is constantly moist due to ploughing and irrigation, greatly affected the preservation of the objects within the tombs. The excavation and identification work of the skeletons and pots buried alongside was extremely difficult, and even at times almost impossible. Another major difficulty was the soil spilling inside the tombs, filling them completely and making the burial layer to

be excavated almost 0.8 m deep, while the height of the tomb was around 2 m. The presence of a huge amount of soil resulted in increasing pressure and weight on the findings inside the tombs.

Cemetery location

Like all other cemeteries in the Bronze Age, the cemetery of Tell Al-Ashaari is located outside the fortification of the city in the eastern plain of the tell. Other known cemeteries discovered in the area of the Hauran and in the Levant are at Al-Mtouneh (Jabal Al-Arab), Zabeen (Jabal Al-Arab), Tell Shihab (Yarmouk), Tell Sakka (Ghouta Dimasqh) (Hamoudeh 2007), Pella (Tabaqat Fahl) in Jordan, one of the Decapolis cities (Smith and Day 1989: 67-77), Tell Arqa in Lebanon, and Tell El-Ajjul, Jericho (Ariha), and Beth Shan (one of the Decapolis cities) in Palestine. As for the cemeteries found in the Sinai, the dynasty cemeteries were built on the tell with burials for donkeys and horses. The most prominent burial goods were oil lamps, pottery, and other small objects, dating to Middle Bronze II (A-C), all similar to the goods found in Palestine and Syria (Posener *et al.* 1965).

Burial Styles

The burial style in the cemeteries of Tell Al-Ashaari can be attributed to the local style in the Levant

¹ Excavation carried out by the archaeologists Y. Abou Noqta and B. El-Jahmani.

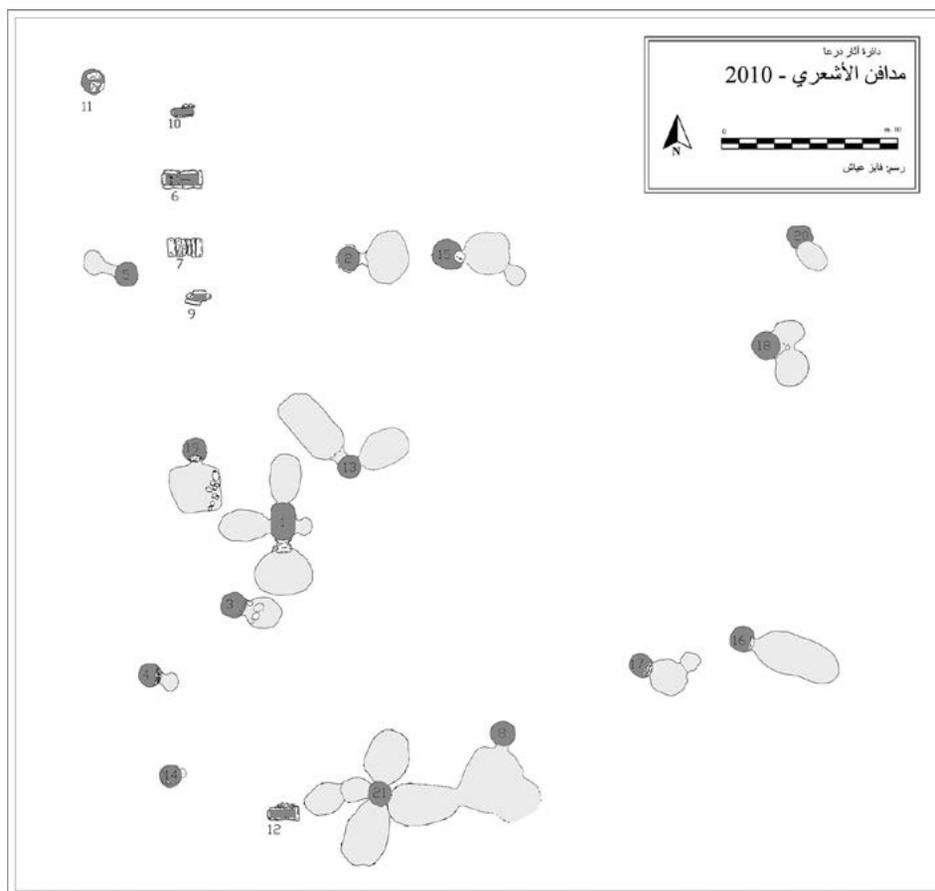


Figure 4: Plan of the discovered cemetery at Tell Al-Ashaari (© Qasem Al-Mohammad).

employed since the beginning of the Early Bronze Age. The cemeteries found on sites in southern Syria can be classified into three types. The first type is found inside the city (the tell), such as Tell Sakka and Tell Al-Tayyibeh. The second type is found outside the city walls, either on flat land (plain), i.e. Al-Hayjaneh, Al-Mtouneh, Daraa (Al-Mohammad 2010b), and the Golan, or built using huge stones and stone beams. The third style is in large jars, such as at Tell Sakka and Al-Mtouneh (Al-Maqdissi 1991; Braemer 1991).

Architecture

The tomb at Tell Al-Ashaari is entered via a round, vertical shaft 2 m deep, through a narrow opening, less than 1 m in diameter, leading to the burial chamber. The entrance of the chamber, usually carved in limestone, is blocked with huge rocks or several small and medium sized rocks (Figure 5). The tombs can vary according to the number of chambers, ranging from one to four. The biggest tomb is tomb 21, which is attached to tomb 8. Thus the tomb is more than 10 m long and consists of many chambers. These chambers were used to bury several bodies, as was the case during the Middle Bronze Age. The old bones are moved to the side of the chamber to make room for new bodies. The number of buried bodies varies. In addition, it is difficult to verify the existence of shelves or niches for clay oil lamps, as

is customary in tombs, due to the fragile nature of the limestone of which the Al-Ashaari tombs were made. The skeletal remains were scattered and largely eroded, consisting of parts of skulls and teeth belonging to adults and children. The discovered pots indicate that burial in these chambers continued throughout the Early and Middle Bronze Ages.

Pottery

The pottery of the Early Bronze and Middle Bronze Age I features a round flat base, wavy-line edged handles, also four-wick oil lamps and pots with closed openings. Other important pottery items include large storage vessels with flat bases and decorated with wavy-line edged handles, and cylinder-shaped vessels resembling finds discovered in Syria, Palestine, and Jordan (Maqdissi 1993) (Figure 6).

The pottery from the Middle Bronze Age II, abundantly discovered during excavations, is characterized by large round jars, jugs, and juglets with triangular spouts, in addition to pear-shaped bowls. The most dominant pottery style is the round juglet, decorated with surface puncturing (Tell Al-Yehudiyeh style), or the ‘Hyksos’ pots with their grey or light brown colouration (Stiebing 1971) and distinctive mode of decoration applied after slipping and burnishing, and created by repeatedly

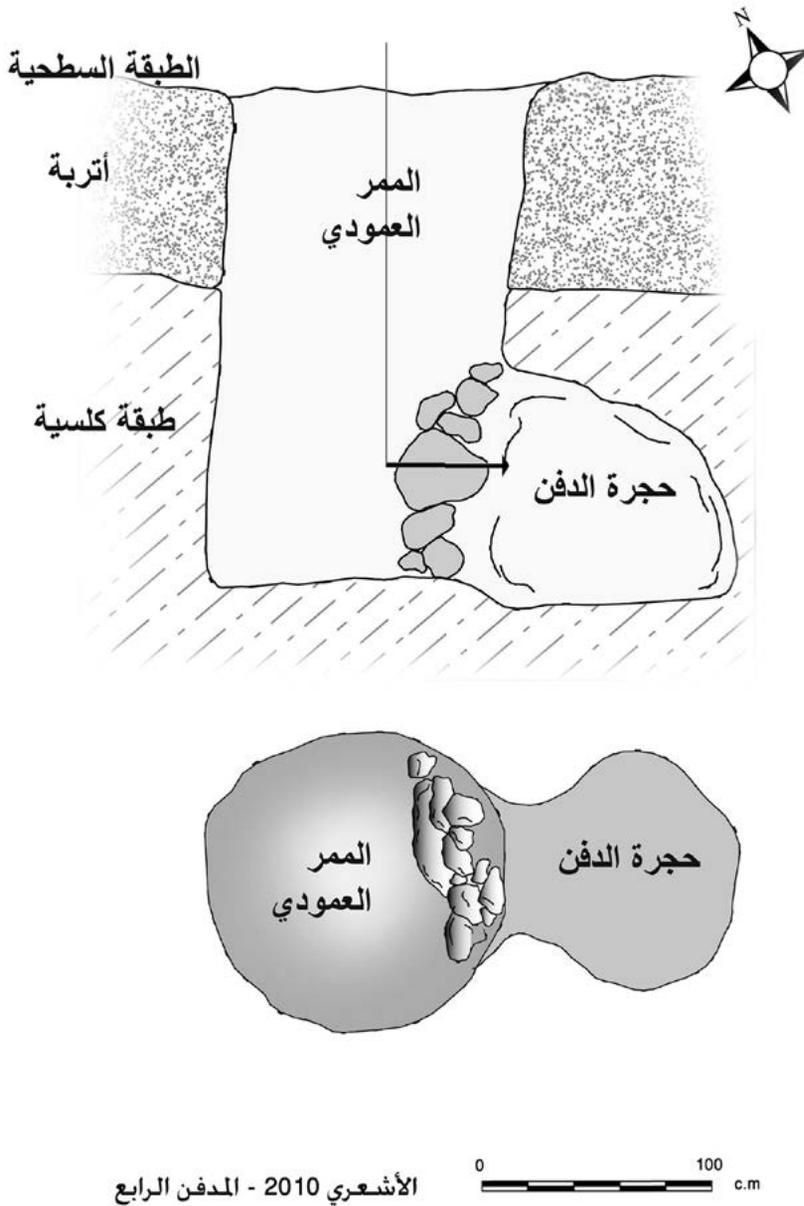


Figure 5: Plan of tomb No. 4
(© Qasem Al-Mohammad).

piercing the surface with a small, sharp object to create a wide variety of geometric designs. This is also referred to as 'Black Palestinian Ware', found in southern Syria, Palestine, and the Nile Valley (Hamoudeh 2007).

Inside tomb 18 is a very distinctive small jar ('Bichrome Ware'), dating to mid-2000 BC (Al-Maqdissi 2001), with three horizontal brown bands painted on the beige shoulder of the jar. The body of the jar has three distinct shapes on three sides, representing five consecutive circles, with two horizontal lines towards the bottom of the jar, closer to its base. Such a style can be found in the royal cemetery of Ebla (1800-1750 BC or Middle Bronze Age IIA), and is a traditional style from the area of the Kalkan Coast or northern Syria, discovered especially in the 10th strata at Alalakh (Matthiae 1989: 303-313, pl. 53-57) (Figure 7).

On the other hand, there is a big resemblance between the objects found inside the tomb and those found in the cemetery of Tell Al-Ashaari, such as the clay pots with flat base and the bronze pin found in great numbers and different shapes in Al-Ashaari cemetery. As for the other pots found, we can distinguish the pottery dating to the 'Hyksos' period, with their pierced geometric and vegetation patterns which can be compared to the styles found in the cemetery of Tell Al-Tayyibeh and dating to the Middle Bronze Age (Abou Assaf 1974) (Figure 8).

Jewellery

A substantial amount of beads was discovered, some round and others cylindrical in shape, dating to the Middle Bronze Age I. The special bead type found was the carnelian bead, a type of quartz found in the area

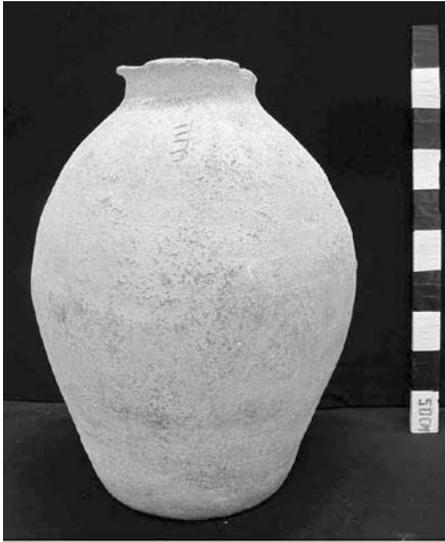


Figure 6: Jars and oil lamps,
Early Bronze Age IV
(© Qasem Al-Mohammad).

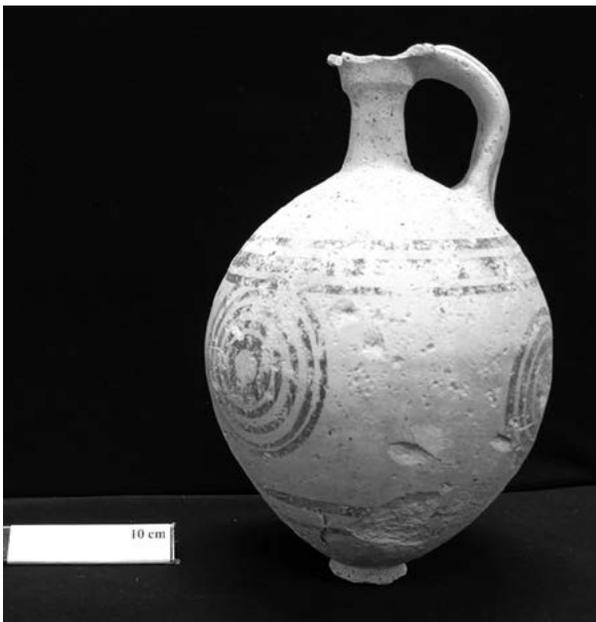


Figure 7: Coloured pottery jug, Middle Bronze Age II
(© Qasem Al-Mohammad).

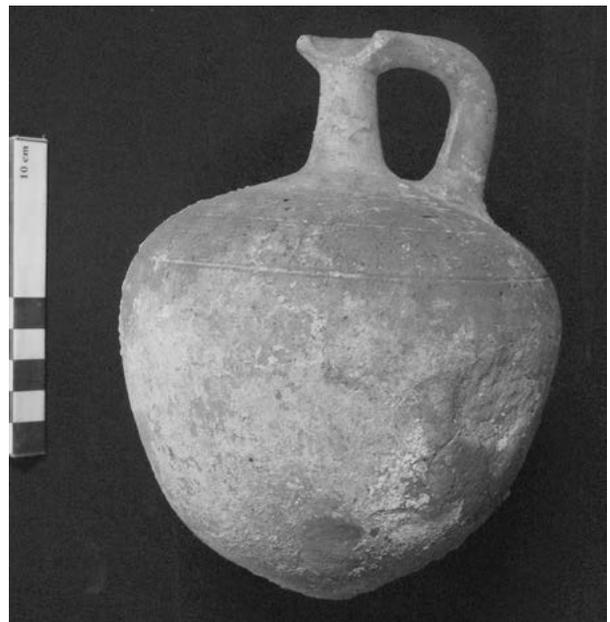


Figure 8: Hyksos-style jug, Middle Bronze Age II
(© Qasem Al-Mohammad).

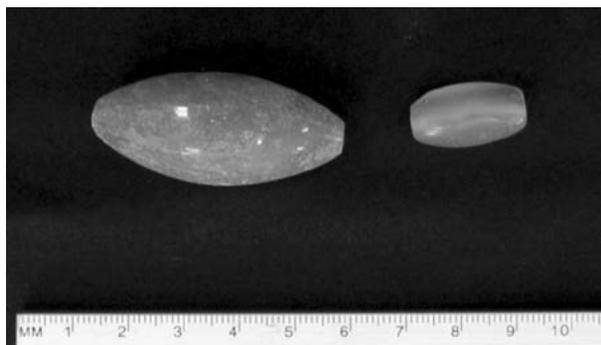


Figure 9: Shapes of carnelian beads, Middle Bronze Age II
(© Qasem Al-Mohammad).

between Iran and India, as well as in the Arab peninsula and Turkey. Large numbers of these beads were found at Tell Al-Ishara (previously known as Tarqa) dated at c. 1800 BC (Fortin 1999: 202, fig. 206 a-b) (Figure 9).

Numbers of pins were found with a slender and long shape. The sewing hole is located near the top of the pin, and is frequently seen in the tombs of southern Syria, Palestine, and Jordan, dating to the Middle Bronze Age. The other type has a spherical, flat head dating to the second intermediate Bronze Period (Al-Maqdissi 1993) (Figure 10).



Figure 10: Shapes of bodkins, Middle Bronze Age (© Qasem Al-Mohammad).

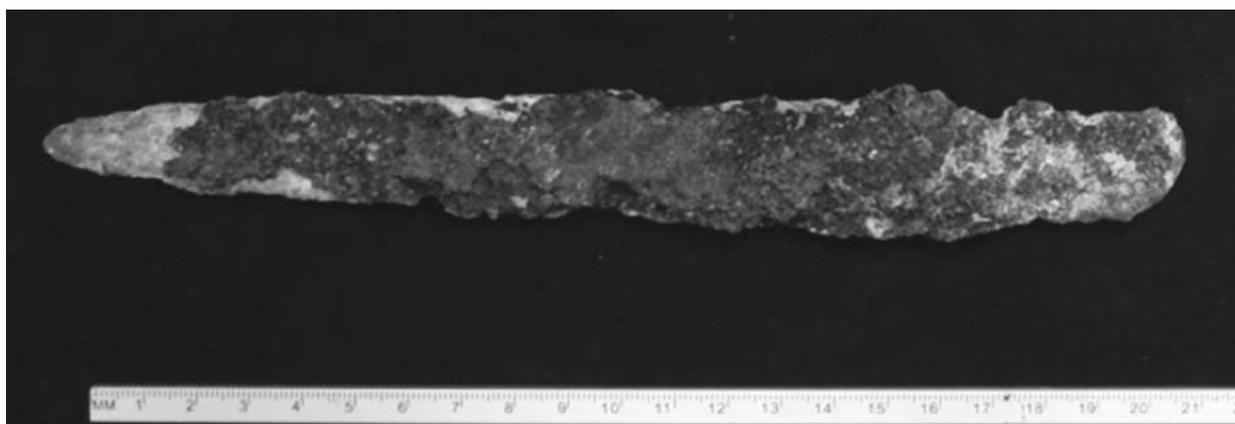


Figure 11: Iron dagger, Middle Bronze Age (© Qasem Al-Mohammad).

Weapons

Bronze weapons are abundantly found in many cemeteries. The predominant weapon is the spear with braided knot and wooden handle (Maxwell 1946). Daggers are also very common finds in the Al-Ashaari cemeteries (Figure 11).

Conclusion

The tombs discovered at Tell Al-Ashaari indicate that the cemetery remained in use during two eras: the period of the third millennium (Early Bronze Age IV) and the Middle Bronze Age (I, II, and III). On the other hand, tombs found belonging to the Roman period (1st century AD) indicate the unchanged location of these cemeteries. The tell was inhabited, as proven by the excavations. Future excavations at Tell Al-Ashaari may complete the work so far carried out and add more important information about the archaeological and historical environment of the Hauran region in particular, and the areas of southern Syria in general.

Bibliography

ABOU ASSAF, A.

2004 Preliminary Report on Excavation Mission in Tell Debat, Swaida, 1st and 2nd Seasons in 2003-2004, *Annales Archéologiques Arabes Syriennes* XXXVII/ XXXVIII: 92-96 (in Arabic).

1988 *Antiquities of Old Kingdoms in Syria* (in Arabic). Damascus, Ministry of Culture.

1974 Ein Mittelbronzeitliches grab in At-Taibih und die gleichsetzung von A-Taibih mitt u-b-ja, *Baghdader Mitteilungen* 7: 13-19.

1969 Tell Ashtara, 2. Kampagne 1967, *Annales Archéologiques Arabes Syriennes* XIX: 121-128.

ALBRIGHT, W. F.

1925 Bronze Age Mounds of Northern Palestine and the Hauran: The spring trip of the School in Jerusalem, *BASOR* 19: 3-17.

AL-MAQDISSI, M.

2001 Introduction to the study of Bichrome Ware Pottery of mid 2000 BC, *Annales Archéologiques Arabes Syriennes* XXXIV: 34-44 (in Arabic).

1993 Chronique des activités archéologiques en Syrie (I), *Syria* 70 (3-4): 443-560.

1991 Sites et matériel du sud de la Syrie à l'âge du bronze moyen: les sources anciennes. In: J.-M. Dentzer and J. Dentzer-Feydy (eds), *Le djebel al-Arab: histoire et patrimoine au musée de Suweida*: 11-18. Guides archéologiques de l'Institut Français d'Archéologie du Proche-Orient 1. Paris, Éditions Recherche sur les civilisations.

1986 Preliminary Report on Excavation Reports in the Eastern Area of Lajat: Al-Mtouneh village, *Annales Archéologiques Arabes Syriennes*: 63-68 (in Arabic).

AL-MOHAMMAD, Q.

2014 Hauran in the Bronze Age in the latest Excavation in Daraa and Tell Al-Ashaari. In: *Cradle of Civilization*. Directorate General of Antiquities and Museums. Volume XXI-XXII: 47-52 (in Arabic).

2010a Nouvelles découvertes à Tell Ash'ari. In: *Hauran V, La Syrie du Sud*, Actes du colloque de Damas 2007, Volume II: 55-63 (in Arabic). Beyrouth, Institut français du Proche-Orient.

2010b La ville de Déraa à travers les âges. In: *Hauran V, La Syrie du Sud*, Actes du colloque de Damas 2007, Volume II: 67-76 (in Arabic). Beyrouth, Institut français du Proche-Orient.

1998 *Preliminary Report on Tell Al-Ashaari Excavation*: 1-20 (in Arabic). Damascus, Report Directorate General of Antiquities and Museums.

BRAEMER, F.

1991 Du paléolithique à la fin de l'âge du bronze. In: J.-M. Dentzer and J. Dentzer-Feydy (eds), *Le djebel al-Arab: histoire et patrimoine au musée de Suweida*. Guides archéologiques de l'Institut Français d'Archéologie du Proche-Orient 1, 8. Paris, Éditions Recherche sur les civilisations.

DUSSAUD, R.

1927 *Topographie Historique de la Syrie Antique et Médiévale*. Paris, Librairie Orientaliste Paul Geuthner.

FORTIN, M.

1999 *Syria Land of Civilization*. Québec, Musée de la civilisation.

HAMOUEH, M. K.

2007 Tell Saka. In: *Cradle of Civilization*: 105-108 (in Arabic). Damascus, Ministry of Culture.

KROPP, A. and AL-MOHAMMAD, Q.

2006 Dion of the Decapolis. Tell al-Ash'ari in southern Syria in the light of ancient documents and recent discoveries, *Levant* 38: 129-133.

MATTHIAE, P.

1989 *Ebla: Un Impero Ritrovato. Dai Primi Scavi Alle Ultime Scoperte*. Saggi 719, Torino, Einaudi.

MAXWELL-HYSLOP, R.

1946 Daggers and Swords in west Asia, *Iraq* 8: 1-65.

POSENER, G., BOTTÉRO, J. and KENYON, K. M.

1965 *Syria and Palestine, c. 2160-1780 B.C. Relations with Egypt, Relations with Mesopotamia. The archaeological sites*. Cambridge, Cambridge University Press.

SCHUMACHER, G.

1886 *Across the Jordan*. London, Palestine Exploration Fund.

1888 *The Jaulân: Surveyed for the German society for the exploration of the Holy Land*. London, R. Bentley and Son.

SEYRIG, H.

1931 Travaux archéologiques en Syrie. Tsil et tell el-Ash'ari, *Archäologischer Anzeiger*: 589-590.

SMITH, G. A.

1901 Notes of a journey through Hauran, with inscriptions found by the way, *Palestinian Exploration Fund Quarterly Statement*: 33 (4): 351-359.

SMITH, R. H. and DAY, L. P.

1989 *Pella of the Decapolis. Final Report on the College of Wooster Excavations in Area IX, the Civic Complex, 1979-1985*, Volume 2. Sydney, College of Wooster.

STIEBING, W. H.

1971 Hyksos Burials in Palestine: A Review of the Evidence, *Journal of Near Eastern Studies* 30.2: 110-117.

WILSON, J. A.

1951 *The Culture of Ancient Egypt*. Chicago, University of Chicago Press.

Hassake

Tell Fekheriye. A Synopsis of Excavations and Ongoing Research Questions

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Abstract

A joint Syrian-German excavation project involving the Syrian Directorate General of Antiquities and Museums and the Freie Universität Berlin was conducted at Tell Fekheriye in northeastern Syria from 2006 to 2010. The investigations have considerably broadened our knowledge of this important archaeological site, as they have produced valuable new evidence linked primarily to the early Neolithic, Mittani, Middle Assyrian, and Roman-Byzantine periods. Similar to other archaeological sites in Syria, research at Tell Fekheriye was interrupted after the political crisis started in 2011. This article provides a synthesis of the results of the older and recent excavations at Tell Fekheriye. It also addresses the possible identification of Tell Fekheriye with the Mittani capital Waššukanni, and, more generally, questions of changing political orders and social spaces in a multicultural landscape of ancient and modern Syria.

Tell Fekheriye is located on the fringe of the Syrian town of Ras Al-'Ain in the centre of the open flatlands that form the northernmost extension of the great Mesopotamian plain. Today, the Syrian-Turkish border runs just 0.8 km north of the site separating Ras Al-'Ain from the Turkish town of Ceylanpınar. Around 45 km to the south of Tell Fekheriye, the Jabal 'Abd Al-'Aziz rises to form a natural barrier to the arid zones of the Syrian steppes. The fertile plain stretches to the north, bordered by the Karaça Dağ-Tur 'Abdin line, about 50 km to the northeast. Access to the Anatolian highlands is gained via the plain of Harran and the Şanlıurfa region located about 80 km northwest of Tell Fekheriye. In addition to this favourable geographic setting, an important environmental factor for the settlement of Tell Fekheriye is its location in the centre of the karst spring area forming the current head of the Khabur River. This specific environmental situation is reflected in the toponym 'Ras Al-'Ain', which means 'head of the spring' and is derived from the Roman-Byzantine 'Resaina' and the Akkadian *rēš ina* already mentioned in the annals of the Assyrian king Adad-narari II (911-891 BC). The Assyrian king reports that on his fifth campaign in the land of Ḫanigalbat, he received the tribute of Abi-salāmu of Bīt-Baḫiani in 'Sikāni at the head of the of the spring of the Khabur' (*Sikāni ša rēš ina Hābūr*).¹

The karst springs of Ras Al-'Ain are indeed among the largest in the world. Their water originates from seven springs immediately to the north and northeast of Tell

Fekheriye and from an additional six springs only one km to the south.² With this abundance of surface water, and an average annual precipitation of 400 mm, the area around Ras Al-'Ain/Tell Fekheriye forms a highly fertile landscape with immense potential for agriculture and livestock farming. For this reason it is unsurprising that in early antiquity a dense settlement system developed there, with Tell Fekheriye and the nearby Tell Halaf as its most prominent sites.

Research history

The history of research at the site demonstrates a steady interest in its archaeological potential, although the intensity of this interest varied for several reasons. M. Oppenheim visited Tell Fekheriye early on and when he returned to Tell Halaf in 1927, he already seemed to have reached the conclusion that the site should be identified as the capital of the Mittani state, Waššukanni (Oppenheim 1931: 60). The same year, D. Opitz published a note on this suggested identification for which he collected all the philological evidence available to him (Opitz 1927). In 1929, von Oppenheim instructed architects F. Langenegger and H. Lehmann to survey the site and draw up the first topographical map. Their work was later used as a basis for the topographical map published in the Oriental Institute volume on the

¹ Grayson 1991: 153, A.O.99.2.101-102. On account of the inscription on the Hadad Yis'i statue found at Tell Fekheriye, this site can be identified as Sikāni.

² Burdon and Safadi 1963: 258, fig. 3. The karst springs were active until the 1960s, when Burdon and Safadi carried out their hydrogeological study of the Ras Al-'Ain area. They calculated that the average annual discharge was 1219 million cubic meters. Since then, the increased use of pumps for the irrigation of cotton, vegetables, and other summer crops, and the drainage of water to create the Tishrin Dam south of Hasseke, have dramatically altered the picture. Today most of the karst springs have collapsed and the bed of the Khabur River near Tell Fekheriye has completely dried out.

American excavations at Tell Fekheriye (McEwan *et al.* 1958: pl. 87). However, von Oppenheim never carried out his own excavations at Tell Fekheriye, since his permit was revoked at the outbreak of World War II and instead it was granted to the Oriental Institute of Chicago and the Boston Museum of Fine Arts. The American excavation started under the direction of C. McEwan in 1940, but was pursued for a short time only. Due to a protest lodged by von Oppenheim with the Vichy regime in France, the excavation was abruptly stopped at the request of the French mandatory government in Syria, and McEwan and his team were forced to leave the site within 24 hours (Kraeling 1958).

The results of the American excavation are summarized in the Oriental Institute Publication 79 which appeared after McEwan's death. The authors of this book were not personally involved in the excavation, although they performed painstaking and commendable work in compiling all the information from very incomplete and partially lost documentation. The outcome of this publication was nevertheless important as it stressed the significance of archaeological remains that were exposed mainly for the Middle Assyrian and Neo-Assyrian periods, as well as for Roman-Byzantine times. The remains dating to Roman-Byzantine times can be clearly linked to the city of Resaina or, after 383 AD, to Theodosiopolis, for which researchers have documented two systems of defensive walls around the base of the mound in addition to the remains of several domestic and military buildings (Kraeling and Haines 1958). The total area enclosed by the city wall in Byzantine times was about 90 ha (see also Fig. 1). As for the Neo-Assyrian period, the most important discovery was that of a monumental building or 'palace' in Sounding IX in the northeastern part of the mound that was described as a *hilani* type of structure.³ House architecture of the Middle Assyrian period was excavated in Sounding VI at the western edge of the upper mound (McEwan *et al.* 1958: 5-6). A total of 12 cuneiform tablets collected from the two floors of the building were dated to the reigns of Šalmaneser I (1263-1234 BC) and Tukulti-Ninurta I (1233-1198 BC).⁴

³ Kraeling and Haines in McEwan *et al.* 1958: 20. It must be noted that the conclusions on the suggested 9th- to 7th-century date of the building have been drawn solely on the basis of four potsherds collected from Floor 3 in Sounding IX (McEwan *et al.* 1958: 20 and Kantor 1958: 39, nos. 103-104, 106-107). This floor represents a secondary occupation phase of the building while its original floor (Floor 5) yielded a shard of the Khabur Ware (see also McEwan *et al.* 1958: 6 and Kantor 1958: 39, no. 108). Follow-up investigations in the same area by the Pruß and Bagdo team in 2001 added more Neo-Assyrian pottery that dated mainly to the 7th century BC (Pruß and Bagdo 2002: 318-319, fig. 4). However, the possibility of an earlier phase for the whole building cannot be excluded.

⁴ Güterbock 1958: 86-87. For the purposes of this contribution, the absolute dates of the Middle Assyrian rulers follow the 'short chronology' established by Boese and Wilhelm 1979.

The fact that evidence of Middle Assyrian and Neo-Assyrian occupations at Tell Fekheriye was found by the American excavation seemed to confirm Opitz's proposed identification of the site as Sikāni, a toponym that he interpreted as deriving from the Middle Assyrian Uššukanni and the Mittani Waššukanni (Opitz 1927: 300). However, archaeological proof of a larger Mittani-period settlement at this place was not provided as the American team did not reach levels dating to the earlier part of the Late Bronze Age. A. Moortgat therefore conducted two short seasons of excavations at Tell Fekheriye in 1955 and 1956 with the main goal of finding evidence of the Mittani residence and the centre of an earlier Hurrian kingdom, and, thus, fulfilling von Oppenheim's long-cherished hope of excavating Waššukanni (Moortgat 1957). In two soundings in the west ('Türbe-Schnitt') and east ('Ost-Schnitt') of the main mound, Moortgat succeeded in documenting materials from the mid-second millennium BC, i.e. Khabur Ware, Nuzi Ware, and other pottery types of the Mittani period (see Hrouda 1961: 209-223). However, he decided to leave the site in favour of Tell Chuera. He was obviously discouraged by the large cotton fields throughout the site and the high groundwater level, which represented a great obstacle to large-scale excavations at that time. He remained convinced of the existence of a significant Mittani-period town but concluded: 'Leider werden wir sie wegen der schwierigen Umstände wohl niemals freilegen können' ('Unfortunately we will probably never be able to excavate the town due to the difficult conditions', Moortgat 1959: 13).

Interest in the site was rekindled when the statue bearing the bilingual inscription of Hadad-Yis'i, the Aramaean king of Gūzāna and vassal of the Neo-Assyrian Empire, was found during construction work at the foot of the upper mound in 1979. Dedicated to the temple of the storm god in Sikāni, the statue revived the discussion of the identification of Tell Fekheriye as Waššukanni (Abou-Assaf *et al.* 1982: 84-85; Dion 1985). Furthermore, in 1996, the torso of the statue of a Roman emperor (probably Septimius Severus, 146-211 AD) came to light as building materials were illegally removed from the northern edge of the lower mound (Bonatz, Kühne, and Mahmoud 1998: 144, cat. no. 132). These finds encouraged further investigations, which ultimately resulted in the joint Syrian-German mission under the direction of A. Bagdo and A. Pruß, who excavated the site for one season in 2001. Work was mainly carried out at the architectural sequences of the Middle Assyrian and Neo-Assyrian buildings already excavated by the American team and around the find spot of the Roman statue (Pruß and Bagdo 2002). Although holding promise for further research, this project was also only short-lived. A second campaign was not undertaken.

Encouraged by the still undisputed importance of the site, a new joint Syrian-German project involving the Syrian Department of Antiquities and Museums and the Freie Universität Berlin as main partners was launched there in 2005.⁵ That same year a comprehensive geodetic survey of the mound was undertaken to update and amend the old topographical map. Four seasons of excavation followed in 2006, 2007, 2009, and 2010. Despite the tragic fact of the Syrian war interrupting any archaeological research at Tell Fekheriye, previous investigations have considerably broadened our knowledge of the site since they have produced valuable new evidence linked primarily to the early Neolithic, Mittani, Middle Assyrian, and Roman-Byzantine periods. Since the archaeological account of these periods strictly relates to what has been proposed as the long-term objectives of the project, these objectives will be identified here before continuing with the archaeological account.

Objectives of current research: architectural and topographical studies

Taking into consideration the ongoing discussion on the identification of Tell Fekheriye as Waššukanni, a high-priority assignment was a large-scale excavation of Late Bronze Age architectural contexts and associated finds. The conditions for this work appeared to be much better than during Moortgat's days, as agreements have been made to keep the main mound clear of cotton growing and the water ground level has drastically dropped over the last few decades. Another obstacle to excavating larger parts of the 2nd-millennium town is the huge deposits of Roman-Byzantine building material and debris. But these did not cover the whole site. Along the western slope of the main mound, a terrace for agricultural activities was artificially created about 30 years ago, and, as a result, the remains of the Roman-Byzantine period have largely been destroyed and removed. With respect to the latest excavations, the topographical situation in this area, which for logistical reasons was divided into trenches C I-V and the step trench D (Figure 1), provides good conditions for investigating the Late Bronze Age settlement sequence (Figure 2). Since the remains of

the Middle Assyrian occupation on the western terrace appear directly underneath the modern surface, it is possible to investigate these layers on a large scale and to precisely describe the layout of the architecture, its stratigraphic relationships, and its functional character. Furthermore, the underlying layers have yielded well-preserved remains of monumental Mittani-period architecture. Thus, the aim of digging a large-scale area of both the Mittani and Middle Assyrian towns was achieved and could, in theory, continue to be pursued in the future.

The study of the stratigraphic architectural sequence is also helping us to sharpen our understanding of the topographical formation process of the site. The area of the terrace is approximately 200 m in length and between 20 and 30 m in width (Figure 1). The modern surface runs along an average height of 355.50 m above sea level while the steeply rising slopes to the east reach a maximum height of 363.40 m above sea level. This sharp gradation of the terrain was reinforced by modern terracing in order to gain new fields for agriculture. The next gradation to the west was caused by the construction of the paved road that crosses the site from the north (the direction of Ras Al-'Ain) to the south. This road marks the actual border between the main mound (c. 12 ha) and the large lower mound or 'lower city' (c. 78 ha) to its west. Three small soundings (F 1-3, see Figure 1) carried out in 2010 at the border of the upper mound demonstrated that the Byzantine buildings situated in this area were later flooded and consequently filled with thick alluvial deposits. For this reason, the bases of the Byzantine limestone walls today lie about 5.50 m under the modern surface (c. 352 m above sea level). This observation significantly alters the picture of the ancient topography of the site. The difference in elevation between the Middle Assyrian occupation level at the western edge of the main mound and the Byzantine occupation in the lower city would have been at least 7 m and probably more, since we can expect a deeper horizon for the lower city in the 2nd millennium BC. Until now we have not been able to determine whether the Middle Assyrian town, or any earlier settlement, extended into the area of the lower city; nor have we been able to detect any sort of boundary between the two areas, such as a city wall. However, what has become clear is the considerable height of the main Late Bronze Age mound which can now be considered a true citadel. It is important to add that smaller remains of Middle Assyrian architecture were also unearthed in the deep sounding of trench B in the northeastern section of the main mound during the excavations in 2006 and 2007 (Figure 1, Bonatz *et al.* 2008: 104-107, figs. 8-9). In all the areas excavated so far, the most recent Middle Assyrian levels are located at an average height of approximately 354.50 m above sea level. If we consider the location of the areas, the extent

⁵ The project of the Freie Universität Berlin and the Directorate General of Antiquities and Museums (DGAM) of the Syrian Arab Republic is directed by the present author, a professor at the Institute of Ancient Near Eastern Archaeology at the Freie Universität Berlin, and Dr A. Bagdo, director of the Department of Antiquities and Museums in Hassake. Since 2006, fieldwork has been carried out in collaboration with the Slovakian Archaeological and Historical Institute (SAHI), which is also funding the project. Since 2009, the project has been generously sponsored by the German Research Foundation (DFG). The former director of the DGAM, Dr B. Jamous, and the director of excavations, Dr M. Al-Maqdissi, have both kindly supported the project. Under the current director of the DGAM, Professor Dr M. Abdulkarim, much appreciable effort has been done to protect this important archaeological heritage site and the objects retrieved from it so far.

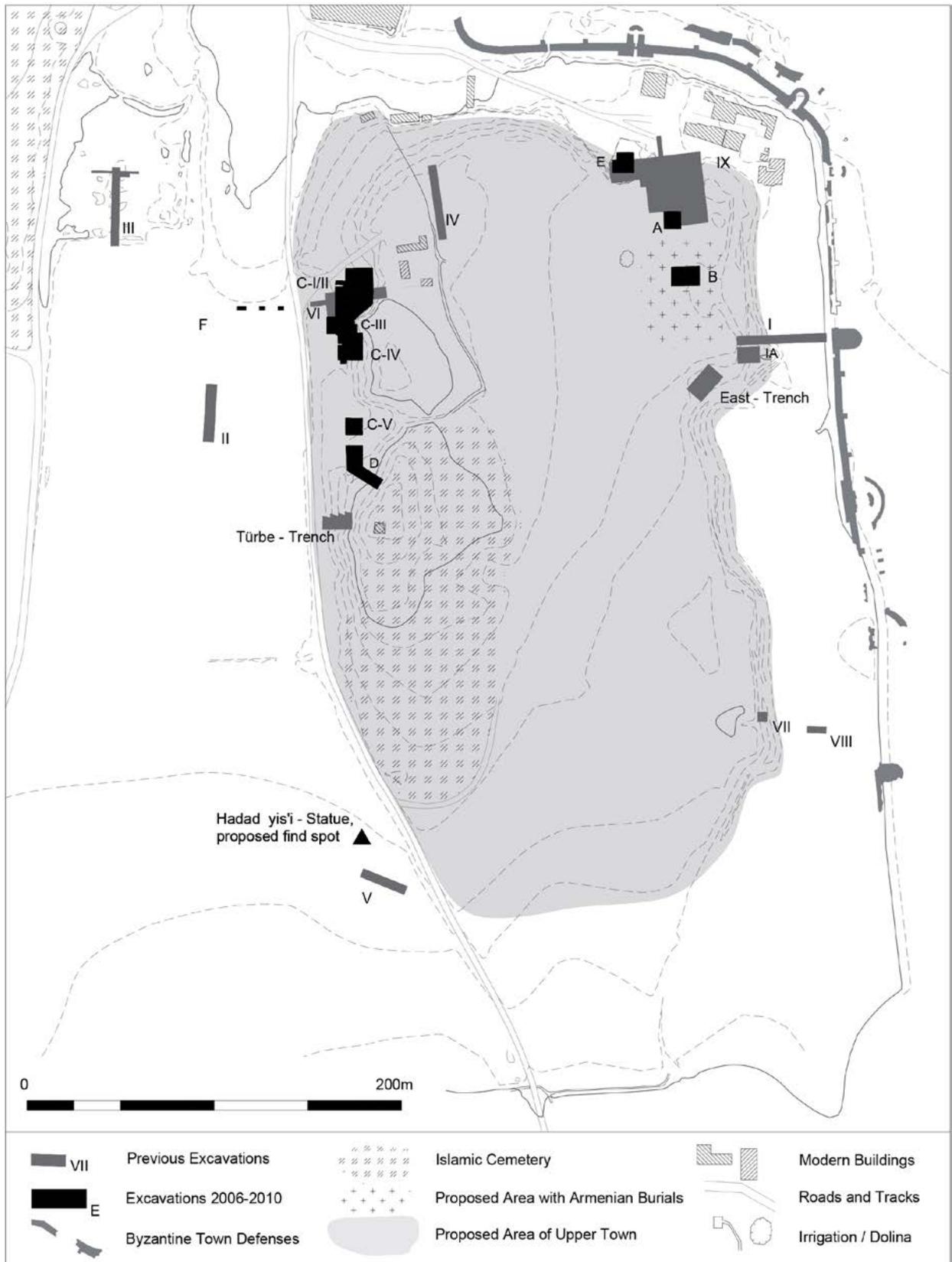


Figure 1: Topographical map of the area of the main mound at Tell Fekheriye (© The Syro-German mission at Tell Fekheriye).



Figure 2: Excavation area at the western slope of the main mound (© The Syro-German mission at Tell Fekheriye).

of the Late Bronze Age settlement can be estimated to be at least c. 10 to 12 ha.

Objectives of current research: reconstructing settlement history

Apart from the prevailing interest in the Late Bronze Age history of the site, a long-term focus of the project is the reconstruction of the entire settlement sequence. The deep trenches A and B in the eastern part of the main mound were dug for this purpose in 2006 and 2007, while in 2010 a new operation was started in trench E at the northeastern edge of the tell (for the locations of these trenches see Figure 1). In trench A, the connection to the walls of Room 8 of the Neo-Assyrian 'palace' that had been partly excavated by the American team in 1940 was reached at a depth of 5.10 m under the modern surface (Bonatz *et al.* 2008: 96-102, fig. 4). One obscure fact is that apart from this monumental building and the aforementioned statue of Hadad-yis'i, no other significant remains from this period have been found. This is especially notable given the results from the excavations in nearby trench B and also from the western trenches C I-V, where the foundations and pits of Roman-Byzantine occupations cut directly into Middle Assyrian architecture without showing traces of an Iron Age occupation in the interim. The layout of the Neo-Assyrian town may therefore have been

remarkably different from that of the Middle Assyrian period, since traces of this period can be recognized throughout the main mound of Tell Fekheriye. However, this observation, as well as the search for the temple of the storm god which has not yet been located, requires further investigation.

The excavation in trench E opens a window on the Pre-Pottery Neolithic period at Tell Fekheriye, already indicated by the substantial number of flint and obsidian implements found during the American excavations (Braidwood 1958: 53-55, pls. 53-54). Two anthropomorphic statuettes have recently been assigned to the same period (Müller-Neuhof 2007). The house architecture exposed in trench E therefore essentially expands our knowledge of the early settlement history of the site. It will be described in more detail below.

With regard to the more recent periods, a challenge for every archaeological project at Tell Fekheriye is the extensive remains of the Roman-Byzantine city of Resaina/Theodosiopolis. Nearly every excavated part of the site adds new information about this phase. In trench B, for example, parts of a monumental building dating to the 5th and 6th centuries AD were unearthed (Bonatz *et al.* 2008: 102-105, figs. 5-7). In trenches C II-V, a series of kilns, some obviously used for firing pottery,



Figure 3: Ritual vessel from the Byzantine building in Sounding F-III, probably 5th/6th century AD (© The Syro-German mission at Tell Fekheriye).

indicates that some sort of industrial area existed at the western slope during late Roman times (Bonatz *et al.* 2008: 108-109, fig. 10). Furthermore, Roman-Byzantine graves, massive stone foundations, and the stone-mantled shafts of wells (of the early Islamic period?) intersect with the Middle Assyrian occupation in this area. About 30 m to the west, the aforementioned soundings F 1-3 provide evidence of a large limestone building situated at the border to the lower city. A most remarkable find that can be associated with this building is a ritual bucket (*situla*) found crushed between two blocks of stone in the upper part of the eastern wall in F-III. This *situla* is about 18 cm high and despite the folded surface bears a recognizable relief design showing nine male figures with glorioles and different objects in their hands (Figure 3). They are bordered by a frieze at the top and bottom consisting of floral elements and alternating shell and bird motifs. A guilloche pattern occupies a central place in the relief and probably encircles a depiction of Christ, yet this area is obscured by a fold. Since ancient sources tell us that Resaina/Theodosiopolis was fortified under Theodosius I in 383 AD and became a bishop's seat, it

is likely that this find is the first piece of evidence of a Byzantine church in Tell Fekheriye.

Geomagnetic surveys on the main mound clearly show the dense system of streets and larger building units under the modern surface.⁶ They can provide precise orientation for future research on the organization and structure of the Late Antique city. Sassanid and early Islamic occupation must also be taken into consideration, as ceramics, debris of stucco decorations, and graves were found belonging to these phases (Bonatz *et al.* 2008: 19). But it must also be kept in mind that as early as the Abbasid period the centre of the city, then called Resh 'Aina, shifted to the north into the current area of modern Ras Al-'Ain.

An account of the 2009 and 2010 excavation campaigns

Since the results of the 2006 and 2007 campaigns have been published in preliminary reports (Bonatz and Bartl 2008; Bonatz *et al.* 2008), and the salient geopolitical function of the site in Middle Assyrian times has been discussed in detail, the following chapters aim to give an account of the most recent results of archaeological research from a diachronic perspective.

Excavation in trench E: a look at the Pre-Pottery Neolithic settlement

Trench E is located above one of the spring-fed ponds of the Khabur River in the northeastern part of the mound (Figure 1). This area was first excavated in 1940 under the direction of C. McEwan, whose team unearthed larger parts of a massive building described as a Neo-Assyrian *bit hilani* palace (see above). In 1955/56, A. Moortgat investigated the levels beneath Room 1 and Room 3 of this building (Moortgat 1956: 44-45; Moortgat 1957: 13-14) and interpreted the uncovered structures as the buttressed walls of a temple of the 'Khabur ware period' (Moortgat 1956: 44-45). Excavations were stopped at this level because of groundwater intrusion.

In the 1980s, a wheel loader greatly disturbed that part of the mound. The old trenches were partly levelled to get more land for cultivation and, in addition, a great deal of earthen material was taken for mudbrick production. This activity resulted in a high section in the northern part of the main mound (see Figure 4). When excavations were resumed in 2010 at the base of this section, which is under the foundations of the Neo-Assyrian 'palace', a remarkable architectural structure dating to the Neolithic period was exposed directly under the modern surface (Figure 4). A preliminary

⁶ Geophysical prospection was done by Giese, Grubert and Hübner GbR in 2007 and 2010. The results of the 2007 prospection were published in Bonatz *et al.* 2008: plan II.



Figure 4: Neolithic building in the northeastern part of the main mound (Trench E)
(© The Syro-German mission at Tell Fekheriye).

report on the excavation of this building and the Neolithic settlement at Tell Fekheriye was published by A. Hotzan-Tchabasvili (2015).

Excavations in trenches C I-II: new evidence of the Mitanni period at Tell Fekheriye

Trenches C I-II are located in the north part of the excavation area on the western terrace and along the slope of the main mound (Figure 1). They partly overlap with Sounding VI of the American excavation in 1940, but as this latter operation did not reach the architectural layers of the Mittani period, the recently exposed building provides the first firm evidence of a Mittani presence at the site. During excavations in

2007, 2009, and 2010, two subsequent building periods – the first involving average-sized architecture and the second involving monumental-type features – were documented there. The building from the more recent period is an imposing structure, with walls up to 4.4 m in width and large rectangular rooms up to 6.5 m in length (Figure 5). Four symmetrically arranged rooms have been identified thus far, but only the southwestern room was excavated down to its floor level. There, the walls reach a preserved height of 1.80 m. The considerable height of the walls is also indicated by a collapsed wall that covers nearly the whole width of the 3.6 m southeastern room. This collapsed wall may be the result of the deliberate dismantling of the

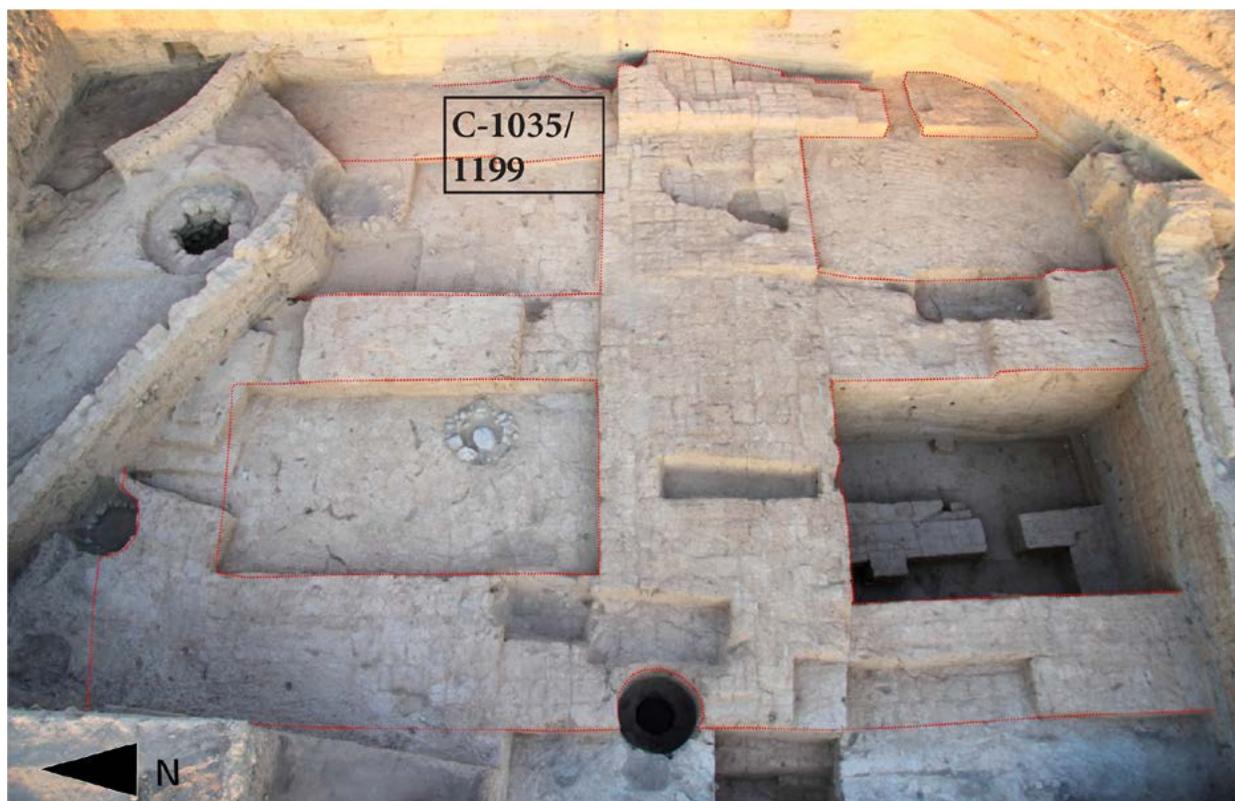


Figure 5: Excavated area of the monumental building in Trenches C I-II (© The Syro-German mission at Tell Fekheriye).

building, which otherwise shows no traces of violent destruction.

Regarding the question of a connection to an older building period, the walls of the monumental building were clearly built over previous walls that are distinctly narrower and have a different orientation. Two rooms from the older building period have been partly excavated in the sounding below the floor of the southwestern room in the monumental building (Figure 5). One of these rooms has a floor paved with bitumen-covered mudbricks, on which two bone needles and a pot with a wavy shaped rim were found. This level extends as a kind of threshold west of the projection on the wall. Farther south, a doorway with a stone door socket was excavated and another wall abutting from the west gives the impression that this area is the corner of a room. At the bottom, above the floor level in front of the doorway, several complete bird skeletons were uncovered. The fill above them contained large amounts of Nuzi ware, as well as some almost complete goblets showing parallels to Tell Brak, HH level 5, and can thus be dated to the early Mittani period or Middle Jazirah IA-B.⁷

⁷ Oates *et al.* 1997: 67-71, figs. 94-100. See also the forthcoming article on the pottery assemblages from Tell Fekheriye areas C I-II by C. Coppini (in press).

In a second sounding in front of the western façade of the monumental building, architectural remains were uncovered at about the same height as the walls of the older building period in the aforementioned sounding. A pit was exposed, along with several walls whose exact arrangement is still not clear due to the limited excavated area. The fill of the pit, however, contained vast amounts of seal impressions on clay lumps used as jar stoppers (*bullae*) and sealings on door pegs (Figure 6). The different types of sealings with repetitive motifs combining ‘common-style’ and ‘elaborate-style’ designs testify to a complex administration during the earlier phase of the Mittani settlement. The remnants of this activity seem to have been discarded in this area, along with Nuzi ware potsherds, red-edged bowls, and even some examples of unfired pottery.

Materials from the fill in the excavated southwestern room and the deposits over its collapsed walls indicate the continuation of administrative activities in this area after the construction of the monumental building. Seal impressions once again show a range of ‘common-style’ and ‘elaborate-style’ traditions, although they differ from the previous repertoire in terms of the size of the representations and the use of pictorial space. Furthermore, some bear inscriptions (e.g. Figure 6, TF 6267). The pottery assemblage continues to include the typical Mittani period wares, but some remarkable

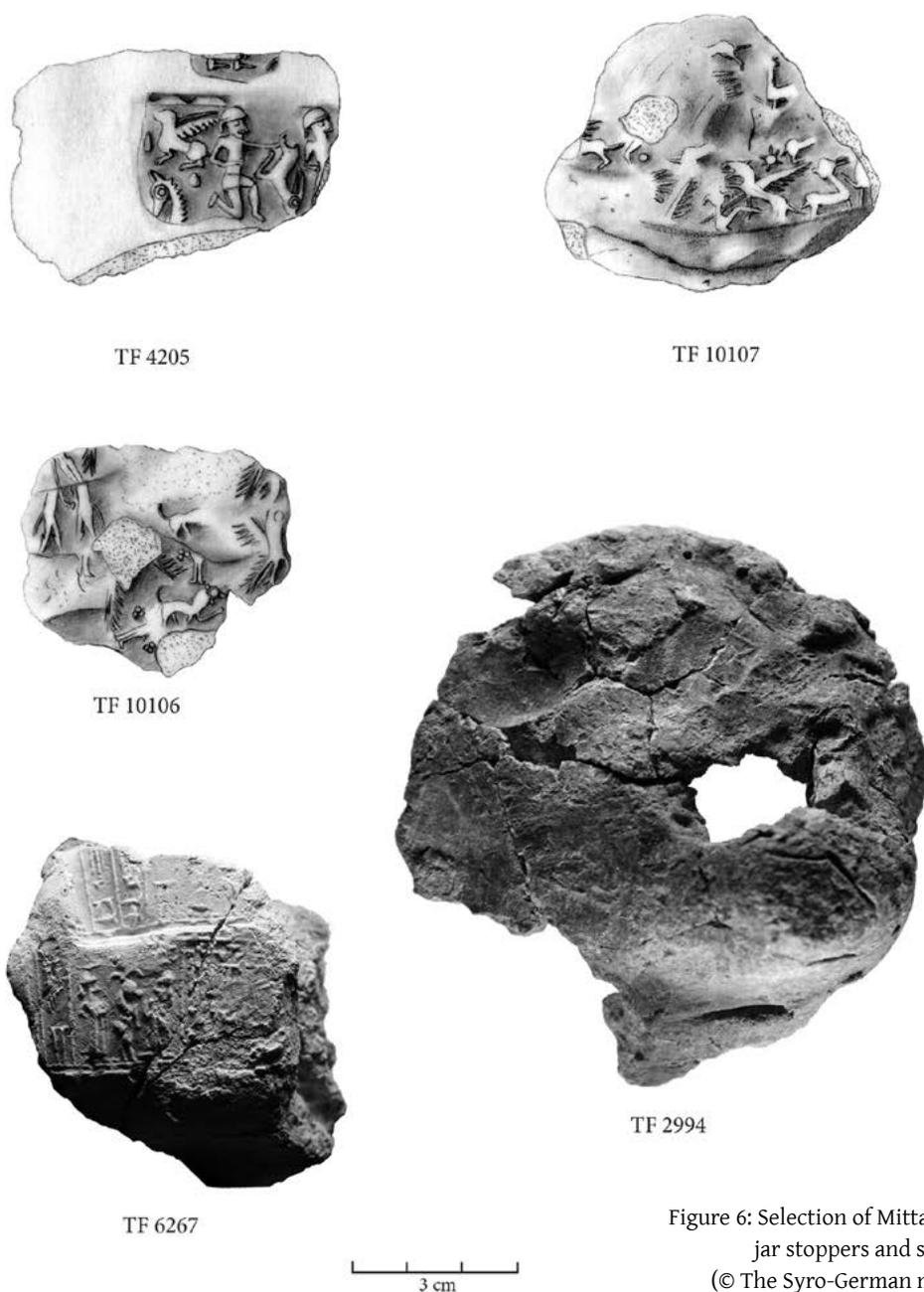


Figure 6: Selection of Mittani period seal impressions on jar stoppers and sealings on door-pegs (© The Syro-German mission at Tell Fekheriye).

sherds of incised and incusted grey ware have also been found (see Coppini in press).

Unfortunately, no finds were made directly on the two excavated floors of the southwestern room, and therefore no inventories exist to explain the different phases in which the monumental building was used. However, a mixture of Mittani and Middle Assyrian pottery and seal impressions was observed in the upper deposits of this building. This points to a rather slow or 'soft' transition for this area. This observation is important as it relates to the question of the beginnings of the Assyrian occupation of the site. As stated earlier, the mudbrick ruins in this small sector of the site show no traces of violent destruction. Rather, the rooms of

the emptied building seem to have been deliberately filled and the walls levelled in order to create a platform for subsequent construction. This new building is of unmistakable Middle Assyrian origin (see below), but since the debris over which it was erected contained a substantial quantity and variety of Middle Assyrian potteries and seal impressions, there have inevitably been speculations on the reuse of the Mittani building during the Middle Assyrian period.

Excavations in trenches C I-II: the beginnings of the Middle Assyrian occupation at Tell Fekheriye

The most significant evidence of an early Middle Assyrian presence at Tell Fekheriye is provided by a

total of 48 mostly fragmentary clay tablets and a few fragments of broken clay envelopes discovered in one of the depositional contexts (loc. C-1035/C-1199, see Figure 6) between the aforementioned monumental building and the lowest floor of the subsequent Middle Assyrian building (House 1).⁸ These texts were discarded in this area as the terrain was filled with compact soil, broken or smashed mudbricks, and potsherds. The purpose was to build a solid foundation for the floor of the subsequent architecture. As their primary context is unknown, an important task for future research is to clarify if the tablets originally belonged to the reutilization phase of the Mittani monumental building or to an intermediate phase of occupation. So far, evidence of the latter has been found in the form of a series of ovens (*tannours*) bordered by single-row mudbrick walls superimposing the monumental building in the small area directly to the northwest of the tablet findspot. These ovens, encircled by mudbricks around their walls, were rebuilt several times and were filled with ashy deposits attesting to a long duration of use. Parts of this fine-layered accumulation covered the deposit in which the clay tablets were found, so their deposition apparently predates the installation of a production area that continued to be used until the erection of House 1 (see below).

The text formats differ in size and content and comprise distribution lists, letters, and juridical documents bearing seal impressions.⁹ The extended distribution lists confirm the existence of a palace administration in Tell Fekheriye. They provide a lengthy list of families and individual workmen employed by the local palace and supervised by special officials. The personal names indicate a mixed population, with many individuals bearing not only Assyrian/Akkadian names but also a larger number of Hurrian names and a few names of an as yet unknown ethno-linguistic affiliation. Some letters are comparable to the Middle Assyrian letter orders' found at Tell Chuera (Jakob 2009: 8-9). They deal with the transport of animals, the provision of labour and food, and journeys to the 'Land of Ḫanigalbat'. In sum, the texts testify to the existence of an important site of administration and communication in the Middle Assyrian state, but do not yet constitute sufficient evidence to identify the site itself. A chronological classification of the corpus is possible due to the eponyms mentioned, most remarkably Mušabšiu-

sibitti, who dates to the first half of the reign of Šalmaneser I (1263-1234 BC). The most recent text can be dated on the basis of the eponym Adad-bel-gabbe to the accession year of Tukulti-Ninurta I (1233-1198 BC). Although the texts give no explicit answer to the question of when exactly the Assyrians took control of the site, they do confirm that a fully developed state administration already existed there in the early reign of Šalmaneser I. Some of the Assyrian names mentioned in the texts reflect a local patronym, since they use the river 'Khabur', for example, as a topical element. This observation points to people who lived in the region for more than one generation and takes us back to the time of Adad-narari I (1295-1264 BC).

Excavations in trenches C I-IV: the Middle Assyrian Houses, their spatial organization, internal stratification, and function

A major restructuring of the architectural complex along the western slope of the main mound must have taken place during the reign of Tukulti-Ninurta I (1233-1198 BC). The remains of the two or three houses excavated in this area (Figure 7) differ remarkably in terms of size and spatial organization from the previous monumental type of architecture. House 1 in trenches C I-II, parts of which were excavated by the American team in 1940, and House 2 in trenches C III-IV directly abut each other via their exterior southern (House 1) and northern (House 2) walls. The western façades largely run along the same line and have exactly the same length, i.e. 16 m. So far, only the western sections of the houses have been excavated and the complete building plans have not yet been reconstructed. Nevertheless, the principal architectural features can be recognized and compared, revealing a uniform building plan, at least for House 1 and 2. Different floor levels and various changes in the layout of the building plan attest to several phases of use for all the Middle Assyrian houses. Since a detailed description of the complex stratigraphic situation would go beyond the scope of this contribution, only a sketch of the spatial organization and internal stratification of House 1 and the relevance of its associated finds is offered here.

The house was built on the terraced slope of the ancient mound using an agglutinating construction technique (Figure 1). Located to the south is the large, stately space or reception room (Room 1). It is abutted to the north by the western room unit (Rooms 4-7), which includes the bathroom with an attached sewer canal. The area between this western room unit and Room 8 in the east comprises the aforementioned production area, which is bordered by a diagonally running wall to the north of House 1. From a stratigraphic viewpoint, it is clear that the area had already been used for economic purposes and kitchen activities before the construction of House 1. The reason is that parts of this layer were covered by

⁸ Since this deposit, which continues into the eastern section of trenches C I-II, has not yet been completely excavated, the total number of texts might be larger and will only be accessible in future excavations. For descriptions of the find context and a preliminary interpretation of the textual evidence, see also Bonatz 2014 and Bartl and Bonatz 2012.

⁹ So far only 18 texts have been restored and documented to the extent that a comprehensive reading is possible. The entire corpus will be translated by E. Cancik-Kirschbaum, to whom we owe the preliminary information on the content of the texts. For further reflections on the textual evidence, see especially Bonatz 2014.

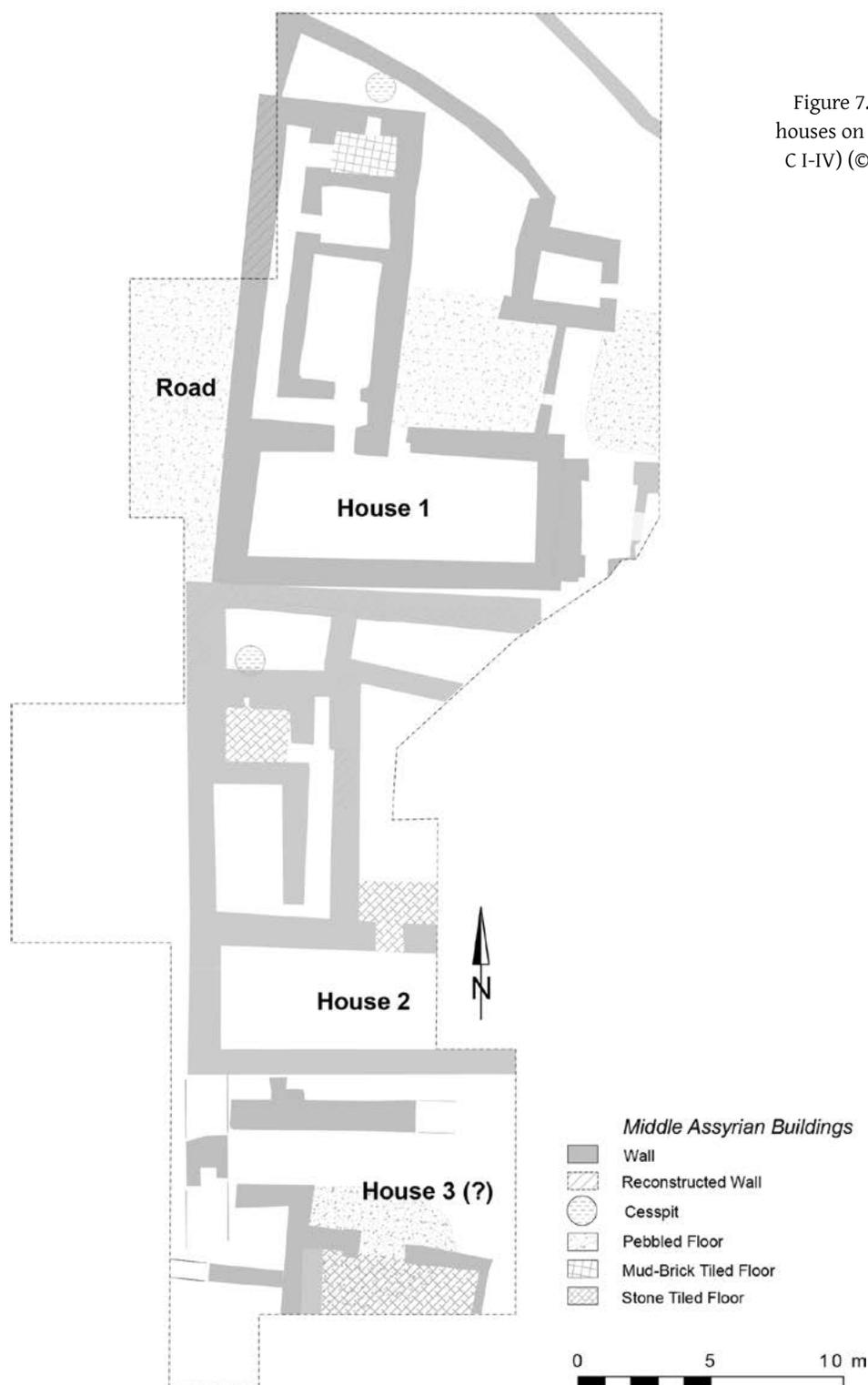


Figure 7. Plan of the Middle Assyrian houses on the western terrace (Trenches C I-IV) (© The Syro-German mission at Tell Fekheriye).

the central courtyard (2) and Room 8 of this building. Room 8, which is about 4 x 3.5 m in size, allows passage from the central courtyard (2) to the area to the east where the second courtyard (3) is situated on a slightly higher terrace. The adjacent Room 9 probably acted as an access point to the second courtyard or as an entrance to the whole building.

As early as 1940, a concentration of several clay tablets was found in the area between Room 8, the central courtyard (2), and the second courtyard (3) (Güterbock 1958: 86-90). The renewed investigations revealed nine other fragments, most of which can be dated to the reign of Tukulti-Ninurta I (1233-1198 BC).¹⁰ Moreover,

¹⁰ These texts include an interesting fragment of a letter (TF 3168)

numerous seal impressions have been found on clay sealings for jars or other storage utensils. These new finds have made it clear that Room 8 must be seen in connection with administrative activities, possibly accounting and the preparation of clay for the sealings. The stylistic and iconographic affiliations of the seal impressions are clearly Middle Assyrian. The motif on one example can be reconstructed thanks to the large number of fragments (over 40) on which it is displayed. It consists of a contest scene depicting an anthropomorphic winged lion and a winged bull, as well as a smaller winged bull or calf crouched underneath the two rearing protagonists (Bonatz 2014: fig. 12A). The same seal imprinted on a clay tablet from Tell Sheikh Hamad makes it possible to identify the seal owner as Aššur-iddin, the Assyrian vizier (*sukallu*) and later grand vizier (*sukallu rabi'u*) (Cancik-Kirschbaum 1996: 22-23, note 76). He is said to have had his administrative seats in Aššukanni and Dur Katlimmu (Tell Sheikh Hamad), from where he governed the land of Ḫanigalbat during the reigns of Šalmaneser I (1264-1234 BC) and Tukulti-Ninurta I (1233-1198 BC). This identification, as well as the related dating of the architectural complex of House I, fits in well with the glyptic repertoire uncovered thus far. In the above-mentioned layers underneath House 1, deposits containing an even larger number of seal impressions on clay lumps and the envelopes of clay tablets, have been excavated. One of the seals imprinted on a jar stopper (TF 6293) and a clay envelope (TF 7255) shows an ostrich hunt, and, through a comparison with several sealed envelopes of letters from Ḫarbe (Tell Chuera), can be identified as belonging to Šin-mudammeq, a high official and vizier in the Assyrian administration.¹¹ Since Šin-mudammeq temporarily had his official residence in Aššukanni, this find reinforces the idea that both officials played an important role in the administration of Assyria's western territories in roughly the same period, and that a part of these activities took place at Tell Fekheriye, especially during the occupation period of House I and in earlier times, as is witnessed by the numerous pieces of glyptic and epigraphic evidence from the layers underneath.

From houses to burials: changes in the use of urban space during the Late Middle Assyrian Period

The architecture and associated inventories of the Middle Assyrian houses on the western terrace clearly attest to their function as administrative households with high-ranking Assyrian officials as residents, or at least involved in the economic affairs handled there for

a relatively short period during the reign of Tukulti-Ninurta I. We have argued elsewhere (Bonatz 2014) that the abandonment of the houses can be seen as a reaction to the political crisis after the death of Tukulti-Ninurta. From an archaeological point of view, a distinct change in the use of the occupational area of all houses is evidenced by a series of five double-jar burials, five single-jar burials (for infants only), and 24 mudbrick cist graves, which have been the focus of excavations since 2006 (Figure 8).¹² The finds show that the whole area was used as graveyard, partly during the most recent phase of occupation, but mainly in the period immediately after the abandonment of the residential quarter. This view is supported by the fact that the double-jar burials are oriented along the walls and in the corners of rooms, suggesting that the building was still occupied or at least that the walls were still standing above ground and were clearly visible when the graves were dug. The mudbrick graves, however, are oriented in a north-south or an east-west direction and intersect the walls and fill of the Middle Assyrian buildings without any regard for the older architecture. Consequently they must have been dug when the buildings on the western slope of the ancient mound had already lost their function, were abandoned, or when their walls were no longer standing visible above ground. Taken together, both groups of burials seem to cover a period from the end of the 13th century until the 11th or even the 10th century BC. This date is confirmed by radiocarbon analyses of four of the inhumations and the continuous Middle Assyrian traditions in the form of pottery sets placed in the pit of the mudbrick graves and objects, such as a white fritte bowl, different types of stone and fritte beads, golden buckle-shaped earrings, and other jewellery accompanying several of the buried individuals (Bartl and Bonatz 2012). Thus, it seems that an Assyrian or 'Assyrianized' population continued to live elsewhere at the site for a considerable period of time. This community probably became separated from the Assyrian state power and would have been less dominant in the political and cultural sphere of this region as new settlers arrived at nearby Tell Halaf and soon founded a new centre of governance that was in every way distinct from its Middle Assyrian predecessor.¹³

Conclusions and outlook

The investigations at Tell Fekheriye have documented that after the phase of an early Neolithic settlement – and particularly in the 2nd millennium BC – the site became a town and centre of regional and supra-regional importance. A continuous development from

addressed to a person designated as someone from Aššukanni. For the date of the eponym mentioned in this text and the eponyms in other texts from the area of House 1, see Bonatz 2014.

¹¹ Janisch-Jakob 2009: 185, seal motif 3. On the role of Šin-mudammeq in the administration of Assyria's western provinces, see, particularly, Cancik-Kirschbaum 1996: 29-32 and Bonatz 2014.

¹² A preliminary report on the graves is included in Bartl and Bonatz 2012. The full report is in preparation by P. Bartl.

¹³ For a recent look on the early Iron Age evidence at Tell Halaf, see Novák 2009: 93-94.

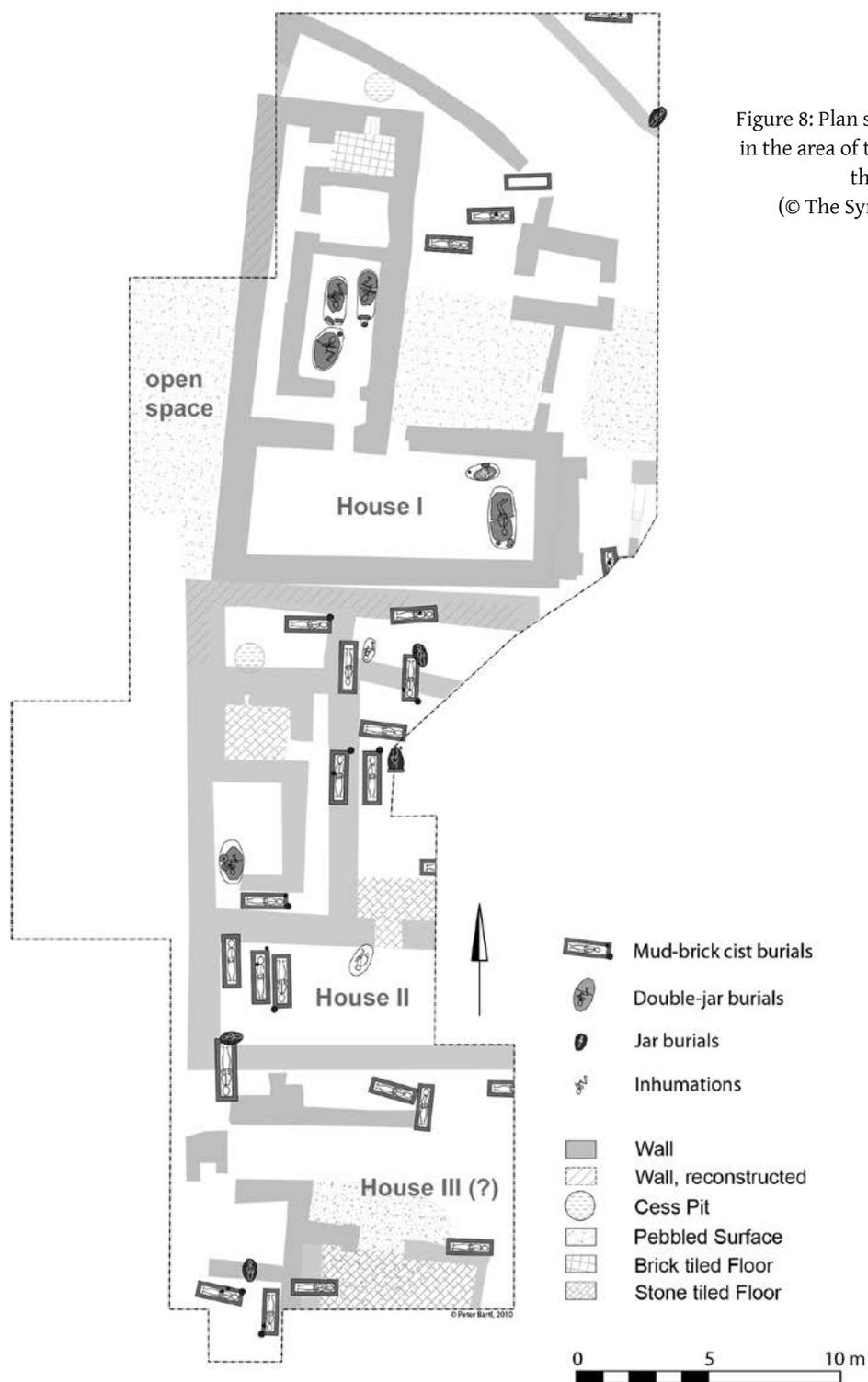


Figure 8: Plan showing the location of burials in the area of the Middle Assyrian houses on the western terrace
(© The Syro-German mission at Tell Fekheriye).

the Mittani to the end of the Middle Assyrian settlement can be reconstructed from the results of the western slope excavations. Despite the lack of textual finds from the Mittani period, architectural and iconographic evidence supports the idea of a prestigious Mittani seat of administration. The location of the site at the head of the Khabur is meaningful in both a religious and political sense. It lies at the centre of the Mittani state that emerged in the mid-2nd millennium BC. During this

time, the name Waššukanni appears for the first time as a capital-city name in Hittite sources (Crasso 2009: 222-224). Given the geographic considerations and the remarkable development of the Mittani architectural sequence excavated so far at Tell Fekheriye, we can at least assume that the foundation of a new political centre was laid here. During the Middle Assyrian occupation that followed the Mittani settlement with no recognizable break, the function of the site

obviously changed as it evolved into an important regional centre of governance for the Assyrian state. However, an internal restructuring of the occupational area at the western slope of the main mound during the reign of Tukulti-Ninurta I indicates that either the status of the site changed once again due to a shift in the focus of political and economic expansion to the lower Khabur, to Dur Katlimmu, or that it was becoming more autonomous in terms of local elite government.

The names of the two high-ranking Assyrian officials appear above those of other officials whose activities are attested by the administrative texts and numerous sealings on jars and door-pegs bearing different seal impressions found in the area of the Middle Assyrian houses and beneath. The official documents prove that Tell Fekheriye fulfilled important functions as an administrative site until the end of Tukulti-Ninurta's reign. Some of the archaeological materials, including the pottery and the graves, date well beyond this period. They mirror a process of urban expansion and decentralization typical of the political situation after 1200 BC.

Until 1200 BC, the function of an Assyrian outpost at the head of the Khabur was probably twofold. First, it served as the designated administrative centre for a large agricultural hinterland. The distribution of vast amounts of grain, mentioned in the ration lists, obviously served to stabilize the activities of a peasant community who exploited the cultivable land along the Khabur. The agrarian expansion was spearheaded by the *dunnu* system of fortified agricultural production centres, which may have been modelled on the *dimtu* system established in the Mittani period (Koliński 2001). The high productivity of such a *dunnu* is well documented in the Middle Assyrian archive from Tell Sabi Abyad on the northern Balikh and dating to the later reign of Tukulti-Ninurta I (Wiggermann 2000). In order to organize and protect an efficient system of land tenure, it was important to have a strong base of economic and political control. For this reason, the second function of Tell Fekheriye would have been to coordinate regional communication and its links to the Assyrian capital, Assur. It can therefore be assumed that Tell Fekheriye served as the starting point for military operations and colonization projects directed toward the Balikh Valley in the west and the Anatolian mountains in the north. Despite the fact that the Assyrians also penetrated north of the Tur 'Abdīn mountains and into the upper Tigris region (Radner 2004: 72-73), the area around Tell Fekheriye remained the actual border region of the Assyrian territorial state.¹⁴

¹⁴ On the organization and administration of the northwestern border region of the Middle Assyrian state, see Cancik-Kirschbaum 2000; Wiggermann 2000.

An isolated text find (TF 4772) from House 2, which probably dates to the later reign of Tukulti-Ninurta I, is one of the documents attesting to the salient geostrategic position of Tell Fekheriye in the Middle Assyrian state network. It deals with the transport of horses and donkeys to Assur and, in this context, also mentions the cities of Taidu, Waššukanni, and Niḥriya. While Taidu is most probably identifiable as Tell Al-Hamidiye in the eastern Khabur Triangle, the location of Niḥriya might be at Kazane Höyük in the Şanlıurfa region.¹⁵ The text shows the toponym Waššukanni in line with other important cities along the far-flung transport and communication routes of the Assyrian state. In this regard, the location of Tell Fekheriye at the head of the Khabur would speak strongly for an identification as Waššukanni. There are several additional arguments that narrow down the possibility of this identification, although none is in itself conclusive.¹⁶ From an archaeological perspective, the significance of the Mittani and Middle Assyrian data from Fekheriye is substantial enough to support the view that it is a key site for the reconstruction and better understanding of the history of two of the leading state polities in the Late Bronze Age Near East.

The importance of the Mittani and Middle Assyrian periods at Tell Fekheriye clearly has been proven by the recent excavations. More work on these occupation phases is strongly demanded. Investigations of the transitions from the Middle to the Late Bronze Age and from that period to the Iron Age are closely related to this focus. Other periods, such as the Neolithic, the Middle Iron Age, and the Roman-Byzantine times, will remain within the scope of the research, as will a regional survey that hopefully can be resumed when the deep political crisis and human tragedy in Syria has been surmounted.

Bibliography

- ABOU ASSAF, A., BORDREUIL, P. and MILLARD, A. R.
1982 *La statue de Tell Fekheriye et son inscription bilingue assyro-araméenne*. Paris, Editions Recherche sur les civilisations.
- BARTL, P. V. and BONATZ, D.
2012 *Across Assyria's Northern Frontier: Tell Fekheriye at the End of the Late Bronze Age*. In: Aslihan Yener

¹⁵ As suggested by Charpin and Ziegler 2003: 23, 46, note 157. Recent excavations at Kazane Höyük were under the direction of P. Wattenmaker in association with the Şanlıurfa Museum.

¹⁶ These include the new archaeological evidence from the excavations at Tell Fekheriye, as well as the correspondences between Tell Sheikh Hamad/Dur-Katlimmu (Cancik-Kirschbaum 1996: 33-35) and Tell Chuera/Ḥarbe (Jakob 2009: 8, 45-46), historiographic considerations (e.g. Cancik-Kirschbaum 2009: 132; Jakob 2003: 291; Kühne 1995: 207-209) and the petrochemical analyses of the Mittani letters from Amarna. These letters are believed to have been made from clay resources in the region of Tell Fekheriye (Goren *et al.* 2004: 38-44). For a discussion of this evidence, see Bonatz 2014 and Bonatz *et al.* 2008: 92-93.

- (ed.), *Across the Border: Late Bronze-Iron Age Relations between Syria and Anatolia: 265-287*. Anes Supplement 42. Leuven, Peeters.
- BOESE, J. and WILHELM, G.
1979 Aššur-dān I. Ninurta-apil-ekur und die mittelassyrische Chronologie, *Wiener Zeitschrift für die Kunde des Morgenlandes* 71: 19-38.
- BONATZ, D.
2014 Tell Fekheriye in the Late Bronze Age. Archaeological Investigations into the Structures of Political Governance in the Upper Mesopotamian Piedmont. In: D. Bonatz (ed.), *The Archaeology of Political Space. The Upper Mesopotamian Piedmont in the Second Millennium BC*: 61-84. Topoi, Berlin Studies of the Ancient World. Berlin, De Gruyter.
- BONATZ, D. and BARTL, P. V.
2008 Preliminary Report on the Excavations at Tell Fekheriye in 2006 and 2007, *Chronique Archéologique en Syrie* 3: 175-186.
- BONATZ, D., BARTL, P. V., GILIBERT, A. and JAUß, C.
2008 Bericht über die erste und zweite Grabungskampagne in Tell Fekheriye 2006 und 2007, *Mitteilungen der Deutschen Orientgesellschaft* 140: 89-135.
- BONATZ, D., KÜHNE, H. and MAHMOUD, A.
1998 *Rivers and steppes. Cultural heritage and environment of the Syrian Jezireh. Catalogue to the Museum of Deir ez-Zor*. Damascus, Ministry of Culture.
- BRAIDWOOD, L.
1958 Stone implements. In: McEwan, C., Braidwood, L., Frankfort, H., Güterbrock, H., Haines, R., Kantor, H. and Kraeling, C. H., *Soundings at Tell Fakhariyah*: 53-55. Oriental Institute Publications 79. Chicago, University of Chicago Press.
- BURDON, D. J. and SAFADI, C.
1963 Ras-el-ain: The great karst spring in Mesopotamia. In: M. M. Sweeting (ed.), *Karst Geomorphology*: 244-258. London, Academic Press.
- CANCIK-KIRSCHBAUM, E.
2009 Ortsnamenreihungen als Quellen zur historischen Geographie: Der Westen des mittelassyrischen Reiches unter Tukulti-Ninurta I. In: E. Cancik-Kirschnaum and N. Ziegler (eds), *Entre les fleuves I. Untersuchungen zur historischen Geographie Obermesopotamiens im 2. Jahrtausend v. Chr.*: 121-150. Gladbeck, PeWe Verlag.
- 2000 Organisation und Verwaltung von Grenzgebieten in Mittelassyrischer Zeit. In: S. de Martino, L. Milano, F. M. Fales, and G. Lanfranchi (eds), *Landscapes. Territories, Frontiers and Horizons in the Ancient Near East, Papers presented to the XLIV Rencontre Assyriologique Internationale, Venezia, 7-11 July 1997, Part II. Geography and Cultural Landscapes*: 5-8. Padova, Sargon.
- 1996 *Die mittelassyrischen Briefe aus Tall šēḫ Ḥamad, Berichte der Ausgrabung Tall šēḫ Ḥamad/Dūr-Katlimmu*. Harrassowitz, Wiesbaden.
- CHARPIN, D. and ZIEGLER, N.
2003 *Florilegium Marianum V. Mari et le proche-orient à l'époque amorrite, essai d'histoire politique*. Paris, Société pour l'étude du proche-orient ancien.
- COPPINI, C.
In press The Mittani and Middle Assyrian Ceramic Assemblages and their Socio-economic Context at Tell Fekheriye/Syria. In: S. Mazzoni, M. Pucci, and F. Venturi (eds), *Ceramic Identities at the Frontiers of the Empires: the Regional Dimension of Pottery Production in Late Bronze Age Northern Syria and Anatolia*. Pisa.
- CRASSO, D.
2009 The Region of the Upper Euphrates: The Hittite Perspective. In: E. Cancik-Kirschnaum and N. Ziegler (eds), *Entre les fleuves I. Untersuchungen zur historischen Geographie Obermesopotamiens im 2. Jahrtausend v. Chr.*: 211-231. Gladbeck, PeWe Verlag.
- DION, P. E.
1985 La bilingue de Tell Fekheriye: Le roi de Gozan et son dieu: la phraséologie. In: A. Caquot, S. Légasse and M. Tardieu (eds), *Mélanges bibliques et orientaux en l'honneur de M. Mathias Delcor*: 139-147. *Alter Orient und Altes Testament* 215. Neukirchen-Vluyn, Verlag Butzon and Bercker.
- GOREN, Y., FINKELSTEIN, I. and NA'AMAN, N.
2004 *Inscribed in Clay. Provenance Study of the Amarna Tablets and Other Ancient Near Eastern Texts*. Tel Aviv, Tel Aviv University.
- GRAYSON, A. K.
1991 *Assyrian Rulers of the Early First Millennium BC I (1114-859 BC). The Royal Inscriptions of Mesopotamia. Assyrian Periods, Vol. 2*. Toronto, University of Toronto Press.
- GÜTERBOCK, H. G.
1958 The cuneiform tablets. In: McEwan, C., Braidwood, L., Frankfort, H., Güterbrock, H., Haines, R., Kantor, H. and Kraeling, C. H., *Soundings at Tell Fakhariyah*: 86-98. Oriental Institute Publications 79. Chicago, University of Chicago Press.
- HOTZAN-TCHABASHVILI, A.
2015 The Neolithic at Tell Fekheriye. In: D. Hulínek, D. Bonatz, and M. Kováč (eds), *Archaeology at Three Continents, 2006-2011*: 31-37. Bratislava, Slovakian Archaeological and Historical Institute (SAHI).
- HROUDA, B.
1961 Tell Fekheriye. Die Keramik, *Zeitschrift für Assyriologie* 54: 201-239.
- JAKOB, S.
2009 *Die mittelassyrischen Texte aus Tell Chuēra in Nordost-Syrien (Vorderasiatische Forschungen der Max Freiherr von Oppenheim-Stiftung. Vorderasiatische Forschungen der Max Freiherr von Oppenheim-Stiftung, Bd. 2. Ausgrabungen in Tell Chuēra in Nordost-Syrien*. Wiesbaden, Harrassowitz.
- 2003 *Mittelassyrische Verwaltung und Sozialstruktur. Cuneiform Monographs* 29. Leiden, E. J. Brill.
- JANISCH-JAKOB, D. I.

- 2009 Die Siegelabrollungen auf den mittelassyrischen Tafeln aus Tell Chuēra. In: S. Jakob (ed.), *Die mittelassyrischen Texte aus Tell Chuēra in Nordost-Syrien Vorderasiatische Forschungen der Max Freiherr von Oppenheim-Stiftung, Bd. 2. Ausgrabungen in Tell Chuēra in Nordost-Syrien: 185-189*. Wiesbaden, Harrassowitz.
- KANTOR, H.
1958 The pottery. In: McEwan, C., Braidwood, L., Frankfort, H., Güterbrock, H., Haines, R., Kantor, H. and Kraeling, C. H., *Soundings at Tell Fakhariyah: 21-41*. Oriental Institute Publications 79. Chicago, University of Chicago Press.
- KOLIŃSKI, R.
2001 *Mesopotamian dimatu of the Second Millennium BC*. British Archaeological Reports International Series 1004. Oxford, Archaeopress.
- KRAELING, C. H.
1958 Introduction. In: McEwan, C., Braidwood, L., Frankfort, H., Güterbrock, H., Haines, R., Kantor, H. and Kraeling, C. H., *Soundings at Tell Fakhariyah: XV*. Oriental Institute Publications 79. Chicago, University of Chicago Press.
- KRAELING, C. H. and HAINES, R. C.
1958 Structural remains. In: McEwan, C., Braidwood, L., Frankfort, H., Güterbrock, H., Haines, R., Kantor, H. and Kraeling, C. H., *Soundings at Tell Fakhariyah: 11-18*. Oriental Institute Publications 79. Chicago, University of Chicago Press.
- KÜHNE, C.
1995 Ein mittelassyrisches Verwaltungsarchiv und andere Keilschrifttexte. In: W. Orthmann, R. Hempelmann and C. Kühne (eds), *Ausgrabungen in Tell Chuēra in Nordost-Syrien I. Vorbericht über die Grabungskampagnen 1986 bis 1992: 203-225*. Wiesbaden, Harrassowitz.
- McEWAN, C. W., BRAIDWOOD, L. S., FRANKFORT, H., GÜTERBOCK, H. G., HAINES, R. C., KANTOR, H. J. and KRAELING, C. H.
1958 *Soundings at Tell Fakhariyah*. Oriental Institute Publications 79. Chicago, University of Chicago Press.
- MOORTGAT, A.
1959 *Archäologische Forschungen der Max Freiherr von Oppenheim-Stiftung im nördlichen Mesopotamien 1956*. Köln, Opladen.
1957 *Archäologische Forschungen der Max Freiherr von Oppenheim-Stiftung im nördlichen Mesopotamien 1955*. Köln, Opladen.
1956 Vorläufiger Bericht über ein Grabung auf dem Tell Fecherije 1955, *Annales Archéologiques Arabes Syriennes VI: 39-50*.
- MÜLLER-NEUHOF, B.
2007 Anthropomorphic Statuettes from Tell Fakhariyah: Arguments for Their Possible PPNB Origin, *Neolithics 1: 37-43*.
- NOVÁK, M.
2009 *Ausgrabungen auf dem Tell Halaf in Nordost-Syrien. 1 Vorbericht über die erste und zweite Syrisch-Deutsche Grabungskampagne auf dem Tell Halaf*. Wiesbaden, Harrassowitz.
- OATES, D., OATES, J. and McDONALD, H.
1997 *Excavations at Tell Brak, Vol. 1: The Mitanni and Old Babylonian Periods*. London, British School of Archaeology in Iraq.
- OPITZ, D.
1927 Die Lage von Wassuganni, *Zeitschrift für Assyriologie und verwandte Gebiete 37: 299-301*.
- Von OPPENHEIM, M.
1931 *Der Tell Halaf. Eine neue Kultur im ältesten Mesopotamien*. Leipzig, F. A. Brockhaus.
- PRUß, A. and BAGDO, A.
2002 Tell Fecheriye. Bericht über die erste Kampagne der deutsch-syrischen Ausgrabungen 2001, *Mitteilungen der Deutschen Orientgesellschaft 134: 311-329*.
- RADNER, K.
2004 *Das mittelassyrische Tontafelarchiv von Giricano/Dunnu-ša-Uzibi. Ausgrabungen in Giricano I*. Subartu 14. Turnhout, Brepols.
- WIGGERMAN, F. A. M.
2000 Agriculture in the Northern Balikh Valley. The Case of Middle Assyrian Tell Sabi Abyad. In: R. M. Jas (ed.), *Rainfall and Agriculture in Northern Mesopotamia: 171-231*. MOS Studies 3. Leiden, Netherlands Institute for the Near East.

Tell Halaf (Ancient Guzana) Excavation Results between 2006-2010

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Abstract

Tell Halaf is located in northeastern Syria, to the west of the city of Ras El-'Ain in the area of the Khabur Springs. The site was discovered in 1899 by the German diplomat Baron M. von Oppenheim while he was surveying the area for the Baghdad Railway. The site flourished in the 6th millennium BC, during what is known as the Halaf culture, illustrated by the 'Bichrome Ware' decorated with geometric and animal designs. The emergence of the Ubaid culture in the region succeeding the Halaf culture brought back occupation to the site after a long abandonment period. In the 10th century BC, the Arameans took over Tell Halaf (Guzana) and made it the capital of Bit Bahiani Kingdom under the rule of the famous Kapara. In 894 BC, Guzana and its kingdom fell under Assyrian rule. Guzana lived through the collapse of the Assyrian Empire and remained inhabited until the Hellenistic period.

Tell Halaf (ancient Guzana) is located in northeastern Syria, on the Jarjab River, a branch of the Khabur (Figure 1), 3 km to the east of the city of Ras El-'Ain. The northern side of the tell is delimited by the Baghdad Railway line, which constitutes the current border between Syria and Turkey. In the past, the location of the site was divided into two cities: the upper city

which mainly encompasses the 6 ha square-shaped castle almost 20 m high, and the lower 60 ha square-shaped city (Figure 2).

The first excavations, initiated by von Oppenheim (1860-1946), were located on the castle where huge statues were discovered in the 1899 excavations.



2) Tell Halaf from northeast (Photo: G. Mirsch)

Figure 1: Tell Halaf from the northern side, 2006 (© Tell Halaf Project. Photo: Günther Mirsch)

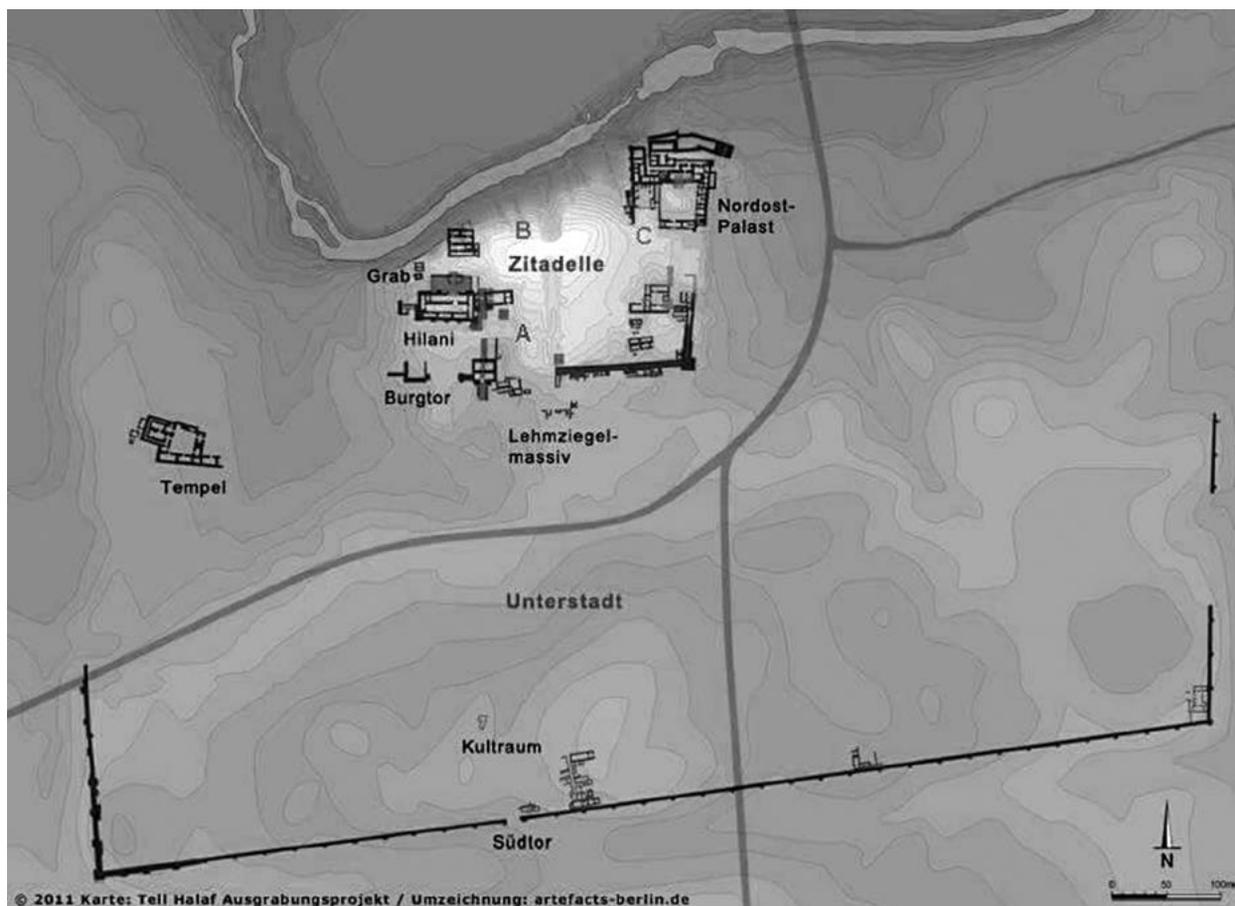


Figure 2: Map of Tell Halaf (Upper and lower cities) (© Tell Halaf Project)

Regular excavations followed in the years 1911, 1913, and 1929 before they were interrupted (Figure 4). A joint excavation expedition was formed 77 years later by the Directorate General of Antiquities and Museums and the Museum of the Ancient Near East in Berlin, in cooperation with the universities of Halle, Nürnberg, and Bern. The new excavations started in 2006, followed by five campaigns before work was unfortunately interrupted in 2010.

What do we know of the inhabitants of Tell Halaf?

At first, a small settlement was established almost 8000 years ago. The pottery produced during that period was painted and glazed, a typical example of the pottery of the Late Modern Stone age, currently known as the Halaf culture or period. At the beginning of the 1st millennium BC, the ruling Aramean family known in Bit Bahiani founded their capital, Guzana, on the early prehistoric settlement of Tell Halaf. The first mention of the city was in the Assyrian texts dated to 894 BC. The most prominent landmark of the city was the *Western Palace*, or as von Oppenheim called it the *Slaves' Palace*, which was discovered during excavations in 1899. Bit Bahiani, also known as the *High House*, is a term given by Assyrians for palaces in northern Syria

composed of two large square-shaped parallel rooms, a columned porch, and statues that Oppenheim found at the so-called *Scorpion Gate* of the *Western Palace*. These statues were the most fascinating discovery and made the site famous (Figure 3).

During the 9th century BC (894-808 BC), Guzana and its kingdom were indirectly ruled by the Assyrians. The Assyrian military detachments were present all over the kingdom and the rulers were monitored by the Assyrian kings. Between the years 808 and 612 BC, Guzana was placed directly under Assyrian governance until the collapse of the kingdom of Assur in 612 BC, caused mainly by the alliance of the Babylonians and the Medes. Among the prominent remains of this latter period are the Assyrian palace and the cuneiform tablets discovered in 1912. The importance of this archive, attributed to an official named Manoki Assur (793-783 BC), resides in the content of the texts, offering an insight and a unique testimony of the local Assyrian policy in its provinces.

Modern excavations

The initial goal of the modern excavations of the prehistoric levels of the tell was to get more accurate and



Figure 3: One of von Oppenheim excavation zones
(© Max Freiherr von Oppenheim-Stiftung, Cologne)

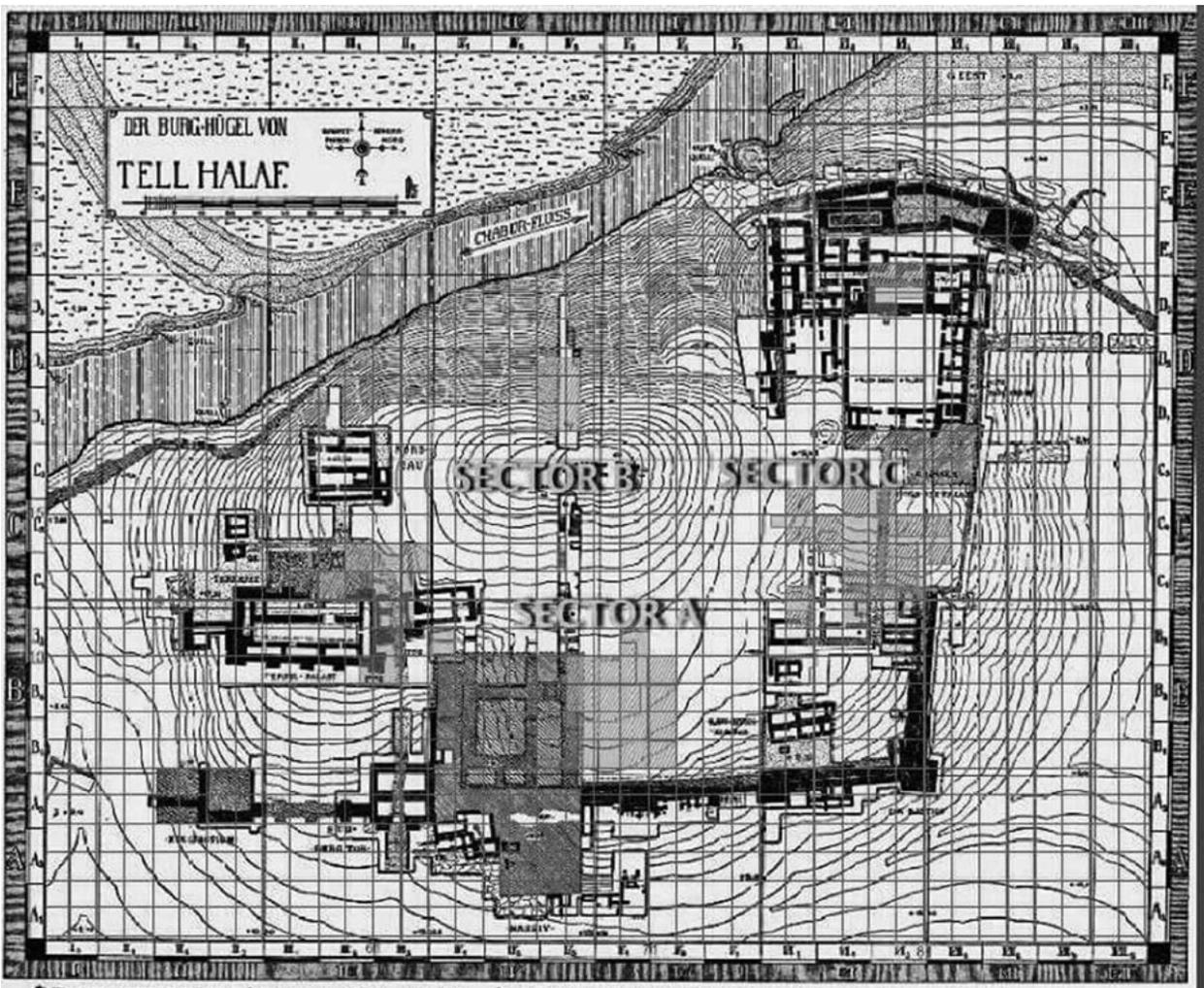


Figure 4: Map showing the upper city details (the castle) at Tell Halaf together with the new excavation areas
(© Tell Halaf Project)



Figure 5: Circular building with a rectangular annex dated to the Halaf culture, 2009 (© Tell Halaf Project. Photo: Laura Simons)

detailed information on the archaeology, to excavate the buildings on a wider, more systematic scale, and to study the pottery, small finds, animal bones, and botanical remains. All of these observations would provide crucial evidence on the type of settlement at Tell Halaf in terms of farming, animal breeding, and hunting, as well as from a social, cultural, and historical aspect, which could all help explain an expansion that lasted over 3000 years.

The excavations on the northern slope of the tell in the area of the *Western Palace* uncovered five circular buildings, dating to the Halaf culture and containing rectangular annexes (3 m x 5 m or 3 m x 7 m in dimension; Figure 5). The largest circular house reproduced the plan known in most of the nearby sites: a living area and a space for the family to work. As for the small circular houses, they might have been used for storage or as kilns.

The earlier changes in Tell Halaf and transition evidences announcing the following Ubaid period were discovered in a small area of the excavation, in levels that have yielded rectangular buildings. Other finds, such as stamps and seal plaques with geometrical designs (wide lines), were unearthed, one of them

representing perhaps a human figure and dating to late 5000 BC (TH10B-0385). Amulets were also discovered, along with human clay figures (representing the mother goddess), some of them decorated with brownish red lines (TH10B-0266). There were also finds of animal clay figures (TH08B-0092), such as the probable head of an ox dating back to mid 6000 BC, and some pottery rings dating to the Halaf period.

More than 20,000 ceramics were collected in the prehistoric strata: 14,500 pieces belonged to the Halaf culture, c. 2400 pieces to the Ubaid period, and 3400 pieces to the Late Chalcolithic.

It is well known that Tell Halaf was not inhabited before the Iron Age. The most important king at Guzana was Kapara, who built the *Western Palace*, called by von Oppenheim the *Ubaid Palace*, during his reign between late 10th and early 9th century BC. Recent excavation techniques showed clearly, contrary to what von Oppenheim assumed, that the palace was not built on the remains of an older building. In fact, the *Western Palace* was a new building with huge deep foundations (up to 3 m), dug in the remains of an older building whose brick walls were removed during digging trenches for the foundations of the new building.

The occupational layers of the *Scorpion Gate* area showed walls and remains belonging to different layers and different eras. Layer A9 was a wall in the eastern part, dating to c. 900-758 BC (Neo-Assyrian period). Layer A10 was a terrace at the *Western Palace* and *Scorpion Gate*, made of clay bricks and dating to c. 950-900 BC (Aramean period). Layer A11 was the area located to the northeast of Inst. A99, dated to c. 1060-950 BC (Early Aramaean Period). Layer A14 (Building A4), Layer A15 (represented by Building A8), and Tomb 16 all date to c. 1110-1060 BC or earlier.

A collection of four tombs was found in the area of the *Western Palace*, dating to the Late Bronze and Early Iron Ages. The most important monument was Tomb 16, built and covered with clay bricks. Inside this tomb, the skeleton of a girl, lying on her back, was found along with several objects, such as a quartz necklace, a bronze earring, an iron bracelet, remains of fabrics, a bronze ring, and a large collection of beads found near the left shoulder (Figure 6).

Excavations of the terrace, built of clay bricks and located at the southern wall of the citadel, unearthed part of a Neo-Assyrian house directly under the Hellenistic layers. The house consisted of two rooms. The small room was lined with red bricks and could have been a bathroom or storage space. The large one, possibly a living room, had white, lime-painted walls and a basalt threshold belonging to a wide door that

led to a huge yard (Figure 7). A Neo-Assyrian plate was found in the southern side of this room (TH08A-0149), containing a cuneiform inscription of a loan with interest contract.

In addition to the above-mentioned finds, several archaeological objects were found, including a small bronze head (TH08A-0335) with vivid eyes and a large nose, a number of needles and safety pins, a small ivory head (TH10A-0213; height: 1.25 cm; width: 1.4 cm; and depth: 1.45 cm), and some quartz items, e.g. the Egyptian eye (TH08A-0332) found in the southwestern end of the yard (A1:C).

Excavation of the Assyrian ruler's palace was confined to the southern wing of the edifice, in order to discover the different settlement layers. A number of rooms, courtyards and terraces were found dating to different times within the Assyrian period (C9-C8-C7-C6) (Figure 8). Study and analysis of the archaeological layers helped locate finds and cuneiform tablets, which were apparently placed in several places inside the palace, together with sterile landfills. The Assyrian palace was renovated during stage C7 (around 793 BC), when Manoki Assur was the ruler of Guzana. Three pieces of clay tablets dating to the 7th century BC were found in Yard C1, in addition to numerous handmade human and animal clay figurines, i.e. TH08C-0369, showing a part of a man with a beard and wearing a scarf, possibly dating to the 8th



Figure 6: Photo of tomb no. 16, Sector A of the Western Palace (© Tell Halaf Project)



Figure 7: Photo showing a Neo-Assyrian house in the castle area (Terrace) (© Tell Halaf Project)

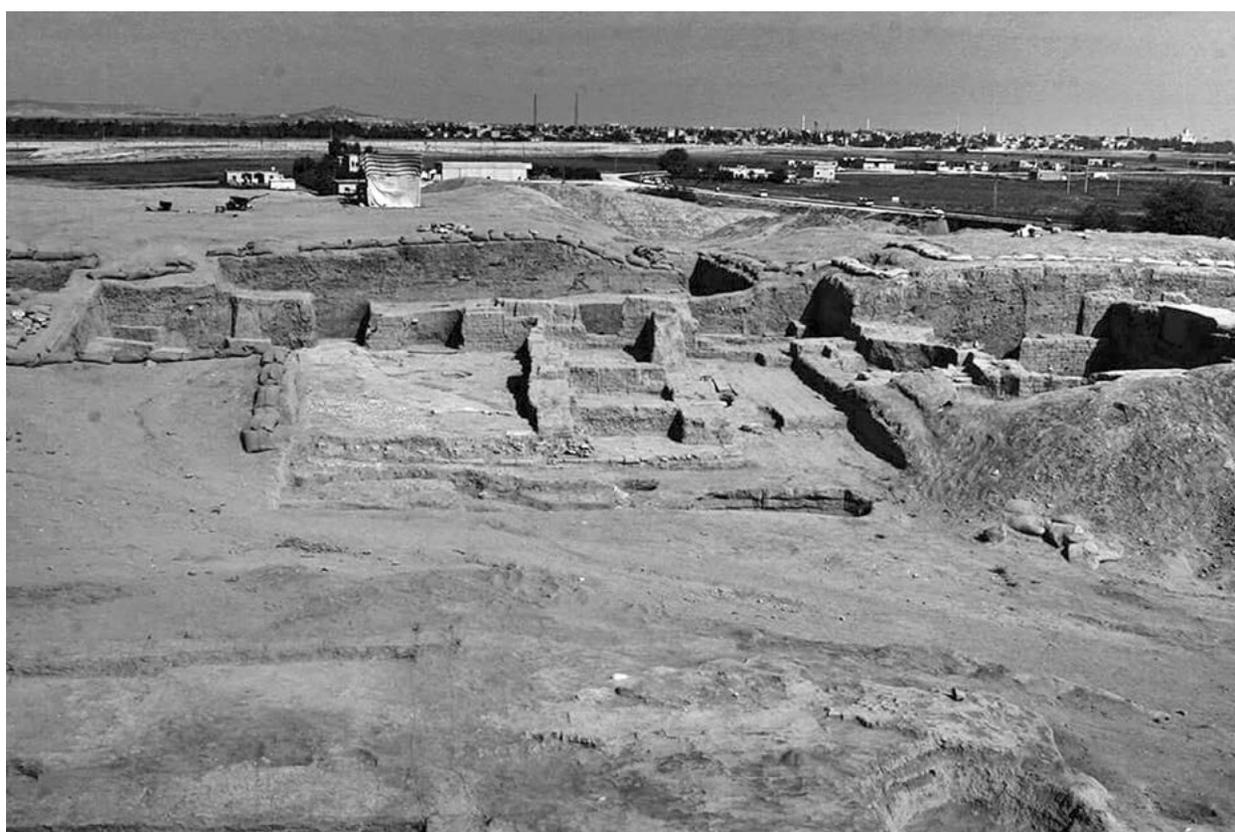


Figure 8: Photo showing excavation works in the southern part of the Assyrian ruler's palace (© Tell Halaf Project)

century BC. A number of seal plates, glass, and pottery, as well as metal and basalt stone tools were also found. The area of the Neo-Assyrian house was excavated and studies revealed that it was part of the southern wing of the Assyrian ruler's palace, as there was an architectural link between the house and the palace.

Excavations of the lower city concentrated on the temple discovered in 1913. The plan of the temple resembles other Assyrian temples, with an entrance leading to a courtyard and then, via seven steps, to the main courtyard of the temple and then onto a lateral courtyard. The walls are decorated with half-circular columns, and a number of small rooms are placed around the courtyard. Excavations of the new area helped document the walls and floors of the temple, as well as the drainage pipes (Area 3500). The same drainage pipe network was used in the following period but on a higher layer. Generally speaking, the layer distribution of the building is as follows: modern layers of the top soil, Hellenistic remains, E3 including Tomb 23, Neo-Assyrian levels, E6N-E4N, and perhaps older layers, such as the clay-bricked terrace under Building E4.

As they were extremely eroded, the excavation of the wall area was intended to discover the nature and structure of the walls of the lower city from the eastern, southern, and western sides. A 7 m deep trench was cut c. 15 m in front of the walls. The area between the trench and the walls is paved with stones and the walls are built using red clay bricks. Thus, the final depth of the wall, with the inner and outer dikes, is about 6.6 m.

The excavation of the eastern part of the lower city unearthed one of the Assyrian houses c. 24 m long. It consists of three rooms and a courtyard. In one of the rooms, an Aramaic clay tablet dating to the end of the 7th century BC was found among the pottery pieces (TH10G-0152, TH10G-0173).

It is worth mentioning that several facilities dating to the Hellenistic period were found in several areas of the tell, especially in the area of the clay-bricked terraces, where Building A3 with its four rooms is built above the level of the Neo-Assyrian house. The base of a basalt column was found on one of the floors, probably belonging to a hallway. Many clay human figurines were discovered, some of which have clear Persian features, in addition to many seals featuring the head of Apollo and Heracles, clay seal plates (TH09E-0048), indicating that Tell Halaf was part of the Seleucid Kingdom, rings (TH08C-0131), metal coinage, and pottery jars.

The cuneiform documents and the Aramaic inscriptions found at Tell Halaf are evidence that life continued after the collapse of the Assyrian empire in the 7th century BC. The remains of the ancient buildings, and the holes several meters deep found under vestiges of

the Hellenistic period, showed that the city continued to exist during the latter period and remained active until Islamic times. Nowadays, part of the citadel is used as a cemetery for the villages near Tell Halaf.

Conclusion

The new excavations at Tell Halaf were very beneficial, as they provided vital information on the prehistoric era and the periods between the first half of the 1st millennium BC and Islamic times. After the end of the war in Syria, circumstances permitting, new excavations must focus on the Iron Age occupation, in particular, which promises great results. The importance of the site lies, among other things, in the fact that it is a crucial witness to the existence of Hellenistic civilization in upper Mesopotamia.

Selective bibliography

- BAGHDO, A. M. H., MARTIN, L., NOVÁK, M. and ORTHMANN, W. (eds)
 2012 *Tell Halaf: Vorbericht über die dritte bis fünfte syrisch-deutsche Grabungskampagne, Vorderasiatische Forschungen der Max Freiherr von Oppenheim*. Stiftung 3, 2. Wiesbaden, Harrassowitz.
- 2009 *Tell Halaf: Vorberichte über die erste und zweite syrisch-deutsche Grabungskampagne, Vorderasiatische Forschungen der Max Freiherr von Oppenheim*. Stiftung 3, 1. Wiesbaden, Harrassowitz.
- CHOLIDIS, N.
 2014 *Syro-Hittite States: The Site of Tell Halaf (Ancient Guzana)*. In: J. Aruz, S. B. Graff, and Y. Rakic (eds), *Assyria to Iberia at the Dawn of the Classical Age: 93-97*. New York, The Metropolitan Museum of Art.
- NOVÁK, M.
 2013 *Gozan and Guzana. Anatolians, Aramaeans and Assyrians in Tell Halaf*. In: D. Bonatz and L. Martin (eds), *100 Jahre archäologische Feldforschungen in Nordost-Syria: 259-281*. Wiesbaden, Harrassowitz.
- ORTHMANN, W.
 2002 *Die aramäisch-assyrische Stadt Guzana. Ein Rückblick auf die Ausgrabungen Max von Oppenheims in Tell Halaf, Schriften der Max Freiherr von Oppenheim*. Stiftung Heft 15. Saarbrücken, Saarbrücker Druckerei und Verlag.
- VON OPPENHEIM, M. F.
 1962 *Tell Halaf IV: Die Kleinfunde aus historischer Zeit* (bearbeitet von B. Hrouda). Berlin, Walter de Gruyter.
- 1955 *Tell Halaf III: Die Bildwerke* (bearbeitet von A. Moortgat). Berlin, Walter de Gruyter.
- 1950 *Tell Halaf II: Die Bauwerke* (von F. Langenegger, K. Müller, R. Naumann, bearbeitet und ergänzt von R. Naumann). Berlin, Walter de Gruyter.
- 1943 *Tell Halaf I: Die prähistorischen Funde* (bearbeitet von H. Schmidt). Berlin, Walter de Gruyter.
- 1931 *Der Tell Halaf. Eine neue Kultur im ältesten Mesopotamien*. Leipzig, F.A. Brockhaus.

The Pre-Pottery to Pottery Neolithic Settlement of Tell Seker Al-Aheimar, Hassake, Upper Mesopotamia

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Abstract

Tell Seker Al-Aheimar is located roughly 7 km west of the town of Tell Tamor, 45 km northwest of Hassake (Figure 1). It was discovered as a Neolithic site in 1991 during a prehistoric survey in the Upper Khabur Basin. The survey produced a large surface collection with Neolithic stone artefacts, but virtually no related ceramics, suggesting thus a Pre-Pottery Neolithic date. The site was visited again in 1999 to examine it in more detail (Nishiaki 2000; 1992). This new survey indicated that the Neolithic materials were scattered on a much larger area than previously recognized, and that some Neolithic ceramics did exist, at least in some areas, together with flaked stone artefacts that exhibited Neolithic features. These observations raised the possibility that not only the Pre-Pottery Neolithic but also the transitional phase to the early Pottery Neolithic (both poorly understood in the Khabur Basin) could be revealed through scientific research at this unique prehistoric site.



Figure 1. Tell Seker Al-Aheimar seen from the north (© University of Tokyo).

The University of Tokyo mission conducted intensive excavations in the following years between 2000 and 2010 (Nishiaki 2012; Nishiaki *et al.* 2013). The excavations demonstrated that the human occupations at this site started during the Pre-Pottery Neolithic period and continued into the Pottery Neolithic period with no interruption. Thus far, it is the only site extensively excavated in the region to have produced archaeological records of this period. Therefore, the archaeological evidence documented at Tell Seker Al-Aheimar includes a number of significant discoveries for understanding the origins and developments of the Neolithic communities in the region. Some of these

discoveries pertaining to the architecture and material remains will be presented in this paper.

The site and excavations

The mound of Tell Seker Al-Aheimar, occupying an oval area of about 300 m by 180 m with a height of about 11 m, is located on the right bank of the Khabur Valley (Figure 2). Surface surveys demonstrated an extensive distribution of Neolithic artefacts all over the mound, which suggests that it is one of the largest Neolithic sites known in the Syrian Jezireh. Due to the extension of a modern village and its cotton fields, fruit

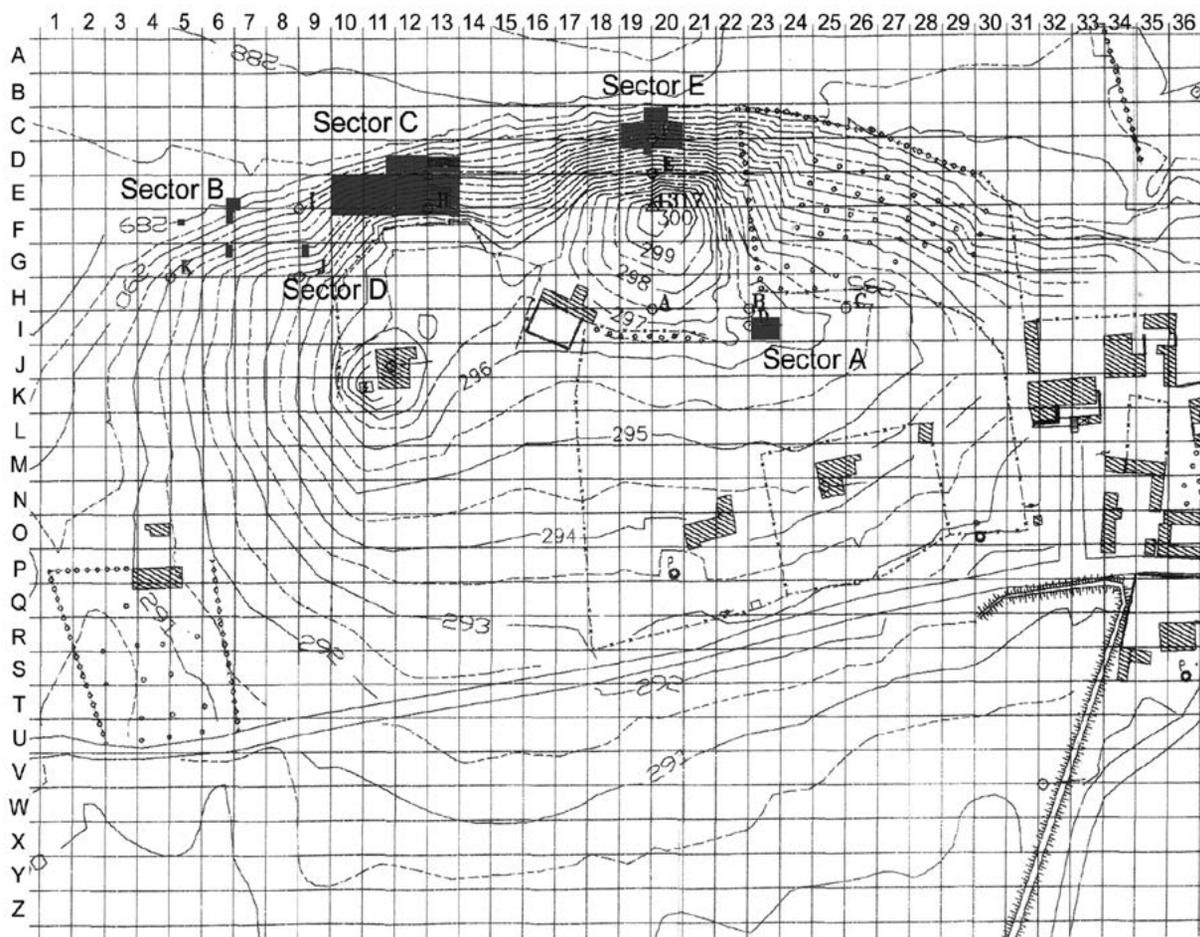


Figure 2. Plan of Tell Seker Al-Aheimar showing the excavation areas (© University of Tokyo).

gardens, cemetery, and other domestic structures, the excavations were conducted mainly along the northern edge of the mound facing the Khabur River. An area of approximately 750 m² was excavated in five trenches defined as Sectors A to E (Figure 2).

All trenches produced rich Neolithic cultural deposits with a thickness of up to 7 m (Sector C). Apart from Sector D, whose excavations did not reach the virgin soil, all trenches showed an almost identical cultural sequence. The Late Pre-Pottery Neolithic B (LPPNB) layers were recovered on virgin soil, followed by the 'Pre-Proto-Hassuna' phase, and the Proto-Hassuna phase of the Pottery Neolithic. The 'Pre-Proto-Hassuna' is a cultural phase newly proposed at Tell Seker Al-Aheimar as representing the oldest Pottery Neolithic in Upper Mesopotamia (Nishiaki and Le Miere 2005; also see below). Nearly 50 radiocarbon dates were obtained from securely defined Neolithic levels. They indicate the following dates for the three major Neolithic phases: 7300 to 6750 BC for LPPNB, 6750 to 6500 BC for the Pre-Proto-Hassuna, and 6500 to 6450 BC for the Proto-Hassuna. Above these Neolithic cultural phases were

found the Ubaid and Uruk phases of the Chalcolithic period. However, the intensive field research was only directed toward the Neolithic phases.

The best architectural sequence was obtained in Sector C, where the largest exposure (about 500 m²) was made for the Neolithic deposits. The LPPNB occupations were divided into at least two phases. The oldest ones (Levels 20-15) are characterized by small rectangular buildings with cobble-paved floors. Two or three rectangular rooms adjoining each other in parallel comprised one building, measuring an area of around 1.5 m wide by 3 to 4 m long. The walls were rather narrow, made of *pisé*, and the floors were plastered with mud, instead of gypsum. In the open-air areas, a large number of oven-pits and fireplaces were discovered. The oven-pits displayed a consistent structure. They showed an oblong plan, measuring up to 2 m long and 1 m wide and a depth of 1 m. The inner wall was neatly plastered with fine clay and the bottom was filled with plenty of river cobbles showing traces of the use of fire. Comparable ovens are known from Neolithic sites in southeast Anatolia, including Cafer Höyük and Çayönü.



Figure 3. Plan of Level 14 (PPNB) (© University of Tokyo).

These features and the absence of large, standing buildings may indicate the performance of specific open-air activities in the area of excavations. However, at the same time, they may also indicate a rather temporary nature of the site's use by the first inhabitants of this mound. The construction of more solid, large rectangular buildings started in the later stage of the LPPNB phase (Levels 16-9). Walls were now constructed on stone foundations with not only *pisé* but also mudbricks, and room floors were neatly gypsum-plastered (Figures 3-4). The room layout also displayed a consistent organization, indicating that the culturally determined space use pattern was present. One building measures approximately 9 m x 6 m, with its largest room in the centre, surrounded by a series of smaller rooms or units. The overall plan is asymmetric, missing one corner of a rectangular shape, where the

entrance was placed. According to our analysis of the floor finds, including obsidian powders and plant phytoliths invisible to the naked eye, the internal space of those L-shaped buildings was well organized into specific functional units. A variety of functional spaces, such as the reception area, courtyard, kitchen, and granary, were identified (Kadowaki *et al.* 2013; Portillo *et al.* 2014).

The architectural plan and the method of construction remained the same throughout the LPPNB levels, and, importantly, they continued into the Pre-Proto-Hassuna phase of the Pottery Neolithic (Levels 9-5), indicating the persistence of a well-established architectural tradition over centuries. Parallels to this architectural type are not common in other parts of Syria. The LPPNB settlements in the Balikh and Euphrates valleys showed

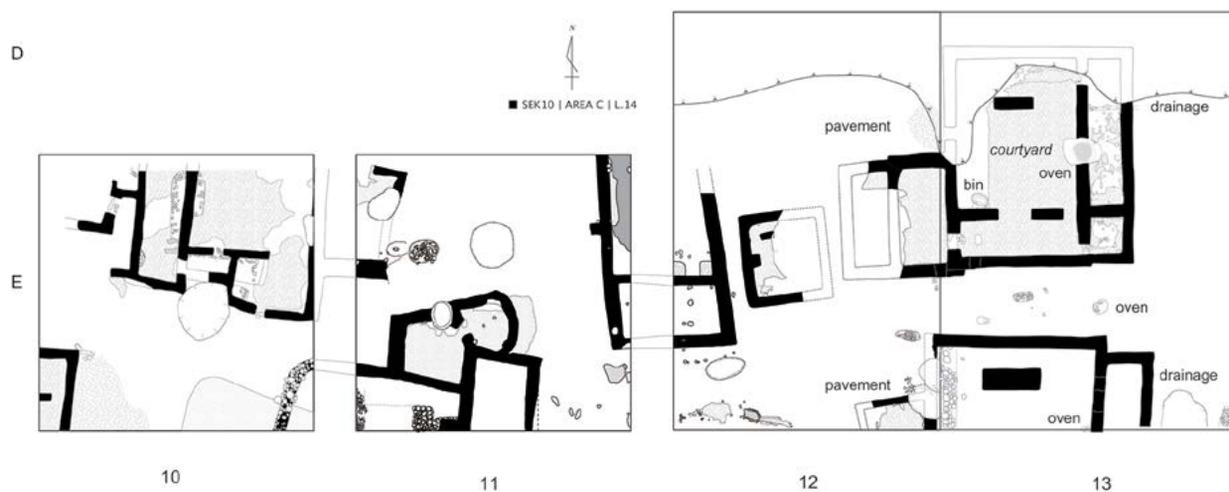


Figure 4. Mudbrick architecture of Level 14 (PPNB) (© University of Tokyo).

a symmetric, rectangular architectural plan. On the other hand, comparable buildings have been reported in Iraq, such as from Jarmo and Umm Dabaghiyah, suggesting cultural links of the Neolithic communities of Seker Al-Aheimar with those of Upper Mesopotamia to the east. This tradition ended at the beginning of the Proto-Hassuna phase of the Pottery Neolithic, when the walls were constructed with *pisé* rather than mudbricks, and the buildings themselves became smaller. The small architecture made of *pisé* is known to characterize the contemporaneous Pottery Neolithic settlements in Iraq as well as those in the Upper Khabur basin.

It should be noted that symmetric rectangular buildings were also found at Seker Al-Aheimar, although rarely. These rectangular buildings differed from the asymmetric L-shaped buildings not only in plan but also in other elements. First, they were constructed repeatedly at the same location throughout the different levels of Sector C. Second, the long axis of the rectangular buildings showed a north-south axis, whilst other asymmetric buildings were built in the east-west axis. Third, these buildings were not compartmented into small spaces like other buildings. Fourth, they always had a large fireplace inside, much larger than those of other buildings. These observations suggest that the rectangular buildings retained a special significance for the community, likely to have served as a public space. This view may be supported by the discovery of a water well from Level 13 (Figure 5). Water wells have been rarely discovered at Neolithic settlements. Indeed, the example from Seker Al-Aheimar represents one of the oldest in Upper Mesopotamia. The rarity of wells strongly suggests their public nature. The well at Seker Al-Aheimar had a diameter of approximately 2 m and a depth of more than 4.5 m. The notable associated finds include a complete set of ground stone objects found near the bottom of the well. Made of either basalt or limestone, these ground stone artefacts were intentionally thrown into the well for reasons yet unknown. This settlement is situated near a permanent water source, the Khabur River. Therefore, the well may have had purposes beyond the sole purpose of the procurement of water. One possibility was to control the quality of water and to avoid the use of river water, which was increasingly subject to pollution due to the development of a sedentary agricultural community.

Cultural assemblages

Large amounts of Neolithic artefacts were recovered during the eleven seasons of excavation. Flaked stone tools constitute one of the most commonly found material remains at Seker Al-Aheimar. Both flint and obsidian were used. The proportion of flint to obsidian changed through time. Flint was dominant in the oldest levels, while obsidian became common in the later phase of the LPPNB and the Pre-Proto-Hassuna phase.



Figure 5. The PPNB water well (© University of Tokyo).

Subsequently, flint again became more popular in the Proto-Hassuna phase. The proportion of obsidian thus fluctuated from 20 to 30%, through over 50%, and finally dropped to less than 20% (Nishiaki and Nagai 2011).

Situated in the alluvial plain of the Upper Khabur, flint raw materials were available from limited sources, the major one being secondary pebbles in the Khabur Valley (Nishiaki 2007a). Since the local flints were coarse-grained, the Neolithic communities of Seker Al-Aheimar acquired high-quality flints available from remote sources as well. The knappers utilized local and non-local flints quite differently. The local flints were used for manufacturing expedient tools such as scrapers and denticulates, while the non-local ones were used for curated tools, notably arrowheads and sickle elements. The blank production technology also displayed marked differences: flake production with amorphous technology for local flints, and blade production with elaborated technology for non-local flints.

Blade production indicates an interesting pattern (Nishiaki 2013). The blade production technology of the Neolithic Syria is characterized by the common use of opposed-platform core technology, generally

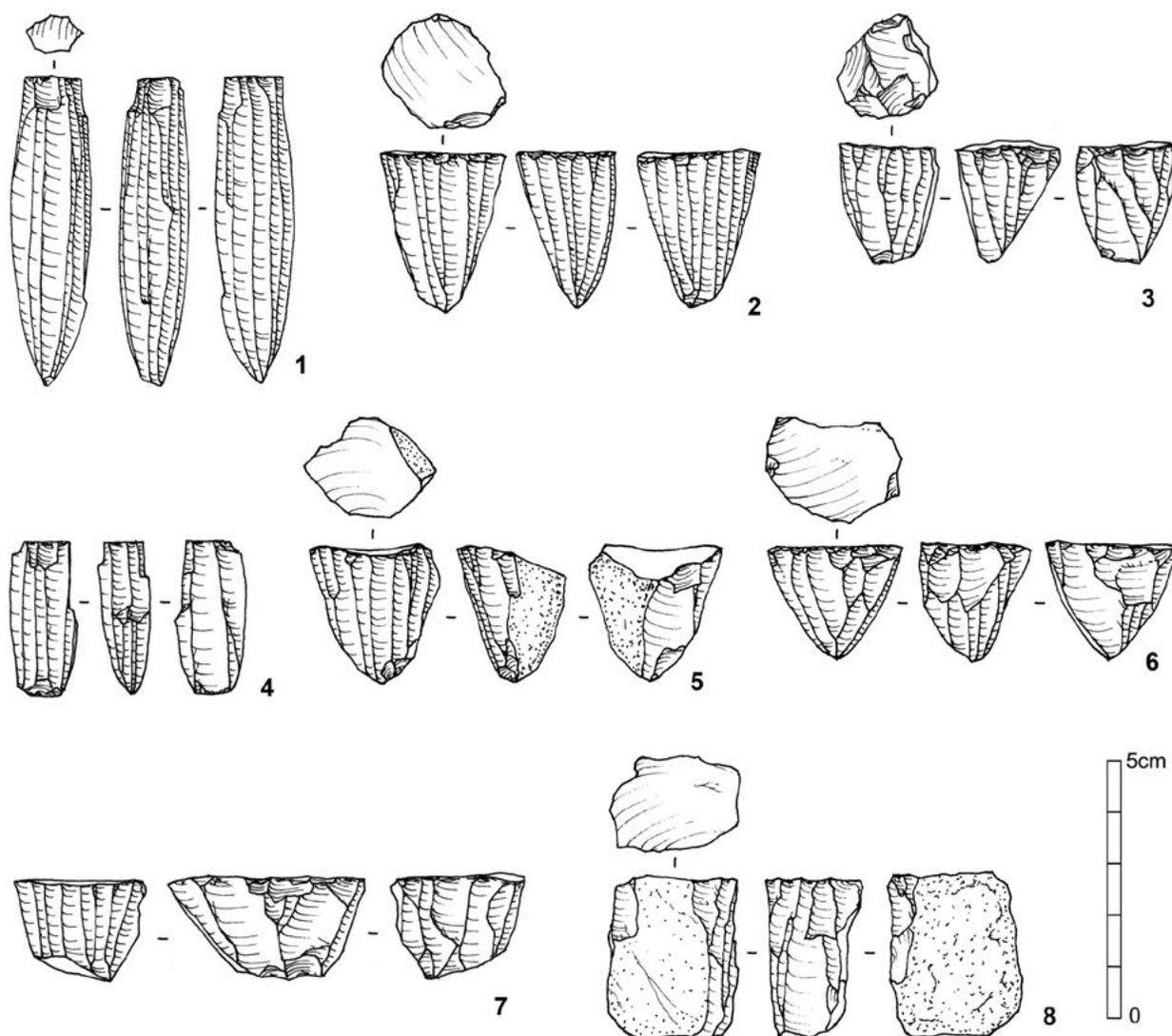


Figure 6. PPNB flint cores. 1-7: Non-local flints; 8: Local flint (© University of Tokyo).

called the Naviform core method. This technology is known to have been distributed across the Levant and Anatolia, signalling a major cultural horizon during the LPPNB. Despite its situation in the territory of Syria, the blade cores recovered from the PPNB settlement of Tell Seker Al-Aheimar do not show the opposed-platform type. Instead, they show the bullet-shaped core with a single platform. Moreover, blades were produced from this core type with the pressure flaking technique, which was never common in the Levant but popular in the regions to the east, notably the Zagros Mountains. Blades produced from the opposed-platform technology, and the blade tools manufactured on those blanks, did exist at Seker Al-Aheimar. However, all those elements were imports. Local production was centred on pressure flaking with single-platform cores. It has been repeatedly pointed out that two major cultural provinces existed in the Prehistoric and Early Historic periods of the Fertile Crescent of the Middle

East, the East and West Wings of the Fertile Crescent. While the border might have moved by periods, the lithic evidence from Seker Al-Aheimar indicates that the Khabur Basin was included in the East Wing and the border was placed between the Balikh and Khabur valleys during the Neolithic period.

The excavations at Seker Al-Aheimar contributed to documenting the cultural tradition of the Pottery Neolithic period as well (Nishiaki and Le Mière 2005). The oldest Pottery Neolithic of Upper Mesopotamia including the Khabur Basin had long been believed to be represented by Proto-Hassuna (Sotto-Umm Dabaghiyah) pottery. The uninterrupted sequence over this period, the first one to have been documented in this region, revealed the existence of a yet unknown phase of the Pottery Neolithic, predating the Proto-Hassuna, referred to as 'Pre-Proto-Hassuna'. This phase is distinguished by a distinct set of pottery assemblages



Figure 7. The unique PPNB female figurine
(© University of Tokyo).

(Figure 8). The important differences include the use of mineral tempering for the paste of pottery, making a striking contrast to the dominance of plant tempering in the Proto-Hassuna pottery. The surface of this type of pottery are always well burnished, but are never decorated. The shapes are limited: closed or holemouth jars with a flat top. The stratigraphic evidence clearly indicates a continuous evolution from the Pre-Proto-Hassuna to the Proto-Hassuna. The transition involved manufacturing intermediate pottery, characterized by the use of both mineral and plant tempers in the same pottery. This is the first piece of evidence available that directly contributes to understanding the emerging process of the Proto-Hassuna pottery in Upper Mesopotamia.

Among the other notable discoveries from the Neolithic levels of Tell Seker Al-Aheimar are the numerous clay figurines. Both animal and female figurines were recovered. Particularly unique is a large clay female figurine from the LPPNB phase (Nishiaki 2007b). It depicts a seated female with realistic modelling and bichrome painted decoration. Its remarkably large size (about 14.2 cm high) has no parallels among clay figurines of this period, not only at Seker Al-Aheimar in particular, but also in Upper Mesopotamia in general (Figure 7). The highly elaborate artistry, as well as the burnished/painted surface, indicates a distinguished

function probably involving a prolonged use. The excavation context was also unique. While other clay figurines were often discovered in hearths, this large figurine was recovered from a sub-floor, reminiscent of sub-floor human burials common in the earlier PPNB, also suggesting its distinguished function.

There has been no parallel for this figurine from Pre-Pottery Neolithic sites in Mesopotamia and beyond in the Middle East, raising issues to be discussed on its culture-historical and functional significance. Its general features indicate prolonged use as well as the importance attached to it by society. Its aforementioned unique excavation context is a marked contrast to that of ordinary figurines from Tell Seker Al-Aheimar, which were recovered mostly from ovens and open-air deposits. It is likely that this figurine played a particular role as the 'Mother Goddess' in this society, while the ordinary figurines were of short-term use as amulets.

In terms of artistic tradition, the most comparable examples have been found at Choga Mami and Tell es-Sawwan, Samarran sites of the Pottery Neolithic in Iraq, and date to the mid 8th millennium BC and later. Similarities are seen in their posture as well as the representation of their faces. They are seated in a curious and distinctive posture with the left leg bent across the body, as with the case of the figurine from Tell Seker Al-Aheimar. Further discussion on the correlations between these figurines would require a considerably wider range of evidence. Nevertheless, the current evidence suggests that this figurine represents a forerunner of the ritual system that became prevalent later in Mesopotamia. At the same time, the study of this figurine will eventually facilitate our understanding of the nature of the Pre-Pottery to Pottery Neolithic transition in Mesopotamia – a period in which marked changes have been noted in a range of aspects, including the symbolic and ritualistic behaviour of early farming communities.

Conclusions

Our interest in Tell Seker Al-Aheimar originally arose from the knowledge on the earliest settlement history of the Khabur Basin in the 1990s. Surveys and excavations since the beginning of the 20th century had located dozens of Proto-Hassuna sites, but virtually no preceding sites in this vast fertile plain. It was consequently suggested that the extensive exploitation of this plain started only in the Pottery Neolithic, while its origins remained unknown. The eleven seasons of excavations at Tell Seker Al-Aheimar between 2000 and 2010 produced a range of evidence directly related to reconsidering this research question. Most significantly, they have established an interrupted cultural stratigraphy over the PPNB to the Pottery Neolithic, a period previously poorly known in this

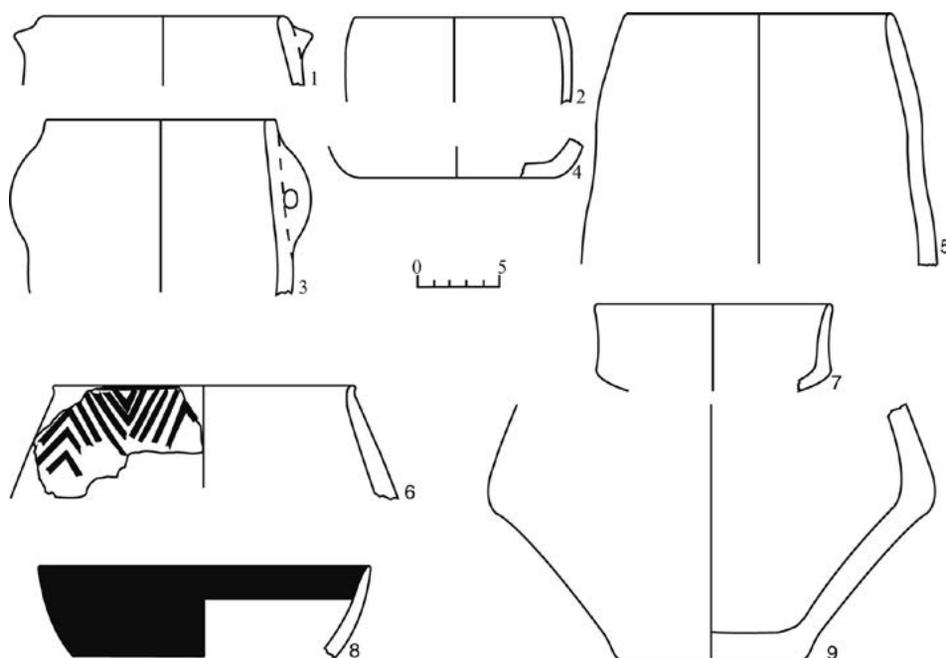


Figure 8. Neolithic pottery.
1-5: Pre-Proto-Hassuna
pottery; 6-9: Proto-Hassuna
pottery (© University of
Tokyo).

part of Syria. A large-scale PPNB settlement was discovered and its development into the Proto-Hassuna phase of the Pottery Neolithic was documented with solid stratigraphic evidence for the first time. In addition, the development was demonstrated to have taken place through a newly discovered transitional phase, designated as the 'Pre-Proto-Hassuna' based on research at Tell Seker Al-Aheimar. At the same time, the archaeological records from Tell Seker Al-Aheimar demonstrated that the Neolithic cultural occurrences of the Upper Khabur should be interpreted in the broader context of Upper Mesopotamia. All these contributions make Tell Seker Al-Aheimar one of the key sites to reconstruct the origins and development of the early farming communities of the Khabur and beyond.

Bibliography

- KADOWAKI, S., NAGAI, K and NISHIAKI, Y.
2013 Technology and space-use in the production of obsidian bladelets at Tell Seker al-Aheimar. In: O. Nieuwenhuyse, P. Akkermans, R. Bernbeck, and J. Rogasch (eds), *Interpreting the Late Neolithic of Upper Mesopotamia*: 147-159. Turnhout, Brepols.
- NISHIAKI, Y.
2013 PPNB flint blade production at Tell Seker al-Aheimar, the Upper Khabur, Syria. In: Y. Nishiaki, K. Kashima and M. Verhoeven (eds), *Neolithic Archaeology in the Khabur Valley, Upper Mesopotamia and Beyond*: 64-79. Berlin, Ex oriente.
- 2012 Excavations at Tell Seker al-Aheimar, Hassake, Eleventh Season, 2010, *Chronique Archéologique en Syrie* 6: 31-37.
- 2007a Patterns in exploitation and use of flint at the Neolithic settlement of Tell Seker al-Aheimar, northeast Syria. In: C. Delage (ed.), *Chert Availability and Prehistoric Exploitation in the Near East*: 87-103. British Archaeological Reports International Series 1615. Oxford, John and Erica Hedges.
- 2007b A unique Neolithic female figurine from Tell Seker al-Aheimar, Northeast Syria, *Paléorient* 33/2: 117-125.
- 2000 The Palaeolithic and Neolithic industries from the prehistoric survey in the Khabur basin. In: B. Lyonnet (ed.), *Prospection Archéologique du Haut-Khabur Occidental (Syrie du N.E.), Volume I*: 77-124. Beirut, IFPO.
- 1992 Preliminary results of the prehistoric survey in the Khabur basin, Northeast Syria: 1990-1991 seasons, *Paléorient* 18/1: 97-102.
- NISHIAKI, Y. and LE MIÈRE, M.
2005 The oldest pottery Neolithic of Upper Mesopotamia: New evidence from Tell Seker al-Aheimar, the Upper Khabur, Northeast Syria, *Paléorient* 31/2: 55-68.
- NISHIAKI, Y. and NAGAI, K.
2011 Obsidian knappers at the Late PPNB consumer settlement of Tell Seker Al-Aheimar, Northeast Syria, *Paléorient* 37/2: 91-105.
- NISHIAKI, Y., KASHIMA, K. and M. VERHOEVEN (eds)
2013 *Neolithic Archaeology in the Khabur Valley, Upper Mesopotamia and Beyond*. Berlin, Ex oriente.
- PORTILLO, M., KADOWAKI, S., NISHIAKI, Y. and ALBERT, R. M.
2014 Early Neolithic household behavior at Tell Seker al-Aheimar (Upper Khabur, Syria): a comparison to ethnoarchaeological study of phytoliths and dung spherulites, *Journal of Archaeological Science* 42: 107-118.

Excavations at Tell Taban: Culture and History at Ṭābatum/Ṭābetu during the Second Millennium BC

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Abstract

Excavations at Tell Taban revealed strata from the Middle Uruk period to the Hellenistic period and uncovered a large number of cuneiform texts from various periods of the 2nd millennium BC. This paper discusses archaeological and textual data from the site pertaining to the 2nd millennium BC.

Tell Taban (36.20'N/40.47'E) is the largest tell in the Middle Khabur area, located on the east bank of the Khabur River, approximately 19 km south-southeast of modern Hassake (Figure 1). The site is situated in the salvage area along the Middle Khabur, which will eventually be submerged as a result of the construction of the Hassake Dam. Following a general survey of the salvage area undertaken by K. Ohnuma and H. Numoto (both of Kokushikan University) in 1996, the site was first excavated in 1997, followed by two seasons of excavations in 1998 and 1999 (Ohnuma and Numoto 2001; Ohnuma, Numoto, and Okada 1999; Ohnuma, Numoto, and Shimbo 2000).

These salvage missions in the 1990s, which aimed to rescue the site's archaeological data, yielded a number of significant results. First, they brought to light a sequence of strata from the Middle Uruk period to the Hellenistic period from trenches opened at the northwestern slope of the mound. Furthermore, 71 pieces of inscribed objects dating to the Middle Assyrian period were discovered. These artefacts came from the 12th to the 11th centuries BC and are mostly inscriptions commemorating building activities. S. M. Maul's (University of Heidelberg) study of these inscriptions confirmed the identification of Tell Taban as the ancient city of Ṭābetu – a city mentioned in Middle and Neo-Assyrian documents and long suspected to be identified with Tell Taban (Maul 2005, cf. also Maul 1992). Maul further revealed that the site was the residential city of local dynasts who called themselves, curiously, 'the King[s] of the Land of Māri', and that the local kingdom remained semi-independent while acknowledging the suzerainty of Assyria.

Following a five-year intermission, the Japanese mission, convinced of the site's significance, resumed excavations to uncover further details about the history and culture of Tell Taban and its surroundings. This work began with two seasons of excavations in the winter and summer of 2005, under the direction of H. Numoto (Kokushikan University), and it continued with five summer seasons of excavations between 2006 and 2010 (Numoto 2009; 2008; 2007; 2006, for the seasons of 2005-2007. A report on the 2008-2010 seasons is in preparation by H. Numoto). Since the mound was already eroding on the western side due to rising waters, excavations were planned with the intention of rescuing the remains on the western side first. Given the nature of this excavation, no grid was formed for the digging; rather, the work was undertaken by opening a number of trenches along the slope (Figure 2). The resumed excavations uncovered further archaeological remains. The major discoveries include parts of palatial structures, remnants of a defence system, and an underground tomb from the Middle Assyrian period, as well as a large number of cuneiform texts from the Middle Assyrian and Old Babylonian periods (Figure 3).

The Middle Assyrian cuneiform texts comprise approximately 150 archival documents – including administrative texts, legal texts, and letters – as well as 276 fragments of various objects bearing commemorative building inscriptions. The archival documents found in a room excavated in trench 5 date to the reigns of the Kings of the Land of Māri Aššur-ketta-lēšir I and Adad-bēl-gabbe II, and probably the successor(s) of Adad-bēl-gabbe II as well. The documents cover the period from the mid 13th to the mid 12th centuries BC, from the early reign of King Shalmaneser I of Assyria (1273-44/1263-34) until the

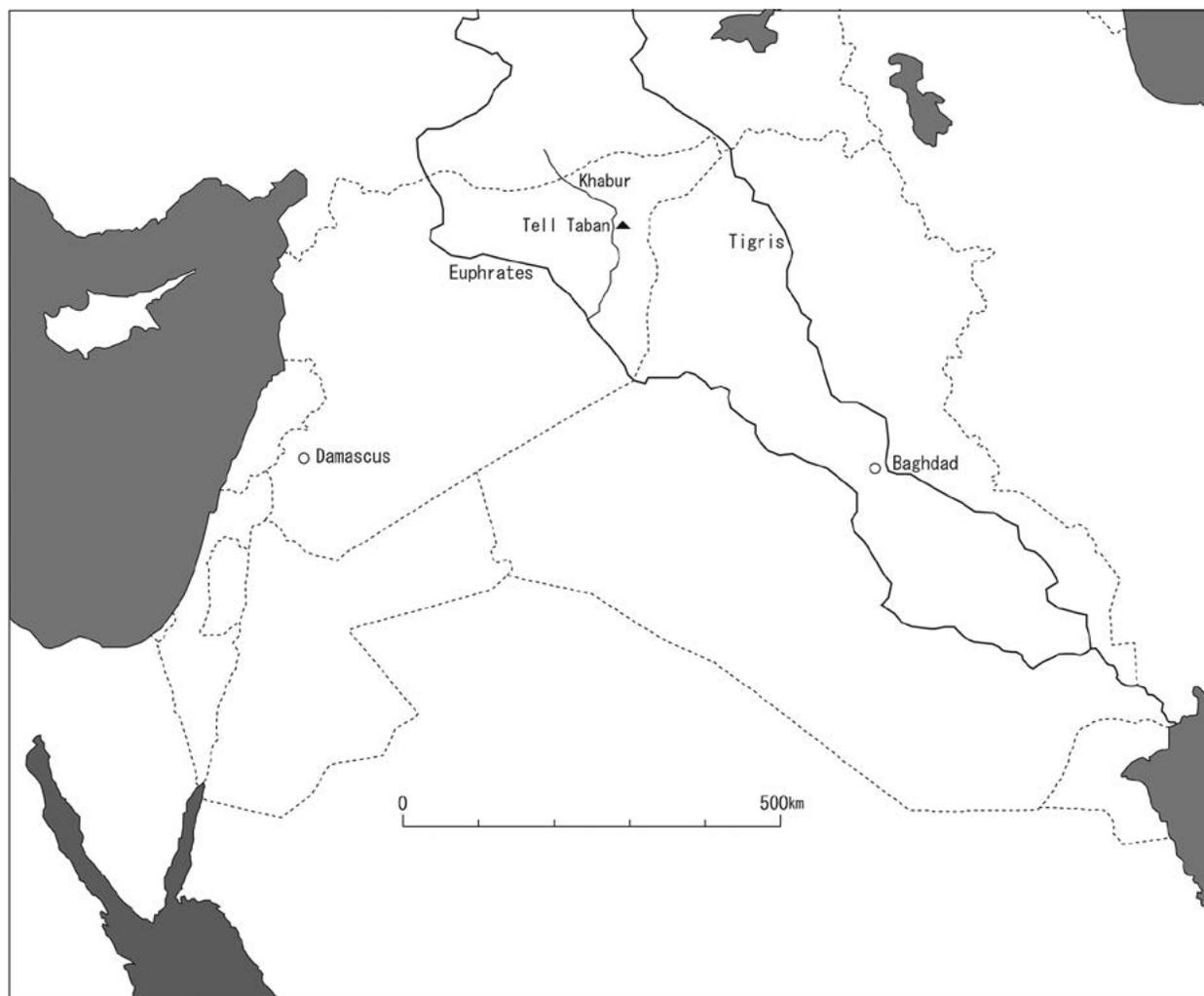


Figure 1: Location of Tell Taban (© The Kokushikan University mission at Tell Taban).

middle of Aššur-dān I's reign (1178-33/1168-33).¹ These findings shed significant light on the internal administrative structure of the kingdom of the Land of Māri, as well as its relations with the Assyrian state, since some texts refer to Assyrian kings and magnates. The texts also tell us about the local culture and society of the region.² The commemorative inscriptions reveal the line of the Kings of the Land of Māri, with their royal names and genealogies, for the period extending from the end of the 14th to the first half of the 11th century BC (Figure 4).

A well-preserved structure from the Middle Assyrian period was excavated in 2006 (Numoto 2008: 5-8 and pls. 22-34). It was the underground tomb of a member of the local royal family. It is made of brick, comprising a main

burial chamber and anterior chamber. The tomb can most likely be dated on the basis of an inscribed brick found near the floor level of the main burial chamber, which plausibly originated from the structure. The inscription, containing the name of a king and his son, reads: 'Etel-pī-Adad, King of the Land of Māri, had [it] built for his son, Enlil-apla-ušur'. According to the inscription, the brick dates from around the mid 12th century BC (Figure 5).

From the Old Babylonian period, 24 tablets and inscribed envelopes were discovered in a room excavated in trench 8, and two other tablets were found on the surface of the mound. All of these tablets from the Old Babylonian period were exposed to fire, probably reflecting the city's destruction by incineration. This group of texts includes a land grant, administrative texts, letters, and school exercises (Shibata 2009; Shibata and Yamada 2009; Yamada 2012; 2011b; 2010; 2008). Most of the tablets from trench 8 pertain to a person called Yasim-Mahar, who was apparently the mayor (*sugāgu*) of

¹ Shibata 2016: 101 with fn. 11; 2012; 2011a. See also Freydank 2016, 33-52, for the eponyms during the reign of Aššur-dān I.

² See various thematic studies by D. Shibata (Shibata 2016; 2015a; 2015b; 2012; 2011a; 2011b; 2010; 2007), as well as Jacquet and Shibata 2010 and Llop and Shibata 2016.

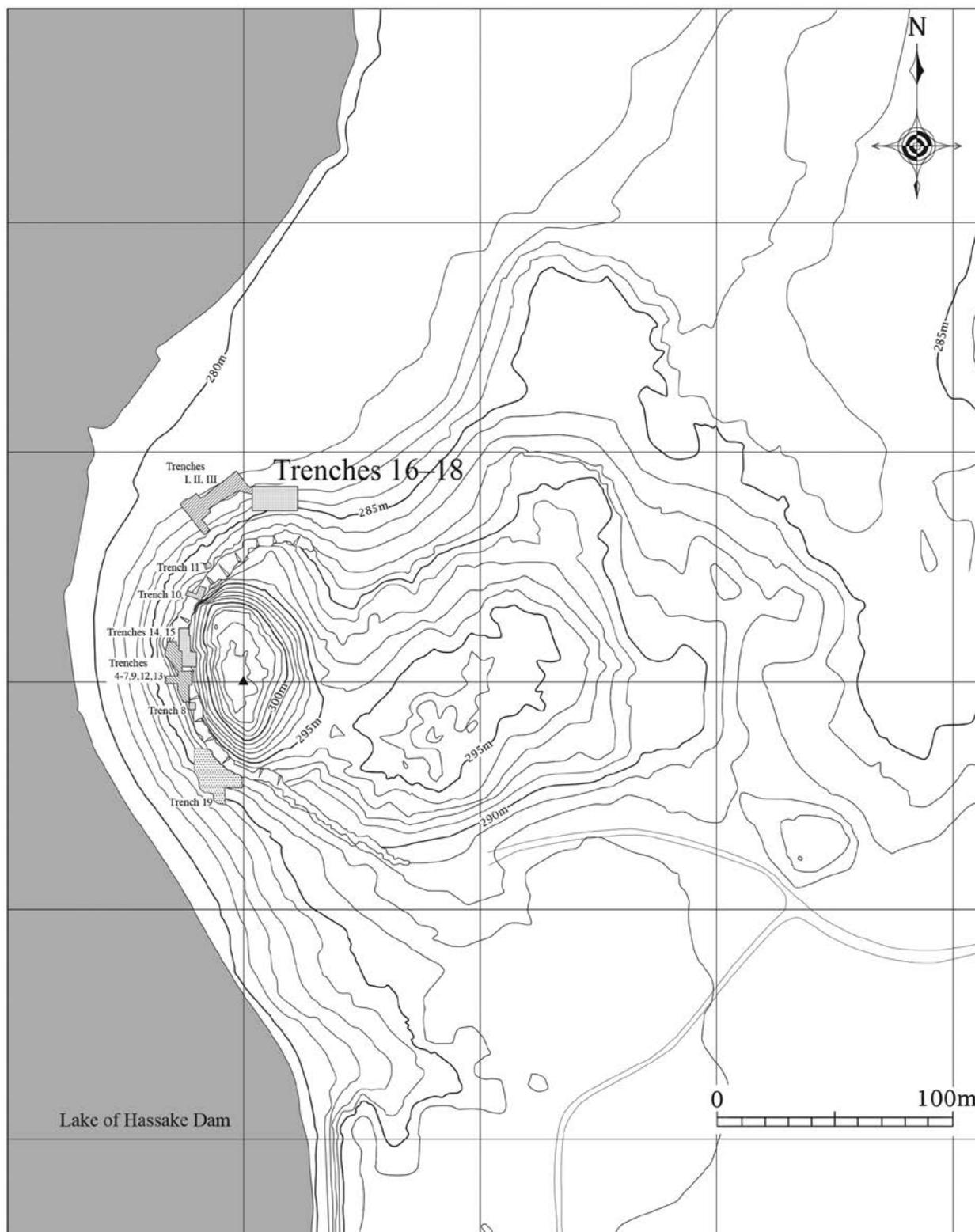


Figure 2: Trenches opened between 2005 and 2010 (© The Kokushikan University mission at Tell Taban).



Figure 5: Room belonging to a palatial structure where Middle Assyrian tablets were discovered (left), and the tomb of a local royal family (right) (© The Kokushikan University mission at Tell Taban).

the Old Babylonian city of Ṭābatum, now confidently identified with Tell Taban. Since an administrative text and some letters refer to Iṣī-Sumuabi, King of Terqa, it is evident that the city was under his influence during the post-Hammurabi period – specifically, the latter half of the 18th century BC – parallel to the reign of King Samsu-iluna of Babylon. The school exercises found in the same trench and nearby areas reveal that scribal education in Ṭābatum at that time followed the standard curriculum of the Old Babylonian cities.

Chronology of ceramics³

Limiting our scope to the 2nd millennium BC, which is the focus of this paper, the levels of different assigned material cultures are subdivided into ten periods in chronological order: OB (Old Babylonian) 1, 2, and 3; Post-OB 1 and 2; Mittanian 1 and 2; MA (Middle Assyrian) 1 and 2; and MA-NA (Middle Neo-Assyrian). There is no single trench in which all periods from the 2nd millennium BC are simultaneously identified. Thus, the sequence of periods was reconstructed by combining data from different trenches. Preliminary analyses of the variations in the pottery assembled at different levels showed continuities and changes in several types of pottery, such as painted wares, beakers, goblets, and bowls. The results are summarized below.

Painted wares (Figure 6)

The painted wares are attested from OB 1 until Mittanian 2, although the number of samples is too small to study the transition. OB 1 and 2 attest so-called Khabur wares, which are primarily defined by the painting of parallel bands. Khabur wares continue to be attested through OB 3. The most remarkable aspects of OB 3 are jars and bowls with paint all over the rims. The shape of the

painted beakers closely resembles contemporary plain beakers with a button base. Some fragments with rows of crosshatched triangles and chevrons painted on the shoulder are also attested. Only one sample of painted pottery is attested for Post-OB 1. It is a fragment from a wide-mouthed beaker/jar, with carination on the lower part of the body. This type seems to have first appeared during this period and continues to be attested until Mittanian 1. Pottery painted with parallel bands is continuously attested in Post-OB 2.

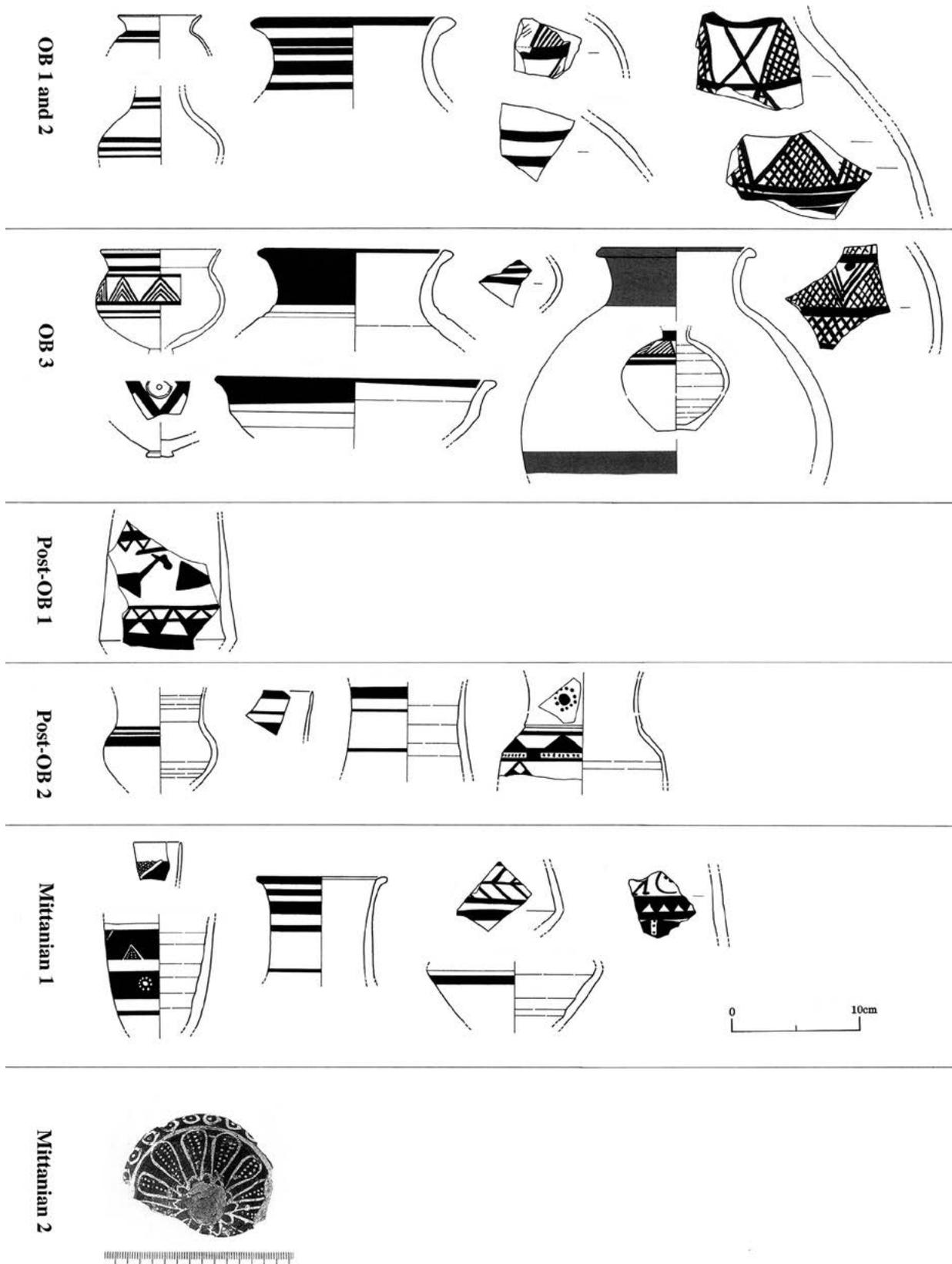
Nuzi wares begin to be attested during Mittanian 1. A sherd from the body of a jar painted with an animal motif is attributed to this period. However, the basic pattern of pottery with painted parallel bands continues through this period until Mittanian 2. Further samples of Nuzi wares are found for Mittanian 2. No painted pottery is attested in MA 1 and later.

Beakers, goblets, and bowls (Figures 7a and 7b)

Beakers and goblets are constantly recorded throughout the entire 2nd millennium BC. Similar types of beakers and goblets continued to be used with only minor modifications, mainly in the bottom sections. Bowls are rarely seen before Mittanian 1. The two samples known to be from OB 1-2 are shallow bowls, and their rims have a thickened triangular shape. For OB 3, bowls with a ring base (similar to those of OB 1-2) and a flat base are found. The latter type, which might be more accurately described as ‘plate-like’, prevails in OB 3; a good number of samples have been unearthed from this level. Almost no bowls are recorded for Post OB 1-2.

For Mittanian 1, black-red burnished bowls are well attested. They are small in size and are often tripod bowls. For Mittanian 2, the burnished bowls typical of Mittanian 1 continue to be found, and plain-rim bowls, not seen in Mittanian 1, begin to appear and become

³ A slightly more elaborate version of the ‘chronology of pottery’ is found in Numoto *et al.* 2013: 171-176.



Painted wares

Figure 6: Painted wares (© The Kokushikan University mission at Tell Taban).

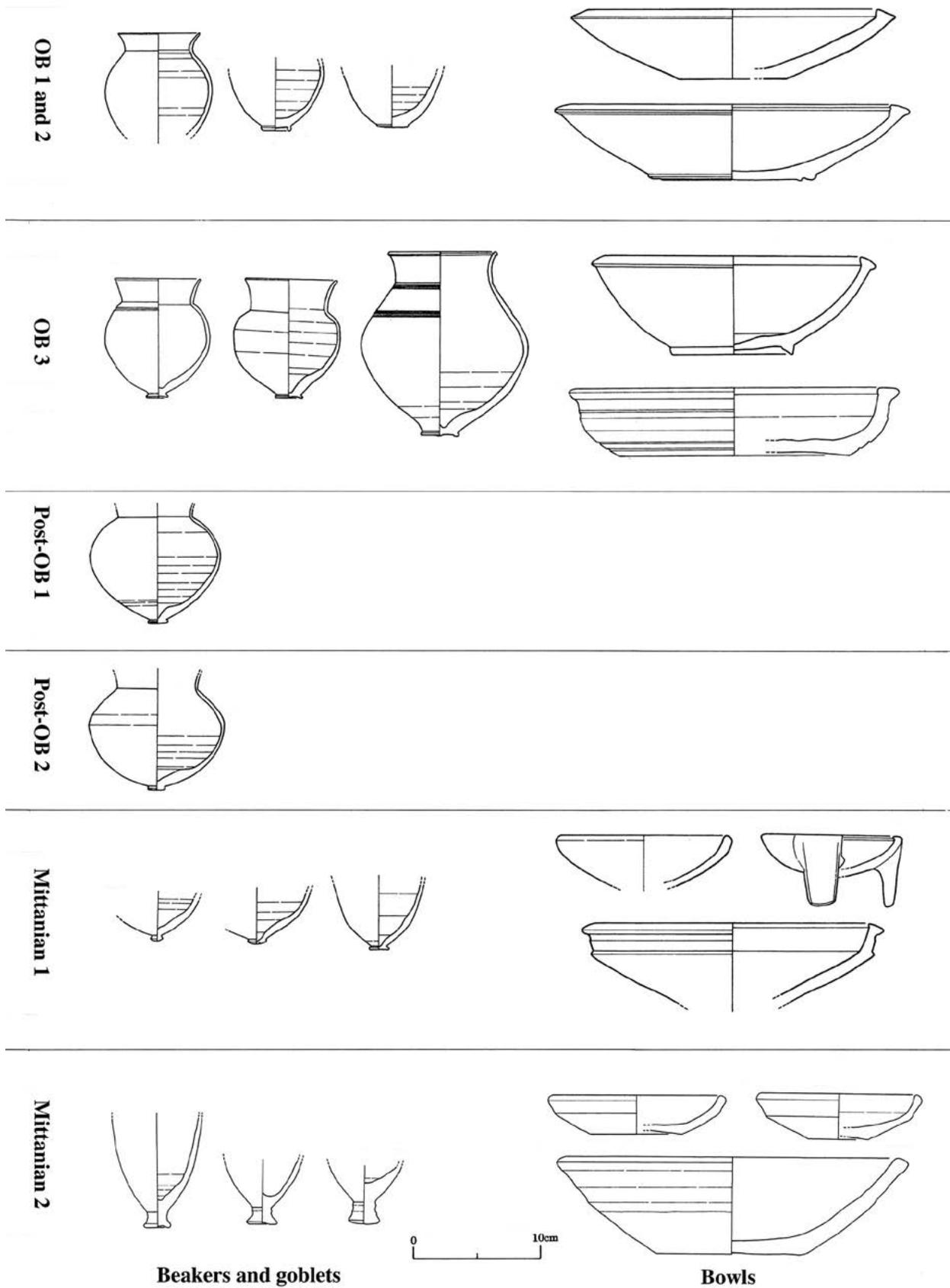
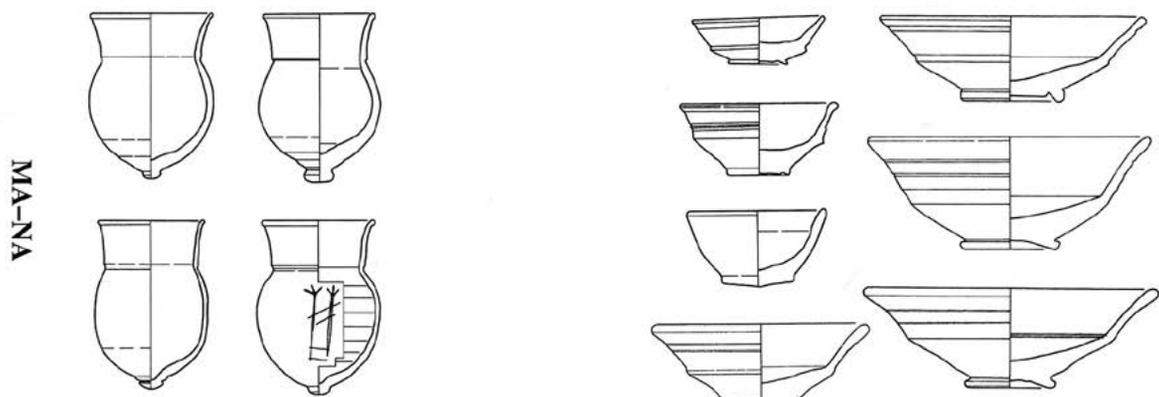
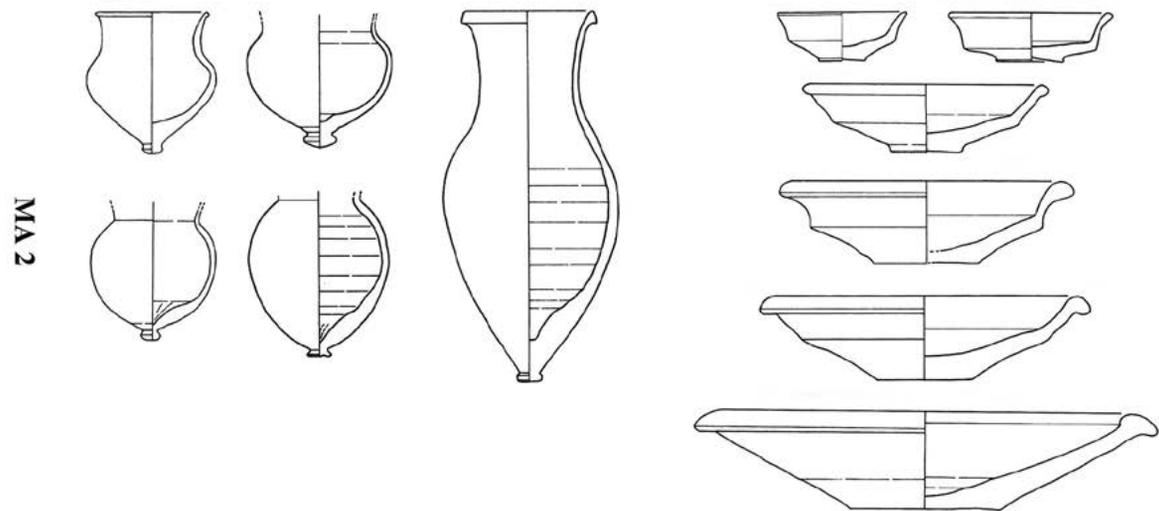
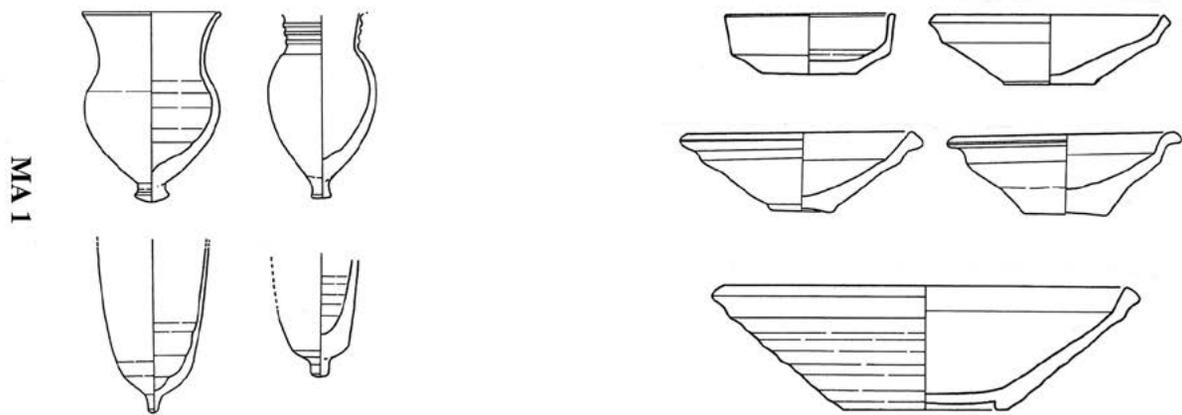


Figure 7a: Beakers, goblets, and bowls (© The Kokushikan University mission at Tell Taban).



Beakers and goblets

Bowls



Figure 7b: Beakers, goblets, and bowls (© The Kokushikan University mission at Tell Taban).

prevalent. The shape of these plain-rim bowls changed during MA 1, showing carination on the upper part of the body.

For MA 2, we find increased variation in the bowls. Except for the large-sized bowls, the bowls have carination on the middle part of the body, and their bases are flat. For MA-NA, the bowls have the carination on the middle part of the body, just like those of MA 2. Their rims are plain, without the beaded rim, and they have a ring base.

Archaeological data in the historical setting

Certain types of ceramics, such as Khabur and Nuzi wares, are useful for roughly dating archaeological levels. In the case of Tell Taban, however, we can often date archaeological levels more precisely, thanks to textual materials. Since the OB 3 level identified in two trenches (trenches 8 and 19) appears severely charred, the city was probably burned at the end of the period. The archive of tablets unearthed from trench 8 comes from this level, and it had apparently been in use until the city was burned. Thus, OB 3 should be dated to the late 18th century BC, since it contains documents referring to Išī-Sumuabi, King of Terqa. The city was probably damaged by the military advance of the Babylonian King Samsu-iluna against the region.⁴ Based on this anchoring point, we can assign the preceding periods, OB 1-2, to the time between the decline of the Third Dynasty of Ur and the end of Hammurabi's reign, which includes the periods of Samsī-Addu's kingdom (Kingdom of Upper Mesopotamia) and the reign of Zimri-Lim of Mari.

The precise dating of Post-OB 1-2, the transitional period between the Old Babylonian and Mittanian periods, is more difficult to determine. Although the city of Ṭābatum was destroyed at the end of the OB 3 period, it is possible there was no substantial gap in the region's habitation. One piece of textual evidence related to this period is an adoption contract (Tab T09-47) sealed by Ahuni, King of the Land of Ḫana (Yamada 2011a). It was found in a secondary archaeological context in the debris of a Neo-Assyrian layer (trench 15, level 3). Ahuni, attested also in texts from Terqa, most likely dates to the 15th century BC. This suggests that the city of Ṭābatum was under the influence of the kingdom of the Land of Ḫana, the centre of which was Terqa or its vicinity. It is likely that the document originally belonged to Post-OB 2.

Although we have no clear anchor point for Mittanian 1-2, there is some indirect evidence possibly related

to these levels. A building inscription that survives on three brick fragments (Tab T08-14, Tab T08-43+52, and Tab T09-19) found on the mound surface (Shibata 2011a) shows that the dynasty of the Land of Māri had a local origin, with rulers bearing Hurrian names. The inscription proves the dynasty was founded in the Land of Māri (Ṭābatum/Ṭābetu) at least three generations before the period of the Middle Assyrian archive, which dates from the mid 13th to early 12th centuries BC. Accordingly, the oldest generation attested in the inscription presumably dates to the end of the 14th century BC or earlier. This seems to accord with the fact that four Nuzi texts dating to the third quarter of the 14th century BC refer to 'the Land of Māri' (Shibata 2011b).

Significant evidence is provided by the Middle Assyrian archive unearthed in a stratum belonging to MA 1. As stated earlier, the tablets from the archive cover the period from around the middle of the 13th century BC until the middle of the 12th century BC, corresponding to the successive reigns of Aššur-ketta-lēšir I, Adad-bēlgabbe II, and his successor(s). This leads us to believe that the mid 12th century BC is the *terminus post quem* for the stratum.

For MA 2, we have two chronological anchors, to which we have already referred: one is the tomb presumably built by Etel-pī-Adad, who likely ruled around the mid 12th century BC. The other is the cylinder inscription of Aššur-ketta-lēšir II, found beside a kiln belonging to MA 2. Aššur-ketta-lēšir II's reign was contemporaneous with that of Assyrian King Tiglath-Pileser I (1114-1076) (Shibata and Yamada 2009: 94). The MA 2 level came to an end through widespread destruction. The local dynasty of the Land of Māri was apparently conquered, perhaps around the period from the later part of Tiglath-Pileser I's reign to the early part of Aššur-bēlkala's reign (1073-1056) (Shibata 2011b). Therefore level MA-NA is assigned to the period following that destruction.

Concluding remarks: continuity in the local tradition of Tell Taban

As we have seen, the pottery forms exhibit gradual changes through the ages, with no great gaps found between them thus far. This is especially evident in the case of beakers and goblets. Such continuity in pottery types matches the situation revealed by the textual materials. The Old Babylonian and Middle Assyrian cuneiform texts from Tell Taban suggest a continuity of local traditions through the generations in several aspects.

The following can be noted as the most remarkable:

⁴ The victory of Samsu-iluna over Yadih-abu is commemorated by the year name of the former's 28th year (Horsnell 1999: 220-222 [Si 28]). See Charpin 2011 for further discussion of the date of the destruction of Tell Taban by Babylonian forces.

1. A distinct local style for legal documents (the so-called Hana style) – which is attested between the 18th and 12th centuries BC along the lower Khabur and middle Euphrates – was apparently used continuously at Tell Taban as well from the 18th century until the turn of the 15th and 14th centuries BC (or perhaps later). This is suggested by two legal texts (Tab T06-4 and Tab T09-47), one from the late Old Babylonian period and the other from the Post-Old Babylonian period (Yamada 2011a).
2. Distinct local calendars, or sets of month names, attested in the Old Babylonian and Middle Assyrian documents from Tell Taban, commonly exhibit close connections with month names and annual festivals known from the Old Babylonian Māri (Shibata 2010, cf. also Yamada 2011b). It seems the old annual festivals were still celebrated in Tell Taban until the Middle Assyrian period.
3. The above-mentioned Old Babylonian royal grant (Tab T06-4) and early Middle Assyrian royal inscription (Tab T08-14, Tab T08-43+52, and Tab T09-19) reveal that a deity called ‘Addu of Maḥanum’ – a local manifestation of the storm god Addu – continued to be worshipped from the Old Babylonian period until the Middle Assyrian period as the city god (Shibata 2011a, cf. Yamada 2011b).

It is plausible, therefore, to suggest that the city was continuously inhabited with no great gaps. It maintained some degree of cultural and social continuity while being influenced by the external political, cultural, and linguistic circumstances created by the regional powers of Amorite Mari, Hurrian Mittani, and then Assyria.

Bibliography

- CHARPIN, D.
2011 Le ‘Pays de Mari et des bedouins’: À l’époque de Samsu-iluna de Babylone, *Revue d’assyriologie* 105: 41-59.
- HORSNELL, M. J. A.
1999 *The Year-names of the First Dynasty of Babylon*. Hamilton, McMaster University Press.
- JACQUET, A. and SHIBATA, D.
2010 The Month-name *quššu* in the Middle Assyrian Local Calendar of Ṭābetu and the Ritual Place/moment *quššum* in Mari, *Nouvelles Assyriologiques Brèves et Utilitaires* 2010/4, no. 77: 88-89.
- LLOP, J. and SHIBATA, D.
2016 The Royal Journey in the Middle Assyrian Period, *Journal of Cuneiform Studies* 68: 67-98.
- MAUL, S. M.
2005 *Die Inschriften von Tall Ṭābān (Grabungskampagnen 1997-1999): Die Könige von Ṭābētu und das Land Māri in mittellassyrischer Zeit*. Acta Sumerologica Supplementary Series 2. Tokyo, Kokushikan University.
- 1992 *Die Inschriften von Tall Bderi*. Berliner Beiträge zum Vorderen Orient Texte 2. Berlin, D. Reimer.
- NUMOTO, H.
2009 Excavations at Tell Taban, Hassake, Syria (7): Preliminary Report of the 2007 Season of Work. In: H. Numoto (ed.), *Excavations at Tell Taban, Hassake, Syria: Preliminary Report on the 2007 Season of Excavations, and the Study of Cuneiform Texts*: 1-32. Tokyo, Kokushikan University.
- 2008 Excavations at Tell Taban, Hassake, Syria (6): Preliminary Report of the 2006 Season of Work, *al-Rāfidān* 29: 1-12.
- 2007 Excavations at Tell Taban, Hassake, Syria (5): Preliminary Report of the 2005 Summer Season of Work, *al-Rāfidān* 28: 1-24.
- 2006 Excavation at Tell Taban, Hassake, Syria (4): Preliminary Report of the 2005 Winter Season of Work, *al-Rāfidān* 27: 1-13.
- NUMOTO, H., SHIBATA, D. and YAMADA, S.
2013 Excavations at Tell Taban: Continuity and Transition in Local Traditions at Ṭābatum/Ṭābetu during the Second Millennium BC. In: D. Bonatz and L. Martin (eds), *100 Jahre archäologische Feldforschungen in Nordost-Syrien – eine Bilanz*: 167-179. Wiesbaden, Harrassowitz.
- OHNUMA, K. and NUMOTO, H.
2001 Excavation at Tell Taban, Hassake, Syria (3): Report of the 1999 Season of Work, *al-Rāfidān* 22: 1-14.
- OHNUMA, K., NUMOTO, H. and OKADA, Y.
1999 Excavation at Tell Taban, Hassake, Syria: Report of the 1997 Season of Work, *al-Rāfidān* 20: 1-21.
- OHNUMA, K., NUMOTO, H. and SHIMBO, M.
2000 Excavation at Tell Taban, Hassake, Syria (2): Report of the 1998 Season of Work, *al-Rāfidān* 21: 1-17.
- SHIBATA, D.
2016 The Local Scribal Tradition in the Land of Māri and Assyrian State Scribal Practice: Paleographical Characteristics of Middle Assyrian Documents from Tell Ṭābān. In: S. Yamada and D. Shibata (eds), *Cultures and Societies in the Middle Euphrates and Habur Areas in the Second Millennium BC, I: Scribal Education and Scribal Traditions*: 99-118. Wiesbaden, Harrassowitz.
- 2015a Hemerology, Extispicy and Ili-padā’s Illness, *Zeitschrift für Assyriologie* 105: 139-153.
- 2015b Dynastic Marriages in Assyria during the Late Second Millennium BC. In: B. S. Düring (ed.), *Understanding Hegemonic Practices of the Early Assyrian Empire. Essays Dedicated to Frans Wiggermann*: 235-242. Leiden, Nederlands Instituut voor het Nabije Oosten.
- 2012 Local Power in the Middle Assyrian Period: The ‘Kings of the Land of Māri’ in the Middle Habur Region. In: G. Wilhelm (ed.), *Organization, Representation and Symbols of Power in the Ancient Near*

- East: Proceedings of the LIV^e Rencontre Assyriologique Internationale at Würzburg 20-25 July 2008*: 489-505. Winona Lake, Eisenbrauns.
- 2011a The Origin of the Dynasty of the Land of Māri and the City-god of Ṭābetu, *Revue d'assyriologie* 105: 165-180.
- 2011b The Toponyms, 'Land of Mari', in the Late Second Millennium BC, *Revue d'assyriologie* 105: 95-108.
- 2010 Continuity of Local Tradition in the Middle Habur Region in the 2nd millennium BC: The Local Calendar of Ṭābetu in the Middle Assyrian Period. In: H. Kühne (ed.), *Dūr-Katlimmu 2008 and Beyond*: 217-239. *Studia Chaburensia* 1. Wiesbaden, Harrassowitz.
- 2009 An Old Babylonian Manuscript of the Weidner God-list from Tell Taban, *Iraq* 71: 33-42.
- 2007 Middle Assyrian Administrative and Legal Texts from the 2005 Excavation at Tell Taban: A Preliminary Report, *al-Rāfidān* 28: 63-74.
- SHIBATA, D. and YAMADA, S.
- 2009 The Cuneiform Texts from the 2007 Excavations at Tell Taban: A Preliminary Report. In: H. Numoto (ed.), *Excavations at Tell Taban, Hassake, Syria: Preliminary Report on the 2007 Season of Excavations, and the Study of Cuneiform Texts*: 87-109. Tokyo, Kokushikan University.
- YAMADA, S.
- 2012 The City of Ṭābatum and its Surroundings: The Organization of Power in the Post-Hammurabi Period. In: G. Wilhelm (ed.), *Organization, Representation and Symbols of Power in the Ancient Near East: Proceedings of the LIV^e Rencontre Assyriologique Internationale at Würzburg 20-25 July 2008*: 591-603. Winona Lake, Eisenbrauns.
- 2011a An Adoption Contract from Tell Taban, the Kings of the Land of Hana, and the Hana-style Scribal Tradition, *Revue d'assyriologie* 105: 61-84.
- 2011b A *Pudûm* Rotation List from Tell Taban and the Cultural Milieu of Ṭābatum in the Post-Hammurabi Period, *Revue d'assyriologie* 105: 137-156.
- 2010 Administration and Society in the City of Ṭābatum as seen in the Old Babylonian Texts from Tell Taban, *al-Rafidan* Special Issue: 247-52.
- 2008 A Preliminary Report on the Old Babylonian Texts from the Excavation of Tell Taban in the 2005 and 2006 Seasons: The Middle Euphrates and Habur Areas in the Post-Hammurabi Period, *al-Rāfidān* 29: 47-62.

Tell Barri/Kahat 2000-2010: The Contribution of the Excavations to the History of the Jezireh

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Abstract

Since 2000, the excavation results at Tell Barri have contributed mainly to the debate on *crisis* and *continuity/discontinuity* in the succession of powers in the Jezireh. Evidence such as buildings, site organization, and pottery, showed that the political events have not produced devastating changes and/or lasting abandonment throughout the long history of the site.

In 2004, at the 4th ICAANE in Berlin, P. E. Pecorella announced the discovery, in the final years of excavations at Tell Barri, of a shrine with two *sacella*, in use between EJ II and IIIA. This discovery confirmed the articulated history of the site in this phase and, with its complexity, enhanced the picture of the 'village sanctuaries' known for the same period in other localities in the Jezireh (Pecorella 2008) (Figure 1).

Until 2000, the excavations, which began in the 1980s, had made it possible: (1) to confirm that the site should be identified with the Templar city of Kahat, repeatedly cited in the inscriptions between the 19th and the 9th centuries BC; (2) to reconstruct a settlement sequence, from the beginning of the 3rd millennium BC and ending in the Middle Ages; and (3) to recognize the prolonged and articulated occupation of the site, even



Figure 1: Tell Barri, Area G. Votive offerings from the Sanctuary (EJ II-IIIa)
(Archivio della Missione Archeologica Italiana a Tell Barri (Siria)).

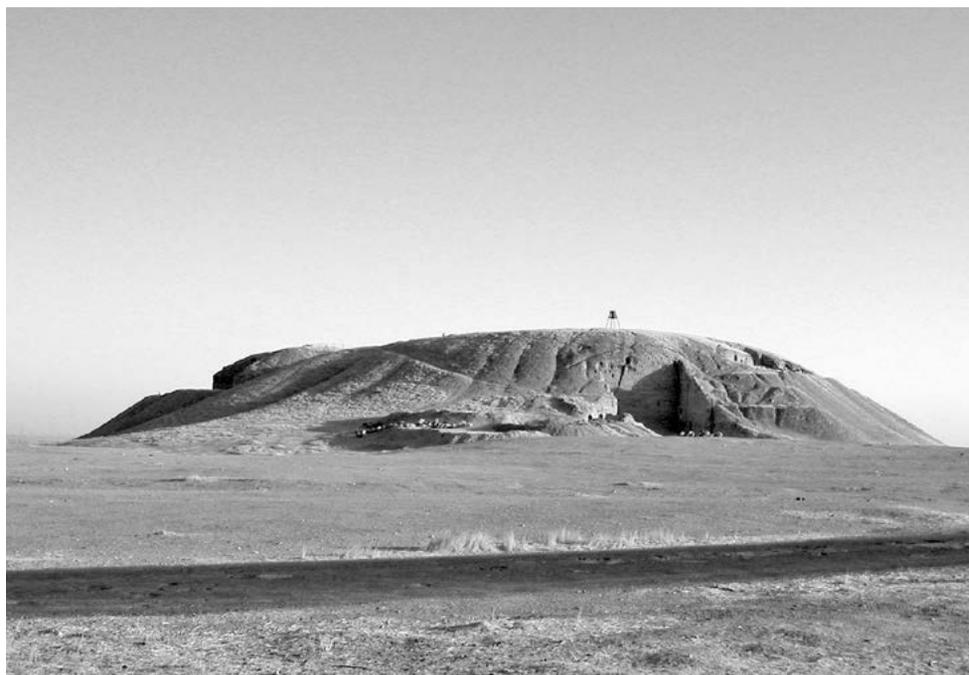


Figure 2: Tell Barri, from the south. From the left: the terrace of Tukulti Ninurta II Palace, the stratigraphy of Area G, the terrace of the Parthian defensive wall (Archivio della Missione Archeologica Italiana a Tell Barri (Siria)).

in the centuries after the fall of the Assyrian Empire (Figure 2).

On the basis of the results obtained between 2005 and 2010 (the last year of activity on the site), further research objectives were identified, namely to define:

- the lower and upper chronological limits of the stable occupation of the site.
- the extension of the inhabited area in the lower city, for the entire chronological timespan of its existence, with the opening of new areas of excavation.
- the most precise structural organization of complexes that are particularly significant for the history of Tell Barri/Kahat, in particular the Protodynastic sanctuary, the Neo-Assyrian palace, and the great Parthian fortification, by continuing investigations in areas already being excavated.

Limited soundings were thus made on the plain east and south of the tell (Op. 14-17), and a wider sector of excavation was opened to the west (B1 and B2), where the earliest traces of occupation had previously been identified. In 2008, geomagnetic prospection on the southern plain also began (Florio *et al.* 2010) (Figure 3). The results obtained have confirmed the sequence already reconstructed, making it possible to add details, with the identification of sub-phases and/or intermediate phases, attested in particular by the succession of architectural styles and by the transformation of materials of daily use. We have already written elsewhere (Pierobon Benoit 2013a; 2013b) on the results obtained regarding the earliest

history of the settlement, up to the Neo-Babylonian period. We will, therefore, give here only a rapid summary and concentrate on the later phases.

Tell Barri from the Late Chalcolithic period to the Neo-Babylonian period

Along the eastern bank of the Jaghjagh (Area B1e B2), the excavations brought to light a close sequence of habitation levels, with annexed areas of pyrotechnical and artisanal activity. The associated materials, including seals similar to those of the sanctuary of Area G, date the area to EJ 0/II and signal the 'organized' nature of the site. The most significant result is provided by the finding of numerous fragments of 'Chaff-faced Ware', reused in a pavement or discarded in a pit in layer 8. The appreciable quantity of this type of pottery suggests the presence of a first community already in the Late Chalcolithic period (Pierobon Benoit 2013a; 2013b; Raccidi 2015), thus far attested only by few sporadic finds.

The community subsequently solidified and organized itself according to the models well known in the region, with significant comparanda for both architecture and materials at, for example, Tell Brak to the south or Tell Arbid to the northwest (Bonatz and Martin (eds) 2013). The 'Ninevite' 5 belongs to the 'regional' repertory, and the same can be said of the seals and *cretulae* and of functional objects, such as andirons. Connected to the sphere of administrative and cult activities, as well as to manufacturing, these objects convey the image of an already structured community and place the political/administrative/cultural relationship with the sanctuary identified in Area G in new terms.

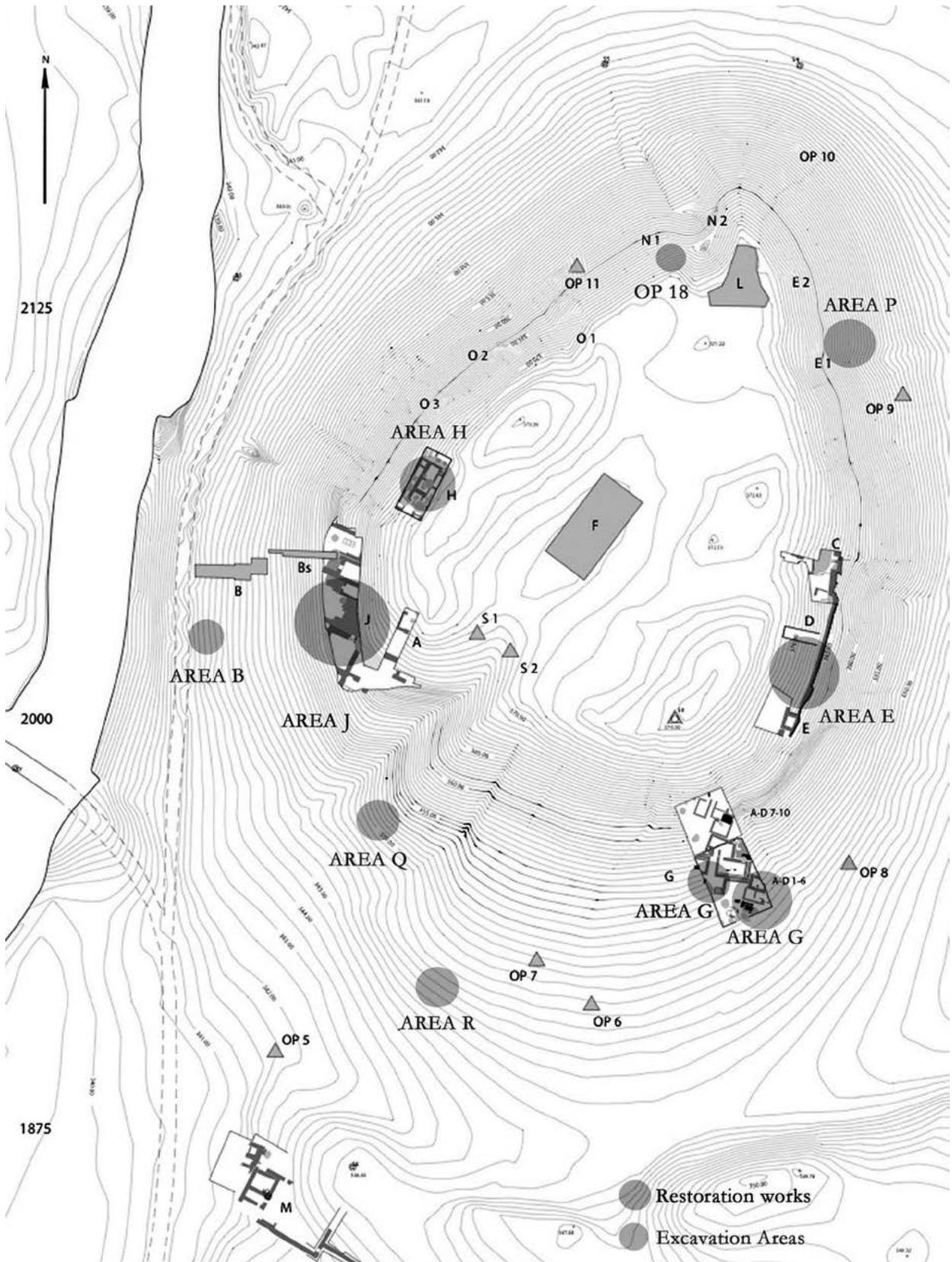


Figure 3: Tell Barri, plan of the site (Archivio della Missione Archeologica Italiana a Tell Barri (Siria)).

The soundings made at the base of the south side of the tell (Area Q) have provided a new piece of the puzzle for determining the extent of the inhabited area, which reopens the problem of the possible chronological continuity of the areas along the river (B) with those farther south (G). The excavations, interrupted before reaching the relevant chronological levels, yielded some structures, probably domestic, with material datable to the end of the 3rd millennium BC – in particular some Isin-Larsa fragments. In the subsequent phase, the area was delimited on the east by an imposing terrace wall, functional along the entire extension of the inhabited area, from which came a large quantity of pottery, especially of the Khabur Ware, attributed to the beginning of the old Paleo-Babylonian phase (Orsi 2011). The differences in some pottery shapes should probably be attributed to them being slightly earlier than what had emerged in Area G. The finding of some curved baked bricks suggests also that there were pseudo-vaulted hypogean tombs around this settlement nucleus, similar to those found in the corresponding layers of Area G. This suggests cultural continuity of the inhabited areas, even if not of domestic nature.

The Khabur pottery, a true fossil guide for the history of the Middle Bronze Age on the site, is preponderant in yet another inhabited nucleus excavated at the farthest point of the north slope of the tell (Area P). There too, as in Area G, artisanal activities were found next to the houses. Worthy of note is a small foundry, from which came a mould for making arrows and axes. The *cretulae* found in a nearby room, evidently used for administration, were likely related to this activity. The ceramic repertory, varied by classes (still Khabur and Nuzi, in addition to grey and red painted ware) and by typology, confirms the vivacity of the site in this phase (Coppini and D'Agostino 2014).

During the 14th century BC Kahat was likely in one of its moments of greatest expansion. The role of the site, including political, has been amply shown by the epigraphical evidence (Salvini 2008; 2007) and by the results of the excavations in Area G (Pecorella 2008; Pecorella and Pierobon Benoit 2008; 2004), obviously destined for public functions given the presence of the palace of Adad-Nirari I (Figure 4). The site surely extended, also in this phase, to the north, where artisanal installations were preserved in stratigraphic and chronological continuity with the preceding levels, signalling a non-traumatic passage from the MBA to the LBA. An interesting 'vertical' kiln was excavated; it constitutes an important technological innovation and not just for Kahat (D'Agostino 2012) (Figure 5).

The change in the organization and management of the site, as an effect of the Neo-Assyrian political domination, has received further confirmation. Area



Figure 4: Tell Barri, Inscribed Mortar with the mention of the Palace of AdadNirari in Kahat (MA phase) (Archivio della Missione Archeologica Italiana a Tell Barri (Siria)).

G was transformed into a habitational quarter, which, to judge from the regular plan and the typology of the houses, seems to have been military, while the centre of power shifted to the western slope, where a palace for the king of the new dynasty was built. At the same time, to the northeast, the buildable area was enlarged with the construction of an imposing terrace wall, exposed on more than 20 m, in relation to the construction of a second palace, if not an enlargement of the old one, a hypothesis that only future excavations will be able to confirm. The numerous *cretulae* found in a 'voluntary' dump outside the construction, beyond the deep channel dug by rainfall in the northern access ramp, pertain to the administrative nature of these structures.

The extension of the excavation to the west, in the area of the palace of Tukulti Ninurta II, gave useful new information on the addition of new rooms and courtyards to the palace and on the identification of a Babylonian cultural, as well as political, presence following the conquest of Nineveh. Two sharply distinct phases can be observed; one is the reuse, still of administrative nature, of the structures of the palace, although adapted and resized. This phase can be dated from the end of the 7th to the 6th century BC thanks to the lucky find of a warehouse, sealed by a collapse that yielded a notable quantity of *cretulae*. In the later phase, the open spaces, probably domestic and artisanal, were partly preserved, while the palace rooms were totally eliminated in the northernmost part of the area, or, to the south, were partially filled in, signalling a transformation, including organizational, of the site. The inhabited area, with subsequent enlargements, some artificial, seems to have occupied the entire acropolis, while traces of its extension in the plain have not yet been found.



Figure 5: Tell Barri, Area P. The vertical kiln (NA phase) (Archivio della Missione Archeologica Italiana a Tell Barri (Siria)).

Tell Barri from the Achaemenid conquest to the Late Medieval abandonment

Between the end of the 6th and the 5th century BC the inhabited area was completely transformed: traces have been identified on the southern slope (Area G) and more substantial architectural remains on the western one (Areas A and J). A major reorganization is visible here: the earliest structures are definitively abandoned and obliterated by a fill of about 2 m, on which an inhabited area was built – to last, judging from the complex system of canalizations installed. That the structures were homes is evident from the presence of kitchenware, grain mills, loomweights, and spindles. Weaving had already been widely practised on the site in the preceding periods. The appearance of pyramidal loom weights signals the adoption of a new kind of loom and perhaps, of new weavers as well, male and/or female, a hypothesis suggested also by the presence of Greek letters on the weights themselves. Subsequently, the inhabited area seems to have moved east-south-eastwards, while the northern part became a necropolis. The excavated tombs, both male and female, have grave goods limited to a few personal objects. One of these, a gold ring with decorated bezel of a Greco-Persian type, in use in the 5th and 4th centuries BC, supplies a useful element for dating and confirms the mixed cultural nature of the inhabitants (Pierobon Benoit 2008). Their good economic level, in contrast with the modesty of the structures, is proved by how

common tooth decay is in the examined skeletons, much more than in the previous populations; it is a sign of a marked improvement in nutrition and standard of living in general (Soltysiak 2014).

The washout of the slopes made it impossible to identify, except sporadically and partially, constructions datable to the 4th, 2nd, and beginning of the 1st centuries BC, a time when the tell was surely densely inhabited, given the quantity of material, especially pottery, found on both the western and the southern slopes. In this phase, the inhabitants of the site still appear more open to ‘Western’ cultural and commercial influences. This is shown by the presence of pottery classes, and forms like the small bowls with incurved painted rim, eastern *sigillata*, some glass vases, and the few terracotta figurines, probably votive, found on the site, all of it probably produced in towns on the coast.

Beginning in the 1st century BC, the settlement situation undergoes a profound change. On the acropolis, houses were built on a very strong fill with several rooms with courtyards for manufacturing and artisanal activities. At least some of the houses were separated by alleys paved with fragments of baked bricks. These were used also for the foundations of the walls, for canalization, and for special installations such as hearths. Moreover, for the first time, fortifications were built on the tell. They are well preserved on almost the entire perimeter of the tell, to about three-quarters of their original

height. The same technique was used here: foundations in baked bricks bound with lime and elevation in unbaked bricks.

In the plain, towards the south and southeast, a dense inhabited quarter developed, crossed by a street clearly visible in the geomagnetic surveys cited above (Florio *et al.* 2010). Near the river, a large building was constructed with the technique described above (its excavation was unfortunately interrupted) and probably with public functions. On the tell, small cisterns provided water, but the majority of water was supplied by wells with wellheads of baked brick. No necropolises or single burials have, as yet, been identified, and, except for some votive objects and fragmentary cultic statues, clear traces of cult buildings and/or cultic areas are lacking.

The material found bespeaks a reversal of tendency with respect to the previous centuries, with a shift, at least considering the objects of daily life, towards eastern wares, such as small bowls and plates in glazed *craquelée*, and jugs and the unpainted small amphorae with stamped decoration. The glass furnishings draw too on the eastern repertory. Symmetrically, there is a drastic reduction of imports from the coast, with an almost total disappearance, for example, of *sigillata*. The contexts on the coeval sites of the Jezireh and northern Mesopotamia, as far as is published, provide important comparanda suggesting the existence of a *koiné* 'material' common to the whole region. A significant expression of this is also the widespread presence of cooking pots and pans in 'Brittle Ware', which reopens the still lively debate on the places of origin and production of this ware in relation to its areas of diffusion (Amodio 2007).

The considerable expansion of the site can be explained by the acquired importance of its position, with a population growth, with the addition of new inhabitants, which would in turn perhaps have brought about the strengthening of resources and the reorganization of agriculture. It should in any case be considered within the framework of the history of the sites of the region, *in primis* Nisibis, on which, unfortunately, there is little archaeological information (Palermo 2014).

These results, in any case, solidly confirm, on one hand, that the border between the new powers, the Romans and the Parthians, who disputed the control over the region, was located on the Euphrates, as already suggested by the rather scarce literary documentation, and on the other, enrich our understanding of the Parthian culture on the western periphery of the kingdom.

It is possible to envisage a moment of crisis in the history of the site that coincides with Trajan's expedition.



Figure 6: Tell Barri, GCW. Parthian Coin of 'King' Osroe (116-117 AD) (Archivio della Missione Archeologica Italiana a Tell Barri (Siria)).

The defence wall was demolished, and clear signs of abandonment can be seen in the large building of the lower city. Nevertheless, the site soon rallied, adapting to a new situation revealed by the failure to rebuild the fortification. This was not because of an economic crisis, as in all the areas excavated on the acropolis, new and larger houses were built. There is no evidence to establish whether the site entered the Roman orbit as there is also uncertainty over the constitution of the new province by the emperor. In any case, the inhabitants continued to use their local furnishings, showing scant interest in products of the culture of the newcomers (Palermo 2013) (Figure 6).

One certain result of these events was the beginning of the fluctuation of the political boundary, which would become ever less stable with the settlement of the Sassanids in the region. For this phase both the acropolis and the lower city have yielded mainly domestic structures associated with manufacturing activities, certainly intended for internal consumption. The presence of numerous silos for grain storage also suggests that there may have been a surplus for export, although it is not possible at present to establish whether it was for commercial activities, payment of taxes, or the like.

The idea of the 'dependent' nature of the site emerges from the modesty of the constructions, for which unbaked brick is still being used, with conspicuous reuse of earlier building materials. If the observation is not conclusive for the acropolis, given that the excavation concentrated on the margins of the tell, in peripheral areas of the settlement, these characteristics have more



Figure 7: Tell Barri, Area L. General view (Archivio della Missione Archeologica Italiana a Tell Barri (Siria)).



Figure 8: Tell Barri, Area L. Islamic relief-moulded jug (Archivio della Missione Archeologica Italiana a Tell Barri (Siria)).

weight in the southern plain. Even the large public building, destroyed at least in part in the first decades of the 2nd century AD, was rebuilt several times, but transformed and impoverished in both materials and plan, from which we can infer that it had lost its public function.

The political instability of the region, not otherwise reflected on the site, must have something to do with this transformation, which cannot necessarily be labelled as 'impoverishment'. The objects of daily life, in fact, with the exception of the coins, are very largely Sassanid and indicate preferred contacts with the nearby eastern regions. Particularly significant is the presence of amphorae and pithoi with decoration of circular moulded medallions. Since these are containers for food, the medallions must not be purely decorative but were probably administrative stamps. In addition to the availability of cereals on the site, their use would be confirmed in the political and administrative management of the region (Pierobon Benoit 2008).

The last important public work at Tell Barri is dated between the 6th and 7th centuries AD. A new fortification was built. The glacis, preserved at several points on the tell, uses as its foundation segments of the Parthian defensive wall, which were always visible. It must have been finished with an upper wall at the new inhabited levels. Because of washout and digging of graves for the modern cemetery, no clear traces remain, but the size of the ramp is a clear indication of a well-functioning administration.

There are new results also for the final phases of the sequence (Figure 7). The excavation of two new sectors – on the plain to the south of the tell (Area

R) and at the northern end of the acropolis (Area L) – has yielded abundant material clarifying the chronological sequence from the 9th to the 14th centuries AD (Pappalardo 2015). A wide, open court with many *tannours* and windbreak walls was excavated to the south, destined for a succession of agricultural and processing activities from the 9th (diagnostic pottery: splash and ‘sgraffiata’) to the second half of the 12th century AD (diagnostic pottery: fritware 1 and ‘intermediate fritware’). On the acropolis an inhabited area of small houses with large courtyards used for domestic and artisanal activities (pottery kilns) coexists with and even survive the open court, as shown by the presence of the entire typological series of ‘Fritware’, associated with ‘Handmade Ware’, between the 11th and 14th centuries AD, suggesting new hypotheses on the typology of the settlement, characterized by the coexistence of sedentary and semi-nomad groups (Figure 8).

Bibliography

- AMODIO, M.
2007 La classe di ceramica da cucina ‘brittle ware’ rinvenuta a Tell Barri (Syria), *Topoi* suppl 8: 231-248.
- BONATZ, D. and MARTIN, L. (eds)
2013 *100 Jahre archäologische Feldforschungen in Nordost-Syrien – eine Bilanz*. Wiesbaden, Harrassowitz.
- COPPINI, C. and D’AGOSTINO, A.
2014 Life at the edge of the settlement: the MBA-LBA transition at the southern slope of Tell Barri (NE Syria). In: P. Bieliński, M. Gawlikowski, R. Koliński, D. Ławecka, A. Sołtysiak and Z. Wygnańska (eds), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East, Warsaw 30 April – 4 May*: 385-410. Warsaw, Polish Centre of Mediterranean Archaeology, University of Warsaw.
- D’AGOSTINO, A.
2012 Kilns and ovens from 2nd millennium BCE settlement of Tell Barri (Syria). In: R. Matthews and J. Curtis (eds), *Proceedings of the 7th International congress on the archaeology of the Ancient Near East: 12 April-16 April 2010, the British Museum and UCL, London*: 421-446. Wiesbaden, Harrassowitz.
- FLORIO, G., CELLA, F., PIEROBON, R., CASTALDO, R., CASTIELLO, G. and FEDI, M.
2010 *Geophysical Survey at Tell Barri (Syria): 9898*. Vienna, EGU General Assembly, held 2-7 May, 2010 in Vienna, Austria.
- ORSI, V.
2011 *Crisi e rigenerazione nella valle dell’Alto Khabur (Siria): la produzione ceramic dal Bronzo Antico al Bronzo Medio*. Firenze, Firenze University Press.
- PALERMO, R.
2014 Nisibis, capital city of province of Mesopotamia: some historical and archaeological perspectives, *Journal of Roman Archaeology* 27: 457-472.
- 2013 Evidence of Destruction at Tell Barri (Syria). In: J. Driessen (ed.), *Destruction: Archaeological, Historical and Philological perspectives*: 473-485. Louvain-la-Neuve, Presses Universitaires de Louvain.
- PAPPALARDO, R.
2015 The Islamic relief-moulded jugs from Tell Barri (Syria). In: G. Affanni, C. Baccarin, L. Cordera, A. Di Michele, and K. Gavagnin (eds), *Broadening Horizons 4, Conference of young researchers working in the Ancient Near East, Egypt and Central Asia, University of Torino, October 2011*: 161-168. British Archaeological Reports International Series 2698. Oxford, Archaeopress.
- PECORELLA, P. E.
2008 Recenti scoperte a Tell Barri di Siria. In: H. Kühne, R. M. Czichon, and F. J. Krepner (eds), *Proceedings of the 4th International Congress on the archaeology of the Ancient Near East, Berlin 2004*: 387-398. Harrassowitz, Wiesbaden.
- PECORELLA, P. E., PIEROBON BENOIT, R.
2008 *Tell Barri/Kahat. La campagna del 2003. Relazione preliminare*. Firenze, Firenze University Press.
2004 *Tell Barri/Kahat. La campagna del 2001. Relazione preliminare*. Firenze, Firenze University Press.
- PIEROBON BENOIT, R.
2013a Tell Barri: recherches 2006-2010. In: D. Bonatz and L. Martin (eds), *100 Jahre archäologische Feldforschungen in Nordost-Syrien – eine Bilanz*: 193-208. Wiesbaden, Harrassowitz.
2013b Frontiere e identità nazionali: il contributo dell’archeologia. In: M. Cavalieri (ed.), *Industria Apium. L’archéologie: une démarche singulière, des pratiques multiples – Hommages à Raymond Brulet*: 355-374. Louvain la Neuve, Peeters.
- 2008 Tell Barri: sito di frontiera? In: R. Pierobon Benoit (ed.), *Tell Barri: storia di un insediamento antico tra Oriente e Occidente*: 169-202. Napoli, Macchiaroli.
- RACCIDI, M.
2015 The ‘hammer-head’ bowls in Syrian-Jezirah: case-study from Tell Barri. In: G. Affanni, C. Baccarin, L. Cordera, A. Di Michele, and K. Gavagnin (eds), *Broadening Horizons 4, Conference of young researchers working in the Ancient Near East, Egypt and Central Asia, University of Torino, October 2011*: 89-96. British Archaeological Reports International Series 2698. Oxford, Archaeopress.
- SALVINI, M.
2008 Spigolature dai documenti cuneiformi di Tell Barri. In: R. Pierobon Benoit, *Tell Barri: storia di un insediamento antico tra Oriente e Occidente*: 76-101. Napoli, La Parola del Passato.
2007 Kahat e la documentazione epigrafica. In: M. C. Guidotti, F. Lo Schiavo, and R. Pierobon Benoit (eds), *Egeo, Cipro, Siria, Mesopotamia. Dal collezionismo allo scavo archeologico, in onore di Paolo Emilio Pecorella. Catalogo della Mostra: Firenze, Museo Archeologico Nazionale, 1 dicembre 2007-4 maggio 2008*: 307. Livorno, Sillabe.

SOLTYSIAK, A.

2014 Frequency Of Dental Caries As A Proxy Indicator Of Mobility: The Case of the Khabur Basin Human Populations. In: L. Milano (ed.), *Paleonutrition and*

food practices in the Ancient Near East: towards a multidisciplinary approach. Collected articles from the international conference, Venice 2006: 53-70. Padova, SARGON.

Tell Feres: The First Proto-Urban Societies in Northern Mesopotamia Through a Rural Perspective

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Abstract

Evidence for local ways towards social complexity appears as a major outcome in Chalcolithic Northern Mesopotamia. As such, Tell Feres, in the Syrian Djezireh, is a key site for the identification of regional patterns. This paper briefly presents the main results obtained after five excavation seasons at Tell Feres (2006-2010).

Recent research on Chalcolithic northern Mesopotamia has focused on the regionalized evolutionary processes towards social complexity (Stein 2012; Stein, Alizadeh, and Rowan, in press). In this respect, Tell Feres in the Syrian Djezireh constitutes a key site for the identification of regional patterns within the Chalcolithic of Northern Mesopotamia due to its large excavated areas and long uninterrupted sequence (Late Ubaid-Late 4th millennium BC).

The five seasons (2006-2010) of the French-Syrian joint expedition at Tell Feres have provided extensive new information about the development of proto-urban societies, and, above all, on the rural component of this fundamental change. Close to Tell Brak, the site is a 4 ha mound rising 7 m above the surrounding plain. Excavations, located on the top and on the northern slope, covered approximately 900 m². Ten main levels have been distinguished, from Late Ubaid to the Late Chalcolithic (LC) 5.

The deepest level (Level 10, Figure 1) dates to the Late Ubaid. In 2009, a multi-room building was exposed containing a kiln, over-fired sherds, and some tools, suggesting a ceramic workshop. During the season of excavations, we realized that we were dealing with no less than four workshops, symmetrically arranged within the same building and constituting a 5th-millennium BC ceramic factory. Each production unit was provided with two kilns, a basin for the preparation of the clay, and benches for shaping and drying the vessels. Dozens of clay lumps, used by the artisans to test the consistency of the clay, have been found on the floors. Despite one parallel at Tell al-'Abr Level 4 (Hammade and Yamazaki 2006: pl. 4.4), such a degree of labour organization is extremely rare in this period and Tell Feres offers the only Ubaid ceramic workshop conceived and built as a wide, single building. Moreover,

the workshop extends in all directions and may include many other units. Each one of the production units has specific features with different types of kilns used to produce the same complete set of Ubaid vessels, but using different techniques (Baldi 2014). Indeed, besides the usual morpho-stylistic analysis, the whole assemblage has been examined from a technological point of view, in order to reconstruct the *chaînes opératoires* (from the raw materials to the finished pots), through which ceramics were produced. Each *chaîne opératoire* expresses a tradition typical of a group of producers (Baldi 2012b; Roux and Courty 2005). In Level 10, five technical traditions existed at Tell Feres and in the beginning they shared the modalities for preparing the pastes. In Level 10B, the production units of the workshops communicated through passageways and shared the basins for the treatment of the clay. However this was no longer the case in Level 10A, when the workshop was rebuilt without passageways between the units, and each one was provided with its own basin. This suggests that distinct (probably kinship-based) social groups were in charge of their own pottery production according to a lineage-based production system. It is confirmed by the fact that some painted motifs are specific to each technical tradition. It is possible to follow through time and space the distribution and evolution of the traditional *chaînes opératoires* and to observe their dramatic decrease in number. Amongst the five groups identified in the Late Ubaid (around 4800 BC) – including a total of 28 varieties, taking into account clay variability – only two remained at the end of LC2 (around 3800 BC), with just five varieties of clays. Hence, one can observe, and even *measure*, the development of craft specialization, with fewer and fewer producers facing an increasing demand. This process is achieved at the end of LC2 and goes together with the progressive disappearance of painted decorations. Moreover, the spatial distribution

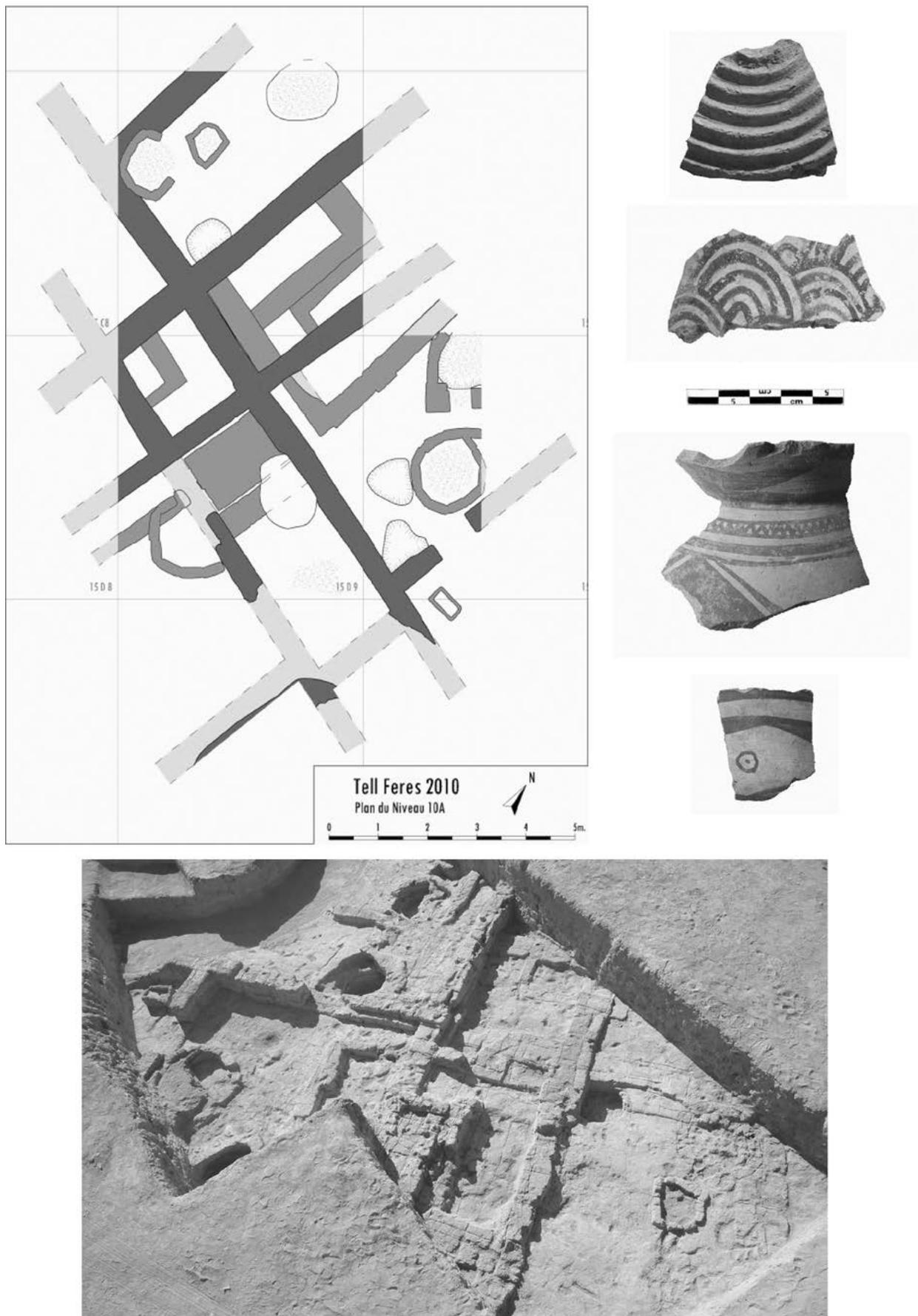


Figure 1: Tell Feres, Level 10. Late Ubaid ceramic workshop and sherds (4800 BC) (© Tell Feres Archaeological Mission).

of the techniques within the settlement shows unexpected concentrations (up to 98%). Between the 5th and 4th millennia, living, storage, and working spaces were definitely segregated and intended for different groups within the village community. These groups used ceramics produced by and for themselves, by means of traditional techniques that were specific to each of them. Moreover, it is clear that the ceramic workshop of Level 10 produced vases on a micro-regional scale. It suggests that, despite the proximity of Tell Brak (McMahon 2013), Tell Feres was quite relevant during the 5th millennium BC.

This evidence is confirmed by Level 9, where until 2009, we thought that we were dealing with two buildings (Forest and Vallet 2008b) dating back to the LC1 phase (end of the first half of the 5th millennium BC), perfectly aligned and separated by an alley 2 m wide: 'Great Building' (GB) 1 to the west and GB 3 to the east. Both were surrounded by a deep ditch, where rainwater was drained off through shallow gutters paved with sherds. Subsequently, GB1 seemed to have been replaced by a later building, GB2, covering the old alley. But in 2010 we realized that we had in fact just one large compound (Forest, Vallet, and Baldi 2012; Vallet 2014) covering perhaps 250 m² (Figure 2). To the east, the so-called GB3 appears as a great hall, situated at the front of the building (Room 9). We do not know if the entrance was directly into this hall or through some vestibule, as suggested by late floors extending through the passageway east of Room 9. At the back of the compound, two rows of three rooms are arranged on each side of a perpendicular room (4). We identified several doorways in the building, arranged according to a linear path, but closed by doors isolating the areas from each another. In the second phase of the compound (Level 9A), the northwest quarter of the edifice is rebuilt (the previously so-called GB2) and extended to the south, over Room 4, with a staircase. Roughly the same plan is maintained, with three parallel rooms. The passageway from the main hall was blocked and a large fireplace was built in the main hall. The plan of the buttressed front hall (Room 9) and its associated materials – mainly huge quantities of 'mass-produced' Coba bowls – suggest that it was a meeting hall (Baldi 2012a). The northwest quarter, and its long parallel rooms (1, 2 and 3), contained quantities of urns, holemouth and flaring rim jars, clearly devoted to storage. The southwest quarter, with the large Room 4 and Rooms 5-8, displayed a functionally differentiated assemblage, suggesting that this part of the building was a private house. Despite some similarities with the Gawra XII 'White Room' (Rothman 2002: pl. 3.6), this building, surrounded by a ditch, and combining private and public areas, still has no close parallels. For that reason, it is a good example of regionalized patterns within the Late Chalcolithic of northern Mesopotamia.

Later on, in Level 8 (Figure 3), amongst the ruins of this compound, some potter's kilns have been built, but, this time, they are not integrated within any workshop. Contrary to the atelier of Level 10, the place was exclusively dedicated to firing. Rather than a return to past approaches (such as the Ubaid 3 firing area at Tell Abada, Stein 1996: pl. 3.3), this constitutes another step towards craft specialization and could explain the appearance of the so-called potter's marks. Indeed, each kiln was used to fire large batches of pots produced by different artisans according to different supra-lineage technical traditions, so the marks on some containers were necessary to distinguish batches and their recipients after the firing.

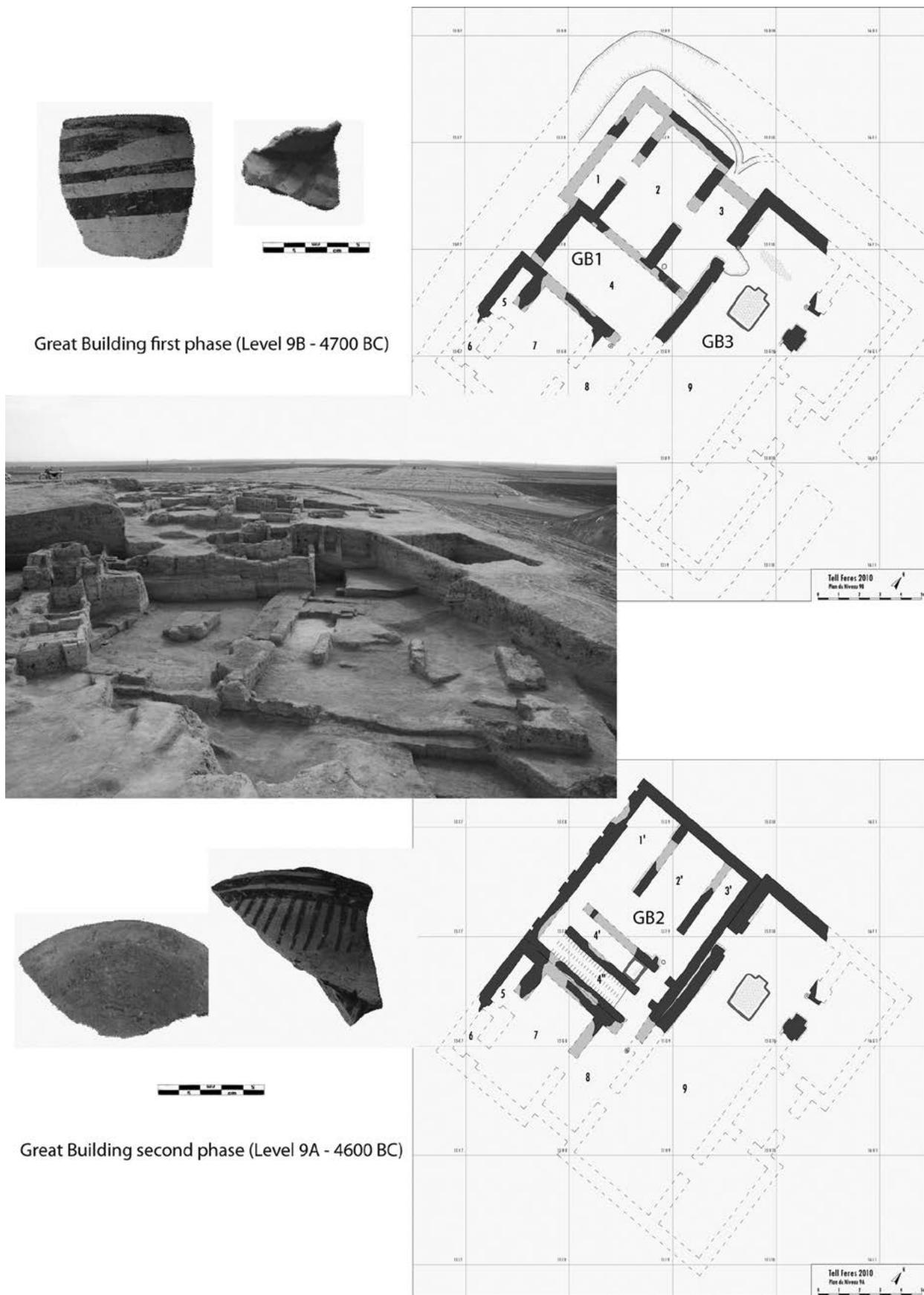
In Level 7, four granaries, close to each other, covered the ruins of the 'Great Building' of Level 9 (Figure 4, above). Each granary contained pottery, produced according to only one technical tradition. It suggests that, if storage was concentrated in a specific sector of the site, it was managed by several lineage-based authorities. In other terms, each lineage conserved its commodities in its own storehouse in ceramic containers produced according to its own technical tradition. Even conservation techniques were different. To the east, a granary was made of small cells provided with carefully plastered mudbrick floors, showing that goods were kept on the ground. Another granary, in the middle of the trench, was a long two-roomed building with a basement pierced by narrow openings for ventilation. Above there was a platform where goods were kept. Botanical remains have been extensively sampled throughout all the levels.¹ Some radiocarbon dates have also been obtained from charcoal and grain samples throughout the whole sequence (Vallet 2014).² As in the whole area around Tell Brak (Hald 2008), the most common plants are cereals (barley and emmer wheat) and pulses. As far as faunal remains are concerned,³ they mainly belong to domestic animals (sheep, goats, pigs, cattle – with a rise of cattle in the last centuries of the 4th millennium BC), but there is also evidence for hunting (gazelle, equids, aurochs, birds – less than 10% altogether).

Level 6 is the most extensively known phase and gives a glimpse of the site at the beginning of the LC2 (around 4200 BC, Figure 4, below). We identified a trapezoidal granary with a huge oven and parts of an enclosure with storage facilities in the northern sector. Further

¹ The analyses, carried out by M. Tengberg (MNHN, Paris), are not yet completed.

² Despite the fact that many ¹⁴C samples have been affected by some kind of pollution and, therefore, are unreliable, other radiocarbon samples document that the end of the Ubaid period and the beginning of the Late Chalcolithic date back to 4600/4550 BC. This quite early absolute dating confirms some previous hypotheses based on the relative chronology of the ceramic materials (Baldi 2012a; Oates 2012).

³ Examined by E. Vila, (CNRS, UMR 5133 Archéorient, Lyon).



Great Building first phase (Level 9B - 4700 BC)

Great Building second phase (Level 9A - 4600 BC)

Figure 2: Tell Feres, Level 9. LC1 communal building with its phases and some ceramic samples (© Tell Feres Archaeological Mission).

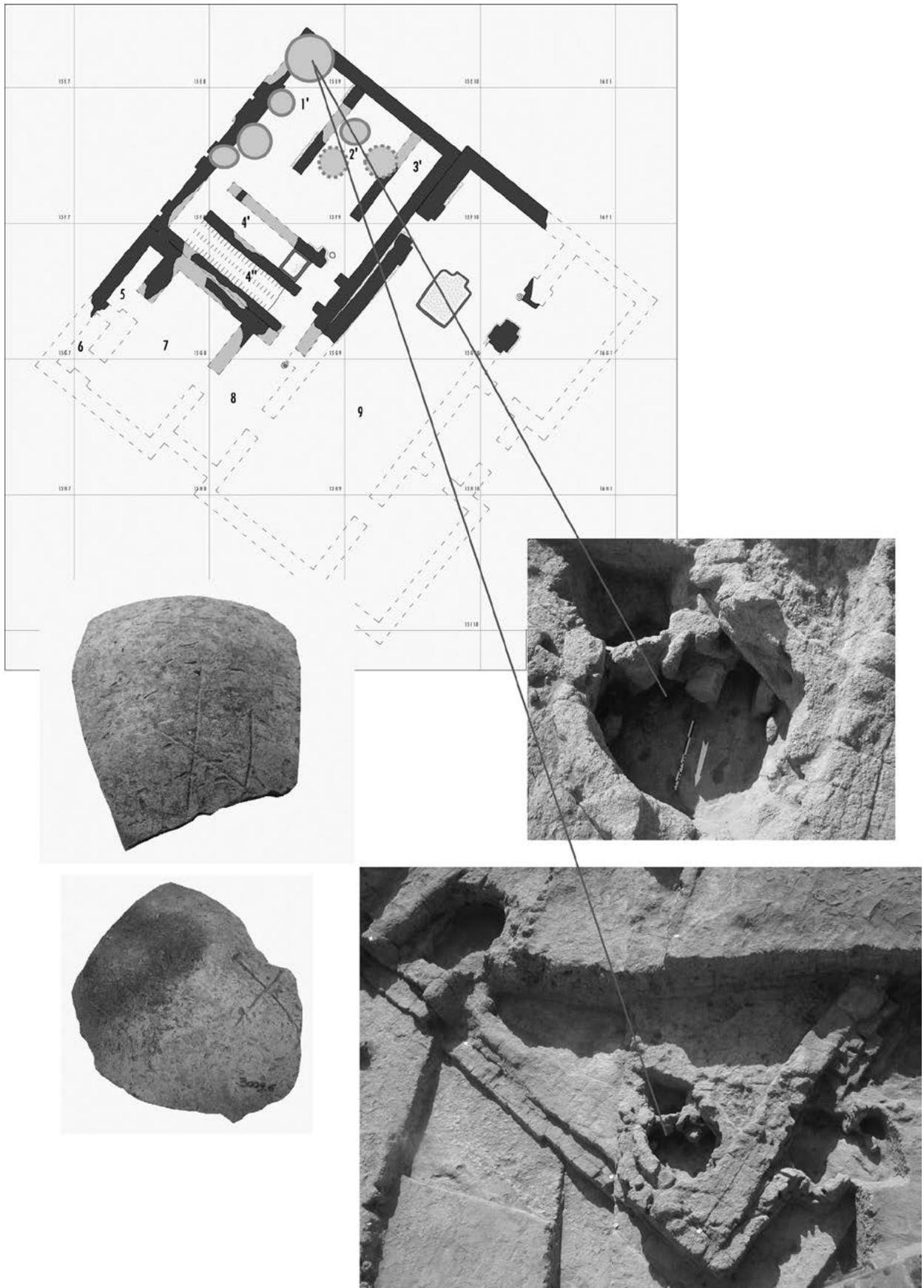


Figure 3: Tell Feres, Level 8. Potter's kilns and sherds with potter's marks
(© Tell Feres Archaeological Mission).

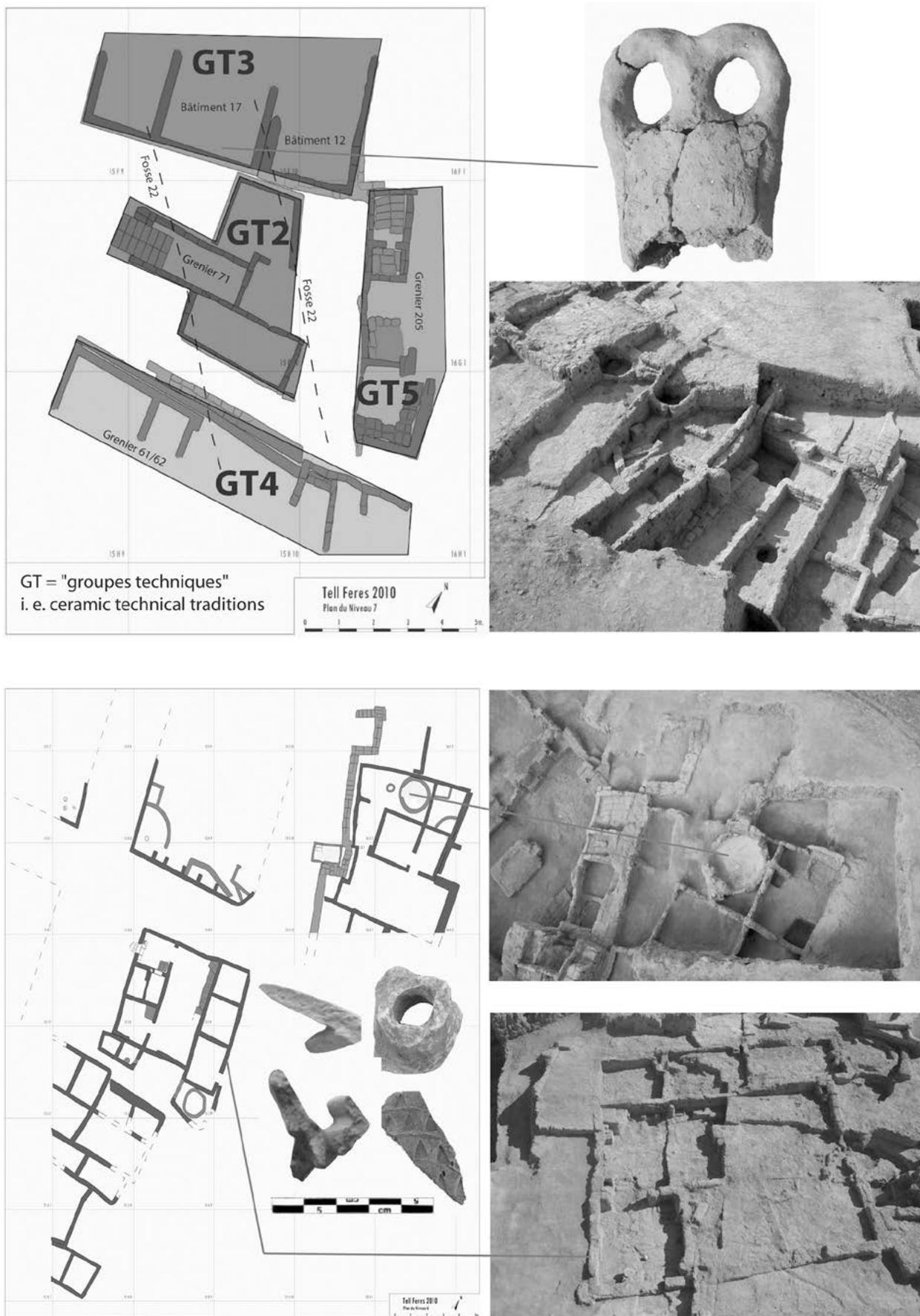


Figure 4: Tell Feres, Level 7 (above), with spatial distribution of the traditional chaînes opératoires, and Level 6 (below), with some ceramic samples (© Tell Feres Archaeological Mission).

south, a quite small tripartite house was found. Outside the house, against the threshold equipped with a door socket, a shallow pit contained a propitiatory foundation deposit, with a cattle mandible and bones. The dwelling had thin walls, with a single row of mudbricks. The main room had a podium in a corner and an unusual feature along its eastern wall: a row of small mudbrick boxes. To the south, the house was flanked by an external kitchen. On the other side of a small alley, several little constructions show that the top of the site was densely built. But the most unexpected feature of Level 6 is its regular layout: all the constructions are organized according to a perpendicular framework, with wide crisscrossing streets (3.5 m) and a small open area in front of the house. The core of the settlement was surrounded by a wall. It was not defensive; its function was rather to separate workshops (outside) from storage and housing (inside), or maybe to isolate a specific area for some social reason. In any event, it provides a sample of late 5th millennium proto-urban organization, implying an authority able to implement the planning.

In Level 5 (Figure 5), all these structures were replaced by a public building surrounded by underground silos. The building, with a recessed façade built on the top of the northern slope, was probably visible from afar in the countryside. Its plan is simple, with a main room, flanked by at least two small annexes to the west and a vestibule leading to the main room. It contained nothing but sherds, including some fine small-sized wheel-coiled bowls: the first appearance in northern Mesopotamia (in the late LC2) of this very complex technique (Baldi 2012b).

Initially, we thought that the site was abandoned after Level 5, with a gap in the stratigraphy at the transition between LC2 and LC3 (around 3800 BC). But, during the last season, we identified two late LC2 levels (4A and 4B), as well as the internal structure of the ancient tell: the eastern slope of the LC2 site is right in the middle of the present-day mound. It means that all its eastern part belongs to the LC3 and later periods. LC3 occupation of the site is extensive and there is no gap at all in the stratigraphy. Level 4B contains communal storage facilities arranged according to a small cell plan known since the early Chalcolithic at Umm Dabaghiyah (Kirkbride 1974). Level 4A is represented by a series of cooking ovens, one of which yielded a Gawra X-like clay sealing (Rothman 2002: pl. 53.1980 and 2030). We collected also an appreciable amount of small finds, including grinding stones, an abundant lithic industry (mainly obsidian from Bingol A and Nemrut Dag, but also from Aragat in Armenia), and dark-stone tools, such as axes and hammers. Terracotta objects include spindle whorls, animal figurines, and 'spectacle idols' from LC2 levels, but we also found a LC1 sample (Figure 4, above) that is the earliest one known at the moment.

Additionally, personal ornaments and hemispherical stamp seals (belonging to a well-known typology of the LC2 phase, Rothman 2002: pl. 53) have also been collected.

In Level 3, in early LC3 (around 3800/3750 BC), another granary was built above the thick, ashy layers produced by the ovens of Level 4A, and in Level 2 the whole area was covered by a large house compound (Figure 6). On the northwest side of the tripartite house, structures were poorly preserved, with just one or two layers of mudbricks, cut through by around 70 pits and graves dated to later periods. This made it very difficult to excavate that building and reconstruct its plan. This rectangular structure covered an area of about 425 m² and integrated a tripartite house into a well-planned compound similar to those from the end of the 4th millennium BC at Habuba Kabira, Djebel Aruda, or Hassek Höyük (Vallet 1998; 1997a; 1997b; Forest and Vallet 2008a). As in the Uruk compounds, the large western room could have been a reception room. We were able to follow the transformations in the internal layout, especially concerning the location of the kitchen, which shifted through time from the main room (11) to a side one (8), and vice versa, showing that this matter was still an issue in domestic life. Most of the other rooms were devoted to storage (Figure 7), exceeding by far the household capacity. Clearly, this large farm was producing also for the nearby city of Tell Brak, which had just reached an urban size in LC3 times (McMahon 2013; Oates *et al.* 2007.).

In a few centuries, society had completely changed, and if one compares the houses of LC2 Level 6 (Figure 4, below) and LC3, Level 2B-A (Figure 6), domestic architecture reflects this change in a striking way. Within the tripartite framework, deriving from an Ubaid tradition, the post-Ubaid proto-urban domestic architecture is characterized by a radical transformation of the dimensional and functional attributes. It is also noteworthy that there is no difference between houses of a rural site such as Feres and those of the first proto-urban sites, such as Hamoukar, which shows very similar compounds (Reichel 2011: 53, fig. 2). Moreover, the owner of the compound of Tell Feres had probably a high social status, as suggested by the location of the building (on the top of the site), by its size and regular layout, as well as by some of its materials, such as seals, sealings (Oates 2012), and a marble mace-head found on a floor (Figure 8). The late compound (Level 2A) contains the mudbrick coffin of a child (Figure 8), which had been looted and partially destroyed soon after the abandonment of the building, as one can infer from the fact that the looted tomb was covered by the LC4 Level 1C. One can hardly imagine that such looting would have happened if the family living in the compound there were still established on the site. And, even if this is hypothetical, it may indicate that what remained

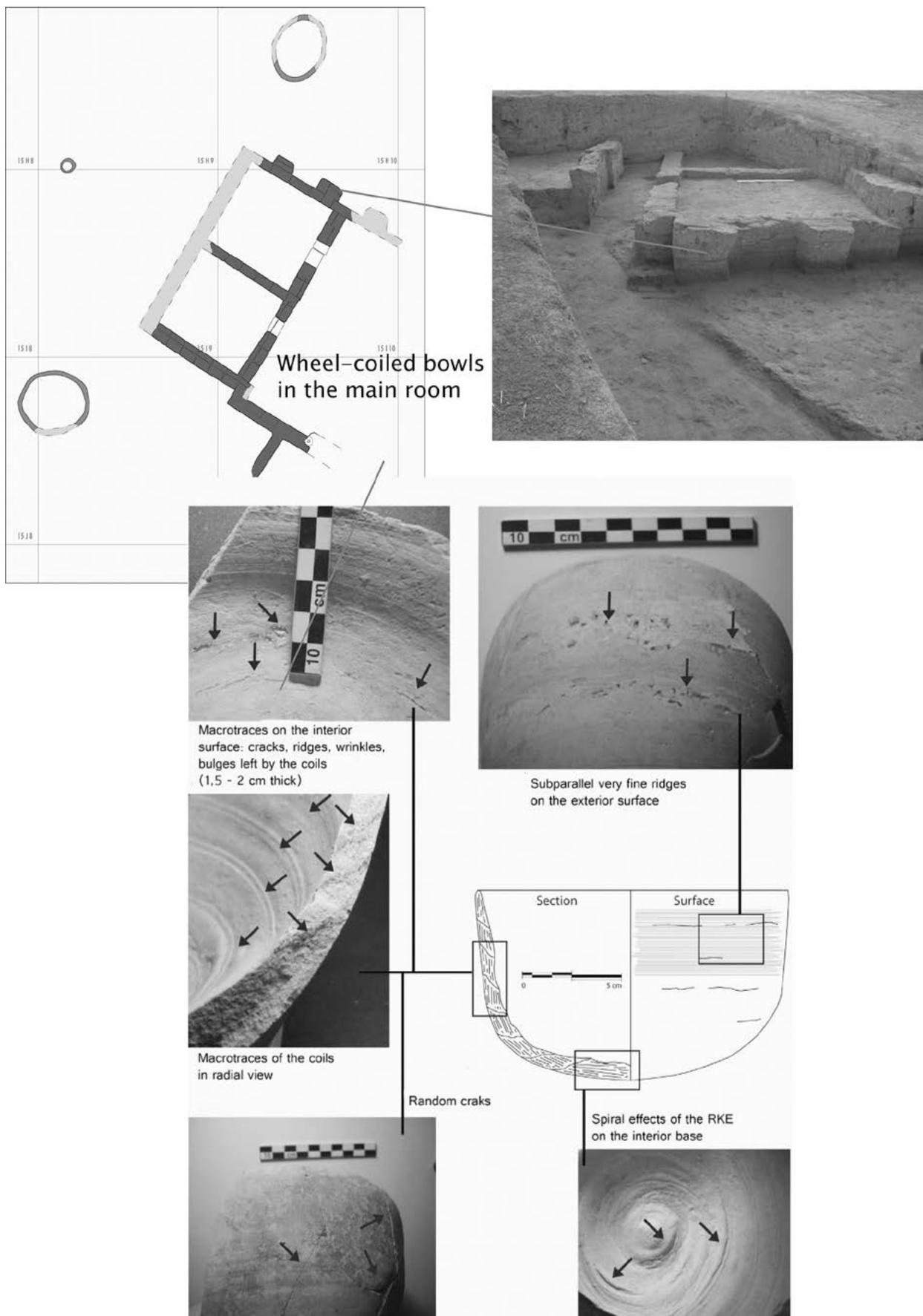
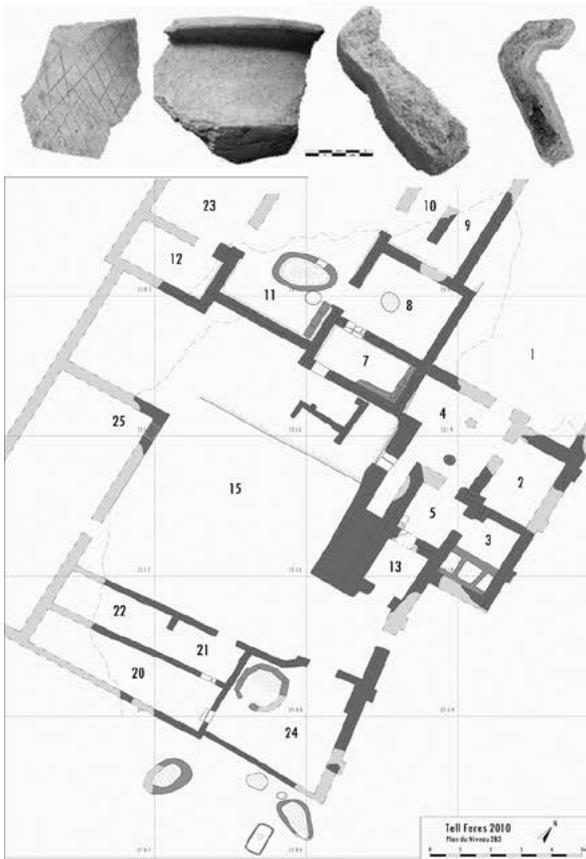
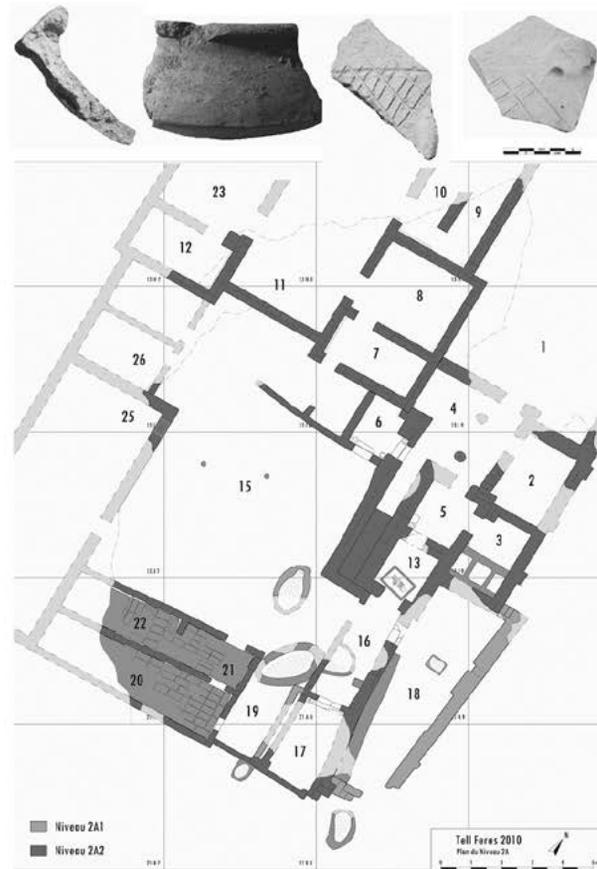
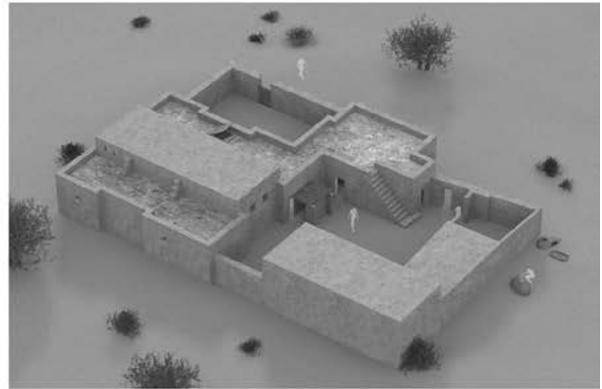


Figure 5: Tell Feres, Level 5, with samples and macrotraces of the first bowls produced by the use of the wheel (wheel coiled) (© Tell Feres Archaeological Mission).



Level 2B - LC3 (3800-3700 BC)



Level 2A - LC3 (3700-3600 BC)



Figure 6: Tell Feres, Levels 2B (above) and 2A (below), housing and farming complex with LC3 ceramic samples (© Tell Feres Archaeological Mission).

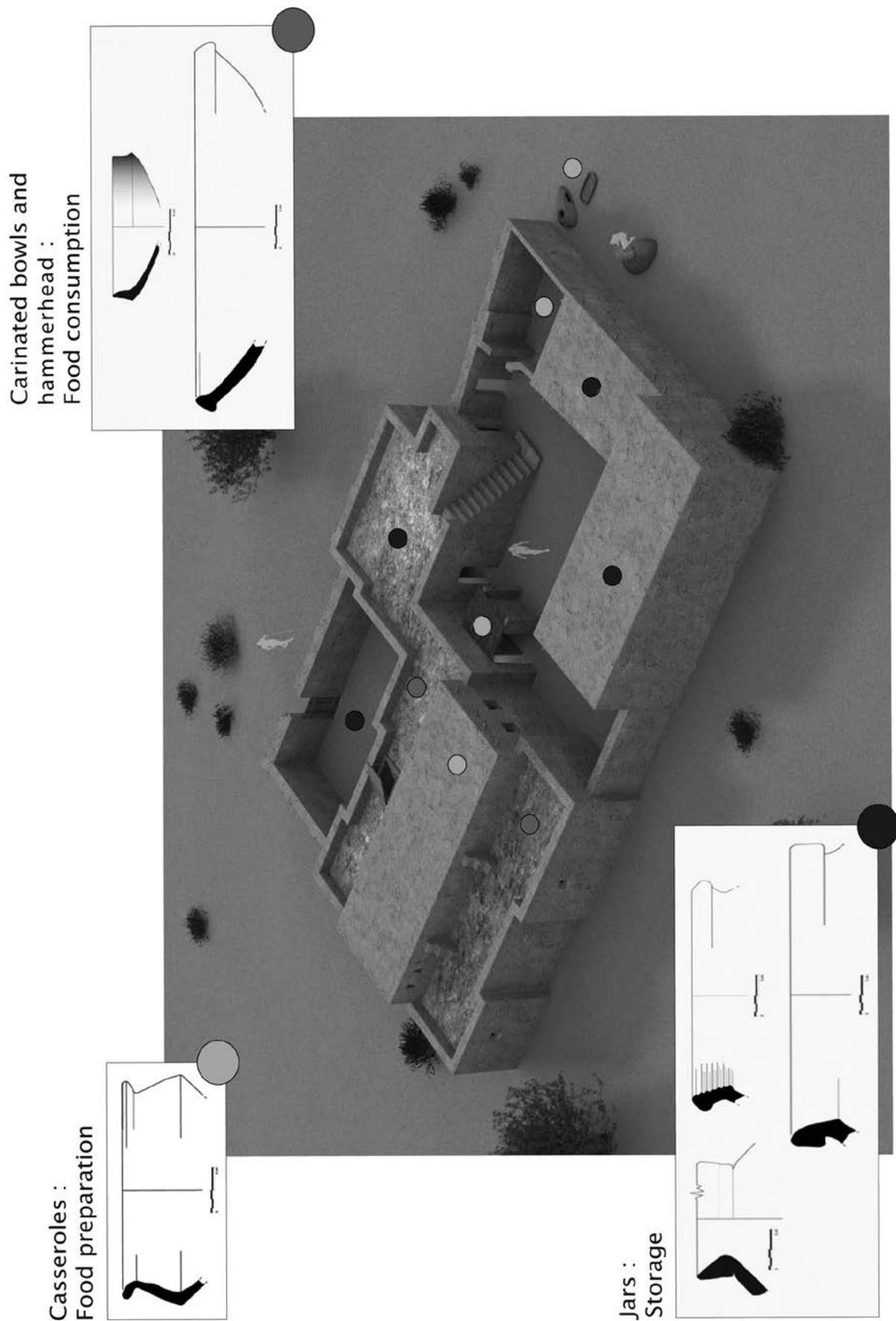


Figure 7: Tell Feres, Level 2B, functional distribution of the ceramic materials within the house complex (© Tell Feres Archaeological Mission).

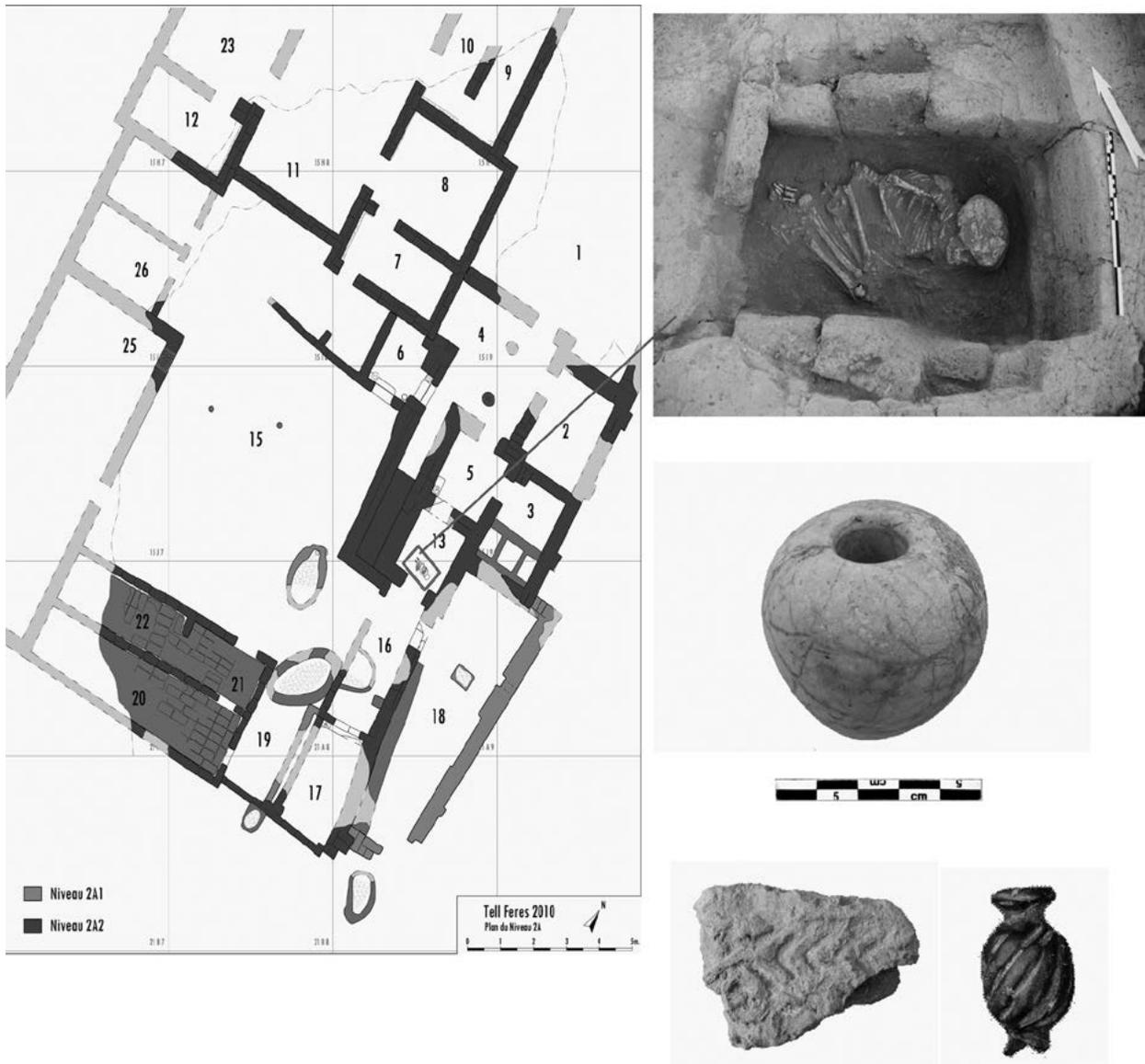


Figure 8: Tell Feres, Level 2B with some prestige materials and emplacement of a mudbrick coffin of a child (© Tell Feres Archaeological Mission).

of the local elite (at least that family), finally left the village and settled at Tell Brak. This shift seems to show clearly the centralization of proto-urban elites in the major centres (Oates *et al.* 2007). Therefore, with the compound of Level 2, we could have a factual example of rural migration, a phenomenon often evoked from a theoretical point of view (generally based on surveys, Wright *et al.* 2007: 21), but rarely proven. Soon after, the rest of the inhabitants left the site. In fact, Level 1A (early LC5, around 3200 BC) is just represented by some pits. The inhabitants of Tell Feres al-Sharqi founded a much smaller settlement on the western tell, where the modern village stands.

In conclusion, Tell Feres delivers much new evidence that provides significant insights into the formation of proto-urban society in Northern Mesopotamia. This

process not only transformed a few main sites, such as Tell Brak, into the very first cities, it also had a major impact on the countryside, where the post-Ubaid settlements were progressively turned into satellite productive sites embedded in wide regional networks. From a strictly local point of view, Tell Feres tells the story of the transformation of a village community into a rural centre. It is not a semantic nuance, but a radical change, implying the emergence of a proto-urban organization over all of northern Mesopotamia. Along a localized path that led towards so-called 'social complexity', Tell Feres went from being a quite important 5th-millennium settlement, part of a system of villages fairly homogeneous in size, to a 4th-millennium productive community integrated within the periphery of a main proto-urban centre.

Bibliography

- BALDI, J. S.
 2014 Ceramic production and management of fire between late Ubaid and LC1. The potter's kilns of Tell Feres al-Sharqi. In: P. Bieliński, M. Gawlikowski, R. Koliński, D. Ławecka, A. Sołtysiak, and Z. Wygnańska (eds), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East 30 April - 4 May 2012, University of Warsaw*, Vol. III: 187-200. Wiesbaden, Harrassowitz.
- 2012a Coba bowls production, use and discard: a view from Tell Feres al Sharqi. In: R. Matthews and J. Curtis (eds), *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East 12 April - 16 April 2010, the British Museum and UCL, London*. Vol. I: 355-368. Wiesbaden, Harrassowitz.
- 2012b Anthropological reading of the ceramics and emergence of a profession: a protohistoric North-Mesopotamian view from Tell Feres al-Sharqi. In: L. Girón and M. Vegas (eds), *Proceedings of the I International Congress on Ceramic Studies. Tribute to Mercedes Vegas/I Congreso Internacional sobre Estudios Cerámicos. Homenaje a Mercedes Vegas - Cadiz (Spain), 1st to 5th November 2010*: 477-504. Cádiz, Servicio de Publicaciones de la Universidad de Cádiz.
- FOREST, J.-D. and VALLET, R.
 2008a Urukian architecture from abroad: Some thoughts about Hassek Höyük. In: J. M. Cordoba, M. Molist, M. C. Pérez, I. Rubio, and S. Martinez (eds), *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East*, Vol. 2: 39-52. Madrid, Ediciones Universidad Autónoma de Madrid.
- 2008b Tell Feres al Sharqi: un site Chalcolithique Récent dans le Khabur (Syrie), *Paléorient* 34/1: 191-198.
- FOREST, J.-D., VALLET, R. and BALDI, J. S.
 2012 Tell Feres al Sharqi: A 5th-4th millennium site in the Khabur drainage basin. In: R. Matthews and J. Curtis (eds), *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East 12 April-16 April 2010, the British Museum and UCL, London*. Vol. I: 33-50. Wiesbaden, Harrassowitz.
- HALD, M. M.
 2008 *A Thousand Years of Farming: Late Chalcolithic Agricultural Practices at Tell Brak in Northern Mesopotamia*. British Archaeological Reports International Series 1880. Oxford, Archaeopress.
- HAMMADE, H. and YAMAZAKI, Y.
 2006 *Tell al-‘Abr (Syria) Ubaid and Uruk Periods*. Louvain, Peeters.
- KIRKBRIDE, D.
 1974 Umm Dabaghiyah 1974: A Fourth Preliminary Report, *Iraq* 37.1: 3-10.
- McMAHON, A.
 2013 Tell Brak, Early Northern Mesopotamian Urbanism, Economic Complexity and Social Stress, fifth-fourth millennia BC. In: D. Bonatz and L. Martin (eds), 100 Jahre Archäologische Feldforschungen in Nordost-Syrien – Eine Bilanz: 67-80. Wiesbaden, Harrassowitz.
- OATES, J.
 2012 Early administration at Arslantepe and Tell Brak (Ancient Nagar), *Origini* XXXIV: 169-178.
- OATES, J., McMAHON, A., KARSGAARD, P., AL-QUNTAR, S. and UR, J.
 2007 Early Mesopotamian urbanism: A new view from the north, *Antiquity* 81: 585-600.
- REICHEL, C.
 2011 Hamoukar (2010), *Oriental Institute Annual Report 2010-2011*: 51-59. Chicago, Chicago University Press.
- ROTHMAN, M. S.
 2002 *Tepe Gawra: The Evolution of a Small Prehistoric Centre in Northern Iraq*. Philadelphia, University of Pennsylvania Museum Publications.
- ROUX, V. and COURTY, M.-A.
 2005 Identifying social entities at macro-regional level: Chalcolithic ceramics of South Levant as a case study. In: A. Levingstone-Smith, D. Bosquet, and R. Martineau (eds), *Pottery Manufacturing Processes: reconstruction and interpretation Actes du XIVE congrès de l'UISPP, Liège, 2001*: 201-214. *British Archaeological Reports International Series 1349*. Oxford, Archaeopress.
- STEIN, G. J.
 2012 The Development of the Indigenous Complexity in the Late Chalcolithic Upper Mesopotamia in the 5th and 4th millennia B.C., An Initial Assessment, *Origini* XXIV: 125-152.
- 1996 Producers, Patrons, and Prestige: Craft Specialists and Emerging Elites in Mesopotamia from 5500-3100 B.C. In: B. Wailes (ed.), *Craft Specialization and Social Evolution: In Memory of V. Gordon Childe*: 25-38. Philadelphia, University of Pennsylvania Press.
- STEIN, G., ALIZADEH, A. and ROWAN, Y.
 In press Pathways to Power, Comparative Perspectives on the Emergence of Political Authority and Hierarchy in the Ancient Near East. In: *Proceedings of the International Conference held on November 4-5, 2011*. Chicago, The Oriental Institute.
- VALLET, R.
 2014 Tell Feres 2010: Recent Discoveries on the Ubaid and Late Chalcolithic in North Syria. In: P. Bieliński, M. Gawlikowski, R. Koliński, D. Ławecka, A. Sołtysiak, and Zuzanna Wygnańska (eds), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East, Volume 2. Excavation and Progress Reports*: 271-288. Wiesbaden, Harrassowitz.
- 1998 L'urbanisme colonial urukien, l'exemple de Djébel Aruda. In: M. Lebeau (ed.), *Subartu* IV.1: 53-87. Turnhout, Brépols.
- 1997a Habuba Kébira sud, approche morphologique de l'habitat. In: C. Castel, M. Al-Maqdissi, and F. Villeneuve (eds), *La maison dans la Syrie antique du IIIème millénaire au début de l'Islam: pratiques et représentations de l'espace domestique, Actes du Colloque de Damas, 27-30 juin 1992*: 105-119. Beyrouth, IFAPO.

1997b Habuba Kébira ou la naissance de l'urbanisme,
Paléorient 22/2: 45-76.
WRIGHT, H., RUPLEY, E. S. A., UR, J., OATES, J. and
GANEM, E.

2007 Preliminary report on the 2002 and 2003 seasons
of the Tell Brak sustaining area survey, *Annales
Archéologiques Arabes Syriennes* XLIX-L: 7-22.

Homs/Hama

The Lower Paleolithic of the El-Kowm Area (Central Syria) and the Question of the First Inhabitants of the Syrian Desert

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Abstract

Several settlement phases during the Lower Paleolithic are known in the El-Kowm region. The first, Oldowan, is attested at the site of 'Ain Al-Fil prior to 1.8 mya. Subsequent phases deal with Acheulean bifacial industries that begin c. 1.4 mya at Hummal; their development is demonstrated at the reference site of Nadaouiyeh Ain Askar that contains a sequence with 30 Acheulean layers and has yielded *Homo erectus* remains.

At present, the earliest traces of human presence are found in East Africa. New discoveries in Syria and neighbouring countries have revived questions concerning the dispersal of hominins in the Old World. The Out of Africa model corresponds to several waves of expansion that began around 2 mya. The routes that would have allowed archaic humans (*Homo habilis/rudolfensis*, *Homo ergaster*, *Homo erectus*) to spread into Eurasia are still poorly known. However, regardless of the axes of migrations from Africa, the Near East remains a key region leading to both Asia and Europe. In this context, during the Paleolithic, Syria held a key geographic position at the crossroads of continents. Until recently, sites scattered along the corridor formed by the valleys of the Dead Sea, Jordan, and the Bekaa indicated that the first hominins had followed this route northward, a natural route resulting from tectonic movements forming the Great Rift Valley from the Bekaa to Mozambique. It was not thought that the eastern routes, through arid deserts, had been taken during such early periods. Our research, however, conducted over the last 30 years in the framework of Syro-Swiss archaeological missions, has demonstrated the great antiquity of human occupation in central Syria. In the El-Kowm region, the discovery of archaic industries older than 1.8 mya in particular, renews the debate on the first occupations outside Africa (Le Tensorer 2015).

In this paper we present new results obtained from the El-Kowm region and compare them with the available data from Palestino-Israeli and Lebanese sites.

The Lower Paleolithic, Mode 1: the first wave of expansion out of Africa

In Syria (Figure 1), field surveys beginning in 1976 were conducted by P. Sanlaville in the Quaternary formations of the valleys of the Nahr el-Kebir, the Orontes, the Euphrates, and its tributaries. During these surveys, the discovery of lithic artefacts in the fluvial terrace deposits of the Orontes attributed to the Lower Pleistocene led to the proposal of the existence of Lower Paleolithic cultures without bifaces (Besançon *et al.* 1978; Muhesen 1988; Sanlaville 1979). In the Orontes Valley, assemblages consisting only of small flakes and worked pebbles were collected at the sites of Khattab 2 and Sabounji inférieur (Copeland and Hours 1993). However, the lack of clear stratigraphic context makes their chronological attribution uncertain. By contrast, the 2002 discovery near the village of El-Kowm of very early layers at the base of the Hummal stratigraphic sequence (Le Tensorer 2004), and the recent discovery of an archaic industry with knapped pebbles at the neighbouring site of 'Ain Al-Fil (Le Tensorer *et al.* 2015), confirm the presence of Mode 1 industries in central Syria, termed 'core and flake industries', or 'Oldowan' (Barsky 2009).

The site of 'Ain Al-Fil

'Ain Al-Fil is located 3 km north of the village of El-Kowm between Tell Arida and Hummal. The site today is a depression about 20 m in diameter and a few metres deep (Figure 2). A ring of backdirt surrounds the artificial depression that was dug to find water from a spring in a small knoll. The central deep well shaft was bored through highly fissured Maastrichtian limestones that form the bedrock of the El-Kowm Plain at an altitude of 465 m.

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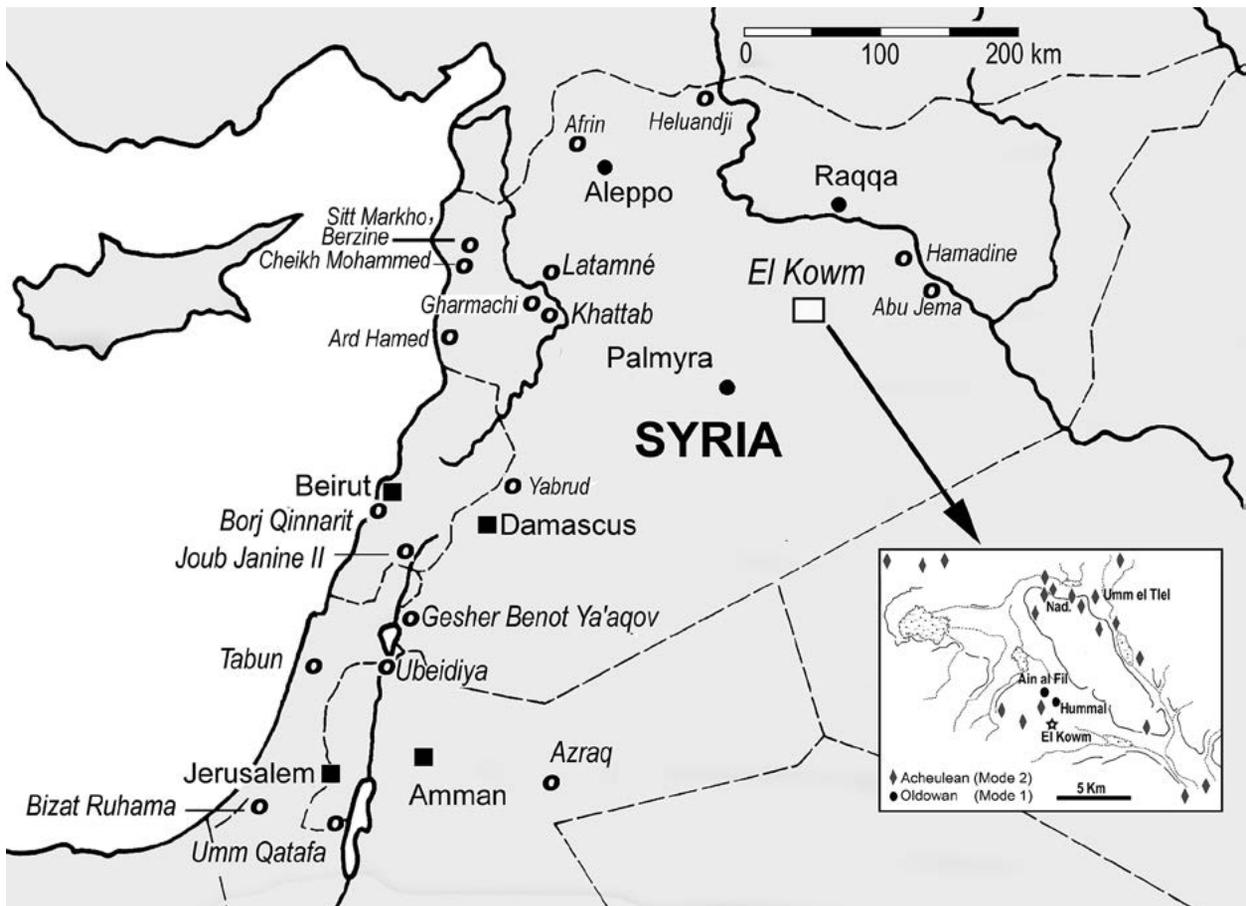


Figure 1: Location of the El Kowm region (Syria). In *Italic*: distribution of major Lower Palaeolithic sites in the Levant

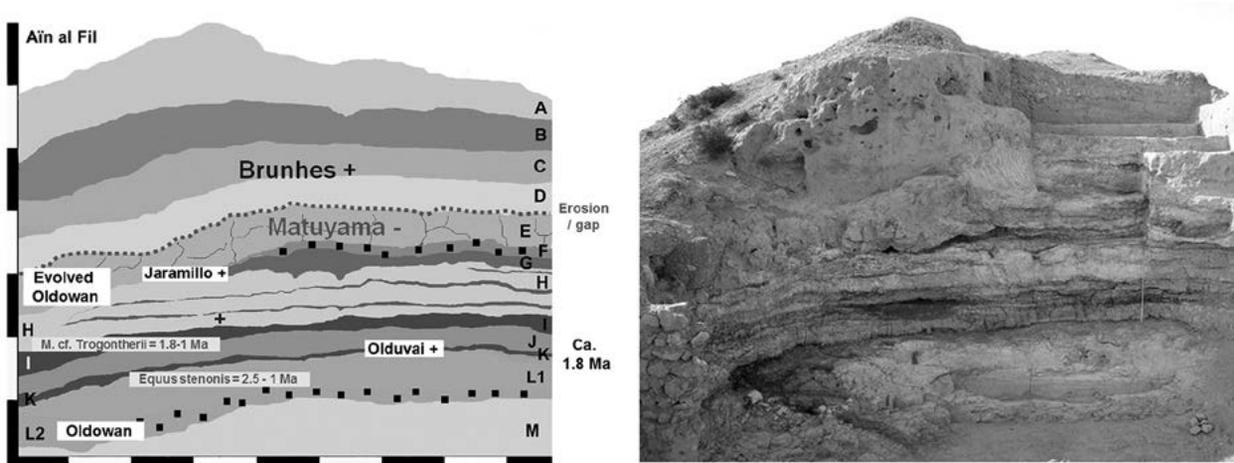


Figure 2: Main section and synthetic stratigraphy of 'Ain Al-Fil.

An Oldowan industry at the base of the Quaternary stratigraphy was discovered in 2008 by H. Le Tensorer and V. von Falkenstein. This is situated in marly limestones, the horizontal strata broken apart in a domino effect by tectonic movements that also affected the earliest Pleistocene layers. These fissures allowed

subterranean water trapped beneath the Upper Cretaceous chalky marly limestones to rise. The two lowest units are divided into two layers:

L1: Light-coloured detritic clayey silt about 40 cm thick. Upper layer L1a contains rare bones, while middle

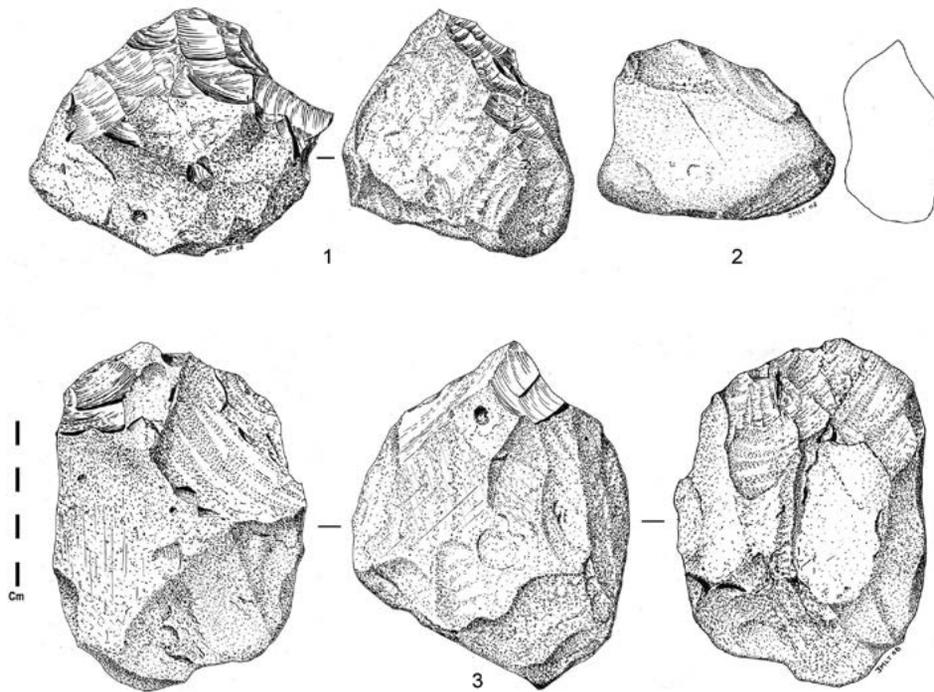


Figure 3: 'Ain Al-Fil, Oldowan industry, layer L2, 1-3 chopping-tools, 2 chopper. Drawings J.-M. Le Tensorer

layer L1b has yielded numerous large mammal bones, in particular equids of stononian type, camelids, and large antelope.

L2: The lower layer, L2, directly in contact with the Cretaceous bedrock, contains very worn limestone cobbles and a well-preserved pebble industry, the focus of the present study.

Dating of the Oldowan unit is based on geological, tectonic, palaeomagnetic, and faunal data. The orientation of the fissures in layers L1 and L2 suggests the existence of powerful tectonic movements corresponding to events during the Pliocene and Lower Pleistocene, related to movements of the Syro-African Rift (Rukieh *et al.* 2005; Zanchi *et al.* 2002) affecting the northern Palmyrenides hills. This confirms the very early age of these deposits, which are unique in the stratigraphies of the El-Kowm region.

In summer 2009, samples were collected by J. J. Villalain for paleomagnetic dating. Initial results show that the Brunhes-Matuyama reversal is found between units D and E. During the Matuyama period, three positive episodes corresponding to the Jaramillo, Middle Matuyama, and Olduvai reversals were identified. The Oldowan unit is older and thus earlier than 1.8 mya.

The fauna in clayey Unit I includes elephant intermediate between *Mammuthus trogontherii* and *M. meridionalis* (Martini 2012), while layer L1 contains abundant horse remains (*Equus stononis* [cf. *senezensis*]),⁵ camelids, and

very large antelope for which species is not yet known. All of these dating elements are in agreement for an age around 1.8 mya for the Oldowan industry.

Layer L2, the oldest, was exposed in a 2 m² test pit excavated in 2008 and 2010. It contains a rich assemblage of more than 800 artefacts including knapped pebbles, flint manuports, and flakes. The worked pebbles (Figure 3) are nearly all made of highly worn and rolled Cretaceous or Eocene flint nodules. They can be divided into three main groups: unifacial choppers with an irregular edge, classic chopping-tools with retouched edges on two sides, and chopping-tools with multiple removals, typically trifacial forming a very obtuse point. The flakes are not intentionally retouched. Unlike Layer 18 at Hummal, also considered to be Oldowan, there are no spheroids. Cores, unshaped or globular, are relatively abundant. Flint pebbles or blocks collected by hominins are also present, but show little or no modification. When these manuports have traces of wear, these are primarily from percussion. A quite unusual and interesting component of the assemblage is the presence of several limestone blocks with well-developed intentional depressions, 2-3 cm in diameter, made by percussion with a hard pointed stone (Figure 4). This type of action may reflect a symbolic function.

The site of Hummal

The site of Hummal, whose excavation was halted in 2011 by the events in Syria, is located on the northern periphery of the village of El-Kowm. This is an open-air site (Le Tensorer *et al.* 2011) with thick (>20 m)

⁵ Preliminary determination confirmed by V. Eisenmann.

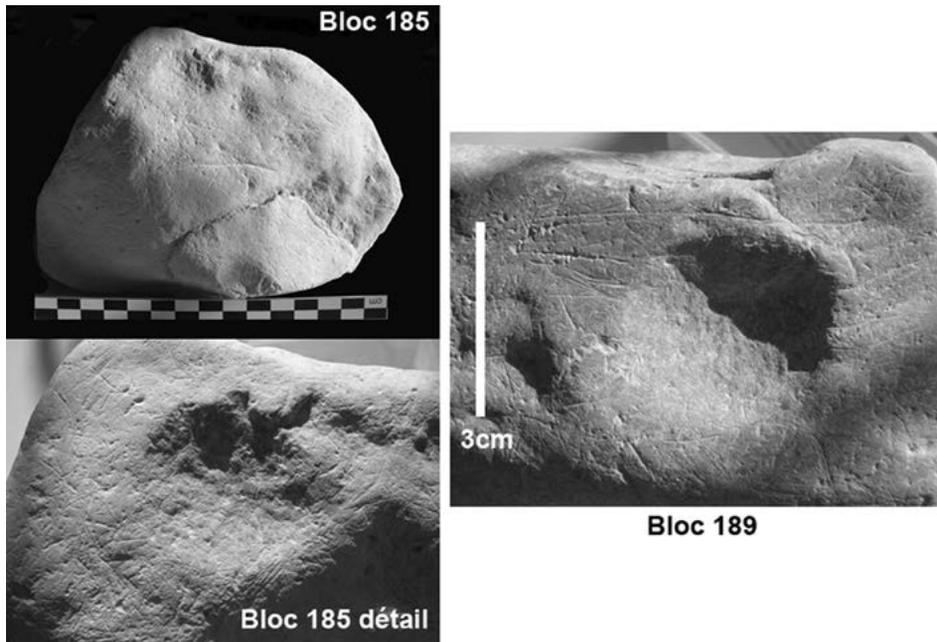


Figure 4: 'Ain Al-Fil, examples of Oldowan limestone blocks with intentional depressions



Hummal

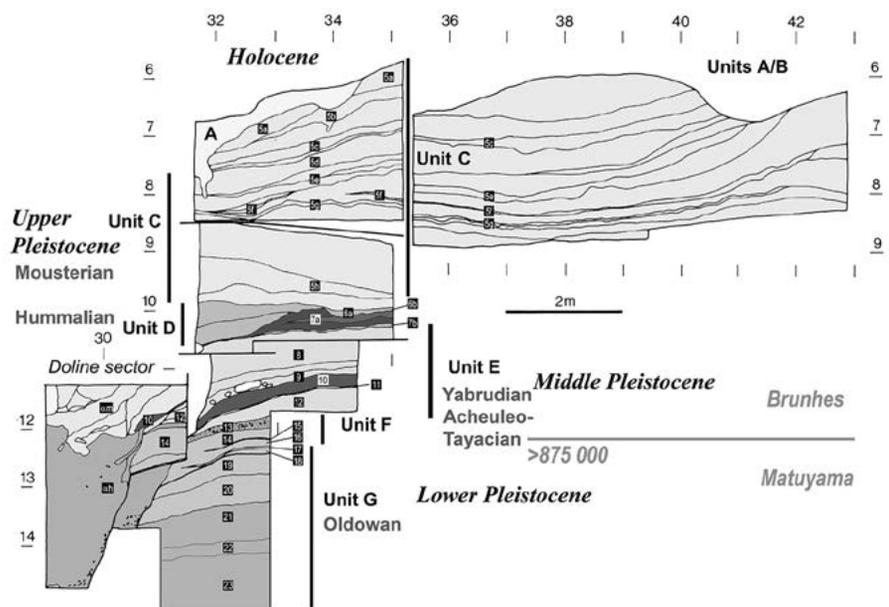


Figure 5: View of the site of Hummal looking north (photo A. Sanson), on the right, synthetic stratigraphy.

deposits of silts, travertines, and sands surrounding a doline resulting from the activity of a spring (Figure 5). These deposits contain a very large number of archaeological layers from the Lower Pleistocene to the Holocene and represent more than 1.5 million years of human occupation. These layers are grouped into seven stratigraphic units designated by capital letters (see Wojtczak *et al.* in this volume). The units F and G encompass the Oldest Paleolithic at the base of the sequence:

Unit F, Lower Middle Pleistocene: complexes 13 and 14: Pleistocene sediments from the Lower Paleolithic

with very rare bifaces dating from c. 1 mya to 500,000 BP. These contain an Acheulean or 'Acheuleo-Tayacian' industry similar to the Tabun G type. The Brunhes-Matuyama reversal is found at the base of this series c. 870,000 BP. There is a significant gap in sedimentation between units F and E corresponding to the Upper Acheulean that is well-represented at the neighbouring site of Nadaouiyeh 'Ain Askar.

Unit G, Lower Pleistocene: complexes 15 to 23: Pleistocene sediments from the Lower Paleolithic situated in the Matuyama reversed chron (older than

870,000 BP), with knapped pebble industries of the Oldowan facies.

Two groups of industries thus belong to the Lower Paleolithic *sensu stricto* (prior to the Yabrudian, c. 400,000 BP). The assemblage from Unit F is characterised by an industry on thick flakes with a very simple reduction and no core organisation. Intentionally retouched flake-tools are rare and are most commonly notches and denticulates. Rare retouched edges as sidescrapers and a few pebble tools are observed. Evidence of fire may be associated with this culture. The discovery of two bifaces (Figure 6a) in this complex supports its attribution to the Acheulean *sensu lato*. However, the rarity of shaped tools sets this facies apart from the classic Acheulean of the Near East that is rich in bifaces. Excluding the bifaces, this complex is very similar to the 'Tayacian' of Tabun G, the base of Umm Qatafa, and Yabrud IV where it was termed 'Shemsian' by R. Solecki (1968).

The layers of Unit G at the base of the Hummal sequence were considered Oldowan in our previous publications (Le Tensorer 2004; Le Tensorer *et al.* 2011). In fact, the more than 4 m-thick sequence contains industries from the Lower Paleolithic (Wegmüller 2015). These differ from the 'Acheuleo-Tayacian' complex by the presence of very fresh unretouched knapped flakes, sometimes with use-wear but never with intentional retouch. These flakes are associated with pebble tools that are much more abundant than in Unit F: choppers, chopping-tools, polyhedrals, bolas, and nucleiform artefacts (Figure 6b). All of these layers contain very abundant large mammal faunal assemblages. The remains of camelids are largely dominant. The other groups are represented by Antelopinae, equids, a rhinoceros, a large feline and ostrich, evidenced by fragments of eggshell. The bones are highly fragmented and in places laminated by secondary compaction processes.

Until 2008, no bifacial artefact had been recovered in Unit G. Since then, as in layer 13, two bifaces were discovered in layers 18 and 19. The same question is raised regarding the attribution of this industry, which could be attached to the Early Acheulean with very rare bifaces. This is supported by the paleomagnetic study, demonstrating that the sequence is within the Matuyama reverse chron; other observations further support an age of c. 1.3 mya for layer 17, thus much more recent than at 'Ain Al-Fil.

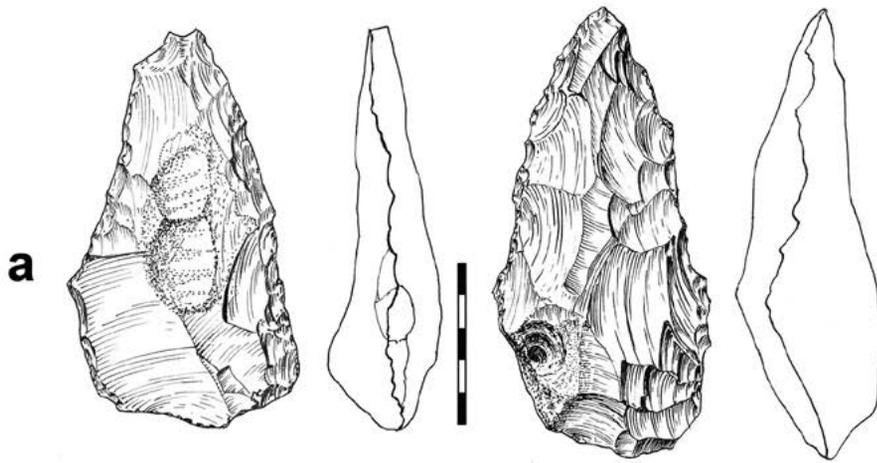
Polyhedrals, spheroids, and bolas are as common as choppers and chopping-tools. They are highly regular and come close to a perfect sphere. They can be clearly divided into two size classes: large (diameter c. 8 cm, mean weight 540 g) and small (diameter 5.5 cm, mean weight 150 g). All reduction was done by direct percussion using quartzite or hard limestone pebbles,

or Cretaceous flint nodules. Most of the worked pebbles were also occasionally used as hammerstones. The Kombewa technique is also well attested. Flakes vary in size, with most not exceeding 4 cm and some reaching 6-7 cm. Study of flake thickness demonstrates a strong tendency for the production of thick flakes (75%), which are already fairly standardised. Slightly modified flakes, or with use-wear in the form of notches, denticulations, and discrete use retouch, represent about 10% of the tool kit. No clearly and intentionally retouched tools were found.

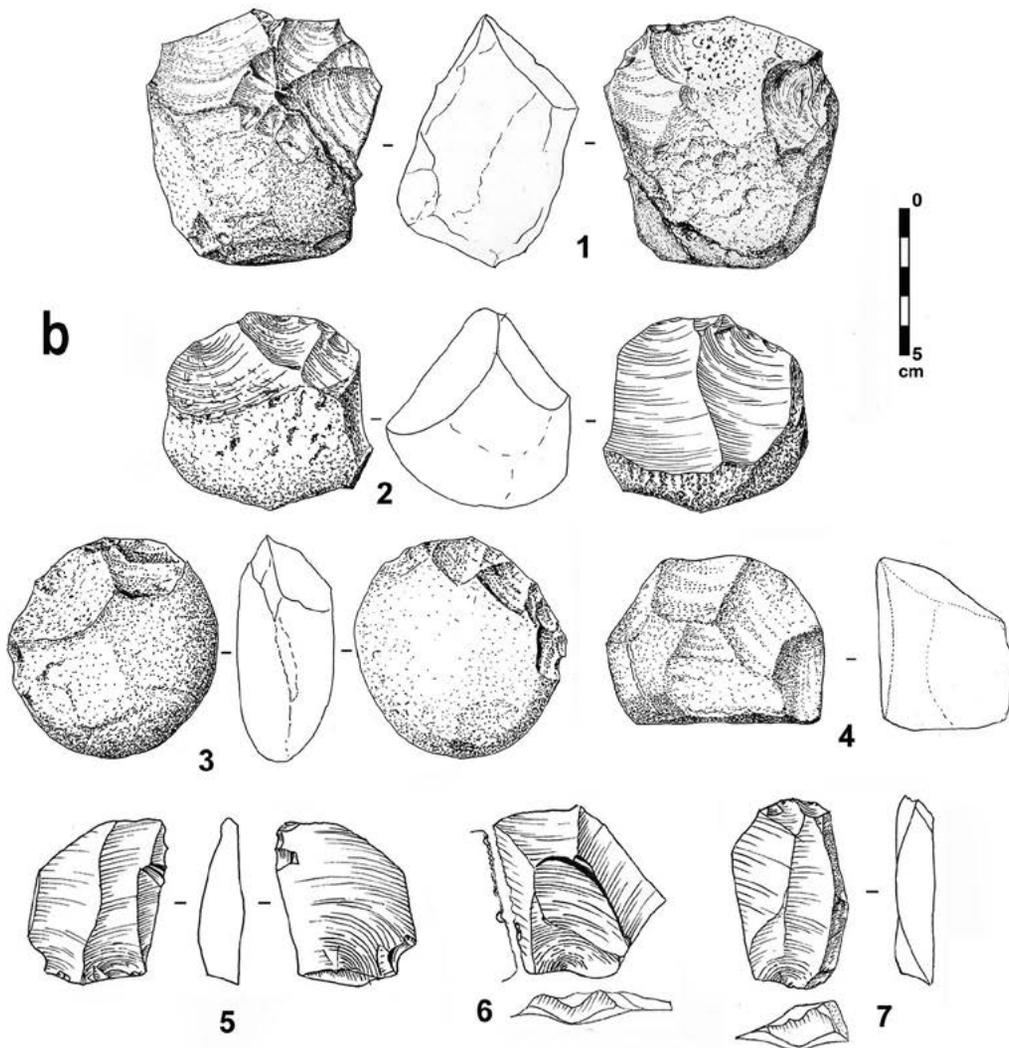
Conclusions and comparisons for the Mode 1 industries

The industries from the lower layers at 'Ain Al-Fil and Hummal belong to a Mode 1 concept of the Lower Paleolithic, or 'core and flake industries'. Based on the techno-typological criteria defined by H. de Lumley *et al.* (2005), these assemblages can clearly be attributed to the Oldowan for layers 19-23 at Hummal, and to the pre-Oldowan for the basal layers at 'Ain Al-Fil. At Hummal, layer 18, considered to be Oldowan until recently, has now yielded two bifacial pieces. These industries at Hummal have much in common with the earliest assemblages at Ubeidiya, considered to be Early Acheulean (Bar-Yosef and Goren-Inbar 1993). The Ubeidiya Formation in the Jordan Valley at the outlet of Lake Tiberias is composed of Lower Pleistocene limnic and fluvial sediments. These deposits, fissured and folded during tectonic movements related to the establishment of the Dead Sea Rift, are sandwiched between the Erq-el-Ahmar Formation (older than 1.5 mya) and the Yarmuk basalt deposit (c. 0.8 mya). Dating, primarily based on the faunal assemblage and geological and paleomagnetic estimates, and K-Ar measurements, indicates an age between 1.6 and 1.2 mya. Layers 17 and 18 at Hummal, with reverse paleomagnetic polarity (Matuyama), may correspond to this period. The underlying deposits (layers 19-23) and layer L2 at 'Ain Al-Fil are the oldest human occupations identified in Syria. For these two sites, paleomagnetic analyses are still in progress, but already the initial results, associated with stratigraphic, geological, and faunal data, point to a dating of the Oldowan sequences in the El-Kowm region between 2 and 1.5 mya.

In the Near East, the arrival of the first hominins may thus date back to at least 2 mya. The site of Yiron in Israel has long been considered as demonstrating the earliest hominins out of Africa. A handful of clearly knapped quartzite artefacts were discovered in a basalt flow dated to more than 2 mya (Ronen 1991). This age is currently debated since the deposit beneath the basalts may be in reworked context. As long as this issue is not definitively resolved, the site of Yiron remains one of the earliest sites outside Africa.



Hummal: Acheuleo-Tayacian, Unit F



Hummal: Oldowan, Unit G

Figure 6: Hummal: 2 bifaces of the Unit F and Oldowan Core-and-Flake culture of the Unit G, selected artefacts, 1-3 Pebble-tools, 5-7 flakes with use-wear traces (Drawings: J.-M. Le Tensorer.)

In the Levant, the pre-Acheulean sites of the 'core and flake industries' type are rare. They have been termed 'Tayacian', to differentiate them from the Acheulean *sensu stricto* (Copeland 2003). The question is whether these are non-Acheulean cultures or an 'Acheulean without bifaces'. Around ten sites are known in the Near East. In addition to those already mentioned for Syria, of which only Hummal and 'Ain Al-Fil are stratified, open-air sites include Borj Qinnarit (Hours 1980), the Cordon Littoral of Ras Beirut and Bahsas in Lebanon (Copeland 2003), Bizat Ruhama in Israel (Zaidner *et al.* 2010), and the Jordanian industry from the Dauqara formation in the Zarqa region (Parenti *et al.* 1998); caves and rock shelters, below Acheulean series, include Tabun G (the 'Tabunian' of D. Garrod, Garrod and Bate 1937) and Yabrud IV in Syria (the 'Shemsian' of R. Solecki 1968). We add Ubeidiya to this list, where the oldest layers lack bifaces, although the site is considered to be Early Acheulean.

If we consider the oldest sites, two parallel migration routes departing from south of Palestine in the Aqaba region can be seen. One route follows the corridor of the Dead Sea Rift and the Jordan Valley, then, passing through the Golan Heights, diverges to the northeast to join the El-Kowm region. The other follows the desert route through the large wetlands of Jafr and Azraq in Jordan, and then Palmyra, before reaching El-Kowm. Beyond El-Kowm, the migration routes could have followed the Euphrates Valley upstream and downstream, leading expansion westward to the Black Sea and eastward to Mesopotamia. Towards the north, only the site of Dmanisi in Georgia, dated to 1.8 mya, confirms without ambiguity the trans-Caucasian route (Ferring *et al.* 2008). This first wave of human expansion would have taken place more or less discontinuously between 2 and 1 mya.

The Lower Paleolithic, Mode 2: the second wave of expansion out of Africa

The second wave of expansion corresponds to the arrival of industries with bifaces, or Mode 2, grouped under the general term Acheulean. These industries have in common the presence of bifaces, a tool with a remarkable symmetry and aestheticism, reflecting a strong symbolic component (Le Tensorer 2006). This tool first appears in Africa around 1.7 mya in West Turkana, Kenya (Lepre *et al.* 2011). Its spread would have been fairly rapid since it is attested at Ubeidiya between 1.6 and 1.2 mya, as well as at Hummal at about the same time. This appears to demonstrate that the ancestral routes for the first expansions remained active. Instead of speaking of two waves of expansion, it would be preferable to consider migration as occurring in multiple, more or less discontinuous waves from 2 mya. The makers of the Acheulean were *Homo erectus/ergaster*, a new hominin species whose potential for

dispersal must have been much superior to that of *Homo habilis*.

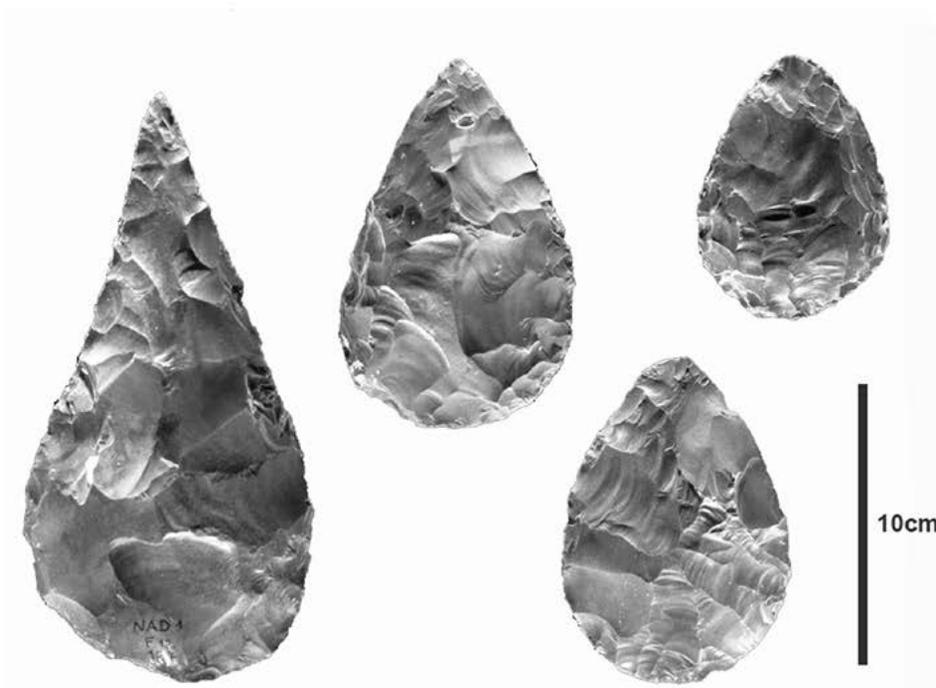
To simplify, in Syria and at El-Kowm in particular, we observe three principal successive stages of the Acheulean:

1. Early Acheulean with rare bifaces prior to 1 mya (Ubeidiya, Hummal). Within this group may be added the Syrian sites in the Lower Pleistocene formations in the Nahr El-Kebir region at Sitt Markho, and those of the Early Quaternary marine formation at Cheikh Mohammed. These sites, however, have not been definitively dated.
2. Middle Acheulean with abundant bifaces dating between 1 and 0.7 mya. This stage is characterised by the dominance of elongated bifaces of ficon type, often trending to trihedral picks. Sites from this stage are much more common. In Syria, they include Latamn  (Clark 1967) and Meirah at El-Kowm (Bo da *et al.* 2004). The site of Gesher Benot Ya'aqov at the foot of the Golan Heights in the Jordan Valley is also included in this period. This site differs significantly from other Middle Acheulean sites by the presence of large cleavers on basalt flakes. This is the only Near Eastern site showing strong African affinities (Goren-Inbar 1992).
3. Upper Acheulean dating between 700,000 and 350,000 BP, with very abundant bifaces, in majority amygdaloid, cordiform, or ovoid, knapped with remarkable care and soft percussion. The reference site is without contest Nadaouiyeh I 'Ain Askar in Syria in the El-Kowm region (Jagher 2011; Le Tensorer *et al.* 2007). This site (Figure 7) has yielded an Acheulean sequence covering approximately the period from 550,000 to 350,000 BP. At least 32 Acheulean occupation layers have been excavated, as well as Yabrudian, Hummalian, and Mousterian layers, followed by those for the Upper Paleolithic, Epipaleolithic, Neolithic, and historical periods. The Acheulean layers at Nadaouiyeh are extremely rich in artefacts (more than 13,000 bifaces) and extremely well-preserved faunal remains, almost exclusively the result of human hunting. This Acheulean sequence is of key importance for Near Eastern Acheulean.

Today, we are able to describe at least seven different successive phases of bifacial traditions designated as Nad-G to Nad-A. Astonishingly, the oldest *in situ* occupations have the most finely knapped bifaces of an exceptional quality beyond mere functionality. The general evolution goes from extremely well-knapped and standardised pieces to less elaborate, more schematic, and irregular bifaces. The abundance



Figure 7: View of the site of Nadaouiyeh 'Ain Askar and typical Acheulean bifaces (photo E. Jagher and J.-M. Le Tensorer).



of shaped tools associated with a near-total absence of retouched flakes is common throughout the Acheulean sequence. Facies Nad-D is a good example of internal variability and manifested by major changes within a single cultural group. Such variability, encountered at Nadaouiyeh in all of the layers, proves the dynamism of the Acheulean culture in contrast to what is generally accepted for this industry (Jagher 2016; 2011). On top of the stratigraphy, the presence of an Acheulean tradition contemporaneous with the Middle Paleolithic is also one of the surprising elements of the Nadaouiyeh sequence. In 1996, a nearly complete left parietal of *Homo erectus* (Figure 8), dated to c. 500,000 BP, was discovered in a well-preserved occupation horizon in facies Nad-D.

The Upper Acheulean is well known throughout the Near East (Muhesen and Jagher 2011). It corresponds to the first phase of dense occupation and is undeniably the apogee of this culture. In addition to open-air sites, cave and rock shelter sites are much less frequently found. Despite local techno-typological variability, the Upper Acheulean is overall more or less homogeneous. It is characterised by carefully produced bifaces, much more standardised than in the preceding phases. This final Acheulean stage may result in part from the evolution of local populations. The African origin is not certain because the only significant human remain for this period is the Nadaouiyeh Ain Askar parietal, which shows anatomic traits that are more Asian than African (Jagher *et al.* 1997).

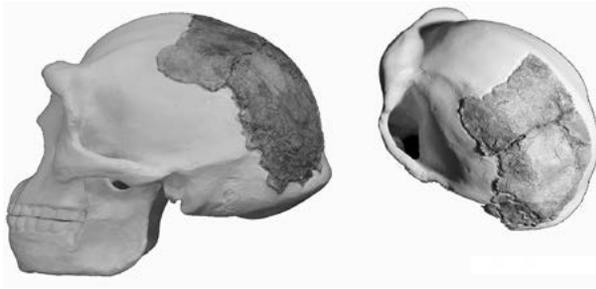


Figure 8: The *Homo erectus* parietal of Nadaouiyeh on the Zhoukoudian skull (Sinanthropus skull II) (reconstruction P. Schmid)

Conclusions

During the Lower and Middle Pleistocene, i.e. between c. 2 mya to the start of the Upper Acheulean c. 700-600,000 BP, the main dispersal routes from Africa seem to have been the same in the different periods. The reasons underlying such human movement remain hypothetical. A combination of climatic or ecological factors *sensu lato*, or the possibility of demographic pressure for *Homo erectus*, have been suggested, but the debate is open and has provoked numerous controversies. Regardless of the reasons for human expansion, if we consider the length of the Quaternary period, the first hominins were unaware of such dispersal, which would have occurred naturally, perhaps following the migrations of wild animals, one of the important dietary sources in the Paleolithic. In any case, the Near East in general and Syria in particular played an essential role in the history of hominin migration out of Africa.

Bibliography

- BARSKY, D.
2009 An overview of some African and Eurasian Oldowan sites: evaluation of hominin cognitive levels, technological advancements and adaptive skills. In: E. Hovers and D. R. Braun (eds), *Interdisciplinary Approaches to the Oldowan*: 39-47. Dordrecht, Springer Press.
- BAR-YOSEF, O. and GOREN-INBAR, N.
1993 *The Lithic Assemblages of Ubeidiya*. Jerusalem, The Hebrew University.
- BESANÇON, J., COPELAND, L., HOURS, F. and SANLAVILLE, P.
1978 The Paleolithic Sequence in Quaternary Formation of the Orontes River Valley, Northern Syria, A Preliminary Report, *Bulletin of the Institute Of Archaeology, London* 15: 149-170.
- BOËDA, E., COURTY, M.-A., FEDEROFF, N., GRIGGO, C., HEDLEY, I. and MUHESEN, S.
2004 Le site Acheuléen d'El Meirah, Syrie. In: O. Aurenche, M. Le Mière, and P. Sanlaville (eds), 'From the River to the Sea'. *The Paleolithic and the Neolithic on the Euphrates and in the Northern Levant, Studies in Honour of Lorraine Copeland*: 165-201. British Archaeological Reports International Series 1263. Oxford, Archaeopress.
- CLARK, D.
1967 The Middle Acheulean Occupation Site at Latamné, Northern Syria, *Quaternaria* 9: 1-68.
- COPELAND, L.
2003 The Tayacian of the Cordon Littoral, Ras Beirut (Lebanon) and its relations with other Tayacian sites in the Levant, *Paléorient* 29/2 : 87-108.
- COPELAND, L. and HOURS, F.
1993 The Middle Orontes, Paleolithic Flint Industries. In: P. Sanlaville, J. Besançon, L. Copeland, and S. Muhsen (eds), *Le Paléolithique de la Vallée Moyenne de l'Oronte (Syrie). Peuplement et environnement*: 64-144. British Archaeological Reports International Series 587. Oxford, Tempus Reparatum.
- FERRING, R., LORDKIPANIDZE, D., BERNA, F. and OHMS, O.
2008 Geology and formation processes at Dmanisi in the Georgian Caucasus. In: *Abstracts of the 73rd Annual Meeting of the Society of American Archaeology, Vancouver, British Columbia*: 195. Vancouver.
- GARROD, D. and BATE, D.
1937 *The Stone Age of Mount Carmel, I*. Oxford, Clarendon Press.
- GOREN-INBAR, N.
1992 The Acheulean site of Gesher Benot Ya'aqov, an African or Asian Entity? In: T. Akazawa, K. Aoki, and K. Kimura (eds), *The Evolution and Dispersal of Modern Human in Asia*: 67-82. Tokyo, Hokusensha.
- HOURS, F.
1980 *Le Paléolithique et l'Epi-Paléolithique de la Syrie et du Liban*. Thèse de Doctorat d'Etat, Université de Paris 1, Sorbonne. Paris.
- JAGHER, R.
2016 (in press) Nadaouiyeh Ain Askar, an example of Upper Acheulean variability in the Levant, *Quaternary International*.
- JAGHER, R.
2011 Nadaouiyeh Ain Askar-Acheulean variability in the Central Syrian Desert. In: J.-M. Le Tensorer, R. Jagher, and M. Otte (eds), *The Lower and Middle Paleolithic in the Middle East and Neighbouring Regions*: 209-224. Etudes et recherches archéologiques de l'Université de Liège 126. Liège, l'Université de Liège.
- JAGHER, R., LE TENSORER, J.-M., MOREL, P., MUHESEN, S., RENAULT-MISKOWSKI, J., RENTZEL, P. and SCHMID, P.
1997 Découvertes de restes humains dans les niveaux acheuléens de Nadaouiyeh Ain Askar (El Kowm, Syrie Centrale), *Paléorient* 23 (1): 87-93.
- LEPRE, C. J., ROCHE, H., KENT, D. V., HARMAND, S., QUINN, R. L., BRUGAL, J.-P., TEXIER, P.-J., LENOBLE, A. and FEIBEL, C. S.

- 2011 An earlier origin for the Acheulian, *Nature* 477 (7362): 82-85.
- LE TENSORER, J.-M.
- 2015 Regional Perspective of early human populations in Syria: the case of El Kowm. In: N. Sanz (ed.), *Human Origin Sites and the World Heritage Convention in Eurasia*: 54-71. World Heritage Papers 41, HEADS 4 (I) 54, UNESCO.
- 2006 Les cultures acheuléennes et la question de l'émergence de la pensée symbolique chez Homo erectus à partir des données relatives à la forme symétrique et harmonique des bifaces, *Comptes Rendus Palevol* 5 (1-2): 127-135.
- 2004 Nouvelles fouilles à Hummal (El Kowm, Syrie centrale). Premiers résultats (1997-2001). In: O. Aurenche, M. Le Mière, and P. Sanlaville (eds), 'From the River to the Sea'. *The Paleolithic and the Neolithic on the Euphrates and in the Northern Levant, Studies in Honour of Lorraine Copeland*: 223-224. British Archaeological Reports International Series 1263. Oxford, Archaeopress.
- LE TENSORER, J.-M., JAGHER, R., RENTZEL, P., HAUCK, T., ISMAIL MEYER, K., PUMPIN, C. and WOJTCZAK, D.
- 2007 Long-Term Site Formation Processes in the Natural Springs Nadaouiye and Hummal in the El Kowm Oasis, Central Syria, *Geoarchaeology* 22 (6): 621-639.
- LE TENSORER, J.-M., LE TENSORER, H., PIETRO MARTINI, P., VON FALKENSTEIN, V., SCHMID, P. and VILLALAIN, J.J.
- 2015 The Oldowan site Ain al Fil (El Kowm, Syria) and the first humans of the Syrian Desert, *L'Anthropologie* 119 (5): 581-594.
- LE TENSORER, J.-M., VON FALKENSTEIN, V., LE TENSORER, H. and MUHESEN, S.
- 2011 Hummal: a very long Paleolithic sequence in the steppe of central Syria – considerations on Lower Paleolithic and the beginning of Middle Paleolithic. In: J. M. Le Tensorer, R. Jagher, and M. Otte (eds), *The Lower and Middle Paleolithic in the Middle East and Neighbouring Regions*: 235-248. Etudes et recherches archéologiques de l'Université de Liège 126. Liège, l'Université de Liège.
- LUMLEY, H. de, NIORADZÉ M., BARSKY, D., CAUCHE, D., CELIBERTI, V., NIORADZÉ, G., NOTTER, O., ZVANIA, D. and LORDKIPANIDZE, D.
- 2005 Les industries lithiques préoldowayennes du début du Pléistocène inférieur du site de Dmanissi en Géorgie, *L'Anthropologie* 109 (1): 1-182.
- MARTINI, P.
- 2012 The mammoth tooth from Ain Al Fil, *Travaux de la Mission Archéologique Syro-Suisse d'El Kowm* 17: 10-14.
- MUHESEN, S.
- 1988 Le Paléolithique Inférieur de Syrie, *L'Anthropologie* 92 (3): 862-882.
- MUHESEN, S. and JAGHER, R.
- 2011 The Lower Paleolithic in Syria. In: J.-M. Le Tensorer, R. Jagher, and M. Otte (eds), *The Lower and Middle Paleolithic in the Middle East and Neighbouring Regions*: 35-48. Etudes et recherches archéologiques de l'Université de Liège 126. Liège, l'Université de Liège.
- PARENTI, F., AL-SHIYAH, A., SANTUCCI, E., KAFABI, Z. and PALUMBO, G.
- 1998 Early Acheulean Stone tools and Fossil Fauna from Dauqara Formation Upper Zarqa, Jordanian Plateau. In: H. Gebel, Z. Kafafi, and G. Rollefson (eds), *Prehistory of Jordan II, Perspectives from 1997*: 7-22. Studies in Early Near Eastern Production, Subsistence, and Environment 4. Berlin, Ex-orient.
- RONEN, A.,
- 1991 The Yiron Gravel lithic assemblage: Artifacts older than 2.4 My in Israel, *Archäologisches Korrespondenzblatt* 21: 159-164.
- RUKIEH, M., TRIFONOV, V.G., DODONOV, A.E., MININI, H., AMMAR, O., IVANOVA, T.P., ZAZA, T., YUSEF, A., AL-SHARA, M. and JOBAILI, Y.
- 2005 Neotectonic map of Syria and some aspects of Late Cenozoic evolution of the northwestern boundary zone of the Arabian plate, *Journal of Geodynamics* 40: 235-256.
- SANLAVILLE, P.
- 1979 *Quaternaire et Préhistoire du Nahr el-Kébir Septentrional: Les débuts de l'occupation Humaine dans la Syrie du Nord*. Paris, CNRS.
- SOLECKI, R.
- 1968 The Shemsi industry. A Tayacian-related Industry at Yabroud. Syria: preliminary report. In: D. Sonneville-Bordes (ed.), *La Préhistoire, Problèmes et Tendances (Mélanges Vaufray)*: 401-410. Paris, CNRS.
- WEGMÜLLER, F.
- 2015 The Lower Paleolithic assemblage of Layers 15-18 (Unit G) at Hummal. An exemplary case addressing the problems placing undated, archaic-looking stone tool assemblages in the Early and Lower Paleolithic record by techno-typological classification, *L'Anthropologie* 119 (5): 595-609.
- ZAIDNER, Y., YESHURUN, R. and MALLOL, C.
- 2010 Early Pleistocene Hominins Outside of Africa: Recent Excavations at Bizat Ruhama, Israel, *PaleoAnthropology* 2010: 162-195.
- ZANCHI, A., BATTISTA CROSTA, G. and DARKAL, A. N.
- 2002 Paleostress analyses in NW Syria: constraints on the Cenozoic evolution of the northwestern margin of the Arabian plate, *Tectonophysics* 357: 255-278.

The Long Paleolithic Sequence of Hummal (Central Syria)

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Abstract

Hummal, located in the El-Kowm area of central Syria, is a reference site for the Paleolithic of the Levantine hinterland thanks to its archaeological sequence of deposits from the Lower to the Upper Paleolithic. This paper presents some principal discoveries originating from excavations on the site carried out between 1997 and 2010.

The spring site of Hummal is located in central Syria near the village of El-Kowm between the Euphrates basin and the desert steppe stretching from Palmyra to Deir ez-Zor (Figure 1). Discovered in 1966 (Buccellati and Buccellati 1967) the well was also called Bir Onusi after the name of the owner of the site. In 1980, during an initial survey campaign dedicated to the geomorphology and the Paleolithic of El-Kowm (Cauvin *et al.* 1979), the site was examined (Besançon *et al.* 1982) and samples of artefacts from the seven identified layers collected. In the lowest layer, a new culture was identified and labelled 'Hummalian'.

Alongside the analysis of exposed lithic material (Copeland 1985; Copeland and Hours 1983; Hours 1982), a new series of stratigraphic and sedimentological studies of the Hummal deposit by J.-M. Le Tensorer led to the revision of previous observations. It was thus established that only the Yabrudian industry of the previously gathered material had been in situ (Le Tensorer and Hours 1989). The blade industry Ia had not been collected in situ but in a secondary position at the bottom of the well. As a result, it was identified that the Yabrudian layers preceded the Hummalian; this directly contradicted previous publications. At that point, the stratigraphy showed the Yabrudian complex (Ib) with its characteristic scrapers at the base, followed by the Hummalian (Ia) with regular blade production, and topped by a Mousterian complex (V) with an overlying but yet unidentified culture with non-Levallois blades (VIb) (Le Tensorer 2004).

The winter of 1987 saw major surface erosion of ancient excavated material, filling the well, and covering a large part of the lower section of the stratigraphy presented above. Therefore, it was unfortunately no longer available for study.

In 1997, the Institute for Prehistory and Archaeological Science of the University of Basel undertook a complete interdisciplinary research program of this major site under the direction of J.-M. Le Tensorer and S. Muhesen, supported by the Swiss National Science Foundation and associated with the Directorate General

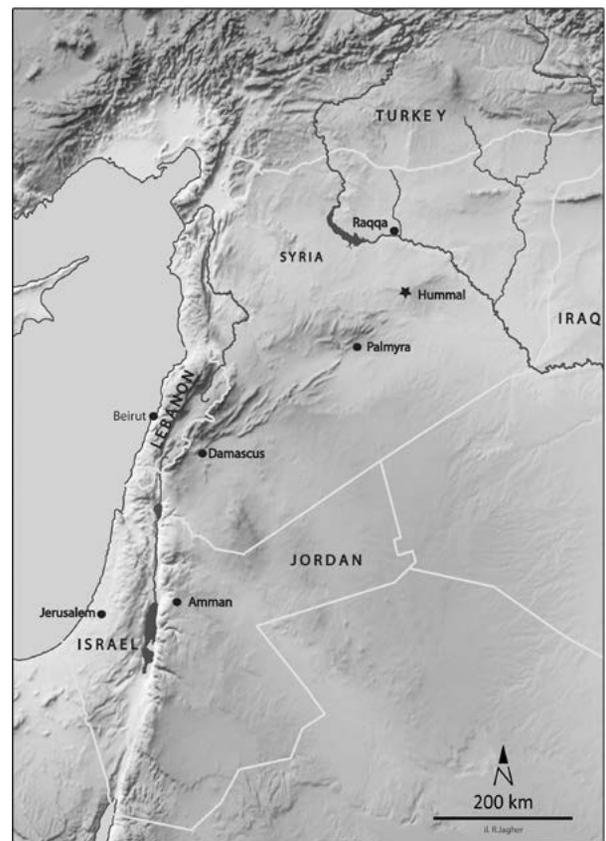


Figure 1: General map of Syria

of Antiquities and Museums of Syria (Figure 2). The field work continued until 2010 when work was halted due to the Syrian civil war.

General stratigraphy

The site of Hummal is a prominent mound at an artesian spring formed by sediments which piled up during the Quaternary. Tectonic faults in the bedrock enabled the underlying water in a karstic system to flow out into a dolina which trapped lacustrine, limnic, and aeolian sediments since the Lower Pleistocene. The impressive stratigraphy, 20 m high, is composed of micritic loam precipitated directly into the water supplied by the well.



Figure 2: View of the excavation at Hummal site (photo J.-M. Le Tensorer)

The surface water level fluctuated in accordance with climatic changes and tectonic processes (Le Tensorer *et al.* 2007). It comprises abundant archaeological levels and covers a long period of time, more than a million years, extending from the Lower (Core and Flake Industries) to Upper Paleolithic.

The deposits in Hummal originate from two different sedimentary processes (Figure 3):

- An in situ consistent sedimentary series of lacustrine carbonates, clayey deposits, and soil formation processes extends over 15 m, preserving numerous archaeological levels stretching from Holocene to Lower Pleistocene, and indicating continuous hominid presence around the spring-pond of Hummal. These levels have been integrated into cultural entities, identified by capital letters.
- A central sink hole which contains detritic sand deposits accumulated along with random collapses from the eroded margins of the spring well. These detritic sequences contain a great number of Hummalian and Mousterian artefacts and were annotated in Greek letters ($\alpha\eta$ and $\alpha\mu$). The phases of erosion responsible for the massive deposits took place mainly during Middle Paleolithic times.

A basic stratigraphy of in situ units and layers is as follows:

Unit A: Holocene deposits originated from the beginning of the Holocene period and extending to the present. This unit comprises Layers 1-3.

Unit B: Upper Paleolithic only represented by Layer 4, an Aurignacian or Ahmariian occupation embedded in a colluvial formation which truncates the Mousterian occupations.

Unit C: Middle Paleolithic, Mousterian complex. It represents one of the richest sets of archaeological occupations in Hummal. It is found in at least eight successive sediment complexes (5a to 5h), comprising 38 archaeological levels, approximately 4 m deep.

Unit D: Early Middle Paleolithic, Hummalian sequence embedded in the loamy complex of Layers 6a-6c and the clayey Layer 7.

Unit E: Early Middle Paleolithic with Yabrudian sequence in Layers 8 to 12. It corresponds to several climatic cycles with evidence of successive fluctuation of arid, desert phases with humid, cooler periods.

Unit F: Lower Paleolithic Layer 13 encompassing a Core and Flake Paleolithic culture with rare handaxes. This industry has been provisionally labelled Tayacian or Acheuleo-Tayacian, due to similarities

with the non-standardized Tabun G flake industry identified by D. Garrod (Garrod and Bate 1937).

Unit G: Lower Paleolithic, eight geological units (Layers 15-23) containing an Archaic Paleolithic industry with pebble tools relating to an Oldowan-like Core and Flake facies and rare handaxes.

Excavations did not reach bedrock.

Selected archaeological data in ascending order

Unit G

At the base of the site, several layers with a lithic assemblage attributed to the Lower Paleolithic have been excavated (Table 1). The lithic assemblages

are characterized by a simple flaking technique and the presence of different pebble tools, such as choppers, hammer stones, and spheroids (Figure 3: 4-9). Additionally, four handaxes were exposed in the richest Layer 18. It seems that these lithic assemblages belong to the so-called Oldowan or Mode 1 stage. However, there are reservations over this attribution with the occurrence of well-shaped and symmetric handaxes next to pebble tools (Le Tensorer *et al.* 2003; 2011a; Wegmüller 2011; 2015). Their chronological position is still unclear nonetheless. Microfaunal remains recovered from Layer 17 suggest a Middle Pleistocene age (Maul *et al.* 2015) and the preliminary results from the palaeomagnetism analysis show an inverse magnetisation of the same layer, indicating an

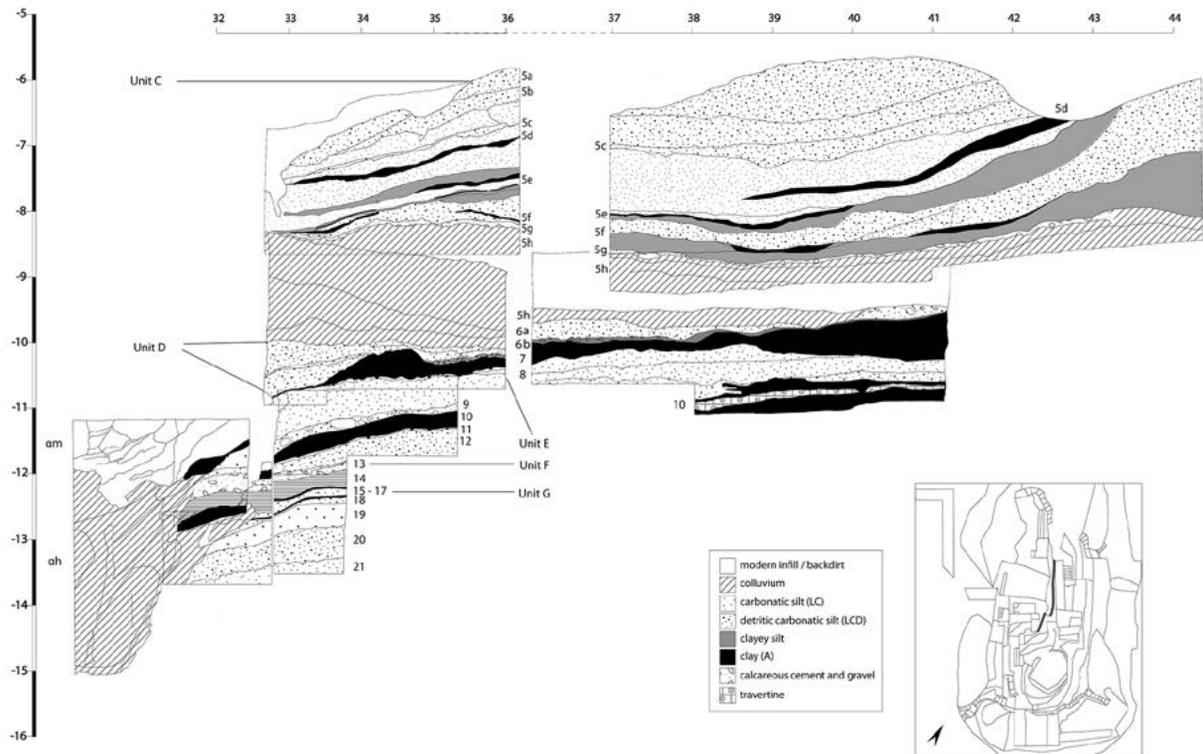


Figure 3: General stratigraphy of Hummal (Illustration D. Schuhmann)

Table 1: Inventory of studied assemblages.

assemblage	layer	age (ka)	fauna	lithics
Upper Palaeolithic	4		36	319
Mousterian	5a-5g	~36 - ~100 (TL)	1256	13480
Mousterian (sand)	am		272	2660
Hummalian	6-7	~200 (TL)	199	7407
Hummalian (sand)	ah	~200 (TL)	169	2888
Yabrudian	8-12	350-250 ?	1024	146
Acheuleo-Tayacian	13	400 ?	123	823
Oldowan	15-18	>780 ?	3193	728

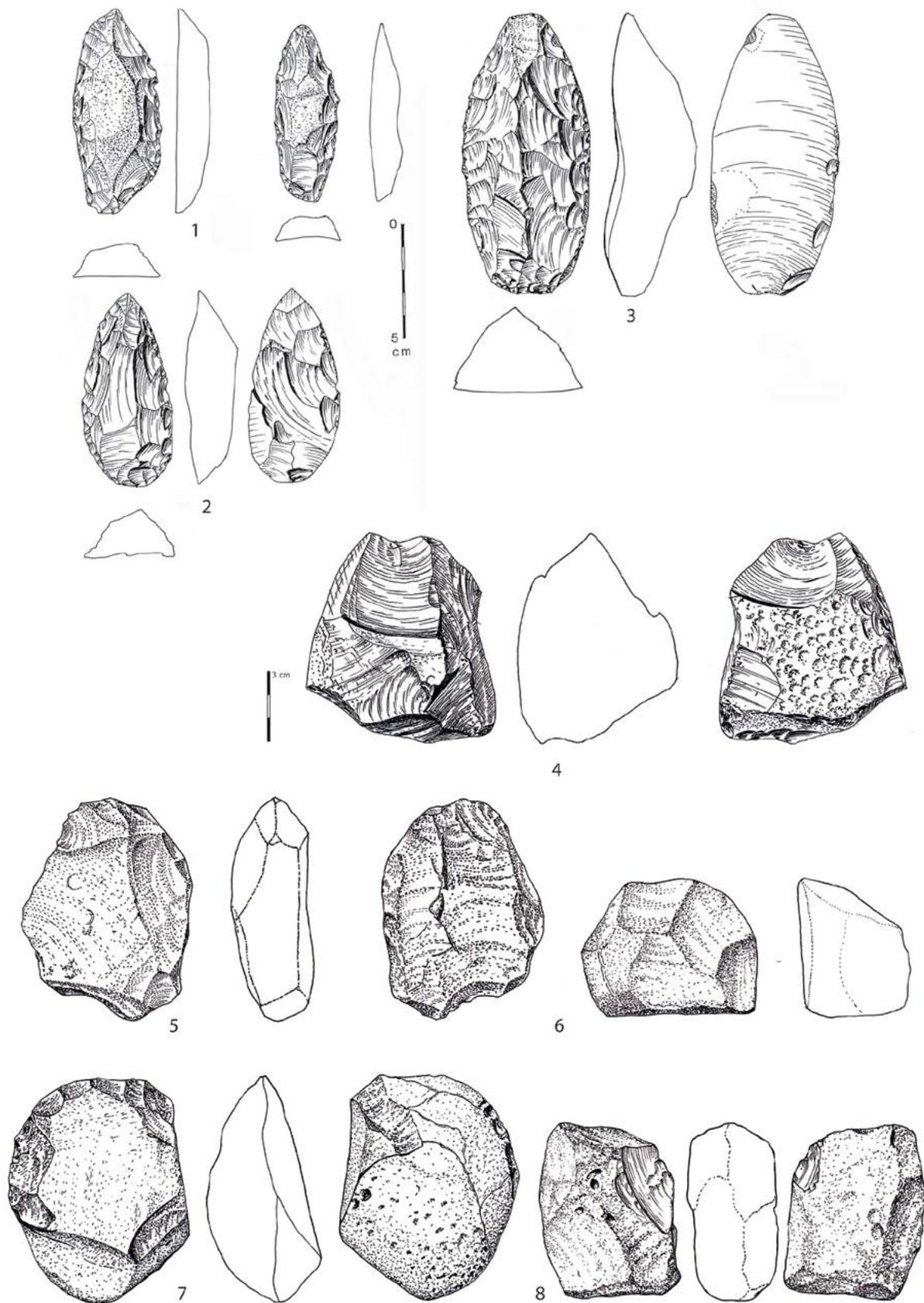


Figure 4: 1-3: Yabrudian industry, limaces; 4-8: Core and Flake industry, layer 18 (drawing J.-M. Le Tensorer)

age within the Matuyama subchron, older than 780 Ka (Wegmüller 2015).

Unit E

Yabrudian layers are quite poor in lithic material but rich in faunal remains. This cultural horizon is characterized by a major production of very thick flakes that were used as blanks for scaled and stepped Quina-retouched side scrapers. These represent classic Yabrudian tool kits that were imported and recurrently adjusted at the site (Le Tensorer 2004). The remains of blank production are missing. Exposed waste products are related to re-sharpening of tools such as *limaces* or double angle scrapers (Figure 3: 1-3). In sum, Yabrudian assemblages from Hummal are characterized by tool curation, tool discard and blank production being an exception. Additionally, and solely in Layer 10, a distal fragment of a handaxe together with two biface trimming flakes have been gathered.

Unit D

The excavations exposed Hummalian blade industries located in the stratigraphy between the Yabrudian and Levallois-Mousterian. Alongside the in situ sequence (Layer 6a-6c, and 7), a massive sand deposit labelled αh was additionally discovered. The lithic analyses involved thousands of pieces (Table 1) and have shown that the sample contains material from all stages of core reduction, tool production, recycling, and re-sharpening (Wojtczak 2015a; 2015b; 2014; 2011; Wojtczak *et al.* 2014).

The Hummalian is seen as a single, but complex, reduction strategy related to both the Laminar and the Levallois-like systems of debitage. It is a unique reduction system containing diverse types of core volume management, within which blanks of different morphologies have been produced from a single core using a direct, hammer percussion. Assemblages seem to be part of the same lithic tradition, in which the aim was to produce blades, regardless of their size with the mean length/width ratio from 2.7 to 3. Cores on flakes with or without Nahr Ibrahim (NI) preparation are well represented in all assemblages. Their morphology, metrical properties, and dorsal scar pattern have indicated that they were well integrated into the general knapping system applied at the site. All seem to be made on the blanks produced on site. Moreover, cores made either on flake or on nodule and NI pieces at the end of their reduction would have produced items similar in length, and when discarded (cores), they reached the same threshold in respect to their overall geometry.

As blank production was carried out until the core was exhausted, the assemblage includes blanks with a size

scale ranging from elongated blades to small bladelets, but there was also a separate production of bladelets from core-burins and bladelet cores manufactured on a thick support. The retouched tools made mainly on blades are quite standardised in their metrical and non-metrical attributes, both between the assemblages and the tools categories. The most numerous categories of retouched items are the elongated end-point items fashioned by a rather heavy retouch and the parallel blades retouched regularly on one or both sides. The retouched blades are usually longer and broader than the unmodified blades. This signifies a preference for bigger supports for shaping these implements, particularly if the original size has been reduced during repeated use and retouching (Figure 5). The importance of recycling is demonstrated by double-patinated tools, the reuse of broken items and debris for bladelet manufacturing, and Yabrudian scrapers as cores.

All these above-mentioned elements show the complexity of Hummalian lithic industry and the broad-based attitude to lithic resources of prehistoric people. The selection and planning seem to be a vital feature in the on-site general knapping organization undertaken by Hummalian flintknappers.

The Hummalian shares many techno-typological similarities with the other laminar, lithic assemblages found on Early Middle Paleolithic (EMP) sites in the Levant, the same chronological and stratigraphic position, and similar land-use strategies. As the EMP blade industries in Levant are preceded by the Acheulo-Yabrudian techno-complexes, the shift between these lithic complexes, already seen at their chronological boundaries, may also imply a technological discontinuity, and, possibly, differing human populations (Wojtczak 2015b).

The estimated TL age for sandy Layer αh is approximately 200 ka (Richter *et al.* 2011), and is comparable with those of the Laminar phenomenon highlighted at Hayonim Layer 'F top' and 'F base', with mean TL dates on heated flint of 210 ± 28 ka and 221 ± 21 ka, respectively (Mercier *et al.* 2007), or at Tabun for unit IX (Tabun D-type) from 256 ± 26 ka (Mercier and Valladas 2003), Misliya Cave with mean ages ranging from 212 ± 27 to 166 ± 23 ka (Valladas *et al.* 2013), Emanuel Cave dated using U/Th to 191 ka, where the archaeological layers postdate this figure (Goder-Goldberger *et al.* 2012), 'Ain Difla dated roughly between 90 and 180 ka (Clark *et al.* 1997), and Rosh Ein Mor, dated to 200 ka (Rink *et al.* 2003).

Unit C

The archaeological succession reveals 60 Mousterian levels, and the whole Mousterian sample is very rich in lithic artifacts and faunal remains (Table 1). Artefact densities vary considerably between levels, which are

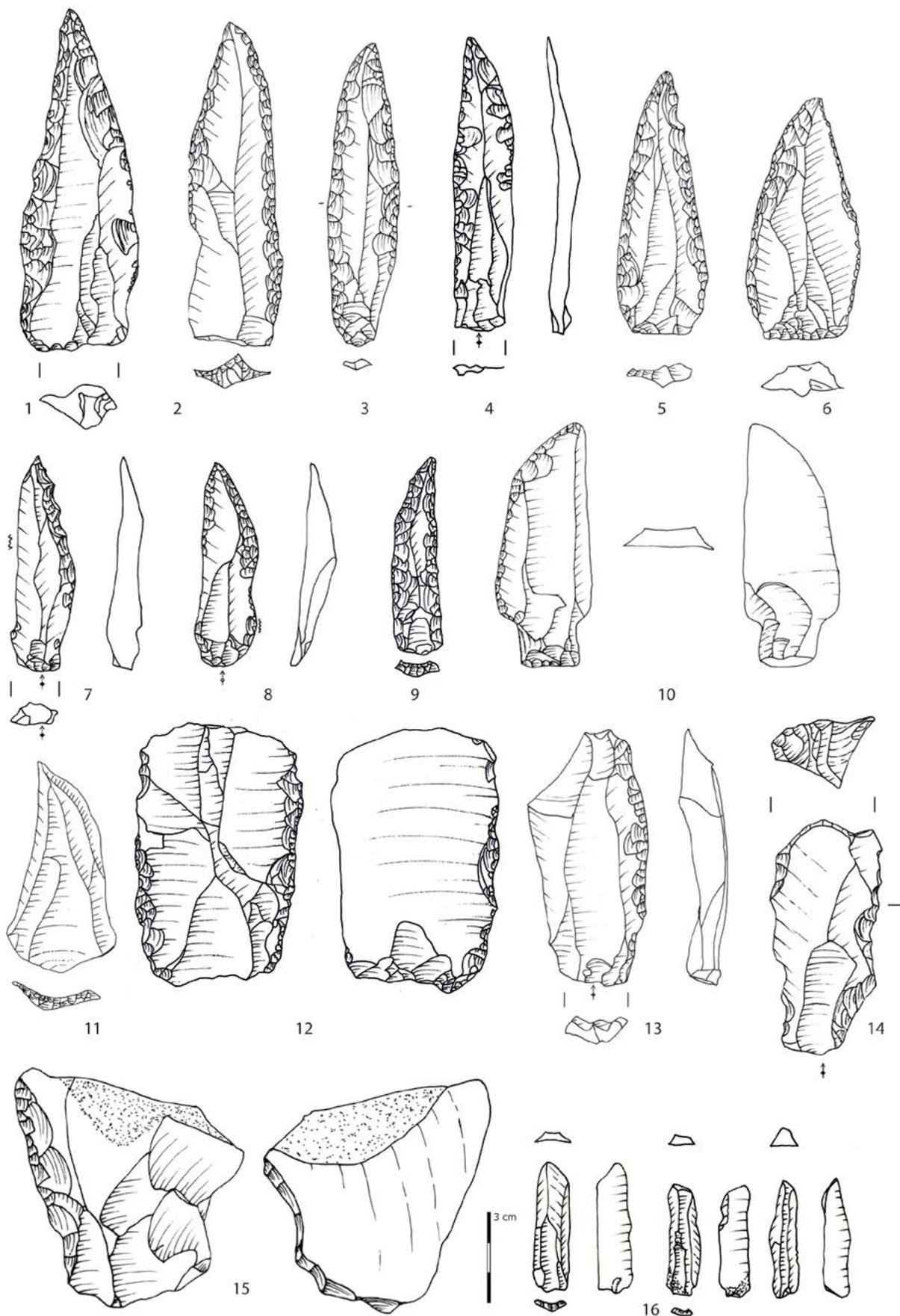


Figure 5: Hummalian industry (drawing D. Wojtczak)

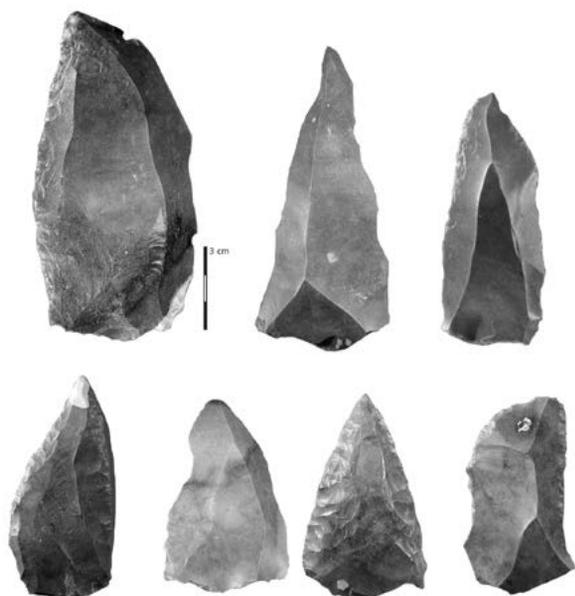


Figure 6: Mousterian industry (photos Th. Hauck)

related to different intensities of occupation in the past but also to different extents of excavation. Assemblage composition suggests a distinction of the sequence into two major technological complexes, HM-A and HM-B. The former is characterized by a unidirectional-convergent production of triangular Levallois blanks and is found in the upper two-thirds of the sequence. The oldest Mousterian industry of Hummal, HM-B, is only found in Levels 5e to 5g of the western sequence. Corresponding assemblages are dominated by relatively large Levallois flakes and blades produced by a variety of methods. In all levels, the nearly exclusive use of the Levallois method is reflected by high Levallois indices. From a typological point of view, all levels contain a rather low proportion of retouched implements. Among these tools, slightly retouched Levallois blanks and side scrapers predominate. Certain specimens are an exception to the rule, displaying an invasive retouch (Figure 6). These pieces represent maintained tools which were repeatedly re-sharpened and probably belonged to the mobile gear of Mousterian hunter-gatherers (Hauck 2013; 2011a; 2011b). Three tar-bearing Levallois artefacts have been found in the Mousterian sequence in Hummal. The organic residues were submitted to geochemical studies which have shown the presence of bitumen. The most likely location of natural asphalt provisioning is the Shaaf outcrop in the Bichri desert (Hauck *et al.* 2013). This discovery increases the understanding of bitumen processing in the Middle Paleolithic sites of El Kowm (Boëda *et al.* 1996).

Both Mousterian complexes display affinities with other dated Levantine assemblages. HM-A evidently fits

into the Late Levantine Mousterian (Tabun B-type) and shares many features with assemblages from Kebara IX–XII (Meignen 1995), Tabun B (Garrod and Bate 1937), Amud B1–B4 (Hovers 1998; Ohnuma and Akazawa 1988), and Tor Faraj (Henry 2003; 1995). Established on technological features, a correlation with the Middle Levantine Mousterian (Tabun C-type) is expected for the HM-B industry, for which an age of roughly 100 ka is suggested (Richter *et al.* 2011).

Human remains

Two human remains have been discovered in the Mousterian (Figure 7): a human radial diaphyseal fragment exposed in 2004 in 5b1 level, designated ZZ33-XC – with proportions that align it predominantly, but not exclusively, with early modern human remains; and a medial left upper incisor, designated W1374, was found in Level 5aIV, which belongs to the Upper Mousterian industry. The combination of traits of the medial upper incisor favours its determination as belonging to the Neanderthal group (Schmid and Le Tensorer 2009).

Faunal remains

Camelids predominate throughout all levels of the site. Overall the camelid material looks increasingly similar to the recent species, both in shape and dimensions (Figure 8b). However, the appearance of another big form, which seems to be limited to the Mousterian occupation, does not fit in the general trend of size reduction. It concurred with normal-sized or even small camels that might be close to the ancestry of both modern species (Martini 2011). Moreover it coexisted with either *Homo neanderthalensis* or *Homo sapiens* (Le Tensorer *et al.* 2011b). Several measurements and proportions show that it was not an allometrically scaled dromedary or Bactrian camel. Several skeletal parts are c. 130% larger than in modern camels. Numerous well-defined specimens have been found in seven different layers and hence represent a temporally continuous population (Martini 2015). Other major species present include equids, bovids and gazelle. Also present is rhinoceros, and both large and small bodied canids (Figure 8a). Small animals, such as rodents, small birds and other microfauna, are also present in the assemblage (Maul *et al.* 2015). Examples of ostrich shell have also been excavated, although as yet there is no evidence of the birds themselves (although there is evidence of ostrich bones being excavated in the region). The composition of the species present at Hummal remains consistent throughout all time periods with only minor fluctuations. The faunal remains are also different from the well-known contemporaneous material from the Mediterranean coastal regions, where cervids, caprids, and wild boar, among others, are likely to make up the species composition (Frostdick 2010; Elsuede in prep.).

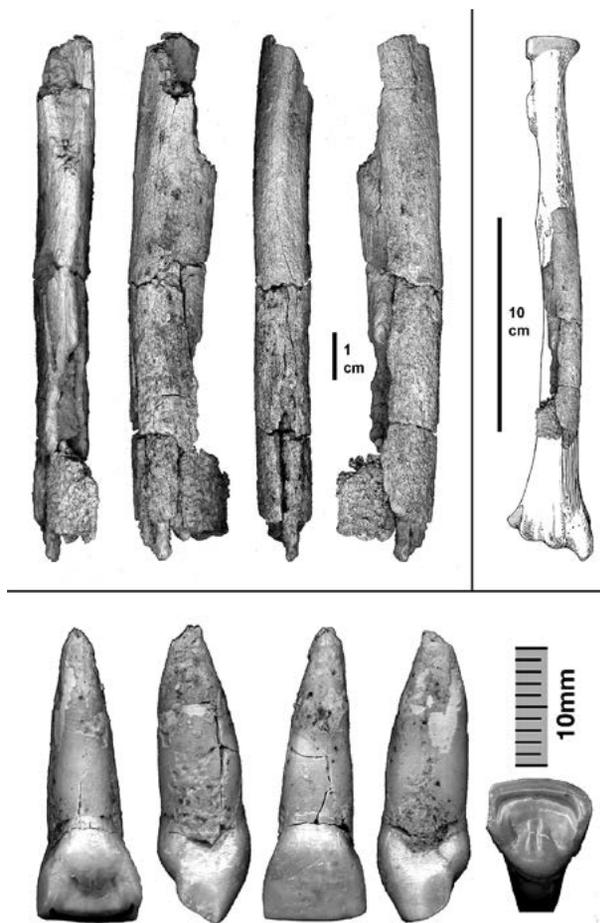


Figure 7: Human remains from the Mousterian levels (photo P. Schmid).



Figure 8: A: Layer 18, lion mandible (photo J.-M. Le Tensorer); B: Layer 8, camelid remains (photo P. Schmid).

Acknowledgements

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We dedicate this paper to our Syrian friends, as a show of our solidarity in this time of adversity.

Bibliography

BESANCON, L., COPELAND, L., HOURS, F., MUHESEN, S. and SANLAVILLE, P.
 1982 Prospection géographique et préhistorique dans le bassin d'El Kowm (Syrie); rapport préliminaire, *Cahiers de l'Euphrate* 3: 9-26.
 BOËDA, E., CONNAN, J., DESSERT, D., MUHESEN, S., MERCIER, N., VALLADAS, H. and TISNERAT, N.

1996 Bitumen as a hafting material on Middle Paleolithic artefacts, *Nature* 380 (6572): 336-338.
 BUCCELLATI, G. and BUCCELLATI, M.
 1967 Archaeological survey of the Palmyrene and the Jebel Bishri, *Archaeology* 20: 305.
 CAUVIN, J., CAUVIN, M.-C. and STORDEUR, D.
 1979 Recherches préhistoriques à El Kowm (Syrie). Première campagne 1978, *Cahiers de l'Euphrate* 2: 80-117.
 CLARK, G., SCHULDNREIN, J., DONALDSON, M., SCHWARCZ, H., RINK, W. and FISH, S.
 1997 Chronostratigraphic Contexts of Middle Paleolithic Horizons at the 'Ain Difla Rockshelter (WHS 634), West-Central Jordan. In: H. Gebel, Z. Kafafi, and G. Rollefson (eds), *The Prehistory of Jordan II: Perspectives from 1997*: 77-100. Studies in Early Near Eastern Production, Subsistence and Environment. Berlin, Ex Oriente.
 COPELAND, L.

- 1985 The pointed tools of Hummal Ia (El Kowm, Syria), *Cahiers de l'Euphrate* 4: 177-189.
- COPELAND, L. and HOURS, F.
- 1983 Le Yabroudien d'El Kowm (Syrie) et sa place dans le Paléolithique du Levant, *Paléorient* 9 (1): 21-37.
- ELSUEDE, H.
- In prep. Etude paléontologique, archéozoologique, taphonomique et paléoécologique des faunes de grands mammifères pleistocènes au Levant à partir des sites d'Aïn al Fil, de Hummal et de Nadaouiyeh Aïn Askar (Syrie Centrale).
- FROSDICK, R.
- 2010 *Hummal, Syria 2009: A study of the taphonomic processes occurring in the faunal assemblages*. Travaux de la Mission Archéologique Syro-Suisse d'El Kowm 15.
- GARROD, D. and BATE, D.
- 1937 *The Stone Age of Mount Carmel: Excavations at the Wady el-Mughara. Report of the joint expedition of the British School of Archaeology in Jerusalem and the American School of Prehistoric Research 1929-34*. New York, AMS Press.
- GODER-GOLDBERGER, M., CHENG, E.R. L., MARDER, O., PELEG, Y., YESHURUN, R. and FRUMKIN, A.
- 2012 Emanuel Cave: the site and its bearing on Early Middle Paleolithic technological variability, *Paléorient* 38 (1-2): 203-225.
- HAUCK, T. C.
- 2013 *The Mousterian sequence of Hummal (Syria)*. Rahden, Verlag Marie Leidorf.
- 2011a Mousterian technology and settlement dynamics in the site of Hummal (Syria), *Journal of Human Evolution* 61: 519-537.
- 2011b The Mousterian sequence of Hummal and its tentative placement in the Levantine Middle Paleolithic. In: J.-M. Le Tensorer, R. Jagher, and M. Otte (eds), *The Lower and Middle Paleolithic in the Middle East and neighbouring regions*: 309-323. Etudes et recherches archéologiques de l'Université de Liège 126. Liège, l'Université de Liège.
- HAUCK, T. C., CONNAN, J., CHARRIE-DUHAUT, A., LE TENSORER, J.-M. and AL SAKHEL, H.
- 2013 Molecular evidence of bitumen in the Mousterian lithic assemblage of Hummal (Central Syria), *Journal of Archaeological Science* 40: 3252-3262.
- HENRY, D. O.
- 2003 *Neanderthals in the Levant: behavioural organization and the beginnings of human modernity*. London, Continuum.
- 1995 *Prehistoric cultural ecology and evolution: Insights from Southern Jordan*. New York, Plenum Press.
- HOURS, F.
- 1982 Une nouvelle industrie en Syrie entre l'Acheuléen supérieur et le Levalloiso-Moustérien. In: Maison de l'Orient (ed.), *Archéologie du Levant. Recueil à la mémoire de Roger Saidah*: 33-46. Lyon, Maison de l'Orient.
- HOVERS, E.
- 1998 The lithic assemblages of Amud cave. Implications for understanding the end of the Mousterian in the Levant. In: T. Akazawa, K. Aoki, and O. Bar-Yosef (eds), *Neandertals and Modern Humans in Western Asia*: 143-163. New York, Plenum Press.
- LE TENSORER, J.-M.
- 2004 Nouvelles fouilles à Hummal (El Kowm, Syrie centrale) premiers résultats (1997-2001). In: O. Aurenche, M. Le Mière, and P. Sanlaville (eds), *From the River to the Sea, The Paleolithic and the Neolithic on the Euphrates and in the Northern Levant. Studies in honour of Lorraine Copeland*: 223-239. British Archaeological Reports International Series 1263. Oxford, Archaeopress.
- LE TENSORER, J.-M., HAUCK, T. and WOJTCZAK, D.
- 2003 Le paléolithique ancien et moyen d'Hummal (El Kowm, Syrie Centrale), *Swiatowit* 46 (5): 179-193.
- LE TENSORER, J.-M. and HOURS, F.
- 1989 L'occupation d'un territoire à la fin du Paléolithique ancien et au Paléolithique moyen à partir de l'exemple d'El Kowm (Syrie). In: L. Freeman and M. Patou (eds), *L'Homme de Néandertal: La subsistance*: 107-114. Etudes et recherches archéologiques de l'Université de Liège. Liège, l'Université de Liège.
- LE TENSORER, J.-M., JAGHER, R., RENTZEL, PH., HAUCK, T., ISMAIL-MEYER, K., PÜMPIN, C. and WOJTCZAK, D.
- 2007 Long-term site formation processes at the natural springs Nadaouiyeh and Hummal in the El Kowm Oasis, Central Syria, *Geoarchaeology* 22 (6): 621-640.
- LE TENSORER, J.-M., VON FALKENSTEIN, V., LE TENSORER, H., SCHMID, P. and MUHESEN, S.
- 2011a Étude préliminaire des industries archaïques de faciès oldowayen du site de Hummal (El Kowm, Syrie centrale), *L'Anthropologie* 115 (2): 1-20.
- LE TENSORER, J.-M., VON FALKENSTEIN, V., LE TENSORER, H. and MUHESEN, S.
- 2011b Hummal: a very long Paleolithic sequence in the steppe of central Syria – considerations on Lower Paleolithic and the beginning of Middle Paleolithic. In: Le Tensorer, J.-M., Jagher, R., and Otte, M. (eds), *The Lower and Middle Paleolithic in the Middle East and Neighbouring Regions*: 235-248. Etudes et recherches archéologiques de l'Université de Liège 126. Liège, l'Université de Liège.
- MARTINI, P.
- 2015 Pleistocene camelids from the Syrian Desert: the diversity in El Kowm, *L'Anthropologie* 119: 687-693.
- 2011 *A metrical analysis of the morphological variation in extant and fossil Camelids*. Unpublished M.A. thesis, University of Zürich.
- MAUL, L., SMITH, K., SHENBROT, G., BRUCH, A., WEGMÜLLER, F. and LE TENSORER, J.-M.
- 2015 Microvertebrates from unit G/layer 17 of the archaeological site of Hummal (El Kowm Central Syria): preliminary results, *L'Anthropologie* 119 (5): 676-686.

- MEIGNEN, L.
1995 Levallois lithic production systems in the Middle Paleolithic of the Near East: The case of the unidirectional method. In: H. L. Dibble and O. Bar-Yosef (eds), *The definition and interpretation of Levallois technology*: 361-379. Madison, Prehistory Press.
- MERCIER, N. and VALLADAS, H.
2003 Reassessment of TL age estimates of burnt flints from the Paleolithic site of Tabun Cave, Israel, *Journal of Human Evolution* 45 (5): 401-409.
- MERCIER, N., VALLADAS, H., FROGET, L., JORON, J. L., REYSS, J. L., WEINER, S., GOLDBER, P., MEIGNEN, L., BAR-YOSEF, O., BELFER-COHEN, A., CHECH, M., KUHN, S. L., STINER, M. C., TILLIER, A. M., ARENSBURG, B. and VANDERMEERSCH, B.
2007 Hayonim Cave: A TL-based chronology for this Levantine Mousterian sequence, *Journal of Archaeological Science* 34 (7): 1064-1077.
- OHNUMA, K. and AKAZAWA, T.
1988 Reexamination of the lithic artifacts from layer B (square 8-19) of the Amud Cave, Israel, *Paléorient* 14 (2): 137-144.
- RICHTER, D., HAUCK, T., WOJTCZAK, D., LE TENSORER, J.-M. and MUHESEN, S.
2011 Chronometric age estimates for the site of Hummal (El Kowm, Syria). In: Le J.-M. Tensorer, R. Jagher, and M. Otte (eds), *The Lower and Middle Paleolithic in the Middle East and Neighbouring Regions*: 249-262. Etudes et recherches archéologiques de l'Université de Liège 126. Liège, l'Université de Liège.
- RINK, W. J., RICHTER, D., SCHWARCZ, H. P., MARKS, A. E., MINIGAL, K. and KAUFMAN, D.
2003 Age of the Middle Paleolithic site of Rosh Ein Mor, Central Negev, Israel: Implications for the age range of the Early Levantine Mousterian of the Levantine corridor, *Journal of Archaeological Science* 30(2): 195-204.
- SCHMID, P. and LE TENSORER, J.-M.
2009 Out of Africa. *Vierteljahresschrift der Naturforschenden Gesellschaft in Zürich* 154 (3/4): 63-67.
- VALLADAS, H., MERCIER, N., HERSHKOVITZ, I., Z Aidner, Y., TSATSKIN, A., YESHURUN, R., VIALETTES, L., JORON, J.-L., REYSS, J.-L. and WEINSTEIN-EVRON, M.
2013 Dating the Lower to Middle Paleolithic transition in the Levant: A view from Misliya Cave, Mount Carmel, Israel, *Journal of Human Evolution* 65 (5): 1-9.
- WEGMÜLLER, F.
2015 The Lower Paleolithic assemblage of Layers 15-18 (Unit G) at Hummal. An exemplary case addressing the problems placing undated, archaic-looking stone tool assemblages in the Early and Lower Paleolithic record by techno-typological classification, *L'Anthropologie* 119 (5): 595-609.
- 2011 The Lower Paleolithic assemblage of Hummal. In: Le J.-M. Le Tensorer, R. Jagher, and M. Otte (eds), *The Lower and Middle Paleolithic in the Middle East and Neighbouring Regions*: 271-278. Etudes et recherches archéologiques de l'Université de Liège 126. Liège, l'Université de Liège.
- WOJTCZAK, D.
2015a Cores on flakes and bladelet production, a question of recycling? The perspective from the Hummalian industry of Hummal, Central Syria. In: R., Barkan, C., Lemorini, and M. Vaquero (eds), *The Origins of Recycling: A Paleolithic Perspective, Quaternary International* 361: 155-177.
- 2015b Rethinking the Hummalian Industry, *L'Anthropologie* 119: 610-658.
- 2014 *The Early Middle Paleolithic blade industry from Hummal, El-Kowm, Central Syria*. Unpublished PhD dissertation, Basel University.
- 2011 Hummal (Central Syria) and its Eponymous Industry. In: J.-M. Le Tensorer, R. Jagher and M. Otte (eds), *The Lower and Middle Paleolithic in the Middle East and Neighbouring Regions*: 289-308. Etudes et recherches archéologiques de l'Université de Liège 126. Liège, l'Université de Liège.
- WOJTCZAK, D., DEMIDENKO, Y. and LE TENSORER, J.-M.
2014 Hummalian industry (El-Kowm, Central Syria): core-like reductions for small-sized debitage case in Levantine Middle Paleolithic, *Quartär* 61: 23-48.

Japanese Archaeological Work in Palmyra from 1990 to 2010

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Abstract

From 1990 to 2005, the Nara-Palmyra Archaeological Mission carried out excavations of a house tomb (A), a pit grave (G), and four underground tombs (C, E, F, and H), as well as reconstructions of two underground tombs (F, H) at the southeast necropolis. Excavations that started in 2006 at the north necropolis were suspended in 2011 due to the armed conflict in Syria.

From around the 1st to the 3rd centuries AD, Palmyra prospered from trade through the caravan route. Palmyra developed by taking advantage of her important geographical position, between Persia and Rome, on the East-West caravan and trade route. In the 3rd century AD, Queen Zenobia expanded her domain as far as Asia Minor and Egypt. However, feeling threatened by her rising capabilities, the Roman Emperor Aurelius subjugated Palmyra in 272 AD, captured Zenobia on the Euphrates River, and sent her to Rome. Two years later, in 274 AD, Palmyra was destroyed by Rome.

The city of Palmyra stretches about 4 km east-west and 3 km north-south. The Temple of Bel constituted the central structure leading to the Funerary Temple, about 2 km further through the Great Colonnade. Along this colonnade were a theatre, baths, shops, and roads extending from the colonnade. The agora and the trading market were located on the south side of the colonnade. As the major stopover on the caravan road, Palmyra had a diverse mix of people trading various commodities and adopted a highly developed tax system as a source of funds for the city. Religion played a big role in the administration of the city and numerous gods from both the East and West were adopted. Bel, originated in Mesopotamia, was a central figure among the gods as a 'Master of Gods'. The necropolis in Palmyra consists of four necropolises: the North, the Valley of Tombs, the Southwest, and the Southeast. Three types of tombs – a tower, an underground, and a house tomb – were constructed in each necropolis in Palmyra. These tombs adopted a structure of house form as 'The House of Eternity'.

Excavation at the Southeast Necropolis

In 1990, research was carried out to find well-preserved underground tombs with ground-probing radar using electromagnetic waves. An area of 30,000 m² was surveyed, and the radar revealed unusual reflections in five localities (A to E) (Higuchi and Izumi (eds) 1996). The goal was to understand Palmyrene society through Palmyrene funerary practices. Excavations of Tombs A, C, E, F, G, and H in the Southeast Necropolis, stretching

for approximately 1.5 km to the south of the Temple of Bel, were carried out from 1990 to 2004 (Figure 1). Excavations of Tombs C, F, G, and H provided substantial results, presented below.

Tomb C-Tomb of YRHY

Loc. C later called Tomb C (Tomb of YRHY) was originally excavated to confirm an underground tomb revealed by the reflection of the radar. Excavations took place in 1991 and 1992 (Higuchi and Izumi (eds) 1996). This underground tomb consisted of a stairway, a portal, a main chamber, and a side chamber. The stairway was 8 m long and 2.9 m wide, and the main chamber was 10.4 m long and 3 m wide. A rectangular stone epitaph with a Palmyrene inscription was found on the left side wall near the entrance of the main chamber, stating that the tomb was founded by YRHY, the son of LSMS, the son of MLKW, in April 109 AD. Moreover, there were two levels of loculi on the right side wall of the main chamber with a male sculpture in one loculus still in place, later taken out for facial reconstruction. This sculpture had no inscription. There was a level of loculi on the left side wall. Sculptures of a boy and a girl were in this level of loculi. The girl's sculpture featured a full-length figure with an olive branch in her left hand and had an inscription indicating that she is ASTRT and a daughter of YRHY. The boy's sculpture was also a full-length figure and held a pigeon and a bunch of grapes in his hands, and was accompanied by an inscription indicating that he is YRHY, a son of LSMS.

The façade of the central chamber was constructed with soft limestone slabs and consisted of four columns for loculi and an arched niche. There were four funerary sculptures in situ in the façade. The arched niche, as a loculus, was set up in the centre of the façade and was sealed by a semi-circular funerary sculpture. This sculpture, bearing no inscription, shows a man carried on a round plate held by two goddesses, the so-called 'Nike, goddesses of victory'. This kind of a sculpture appears for the first time in Palmyra (Figure 2). However, the same motif existed in the mural painting of the façade of a tomb of three brothers, and on a

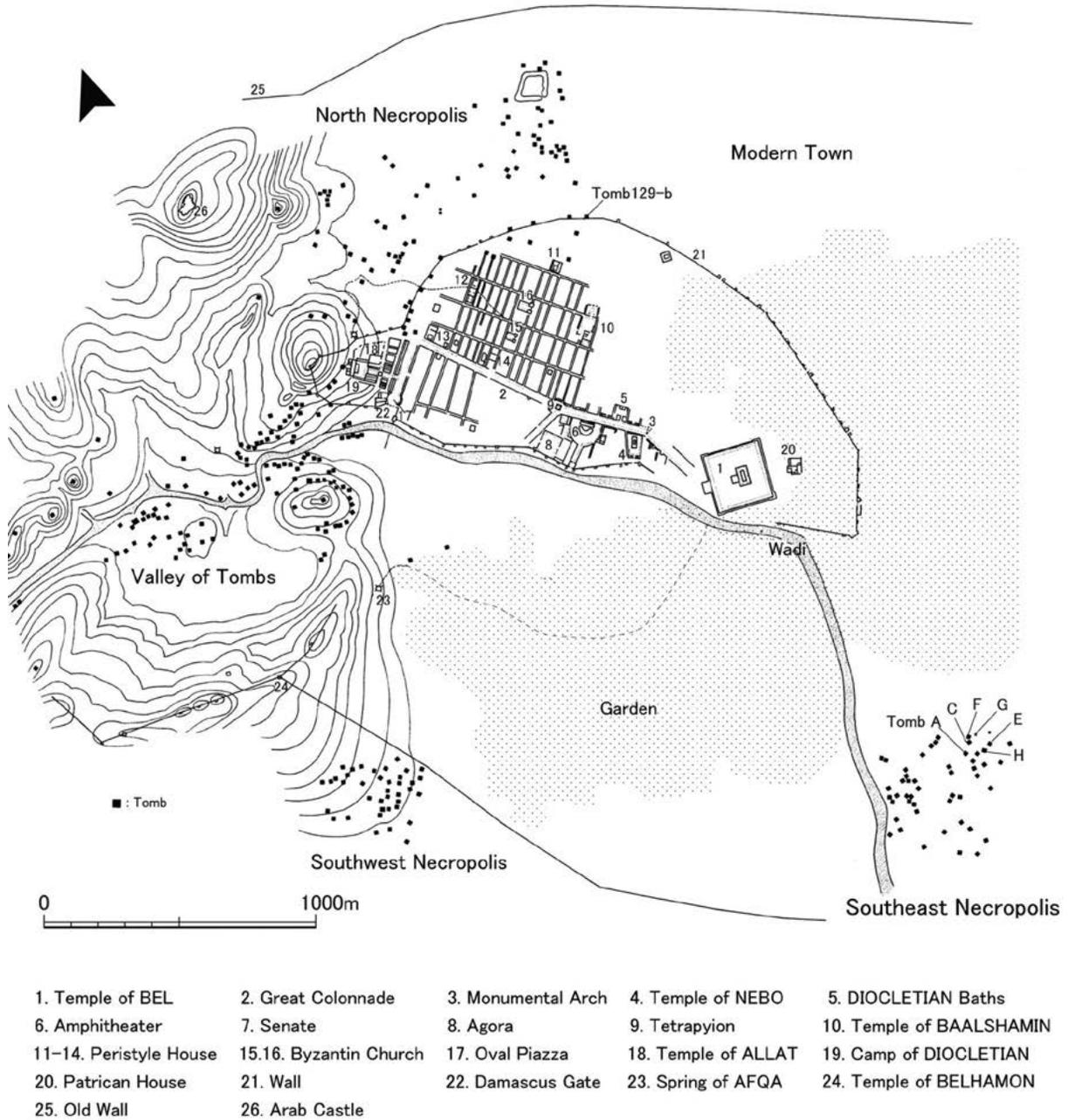


Figure 1: Map of location of tombs excavated by the Japanese mission (© The Nara-Palmyra Archaeological Mission).

relief on a sarcophagus (No. 186). There were two male funerary sculptures under the arched niche (Figure 2). One is a sculpture of YRHY, who founded this tomb (this sculpture was later taken for facial reconstruction), and the other is of SLM, a son of YRHY. Additionally, there is a male sculpture leaning against the left end of the façade's wainscot (Figure 2). This sculpture is of a son of YRHY, named MLA.

In Tomb C, 61 individuals were buried in 30 loculi. Most of the loculi contained more than one individual, up to a maximum of six adults in one loculus.

YRHY died around 40 to 59 years old and was about 170.2 cm tall. He was buried with an infant. SLMA died around 20 to 39 years old and was buried with a mature male, a mature female, and a child. MLA died at close to 60 years old, was about 168.6 cm, and was buried with a girl about 20 years old. The girl with MLA was buried with a bronze mirror, glass vessels, and a leather container, amongst other objects. Most of the objects were unearthed from grave pits for infants and loculi of young girls. There were no artefacts from the loculus of YRHY, who founded this tomb, and SLMA. It may indicate that the dead were not generally accompanied

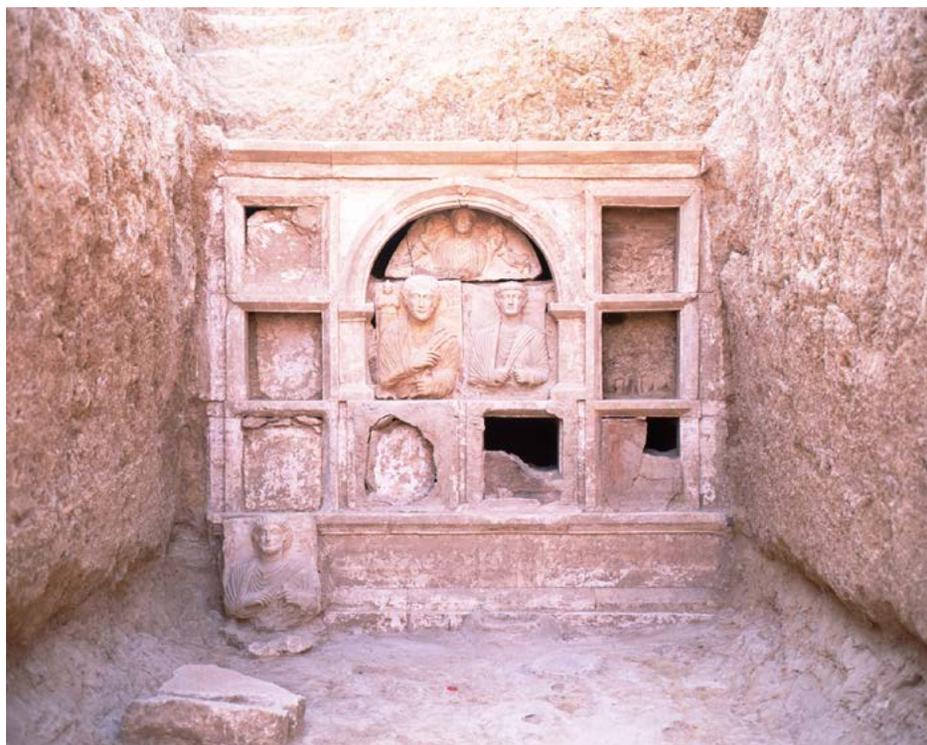


Figure 2: Façade of the innermost wall of Tomb C (© The Nara-Palmyra Archaeological Mission).

by grave goods in Palmyrene burial customs, and that the dead with grave goods must have died in some tragic accident (Saito 2013).

Tomb F-Tomb of BWLH and BWRP

Tomb F was discovered during the excavation of Tomb C in 1992. The stairway of Tomb F was discovered accidentally in the process of examining the inner part of the main chamber of Tomb C. The portal of Tomb F was far more elaborately designed. The excavation of this tomb was conducted from 1994 to 1996 (Higuchi and Saito (eds) 2001). This tomb was founded in 128 AD by BWLH and BWRP, two brothers of an influential family, and is grand enough to be described as an underground 'palace'. This underground tomb consisted of a staircase, portal, main chamber, and east and west side chambers. The staircase was 9 m long and 2.6 m wide, the main chamber was 17.8 m long, 2.6 m wide and about 4 m high; the east side chamber was 8.2 m long, and the west side chamber was 4.7 m long.

The main chamber is an underground stone structure with arabesque and flowering plant patterned sarcophagi bearing carvings depicting family banquets and displaying the advanced skill of masonry of Palmyra's most prosperous era (Figure 3). In this chamber, two sarcophagi indicated that slaves, both named HLMS, had become members of the family. Another three sarcophagi were placed in the main funerary exedra and depicted banqueting scenes connected with a family related to BWLH and BWRP.

A founding stone epitaph (128 AD) bearing the head of a satyr, an attendant to Bacchus, the god of wine, was unearthed in the second part of the main chamber. This was the first discovery of a satyr in Palmyra.¹ Arches were built in the section leading from the main chamber into the side chambers, and the faces of the Medusa from Greek mythology were carved on reliefs on the keystones. As with the satyr, these were employed as charms to prevent evil spirits from invading the tomb. Two side chambers were attached to the first part of the main chamber. Both side chambers showed mostly unfinished and unused side walls. These features might be related to the inscription pertaining to the selling of the cedar used for the tomb on the lintel of the portal.

80 bodies were buried in Tomb F. The estimated stature for the males was 162.8 cm and for the females 151 cm. Among the dead from Tomb F, some diseases such as arthritis and anaemia were identified on the skeleton. The fluorine accumulated inside the teeth of the dead was the most important chemical factor. In ancient Palmyra, the level of fluorine was Fluorite (CaF₂). In results of an analysis of the present water from Palmyra large amounts of fluorine were detected. The fluorine accumulated inside the teeth of the dead is related to the drinking water of ancient Palmyra (Yoshimura *et al.* 2006).

Grave goods consisted of a gold ring, gold pendants, gold beads, silver rings, bronze rings, bronze earrings,

¹ A relief of satyr was also found in tower tomb No. 67 in the Valley of Tombs.



Figure 3: Main chamber of Tomb F (© The Nara-Palmyra Archaeological Mission).

and agate and glass beads – and were mostly placed with females and infants. Other artefacts, such as bronze bells, an amulet, and ivory pins, were also placed with these two groups. However, most bodies had no accompanying artefacts.

Tomb G-Tomb of the Hellenistic period

The 2001 mission accidentally excavated a pit grave (Figure 4), Tomb G, where a mature-age male was buried with many accessories, including a gold ring, a bracelet, and pendant tops. This tomb contained also a wooden coffin with iron nails for the body. These discoveries of luxurious accessories (Figure 5) buried with a male, and using a wooden coffin, are the first such occurrences at Palmyra (Saito 2005a).

The coffin was made from types of cypress and olive. As this tomb shows no evidence to determine the period of burial of the body through grave goods, C14 analysis was conducted to determine the date of Tomb G, using skeleton parts. The radiocarbon age indicated a date between 380 to 160 BC.

Tombs pre-dating the Christian era in Palmyra were rare finds before this discovery. A kind of hypogeum from the sanctuary of Balsamin, a tower tomb of Atenatan, and tower tombs on the slopes of the north side of the Valley of Tombs, might also have been constructed just before Christ, but are not as old as Tomb G.

Tomb H-Tomb of TYBL

Tomb H is situated to the south of Tomb F and Tomb C. It was excavated in 2003 and 2004 (Saito 2005b). The



Figure 4: Whole view of Tomb G (© The Nara-Palmyra Archaeological Mission).



Figure 5 Accessories from Tomb G (© The Nara-Palmyra Archaeological Mission).

entrance of this tomb is oriented to the southeast. This tomb consists of a staircase, a door-yard, a portal, a main chamber, and north and south side chambers. It has also a north exedra built in the north side wall of the main chamber. The length of the tomb from the front of staircase to the façade wall of the main chamber is 22 m. The main chamber is 9.61 m long and 3.16 m wide. The level of the floor of the main chamber is about 6 m deep from the general ground level. Inscriptions are engraved on the lintel and the south side post to support the lintel. This tomb was founded in 113 AD by TYBL and was used several times.

A kind of extra exedra is built of soft limestone slabs in the north side wall (Figure 6). The entrance of this exedra is decorated with square columns fitted with an arch with an unfinished human head as a keystone. This exedra is 2.93 m wide, 2.53 m long and 2.75 m high. The tomb has three sarcophagi with a style of triclinium and five levels of loculi under a platform for those sarcophagi.

In the south side wall of the second part, there are three levels and six storeys of loculi set with stone slabs. A female and a male bust-type funerary sculptures are sealed to two loculi in the centre of this part of the



Figure 6: North exedra in the north side wall in Tomb H (© The Nara-Palmyra Archaeological Mission).

loculi. An innermost exedra, forming a semi-circular space, was destroyed, but two relief-type sculptures depicting a family banquet scene were discovered. The north and south side chambers are attached to the main chamber with right angles in the nearest part of the portal. The north side chamber was not used as a burial facility. However, there is a well just behind the east column of the entrance arch.

The south side chamber is 2.04 m wide and 1.95 m long. The west side wall was set with three levels and six storeys of loculi. In the middle level, two bust-type funerary sculptures are sealed. The upper is a female figure named AMTA, daughter of YRHY, and the lower is a male without a head. However, the male head was found during excavations on the floor of this chamber. When the ceiling of this chamber was decaying, a lump of earth must have hit the head. Additionally, five bust-type sculptures of boys' heads, fallen down for same reason, were found on the floor of this chamber. All of them fell from the west side wall. The original locations of those sculptures are assumed from the places of discovery of each sculpture. Burial goods accompanying the dead indicate a certain significance. From these goods, archaeologists have determined both the circumstances to do with the dead, and the dead themselves. In Tomb H, young females, of some standing perhaps, were accompanied by cosmetic ornaments, accessory, glass wares, and weaving instruments.

In Tomb H, sheep metacarpi bones, with no artificial treatment, were unearthed as grave goods. From ethnographical observation, these bones indicate the significance and social background of the dead, perhaps suggesting that these young girls were related to weaving in some way. If these bones can be interpreted correctly, the archaeological interpretation will go some way towards the understanding of the funerary practices and social background relating to the deceased (Saito 2010a).

Excavation of House Tomb No. 129-b from the North Necropolis

Before the conflict in Syria, the excavation of House Tomb No. 129-b was conducted from 2006 (Saito 2016; 2010b; Saito and As'ad 2011). No.129-b is situated in the north necropolis, near the city site (acropolis). This tomb was put into the 'Zenobia Wall', constructed during the time of Diocletian, which acted as a defensive wall.

House Tomb (No.129-b)

Since 2006, 3D laser scanning of collapsed stones was carried out to help understand the stone heaps at this location. These stones were then removed after scanning (Figure 7). Through this work, the process

of the collapse of the tomb was determined: the north wall fell first, and the east, the south, and the west wall fell consecutively from natural events or disasters.

Tomb No.129-b has an area of c. 11 m² and is c. 14 m high. In front of the west side, foundation stairs attach to the main gate and extend to the west. The stairs were 6.72 m long, 6.76 m wide and c. 2.20 m high, and consisted of 12 steps. Each step was 18.7 cm high and 56.2 cm wide. The gate had double doors. There were two postholes on the lintel. Each wall has four columns, consisting of two corner-columns and two middle inter-columns, at 260 cm long, 80 cm wide, and 80 cm high. Every column capital was of Corinthian style. Eight stones were piled between the capital and the column base. Each wall was formed by ten piled stones, c. 75 cm high, except for the foundation and roof structures. The height of the wall was 9 m. The shape of the tomb roof was of gable style, which the German mission reconstructed (Schmidt-Colinet (ed.) 1992: 45), and the gable faced west-east. There were three pseudo-windows in each wall, consisting of two types of eaves, such as regular triangle-gable eaves and a gable built using canopy-type eaves. The location of the pseudo-window was between the capitals² (Figure 8). There were interior finishing materials as parts of pillars and girders, forming a space like an intersection on the first floor in the centre of the inside tomb. This space is cross-shaped in form. The area was a square, 2.7 m x 2.7 m. At the four corners of the intersection, four pillars in an 'M' shape were fixed on the same type of pedestals, and each pillar faced diagonally. Pillars extending to the north and south corridors had brackets consisting of six, 50 cm-high tiers of loculi as burial facilities. The loculi facing three levels were built in the north and south corridors. There were no loculi in the main corridor to the innermost wall from the gate. It is possible that some sarcophagi were placed on this corridor.³

The floor over the foundation was covered with six rectangular stones, forming the north and south corridor, c. 280 cm long and c. 140 cm wide in the central area. This floor was set up at the level of the tenth step from the ground in the west stairs, and was situated lower than the top of the foundation. The gate was built in to the south side of the foundation, but the area was later reused as a well and completed with rectangular stone slabs that were plastered to protect the trough from water leakage. The gate has two lines of Greek inscription, but these have worn away on some parts of the lintel. The inscription indicates that this tomb is related to a Roman named Gaius Julius Bassus.⁴ Inside the foundation the floor was supported by the loculi. The loculi were constructed in the north-south

² Reconstruction by S. Ishikawa and K. Hamazaki.

³ Reconstruction by K. Hamazaki and S. Ishikawa.

⁴ Information kindly provided by M. Gawlikowski.

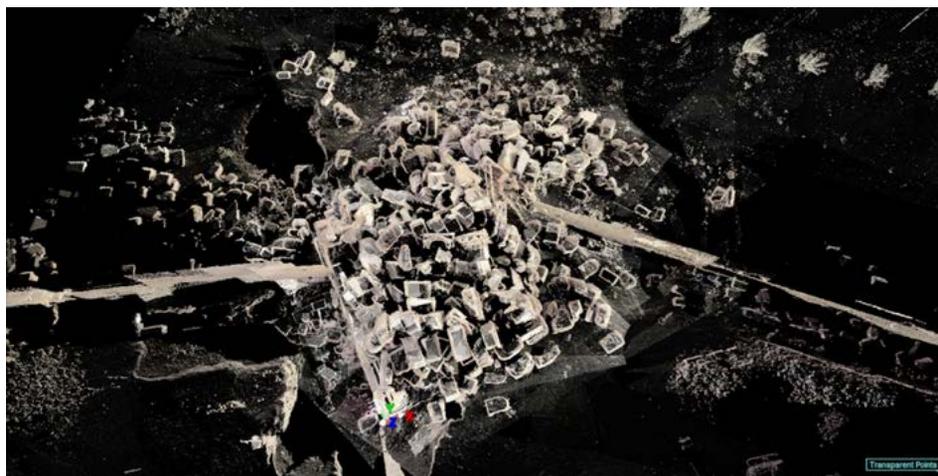


Figure 7: 3D image of No.129-b House tomb before excavation (© The Nara-Palmyra Archaeological Mission).

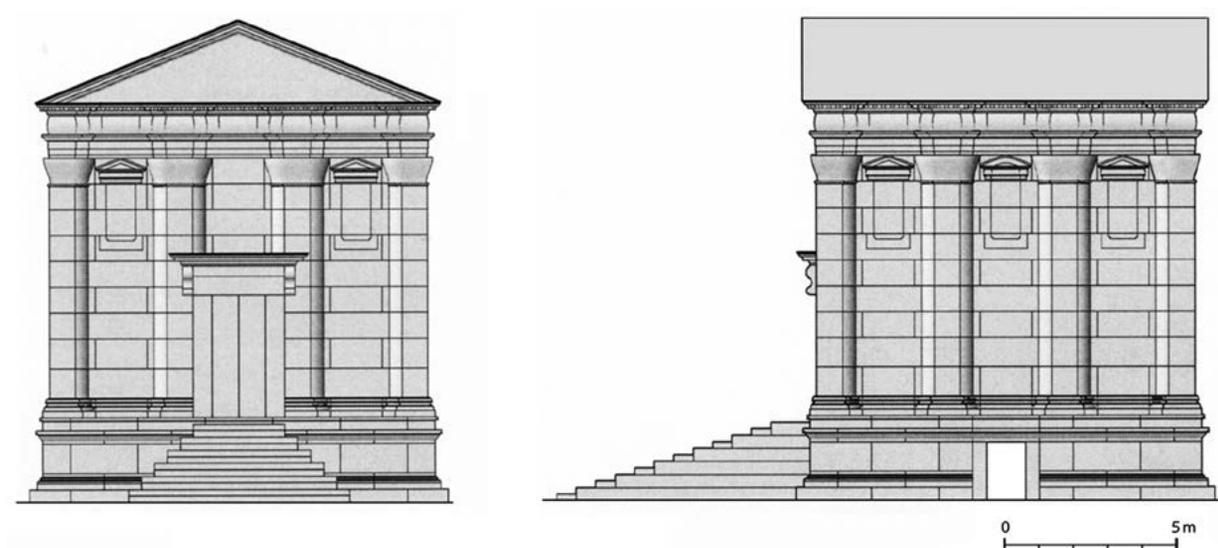


Figure 8: Reconstructed exterior images of No.129-b House tomb (© The Nara-Palmyra Archaeological Mission).

corridor leading to the south gate, in the foundation's southern side, but most of the stones forming the loculi were robbed. This corridor was 227 cm wide, paved with stone slabs, and was 282 cm deep from the top of the foundation. The corridor reached the gate by way of two steps. The excavations yielded several fragments of funeral sculptures, including a fragment of a male bust-type sculpture incised 'HBL NBW YHB'.⁵

Infant Graves

Outside of the foundation, in the west and south side of the stairs, the ground formed an upslope from the south to the north. It was used as a workshop for carrying stones for the defensive wall. The ground was covered with clay, plaster and fragments of stones. Remains of infant burials were found at the sloping construction area of the defensive wall. 19 of the 23 infant graves

were dug, from different strata forming the working slope.

In the process of digging the stairs of the tomb, more infant graves were discovered. These burials consisted of a pit grave with a jar. The graves were 'L'-shaped in section and featured a shaft and space for the dead at the bottom. Infants under one year old were buried in these graves. A jar accompanying the dead was dated to the late 3rd century AD, and all the infant graves around the stairs are attributed to the late 3rd century AD.

Summary

Through the excavations of underground tombs such as Tombs C, F, E, and H, dated to the c. 2nd and 3rd centuries AD, some aspects of Palmyra burial practices have been clarified. A loculus was not used as a burial facility for one deceased only. Sometimes several bodies were buried in a loculus, no matter how many unused

⁵ Information kindly provided by M. Gawlikowski.

loculi there were. The house system might be a strong factor in the selection of a burial location. More male bodies were buried than female bodies. Infants were always buried in grave pits in the floor of the chambers, together with artefacts such as glass beads and bronze bells. Some dead showed traces of diseases such as arthritis and anaemia. It is thus possible to understand certain circumstances of the lifestyle of the deceased. Moreover, the excavations showed that grave goods in Palmyra were not generally buried with the dead, unless for particular reasons, and, even if the dead were buried with some artefacts, these were accessories or ornaments for clothing. This seems to indicate that Palmyra, except for females, had no burial practices that involved the placing of grave goods to support the dead in the afterlife (Saito 2005c).

Tomb G of the Hellenistic period is the first such discovery in Palmyra. It is an important tomb for our understanding of the funerary history of Palmyra. However, there is no information to interpret the social background of the relationship between Palmyrene society and Tomb G. How did the funerary practice of burying a male with rich accessories transmit to a total absence of accessories, such as in Tombs C, E, and H, if Tomb G was indeed deeply connected with Palmyrene society?

House Tomb No.129-b is situated in the north necropolis beside the city. This tomb was found in the Zenobian defensive wall, constructed during the Diocletian period. Through the excavation, the external appearance and interior structure of this tomb were reconstructed (Saito 2016). Infant graves were found under the sloping working area used for the construction of the defensive wall. These infants were buried, in different strata, in the slope used for carrying stones to the defensive wall. Within these pit graves there was a jar and a sepulchre-type feature. These sepulchre-type graves, dating before the Islamic period, were found for the first time at Palmyra.

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Bibliography

- HIGUCHI, T. and IZUMI, T. (eds)
1996 *Tombs A and C Southeast Necropolis Palmyra Syria-Surveyed in 1990-92*. Nara, Research Center for Silk Roadology.
- HIGUCHI, T. and SAITO, K. (eds)
2001 *Tomb F-Tomb of BWLH and BWRP- Southeast Necropolis Palmyra, Syria*. Publication of Research Center for Silk Roadology 2. Nara, Research Center for Silk Roadology.
- SAITO, K.
2016 Excavation of No.129-b House Tomb at the North Necropolis in Palmyra. In: J. C. Meyer, E. H. Seland, and N. Anfinset (eds), *Palmyrena: City, Hinterland and Caravan Trade between Orient and Occident*: 115-130. Oxford, Archaeopress.
- 2013 Female Burial Practices in Palmyra: Some Observations from the Underground Tombs, *Studia Palmyrenska 12, Fifty years of Polish excavation in Palmyra 1959-2009*: 287-298. Warsaw, University of Warsaw.
- 2010a Sheep metacarpi accompanying the dead at an underground tomb in Palmyra. In: B. Bastl, V. Gassner, and U. Muss (eds), *Zeitreisen-Syrien-Palmyra-Rom. Festschrift für Andreas Schmidt-Colinet zum 65. Geburtstag*: 201-208. Wien, Phoibos Verlag.
- 2010b Excavation of No.129-b House Tomb at the North Necropolis in Palmyra, *Chronique Archéologique en Syrie*: 243-260.
- 2005a New Discovery in Palmyra 2001. In: M. al-Hayek, M. Maqdissi and M. Abdulkarim (eds), *Zenobia and Palmyra. Proceedings of the International Conference 2002*: 131-143. Homs, Al-Baath University.
- 2005b *The Study on Funerary Practices and Social Backgrounds in Palmyra*. The Report of Scientific Research (A) (Overseas Academic Research: No.13301022) from the Grants-in-Aid for Scientific Research by the Japan Society for the Promotion of Science. Nara, Archaeological Institute of Kashihara.
- 2005c Palmyrene Burial Practices from Funerary Goods. In: E. Cussini (ed.), *Journey to Palmyra-Collected Essays to Remember Delbert R. Hillers*: 150-165. Turnhout, E. J. Brill.
- SAITO, K. and ASSAAD, A.
2011 Excavation of No.129-b House Tomb at the North Necropolis in Palmyra-Cooperated Research of the Syria and Nara Palmyra Archaeological Mission of Japan in 2009, *Chronique Archéologique en Syrie*: 169-188.

SCHMIDT-COLINET, A. (ed.)

1992 *Das Tempelgrab Nr.36 in Palmyra: Studien zur palmyrenischen Grabarchitektur und ihrer Ausstattung*. Damaszener Forschungen 4. Berlin, Von Zabern.

YOSHIMURA, K., NAKAHASHI, T. and SAITO, K.

2006 Why did the ancient inhabitants of Palmyra suffer fluorosis?, *Journal of Archaeology Science* 33: 1411-1418.

Archaeological Investigations of the German Archaeological Institute in the Hama Region 2003-2010

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Abstract

The Damascus branch of the Oriental Department of the German Archaeological Institute (DAI) is the third largest institution involved in the study of Syria's archaeological and historical past, after the Direction Générale of Antiquités et des Musées (DGAM) and the Institut Français du Proche-Orient (IFPO). Its Damascus office opened in 1980, and it has been active with numerous field projects in all parts of the country until 2011 (DAI 2005). This paper presents the work of the DAI in the Hama region between 2003 and 2010.

In terms of number and quality of monuments, the cultural landscape of Syria is one of the world's top-ranking regions. Next to the six registered UNESCO World Heritage sites, 12 more are inscribed on the Tentative List (Figure 1). Furthermore, countless outstanding archaeological sites and historical monuments are to be found over all parts of the country. This unique cultural heritage has been very seriously endangered in some areas, if not partially or even completely destroyed over five years of ongoing armed conflict.

Syria can look back on more than a century of uninterrupted academic research.¹ However, regardless of its intensity and duration, research has managed to explore only a fraction of the country's enormous quantity of monuments. Today, the situation raises enough concern to doubt whether numerous sites will still be worth investigating. Registering existing data and publishing available study results has therefore become all the more urgent.²

Between 2003 and 2010, work of the DAI concentrated on the region of the Middle Orontes, in a wider perimeter around the city of Hama (Figure 2). Five projects were

carried out in cooperation with the DGAM in the region, of which only the first project's fieldwork (the Orontes Survey) was fully finalised in 2010:

- Survey in the Orontes region between ar-Rastan and Qalat Shayzar (2003-2005).
- Excavations at the Neolithic settlement of Shir (2005-2010).
- Surveying work in the Roman legionary fortress of Raphaneae (2005-2010).
- Surveying and exploration in the Medieval and Late Roman/Early Byzantine layers at the settlement of Shayzar/Larissa (2007-2010).
- Investigations into the architectural history of the old town of Hama (2005-2010).

The following reasons were decisive for the choice of the study region: The tell of Hama, which was investigated by Danish archaeologists between 1931 and 1938, possesses a long settlement sequence from the 7th millennium BC to the Islamic Middle Ages. It thus offers stratified reference material for almost all archaeological periods since sedentarisation. The Hama excavations are fully published (Christensen Papanicolaou and Johansen 1971; Christensen Papanicolaou *et al.* 1986; Fugman 1958; Pentz 1997; Ploug 1985; Ploug *et al.* 1969; Riis 1948; Riis and Buhl 1990; Riis and Buhl 2007; Riis and Poulsen 1957; Thuesen 1988), and therefore, available for comparative purposes. Apart from the Paleolithic periods (Sanlaville *et al.* 1993), the human occupation of the Hama hinterland has yet not received exhaustive documentation.

The Orontes Survey

The survey on the Middle Orontes was completed in five campaigns between 2003 and 2005, each lasting three weeks. It covered an area of about 40 km from north to south and 15 km from east to west. The region is characterised by different landscapes: the river valley

¹ During the late Ottoman Empire in the 19th century, the territory of what now belongs to the Syrian Arab Republic attracted the interest of numerous large-scale expeditions and archaeological teams (Brünnow-von Domaszewski 1904-1909; Butler 1909-1920; Renan 1864; de Vogüé 1865-1877; von Oppenheim 1899-1900; Sarre and Herzfeld 1911-1920; Watzinger and Wulzinger 1921; Wiegand 1932; Wulzinger and Watzinger 1924). With the establishment of the French Mandate in 1920, cartographic mapping and archaeological research began on a systematic scale. Important projects from this period were the ones carried out by Comte R. du Mesnil du Buisson at Tell Mishrife/Qatna from 1926 onwards (du Mesnil du Buisson 1935), C. Schaeffer at Ras Shamra/Ugarit from 1929 (Yon 2006), and A. Parrot at Tell Hariri/Mari in 1932 (Parrot 1974; 1936).

² I am most grateful to the organisers of the ISCAH for their crucial initiative by calling the meeting in Beirut to revitalise the scientific dialogue among numerous experts on Syrian archaeology and resuscitate the flow of information from new field researches by Syrian colleagues, and from extensive evaluation work of the foreign projects.

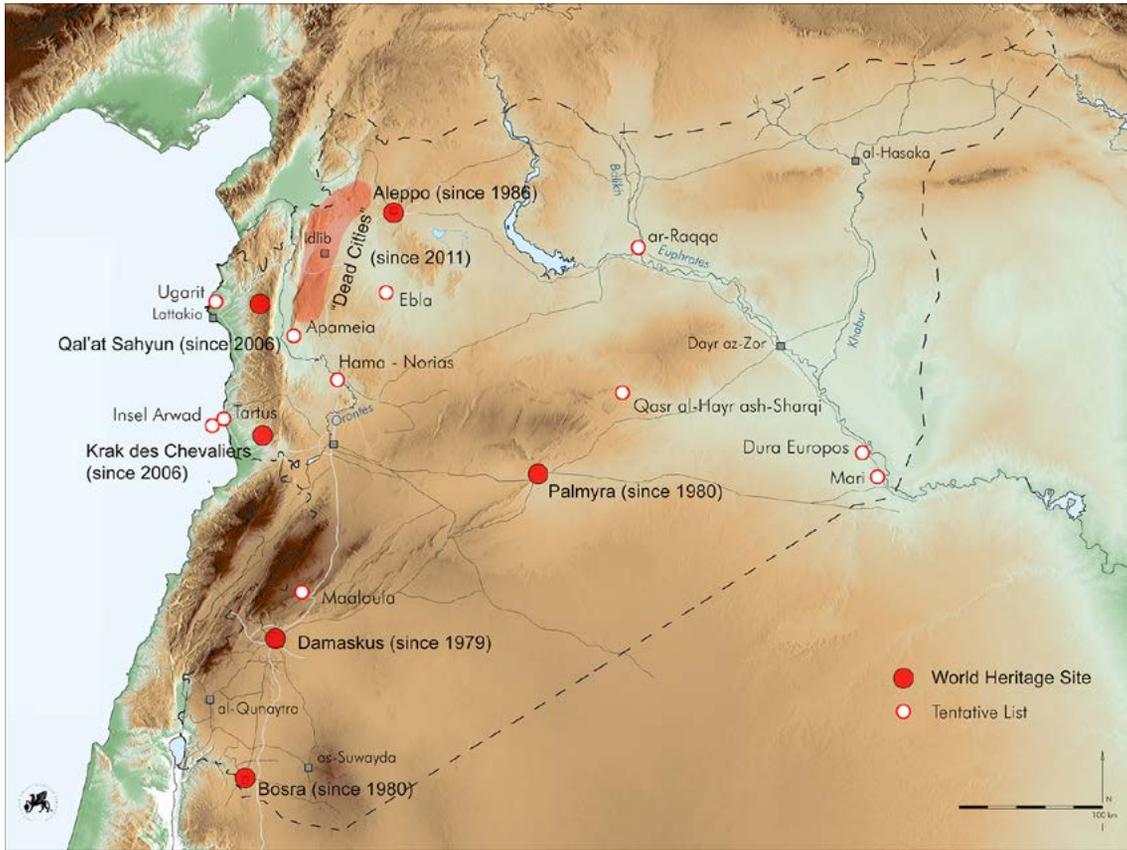


Figure 1: World Heritage sites in Syria (map: DAI, Orient Department, Th. Urban using USGS/NASA 3-arc second SRTM data)

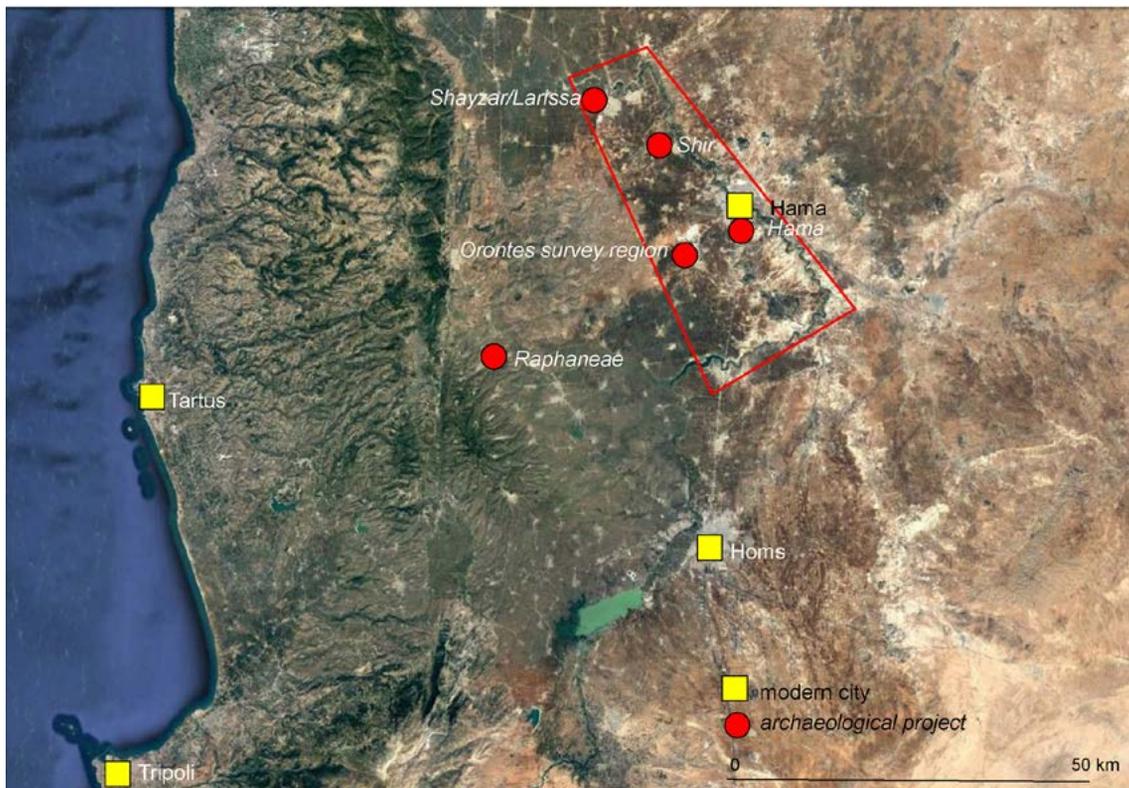


Figure 2: Archaeological projects of the German Archaeological Institute in the Hama region (satellite image: Landsat)



Figure 4: Tell al-Sus/OS 59, view from the northeast (photo: DAI, Orient-Department, I. Wagner)

as in other places, numerous Palaeolithic sites were recorded (Dietl 2010; Dietl and Conard 2014).

Focal periods of the region's settlement history began, consistent with the rest of the Levant, with the Early Bronze Age IV. This period, as well as the Middle Bronze Age, the Iron Age, and the Roman/Late Roman-Early Byzantine periods revealed exceptionally high numbers of settlement sites (Bartl and Al-Maqdissi in press; 2014; 2008; 2007). Whereas occupation in the pre-Roman periods seems to concentrate on the river valleys of the Orontes and the Sarut and their immediate neighbourhoods, the settlement after the Roman period seems to have spread into previously unpopulated terrain, such as that in the western limestone region (Bartl 2008).

A particularly significant settlement site dating to the Early Bronze Age IV and the Middle Bronze Age is the large walled mound at Tell Al-Nasriyah, located at the mouth of the Sarut into the Orontes. Excavations were carried out here between 2007 and 2010 (de Dapper 2010; Faivre 2010; Al-Maqdissi *et al.* 2011; 2010; 2009). Additional large sites displaying concurrent occupation phases are known at Tell Al-Naoura, Tell Al-Wawiyad, Tell Arzah, and Tell Rabun.

Important settlements occupied in the Late Bronze Age and the Iron Age are located at Tell Al-Naoura, Tell Al-Ghasalat, and Tell Al-Sus, for example (Figure 4) (Sievertsen 2014). Especially worth mentioning is Shayzar/Sinzara, which, next to Hama, is the only Iron Age site to be known from many written sources from the Late Bronze Age onwards (Grawehr 2014).

The excavations at Shir

Special attention during the survey work in the area was given to Neolithic occupation. Given the exceptionally favourable environmental setting bordering the Mediterranean climate zone, it was thought that the Orontes region would reveal a higher density of settlement sites than previously known. In fact, their number turned out to be relatively low, possibly due to the above-mentioned high intensity of landscape exploitation. Finding the Neolithic settlement at Shir, which had been hollowed out by agricultural terracing in 2005, represented an unexpected stroke of luck. A sounding in autumn 2005 confirmed the site's potential (Bartl *et al.* 2006a), and subsequent excavations were undertaken between 2006 and 2010 (Bartl in press; 2013; Bartl and Hafian 2014; Bartl and Ramadan 2008; Bartl *et al.* 2012; 2011; 2010; 2009; 2008; 2006b). Work was carried out in three excavation areas, with each area intended to centre on specific issues (Figure 5). The area to the south was assigned to the exploration of the site's general stratigraphy. Large-scale excavations were undertaken in the central area to investigate the settlement's layout, and two unusual building structures previously recorded by the geophysical prospection were examined in the northeast area.

A resulting stratigraphic sequence was recorded in the southern area, containing six phases with different subphases and approximate dates between 7000 and 6400 BC. The exceptionally complex findings, characterised by pervasive disruptions in the form of pits, but also gaps in the walls resulting from stone removal, nevertheless sufficed to reveal shifting

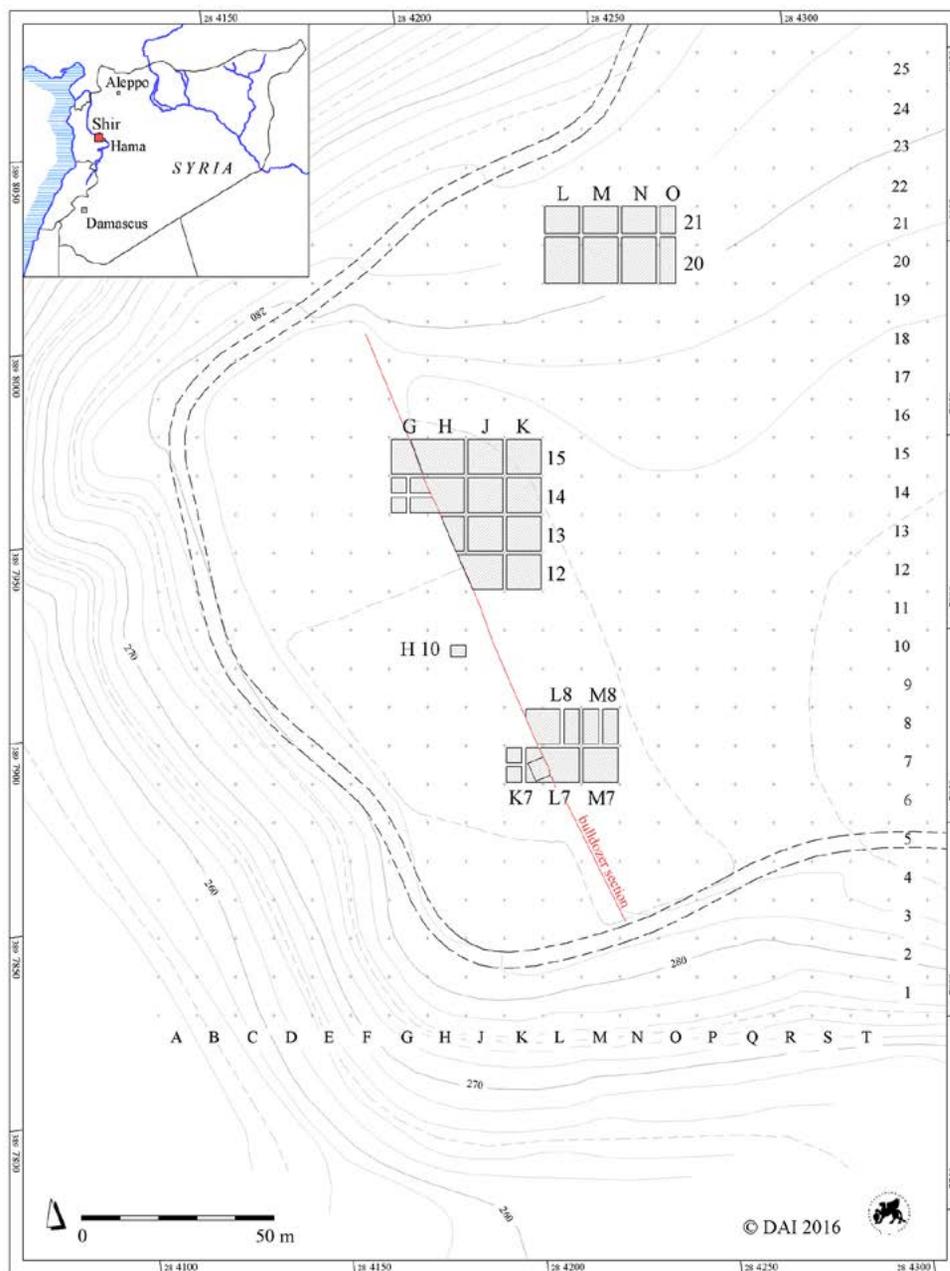


Figure 5: Shir, excavation areas (plan: DAI, Orient-Department, Th. Urban)

UTM data WGS 84, Zone 37S

Shir excavations

Trenches 2005-2008

German Archaeological Institute, Damascus

Direction Générale des Antiquités et des Musées de la Syrie

methods of settlement over the entire period, although in each phase a uniform building orientation in a southwest-northeast direction was kept (Figure 6). There were noticeably high numbers of infant and foetus burials in and next to the walls and under floors. One building seems to have served mainly, or even exclusively, as a burial place. Three individuals, an elderly man, a teenager, and a child were found buried below the room's corner, which formed the oldest part of the room. Their bodies had been deposited in two

pits covered with lime mortar flooring (Figure 7). Infant burials continued to be found in various levels in this area's later development.

In the central area, a comparatively large zone measuring 1200 m² was uncovered, revealing a variety of formally different individual buildings. Their relative isolation complicated the clarification of the stratigraphic sequence in this area (Figure 8). The area was also studded with numerous large pits dating to the

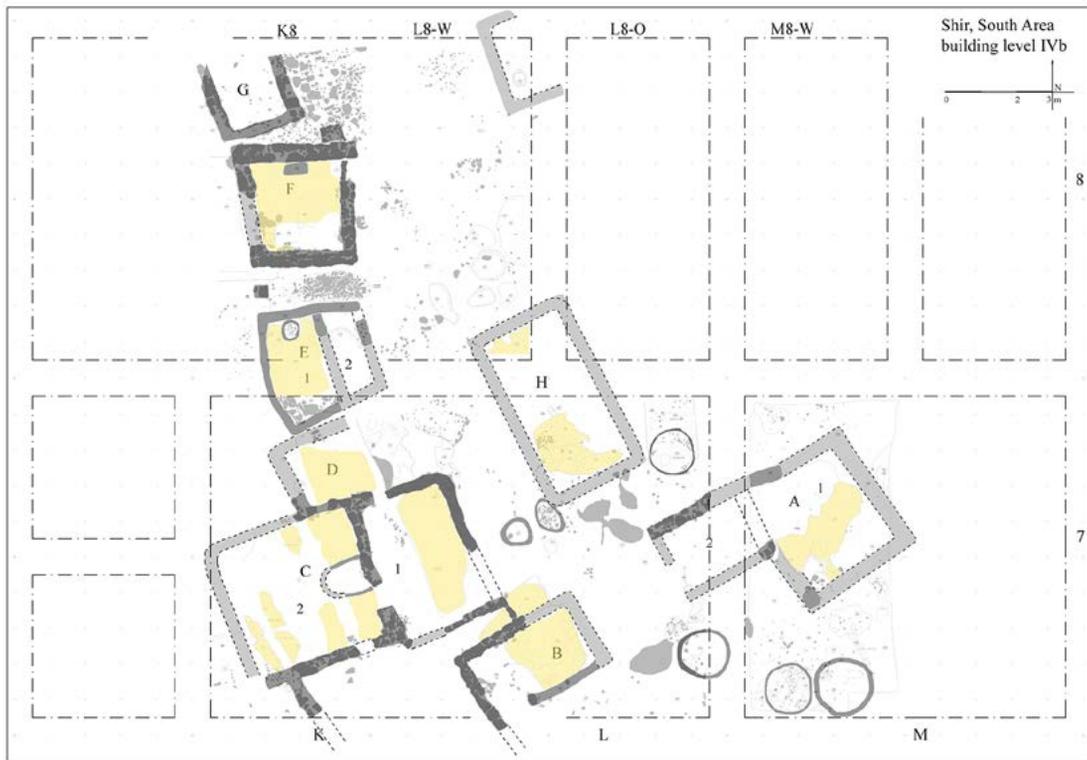


Figure 6: Shir, south area, building level IVb (plan: DAI, Orient-Department, Th. Urban, data prepared by K. Pfeiffer)



Figure 7: Shir, south area, multiple burial under floor (photo: DAI, Orient-Department, Th. Urban)

Neolithic. A specific zone containing numerous burials in flexed position with mostly no grave goods is located in the most recent layer of the southern part.

Two buildings that, apparently, had been erected at the same time were examined in the northeast area. The one to the east consists of six cells, each with approximately

4 m² of floor surface, but with no apparent access. A variety of pottery vessels was recovered partially in situ from the rooms' fill debris, while traces of ashes revealed horizons of combustion. Each room turned out to contain its own specific sequence of fill layers, which may hint to diverging functions and duration of use. Numerous lime mortar fragments at the top of



Figure 8: Shir, central area, building with lime plaster floor and installations (photo: DAI, Orient-Department, Th. Urban)



Figure 9: Shir, northeast area, buildings A-C, vertical view (photo and montage: DAI, Orient-Department, Th. Urban)



Figure 10: Raphanae, panoramic view of the valley towards the northeast (photo: DAI, Orient-Department, M. Gschwind)

the fill debris may point to the former presence of an upper floor. Access to the rooms was probably possible through ladders from the top. In terms of function, it is conceivable that the basement was used for storage and the upper floor for residential purposes (Figure 9). The preserved basement of the western building may be viewed as a combined residential and storage building, with an unusual storage facility in a tub-shaped clay structure in one of its rooms.

According to the available radiocarbon dates, the settlement at Shir was occupied almost during the entire 7th millennium BC, its settlement size varying between 1 and 4 ha. The site was abandoned at the end of the 7th millennium BC and never reoccupied (Bartl in press).

Raphanae

Raphanae was one of the main legionary fortresses in the Roman east (Figure 10). Epigraphic evidence also authenticates the site as the coronation place of Emperor Elagabalus (218 AD). Its approximate location between the modern villages of Rafniya and Baarin, south of Masyaf, had been known for a long time (Butcher 2003; Dussaud 1927), but not its exact extent.

The objective of the project was therefore to determine the exact location, size, and structure of the site, of which virtually nothing is visible at the surface. By means of archaeological and geophysical prospection between 2005 and 2010, these questions were definitively answered (Gschwind 2014; Gschwind and Hasan 2014; 2013; 2011; 2008; Gschwind *et al.* 2009). During the archaeological survey, an accumulation of *sigillata* in the central area was a first indication to narrow down the location of extension of the archaeological site. The entire settlement area of Raphanae covers an area of approximately 60 ha, of which 16.8 ha were prospected by using ground penetrating radar.

The foundation of the military camp took place in the 1st century AD in a hitherto largely unpopulated area on a road intersection where traffic routes between Apamea, Tripoli, Emesa, and Arados met. In the wider surroundings of the legionary fortress, the Roman civil settlement developed and continued to exist as a town even after the reduction of the legion. In Late Roman/Early Byzantine times a bishop's seat was established in the city. In the Crusader period, the nearby castle of Montferrand was an important eastern border fortification of the county of Tripoli.

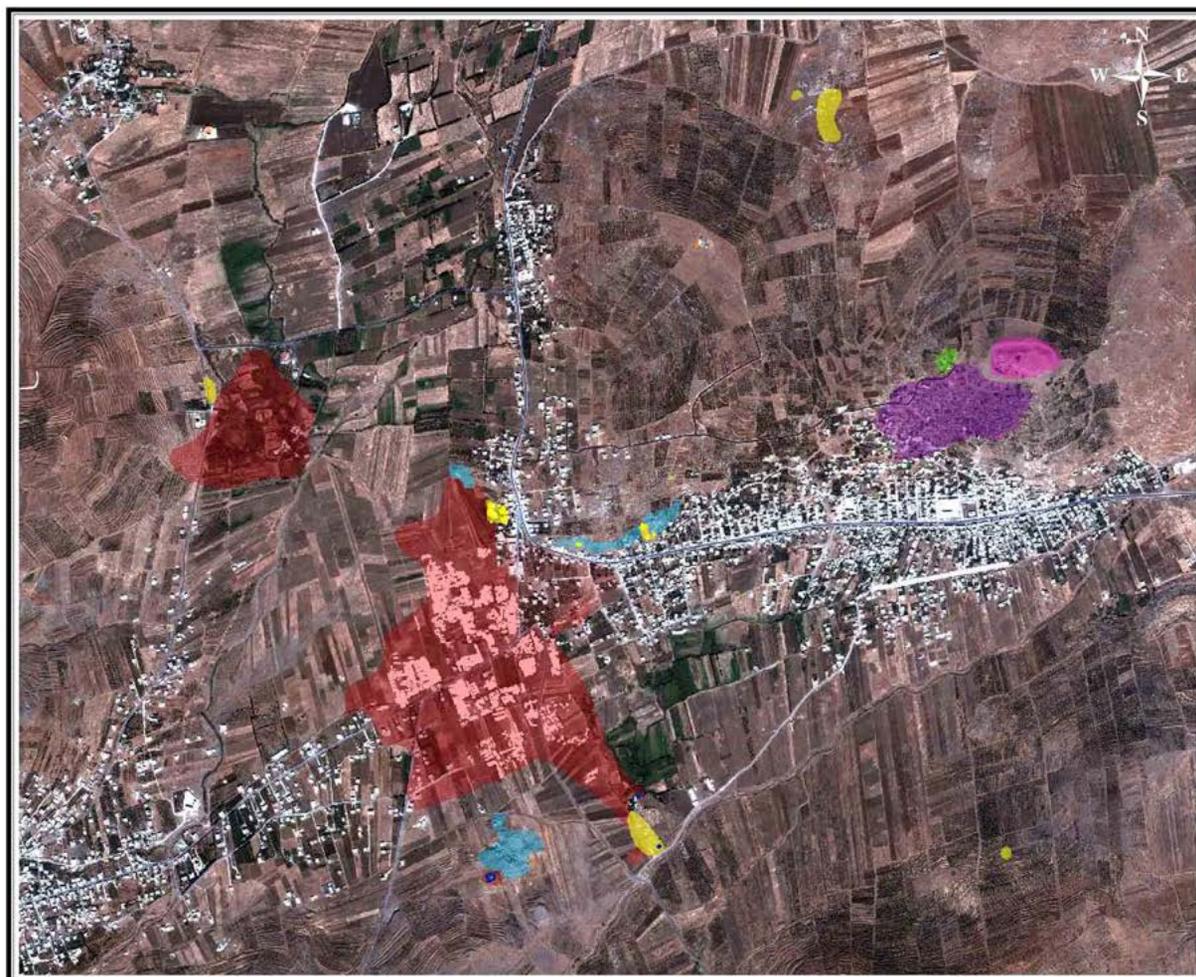
As a result of surveying, the location of the Roman legionary fortress was determined, and the internal structure could at least be clarified in the western part, where numerous barracks were recognized (Figure 11). In the northern part of the civil settlement several large peristyle houses assigned to the urban elite were detected. The results of the studies were the basis for the establishment of an archaeological protection zone.

Shayzar/Larissa

The castle of Shayzar is among the most famous architectural monuments of the Hama region (Tonghini 2012). The tell-like settlement located to the west below the castle, and mostly covered by the modern village (Figure 12), remains, however, less well-known. Its key role, though, in the local and regional history is undisputed, as it is repeatedly mentioned in written sources (such as the *Amarna Letters*), under the name of Sinzar/Zinzaru, from the middle of the 2nd millennium BC. The site was newly founded as a veteran settlement in the Hellenistic period under the name of Larissa, which depended on the city of Apamea, located approximately 23 km to the northwest. In Medieval times, the Crusaders in vain besieged the castle from here, which was at that time owned by the family of the Bani Munqidh (Rotter 2004).

Raphanea/Rafanea/Rafniya

Settlement areas, necropoleis and quarries according to the 2005–2010 surveys carried out by the DAI and the DGAM within the scope of the Syrian-German Cooperation Project Raphanea



Legend:

0 250 500 750 1.000 meters

- | | | | |
|---|--|---|---|
|  | Settlement areas according to the distribution of surface finds |  | Roman cistern and ottoman holy tomb on top of Jabal an-Naby Khaya |
|  | Possible ancient settlement areas (according to satellite photos from the 1960s) |  | Qalat Baarin |
|  | Archaeological structures according to the GPR measurements carried out in 2006–2010 |  | Medieval quarry west of Qalat Baarin |
|  | Ancient cemetery areas according to surface observations |  | Ottoman village |
|  | Ancient quarry areas | | |

Figure 11: Raphanea, plan of the site (plan: DAI, Orient-Department, S. Stadler, data prepared by M. Gschwind using GIS Raphanea and satellite image of © DigitalGlobe, Inc.)



Figure 12: Shayzar/Larissa, view to the castle (background) and the ancient settlement (foreground with modern houses and cemetery) from the west (photo: DAI, Orient-Department, K. Bartl)



Figure 13: Shayzar/Larissa, sounding 1, final phase of excavations 2010 (photo: DAI, Orient-Department, A. Ahrens)

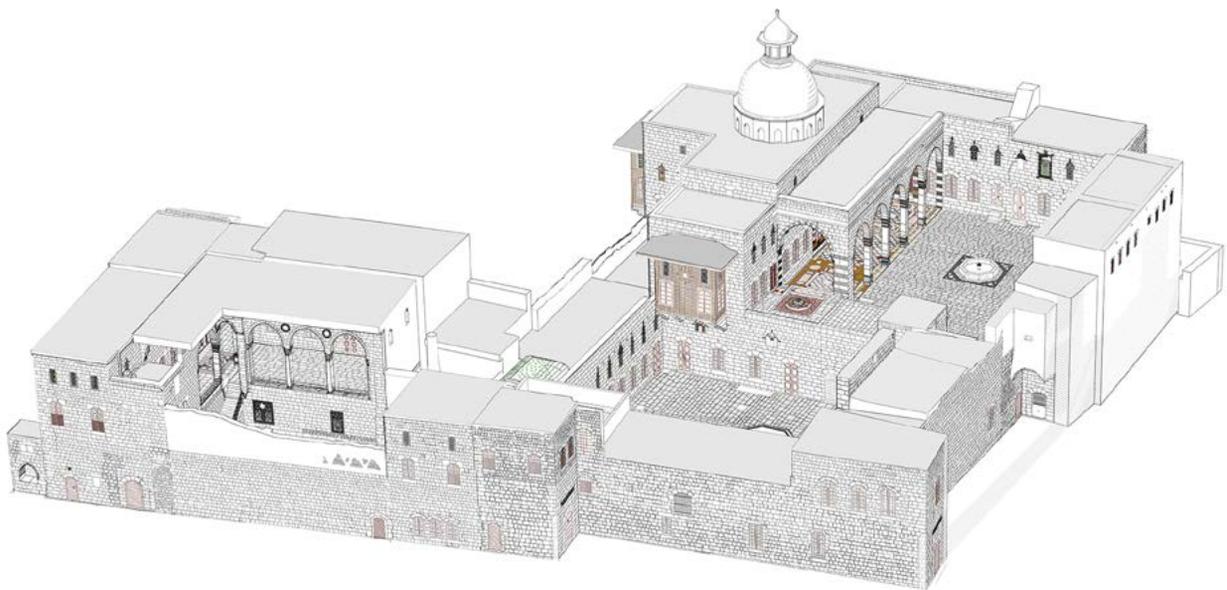
The fieldwork which started in the settlement of Shayzar/Larissa in 2007 was directed at investigating the deposits from the Medieval period and Late Antiquity. To begin with, a survey to record the *spolia* and pottery was carried out in the village, yielding many finds. Geophysical surveys in 2007 and 2009 detected a densely built-up area with a regular street grid in the northern part of the settlement. In 2010, a test excavation was conducted that evidenced an exceptionally good state of preservation of the Late Roman/Early Byzantine and Medieval layers (Grawehr 2014; 2012; Grawehr *et al.* 2009) (Figure 13).

The old town of Hama: Qasr al-'Azm

The old town of Hama still contains a high proportion of Ottoman and Medieval buildings. Some buildings had been investigated as early as the 1930s during the Danish expedition to the tell (Riis 1987). A project for the systematic documentation of the historic buildings in the old city was launched in 2005 in collaboration with DGAM. In the project's first phase, between 2005 and 2010, the best preserved Ottoman period building, the Governor's Qasr al-'Azm Palace, was studied (Figure 14). This impressive complex located in the Tawafira quarter along the western banks of the Orontes River consists of more than 70 rooms and three courtyards



Figure 14: Hama, Qasr al-'Azm, view to the west (photo: DAI, Orient-Department, I. Wagner)



BEPLAGE 15
3D Modell
(von 3V)

3D-Modell des Qasr al-'Azm, Ansicht von Nordwesten
تصميم: كارين بارتل، المعهد الألماني للآثار، دمشق، سورية

DEUTSCHES ARCHÄOLOGISCHES INSTITUT
Orient-Abteilung, Arabische Expedition
DIRECTIONS GÉNÉRALES DES
ANTHIQUES ET DES MUSÉES DE LA SYRIE
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K. Bartl - A. Fakhri/DGI
Qasr al-'Azm. Ein muslimischer Gouverneurspalast in Hama/Syrien
Reisen und Forschungen 15, 2012

Figure 15: Hama, Qasr al-'Azm, 3D model of the building, view from the west (plan: DAI, Orient-Department, Th. Urban)

within an enclosed area of 2200 m². Its construction started in 1740, ten years before that of the much larger 'Azm Palace in Damascus. Over the next 150 years, the building was then repeatedly expanded and modified (Figure 15).

Location, size, facilities, and state of preservation distinguish the 'Azm Palace in Hama as one of the most outstanding buildings for the Ottoman period in Syria. Its study included the detailed description of a variety of architectural features repeated in more humble shapes and in smaller numbers at other urban courtyard houses from the same period in Syria.³ As a result, the Qasr al-'Azm brings together, therefore, concepts of architecture, artwork, and craftsmanship traditions observed in representative buildings of the 18th and 19th centuries AD (Ahmad 2014; Bartl and Farzat 2013). The plan foresaw work to continue in a second phase starting in 2011, this time expanding into adjacent buildings in the Tawafira and the neighbouring Bashoura district to the west, but this plan could not be realized.

Current work

Due to the political and military developments since spring 2011, virtually all archaeological activities by foreign missions in Syria have come to a standstill. However, numerous initiatives have emerged concentrating on approaches towards the safeguarding of the Syrian cultural heritage.⁴ Two issues have received special attention: first, compiling existing research data with regard to their long-term preservation and availability; second, damage assessment to obtain as accurately as possible a picture of the destructions inflicted and of the sites at risk.⁵ Among the first initiatives, there are the Franco-British project 'Sites and Monuments for Syria'⁶ and the 'Syrian Heritage Archive Project'⁷ operated by the German Archaeological Institute and the Museum of Islamic Art in Berlin, which digitises and saves non-digital research data from Syria and ensures their linking-up with other applications⁸ (Bartl and Bloch 2015). This latter project is directed at the systematic recovery of the abundant

information on archaeological and historically significant sites in Syria stored in the archives of both institutions. The subsequently processed data is not only intended to sustain future research but also to assist later restoration and reconstruction schemes. Simultaneously, it may also be utilised for the creation of a national monument registry in Syria.

Bibliography

- ABDULKARIM, M.
2013 *Archaeological Heritage in Syria During the Crisis 2011-2013*. Damascus, Ministry of Culture, Directorate of Antiquities and Museums.
- AHMAD, A.
2014 Survey of the Old Town of Hama: Documentation of Monuments. In: K. Bartl and M. Al-Maqdissi (eds), *New Prospecting in the Orontes Region. First Results of Archaeological Fieldwork*: 137-145. *Orient-Archäologie*, Bd. 30. Rahden/Westf., Verlag Marie Leidorf.
- AL-MAQDISSI, M., PARAYRE, D. and SAUVAGE, M.
2011 Mission syro-française de l'Oronte: la campagne 2009 à Tell al-Nasriyah, *Studia Orontica* 9: 8-26.
2010 Mission archéologique syro-française de l'Oronte. La campagne 2008 à Tell al-Nasriyah, *Studia Orontica* 7/8: 8-20.
2009 La mission conjointe syro-française de l'Oronte première campagne (août 2007), *Studia Orontica* 6: 42-50.
- BARTL, K.
in press The Late Neolithic Site of Shir in Western Syria: The final Phase of Occupation around 6000 BC In: P. F. Biehl and E. Rosenstock (eds), *Times of Change. The Turn from the 7th to the 6th Millennium BC in the Near East and Southeast Europe. Proceedings of the Berlin Conference, November 24-26, 2011*.
2013 Shir/West Syria: The settlement and its surroundings in the 7th millennium BC. In: O. Nieuwenhuyse, P. M. M. G. Akkermans, R. Bernbeck, and J. Rogasch (eds), *Interpreting the Late Neolithic of Upper Mesopotamia*: 417-428. Turnhout, Brepols.
2008 Settlements in Antiquity and the Islamic Periods: The Plain of Akkar and the Middle Orontes Region. In: K. Bartl and A. Moaz (eds), *Residences, Castles, Settlements. Transformation Processes from Late Antiquity to Early Islam in Bilad ash-Sham. Proceedings of an International Conference held at Damascus, 5-9 November 2006*: 517-537. *Orient-Archäologie* 24. Rahden/Westf., Verlag Marie Leidorf.
- BARTL, K. and AL-HAFIAN, W.
2014 Shir-settlement and environment of the 7th millennium BC in the northern Levant. In: K. Bartl and M. Al-Maqdissi (eds), *New Prospecting in the Orontes Region. First Results of Archaeological Fieldwork*: 149-159. *Orient-Archäologie*, Bd. 30. Rahden/Westf., Verlag Marie Leidorf.

³ The work included mapping, architectural description, photographic documentation, as well as the registry of room inventories and original inscriptions.

⁴ A current overview of the various initiatives is given in Perrini and Cunliffe 2015.

⁵ Among the most noteworthy initiatives are APSA (Association for the Protection of Syrian Archaeology) (<http://apsa2011.com>) and ASOR Cultural Heritage Initiative Syria (<http://www.asor-syrianheritage.org>). Moreover, the Syrian Direction Générale des Antiquités et des Musées (DGAM) reports regularly on the situation of the cultural heritage of Syria (Abdulkarim 2013; Ministry of Culture, DGAM 2016).

⁶ See <http://shirin-international.org>

⁷ The Syrian Heritage Archive Project is funded by the cultural preservation programme of Germany's Federal Foreign Office since 2013.

⁸ See <https://arachne.dainst.org/project/syrher>

- BARTL, K. and AL-MAQDISSI, M.
In press Archaeological Surface Survey in the Surroundings of Hama 2003-2005, *Proceedings of the conference 'La géographie historique de la Moyenne Vallée de l'Oronte de l'époque d'Ebla à l'époque médiévale (13-14 décembre 2012)'*.
- 2014 Archaeological Prospecting on the Middle Orontes River: Survey work between Ar-Rastan and Qal'at Šayzar. In: K. Bartl and M. Al-Maqdissi (eds), *New Prospecting in the Orontes Region. First Results of Archaeological Fieldwork*: 61-77. Orient-Archäologie Bd. 30. Rahden/Westf., Verlag Marie Leidorf.
- 2008 The Survey of the Syrian-German Mission in the Middle Orontes Region. Archaeological Prospections in the Hama Region and Excavations at the Neolithic Site of Shir. In: M. Al-Maqdissi (ed.), *Apamée, Hama et l'Oronte. Nouvelles recherches archéologiques. Colloque archéologique international, Hama 19-20 Avril 2007*: 51-69. Adiyat Halab 11/12.
- 2007 Ancient Settlements in the Middle Orontes Region Between ar-Rastan and Qal'at Šayzar: First Results of Archaeological Surface Investigations 2003-2004. In: D. Morandi Bonacossi (ed.), *Urban and Natural Landscapes of an Ancient Syrian Capital. The Environment of Tell Mishrifeh/Qatna and in Central-Western Syria. Proceedings of the International Conference held in Udine, 9-11 December 2004*: 227-236. Studi archeologici su Qatna 1. Udine, Forum.
- BARTL, K. and BLOCH, F.
2015 Erstellung digitaler Kulturgüterregister für Syrien/ Syrian Heritage Archive Project. In: *Auswärtiges Amt* (ed.), *Das Kulturerhalt-Programm des Auswärtigen Amtes*: 96-99.
- BARTL, K. and FARZAT, A. (eds)
2013 *Qasr al-'Azim. Ein osmanischer Gouverneurspalast in Hama*. Damaszener Forschungen 15. Mainz, Verlag Philip von Zabern.
- BARTL, K., FARZAT, A. and AL-HAFIAN, W.
2012 The Late Neolithic Site of Shir. New Results from 2010, *Zeitschrift für Orient-Archäologie* 5: 168-187.
- BARTL, K., HAIDAR, A. and NIEUWENHUYSE, O.
2008 Shir. Ein neolithischer Fundplatz am mittleren Orontes. Vorläufiger Bericht über die Ergebnisse der Testkampagne Herbst 2005 und Grabungskampagne Frühjahr 2006, *Zeitschrift für Orient-Archäologie* 1: 54-88.
- 2006a Shir: A Neolithic Site in the Middle Orontes Region, Syria, *Neo-Lithics* 01: 25-27.
- BARTL, K., HIJAZI, M. and HAIDAR, A.
2006b The Late Neolithic Site of Shir. Preliminary Report of the German-Syrian Cooperation Project 2006, *Neo-Lithics* 02: 15-18.
- BARTL, K., HIJAZI, M. and RAMADAN, J.
2009 Die spätneolithische Siedlung Shir/Westsyrien. Vorläufiger Bericht über die Ergebnisse der Grabungskampagnen Herbst 2006 und Frühjahr 2007, *Zeitschrift für Orient-Archäologie* 2: 140-161.
- BARTL, K. and RAMADAN, J.
2008 The Late Neolithic Site of Shir. Third Season of Excavations 2007, *Chronique Archéologique en Syrie* 3: 63-73.
- BARTL, K., RAMADAN, J. and AL-HAFIAN, W.
2011 Shir/West Syria. Results of the sixth and seventh season of excavations in 2009, *Chronique Archéologique en Syrie* 5: 51-60.
- 2010 Shir/West Syria. Results of the fourth and fifth seasons of excavations in 2008, *Chronique Archéologique en Syrie* 4: 59-66.
- BRÜNNOW, R. E. and VON DOMASZEWSKI, A.
1904-1909 *Die Provincia Arabia auf Grund zweier in den Jahren 1897 und 1898 unternommenen Reisen und der Berichte früherer Reisender beschrieben*. 3 Bände. Straßburg, Trübner.
- BUTCHER, K.
2003 *Roman Syria and the Near East*. London/Los Angeles, British Museum Press/Getty Museum Press.
- BUTLER, H. C.
1909-1920 *Publications of the Princeton University Archaeological Expedition to Syria in 1904-5 and 1909*. Leyden, Brill.
- CHRISTENSEN PAPANICOLAOU, A. and JOHANSEN, C. F.
1971 *Hama III.2. Les poteries hellénistiques et les terres sigillées orientales*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- CHRISTENSEN PAPANICOLAOU, A., THOMSEN, R. and PLOUG, G.
1986 *Hama III.3. The Graeco-Roman Objects of Clay, the Coins and the Necropolis*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen Nationalmuseets Skrifter.
- de DAPPER, M.
2010 Tell al-Nasriyah and surroundings (Syria). Preliminary Report of the Geo-Archaeological Survey (19-30 September 2009), *Studia Orontica* 7-8: 55-58.
- DEUTSCHES ARCHÄOLOGISCHES INSTITUT, Orient-Abteilung, Außenstelle Damaskus (Hrsg.)
2005 *Orte und Zeiten. 25 Jahre archäologische Forschungen in Syrien. 1980-2005*. Damaskus, Deutsches Archäologisches Institut.
- DIETL, H.
2010 Survey am mittleren Orontes, Syrien. In: H. Dietl, *Analyse der paläolithischen Siedlungsdynamik an Freilandfundplätzen in der levantinischen Steppenzone*: 9-56. Tübinger Arbeiten zur Urgeschichte 6. Rahden/Westf., Verlag Marie Leidorf.
- DIETL, H. and CONARD, N.
2014 The Palaeolithic Finds from the Middle Orontes Survey. In: K. Bartl and M. Al-Maqdissi (eds), *New Prospecting in the Orontes Region. First Results of Archaeological Fieldwork*: 79-84. Orient-Archäologie Bd. 30. Rahden/Westf., Verlag Marie Leidorf.

- DUSSAUD, R.
1927 *Topographie historique de la Syrie antique et médiévale*. Paris, Librairie Orientaliste Paul Geuthner.
- FAIVRE, X.
2010 Les jarres cinéraires de Tell al-Nasriyah, Syrie (Mission syro-française de l'Oronte), *Studia Orontica* 7/8: 33-49.
- FUGMAN, E.
1958 *Hama II.1. L'architecture des périodes préhellenistiques*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- GRAWEHR, M.
2014 Putting Larissa on the Map. In: K. Bartl and M. Al-Maqdissi (eds), *New Prospecting in the Orontes Region. First Results of Archaeological Fieldwork*: 131-136. Orient-Archäologie, Bd. 30. Rahden/Westf., Verlag Marie Leidorf.
2012 Shayzar/Larissa (Syria). In: *Deutsches Archäologisches Institut, Orient-Abteilung* (ed.), Research Projects, 68-69.
- GRAWEHR, M., RAMADAN, J. and HIJAZI, M.
2009 Syrisch-deutsche Arbeiten in Shayzar/Larissa. Erster Vorbericht, *Zeitschrift für Orient-Archäologie* 2: 208-232.
- GSCHWIND, M.
2014 Raphaneae, Syrien. Die Arbeiten der Jahre 2012 und 2013. *E-Forschungsberichte DAI* 2014/2: 106-110.
- GSCHWIND, M. and HASAN, H.
2014 The Legionary Fortress and Roman City Raphaneae: Topographical, Archaeological and Geophysical Survey Work conducted in 2005-2007. In: K. Bartl and M. Al-Maqdissi (eds), *New Prospecting in the Orontes Region. First Results of Archaeological Fieldwork*: 119-129. Orient-Archäologie, Bd. 30. Rahden/Westf., Verlag Marie Leidorf.
2013 Investigating the castra hiberna of legio III Gallica. Ground Penetrating Radar Surveys Conducted in Raphaneae in 2008, *Zeitschrift für Orient-Archäologie* 6: 130-143.
2011 Ground Penetrating Radar (GPR) Surveys Conducted in Raphaneae in 2009, *Chronique Archéologique en Syrie* 5: 219-231.
2008 Raphaneae: Geophysical Survey Work conducted by the Syrian-German Cooperation Project in 2007, *Chronique Archéologique en Syrie* 3: 203-216.
- GSCHWIND, M., HASAN, H., GRÜNER, A. and HÜBNER, W.
2009 Raphaneae. Report on the 2005 and 2006 Survey, *Zeitschrift für Orient-Archäologie* 2: 234-289.
- DU MESNIL DU BUISSON, R.
1935 *Le site archéologique de Mishrifé-Qatna*. Paris, De Boccard.
Ministry of Culture, Directorate of Antiquities and Museums
2016 *Syrian Archaeological Heritage. Five Years of Crisis 2011-2015*. Damascus, Ministry of Culture, Directorate of Antiquities and Museums.
- VON OPPENHEIM, M.
1899-1900 *Vom Mittelmeer zum Persischen Golf, durch den Hauran, die syrische Wüste und Mesopotamien*. Bd. 1-2. Berlin, Reimer.
- PARROT, A.
1974 *Mari, capitale fabuleuse*. Paris, Payot.
1936 *Mari, une ville perdue*. Paris, Je Sers.
- PENTZ, P.
1997 *Hama IV.1, The Medieval Town and its Architecture*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- PERRINI, S. and CUNLIFFE, E., in association with Heritage for Peace
2015 *Towards a protection of the Syrian cultural heritage: A summary of the national and international responses*. Volume III (Sept 2014 - Sept 2015). <http://www.heritageforpeace.org/news/reports-towards-protection-syrian-cultural-heritage-summary-international-responses/>
- PLOUG, G.
1985 *Hama III.1, The Graeco-Roman Town*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- PLOUG, G., OLDENBURG, E., HAMMERSHAIMB, E., THOMSEN, R. and LØKKEGARD, F.
1969 *Hama IV.3. Les petits objets médiévaux saufles verreries et poteries*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- RENAN, E.
1864 *Mission de Phénicie*. Paris, Imprimerie Impériale.
- RIIS, P. J.
1987 *Hama*. Danske arkæologers udgravninger i Syrien 1930-1938. København, Udgivet af Carlsbergfondet.
1948 *Hama II.3. Les cimetières à crémation*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- RIIS, P. J. and BUHL, M.-L.
2007 *Hama I.2. Bronze Age Graves in Hama and its Neighbourhood*. Fouilles et recherches de la Fondation Carlsberg 1931-1938. Aarhus, Aarhus University.
1990 *Hama II.2. Les objets de la période dite syro-hittite (Âge du Fer)*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- RIIS, P. J. and POULSEN, V. with E. Hammershaimb
1957 *Hama IV.2. Les verreries et poteries médiévales*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- ROTTER, G. (ed.)
2004 *Usâma Ibn Munqidh: Ein Leben im Kampf gegen Kreuzritterheere*. Aus dem Arabischen übertragen und bearbeitet von Gernot Rotter. Lenningen, Edition Erdmann.
- SANLAVILLE, P. BESANÇON, J., COPELAND, L. and MUHESEN, S.
1993 *Le Paléolithique de la vallée moyenne de l'Oronte Syrien*. British Archaeological Reports International Series 587. Oxford, Tempus Reparatum.

- SARRE, F. and HERZFELD, E.
1911-1920 *Archäologische Reise im Euphrat- und Tigris-Gebiet*, Band I-IV. Berlin, Dietrich Reimer, Ernst Vohsen.
- SIEVERTSEN, U.
2014 Late Bronze Age Pottery from the Middle Orontes Survey: A Preliminary Overview. In: M. Luciani and A. Hausleiter (eds), *Recent Trends in the Study of Late Bronze Age Ceramics in Syro-Mesopotamia and Neighbouring Regions. Proceedings of the International Workshop in Berlin, 2-5 November 2006*: 181-192. *Orient-Archäologie* bd. 32. Rahden/Westf., Verlag Marie Leidorf.
- THUESEN, I.
1988 *Hama I. The Pre- and Protohistoric Periods*. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Copenhagen, Nationalmuseets Skrifter.
- TONGHINI, C.
2012 *Shayzar I: The Fortification of the Citadel*. Leiden, Brill.
- de VOGÜÉ, M.
1865-1877 *Syrie centrale. Architecture civile et religieuse du Ier au VIIe siècle*. Paris, J. Baudry.
- WATZINGER, C. and WULZINGER, K.
1921 *Damaskus. Die antike Stadt*. Wissenschaftliche Veröffentlichungen des deutsch-türkischen Denkmalschutz-Kommandos. H. 4. Berlin, de Gruyter.
- WIEGAND, Th.
1932 *Palmyra-Ergebnisse der Expeditionen von 1902 und 1917*. Berlin, H. Keller.
- WULZINGER, K. and WATZINGER, C.
1924 *Damaskus. Die islamische Stadt*. Wissenschaftliche Veröffentlichungen des deutsch-türkischen Denkmalschutz-Kommandos. H. 5. Berlin, de Gruyter.
- YON, M.
2006 *The City of Ugarit at Tell Ras Shamra*. Winona Lake, Eisenbrauns.

Holocene Paleoenvironments and Settlement Patterns in Western Syria and Lebanon: the PaleoSyr/PaleoLib Project

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Abstract

The PaleoSyr/PaleoLib Project was conducted in western Syria and Lebanon from 2011 to 2014. The main aim was to estimate, on a regional scale, not only the local one, the human environment co-evolution, based on archaeological remains and on studies of past environments, with a focus on the steppe world.

The PaleoSyr/PaleoLib Project¹ was designed to study the human environment co-evolution in the Middle Eastern Mediterranean bioclimatic and human contexts during the Holocene. Western Syria and Lebanon (Figure 1) represent one of the cradles of the neolithisation in the Middle East before becoming centres of early urbanization processes and state emergence. Therefore, major historical issues can be tested in this region, which is composed of a wide range of bio-climatic sub-regions from the Mediterranean to the steppe. This region faces severe natural constraints, the main one being aridity. While the development of human societies and their settlement patterns are strongly correlated to the environment and to its evolution, there are surprisingly few paleo-climatic and paleo-environmental studies available. It was also a project aim to take into account recent studies that have focused on the growing significance and the historical leading role of the Syrian steppe world. The methods used are intended to make possible integrated studies and go beyond the micro-regional framework for addressing regional areas. The goal is to achieve modelling of social-economic systems during the phases of environmental stability, which is the most common Holocene situation, and during periods of environmental crisis, which are always shorter. The aim is also to propose a model of reciprocal impacts of human activities and environmental changes, providing opportunities for highlighting any breakdown in the balance. Finally, the project intends to analyse the data obtained across the Middle East and then in the Mediterranean.

Environmental studies

The tragic events in Syria have forced us to reduce the initial field program. While the studies on the settlements patterns are well under way, sometimes beyond the initial goals, those on paleo-climate and paleo-environments have been carried out only partially. Our initial aim was to refine our knowledge of the climatic variability. The results are in this case incomplete, due to a very limited access to the field. Only four sediment cores were analysed: two from the central Bekaa marshes in Lebanon, and two from Syria, one from the coast (Tell Sukas) and the other one from an arid steppe artesian spring ('Ain Al-Zarqa). Nevertheless, these analyses characterized some local effects of global climatic events, for example the so-called 4.2 BP event on the northern Mediterranean Syrian coast (Sorrel and Mathis 2016). Another aim was to estimate, on a regional scale, the different environmental contexts of the first developments of major human revolutions and evolutions. The study is still underway. It will benefit from the results acquired through core analysis, but also from new environmental maps and GIS tools, allowing a better definition of different areas: a rain map based on the refitting of 20th-century data (Traboulsi 2004), a soil map unifying Lebanese and Syrian previous versions, and a bio-climatic vegetation map.

Map models allowing a synthesis of environmental layers at the sub-continental scale were built. These models are necessary to compare local environmental conditions and their possible evolutions in different regions. A remote sensing image classification identifies five classes of 'soil quality'. This calculation produces a base map which can be crossed with archaeological sites and landscape hydraulic development maps by periods. A first general history of land use for comparing the arid margins east of Hama and the Leja region in southern

¹ .PaleoSyr/PaleoLib is a 2011-2014 project selected and granted within the 2010 French Agence Nationale de la Recherche program, led by N. Awad (DGAMS, Damascus), F. Braemer (CNRS, UMR 7264 – CEPAM, Nice), B. Geyer (CNRS, UMR 5133 – Archéorient, Lyon), with J. Argant (ARPA, Lyon), P. Sorrel (Univ. Lyon 1, UMR 5276 – TPE, Lyon), and M. Haydar-Boustani (Univ. St-Joseph, Musée de Préhistoire libanaise, Beyrouth).

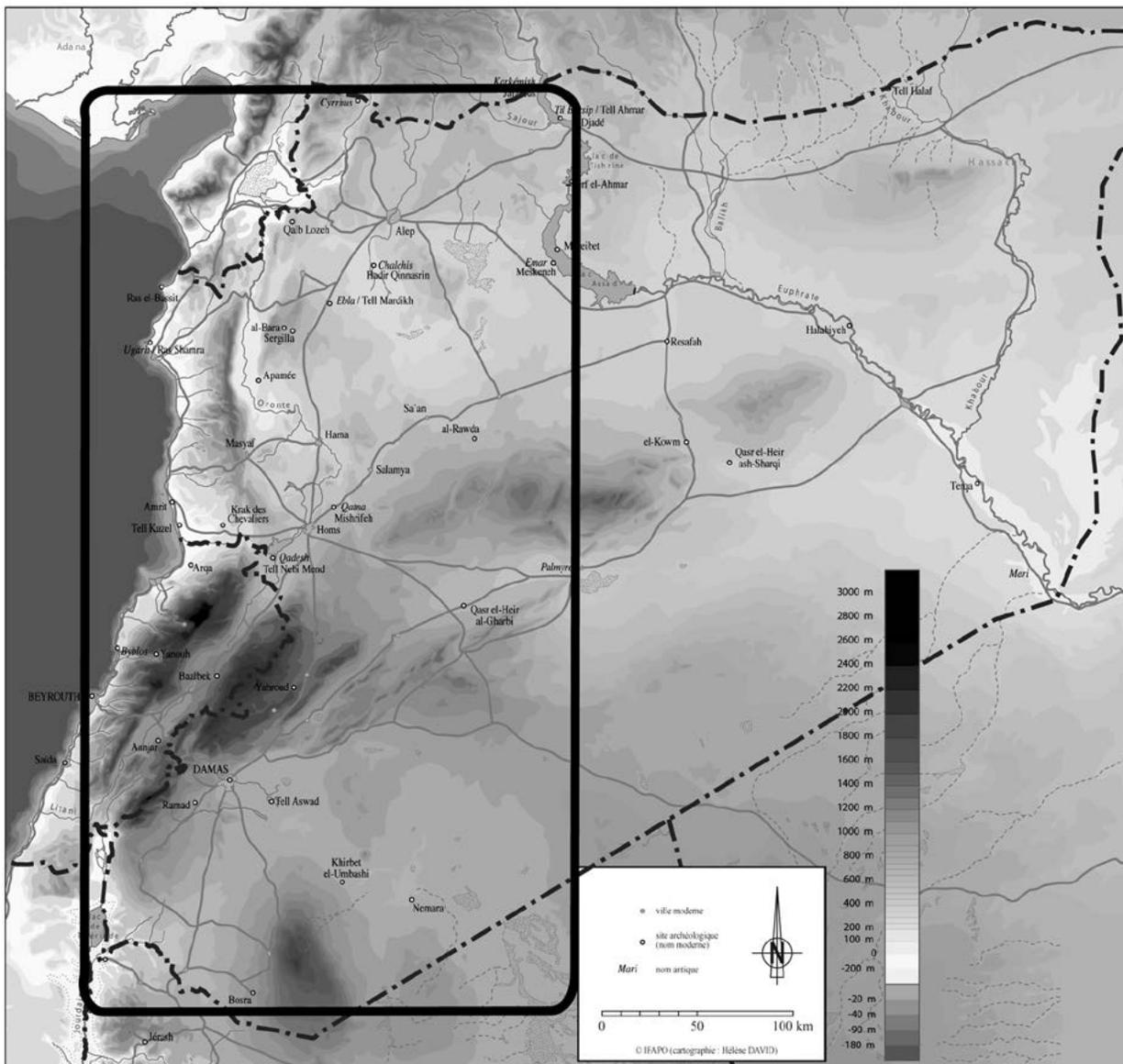


Figure 1: Localisation Map of the PaleoSyr/PaleoLib Project (© PaleoSyr/PaleoLib project).

Syria was proposed (Braemer *et al.* 2016): settlement pattern changes in arid zones are not governed only by variations of rainfalls, but also by a set of factors, each one having an impact that can be qualified and sometimes measured. A good example is the spatial impact of man-made hydraulic developments.

The social responses of human groups to the constraints of climatic variations and their consequences for the landscape can still be estimated on a regional scale. A first study focused on EBA sites by periods, comparing settlement trends during the 3rd millennium in the arid steppe (Figure 2). The resulting database allowed analysis on a much larger scale than before (Braemer *et al.* 2014).

A first study of human development impacts on the milieu during the two last centuries in Lebanon is

underway, identifying the speed of landscape change (Brunel 2015). The first results were presented at an exhibition held simultaneously at Beirut’s Saint-Joseph University and Lyon’s University Lumière – Lyon 2. This study allows us to analyse the developments of the vegetation cover and the re-organization of space in some areas of Lebanon from the 19th to the 21st centuries, in a context of rapid rural decline and change (Brunel and Jacob-Rousseau forthcoming; Nordiguian and Jacob-Rousseau forthcoming).

New results were obtained for earlier periods. At Tell Sukas, on the Syrian coast, a study based primarily on palynology, and following a sedimentary archive covering a period between 6000 and 2500 cal. BP, allowed the identification of the first probable human impacts on the landscape in the 5th millennium BP, and proposed a new story for the olive tree in the northern

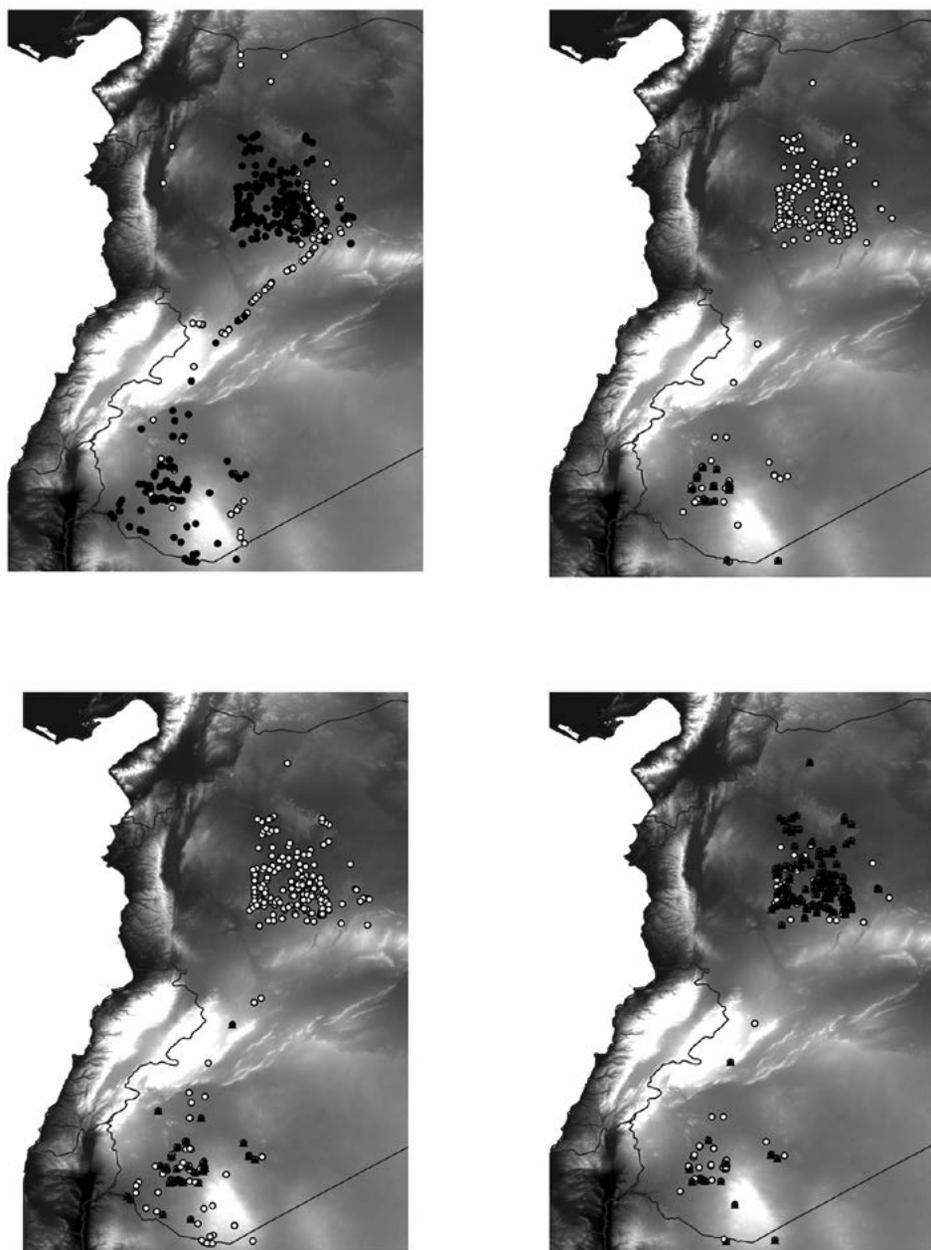


Figure 2: Test comparing settlements trend during the 3rd millennium in the arid steppe. EBA sites repartition by periods: a) black triangles = all EBA dwelling sites; b) black triangles = EBA I dwelling sites; c) black triangles = EBA II-III dwelling sites; d) black triangles = EBA IV dwelling sites (© PaleoSyr/ PaleoLib project).

Levant. It also helped establish a possible link between an early increase in drought and the beginning of the decline of the Late Bronze Age civilization (Sorrel and Mathis 2016).

At ‘Ain Al-Zarqa, in the heart of the Syrian steppe, the ongoing study of a core 10 m-long allows us to rebuild an arid steppe landscape for the last millennium. This landscape has not been subject to major abrupt change during the last 1000 years, but phases of increased aridity were identified. Diatoms and pollen offer the same theoretical curve of ‘drought or wet tendencies’, except between 820 and 700 cm depth, where the lack of diatoms suggests an anthropogenic influence. Finally, the tools newly used in archaeology to help building scenarios of change offer the opportunity to go over the determinist interpretations which look for

direct relations of causes with effects, and to develop co-evolutionary models.

Archaeo-historical studies: the database

The aim was to create an archaeological database allowing regional and multi-scalar analysis from the Syro-Lebanese coast, through the Orontes Valley, up to the ‘Arid Margins’, including also Damascus, southern Syria, and the Lebanese Bekaa. The online database is a collaborative system to which almost all the teams working in the area contributed.² We warmly thank all

² The following regional survey data, published or unpublished, were gathered in the database: Jazr (Univ. Firenze), Rouj, Marges arides (DGAM, MOM Lyon), Ebla Chora (Univ. Roma La Sapienza), Massif Calcaire (DGAM, MOM Lyon), Ghab (DGAM, Univ. Laval), Middle Orontes (DGAM, DAI), Bouqaia (DGAM, Univ. St Joseph, CSIC

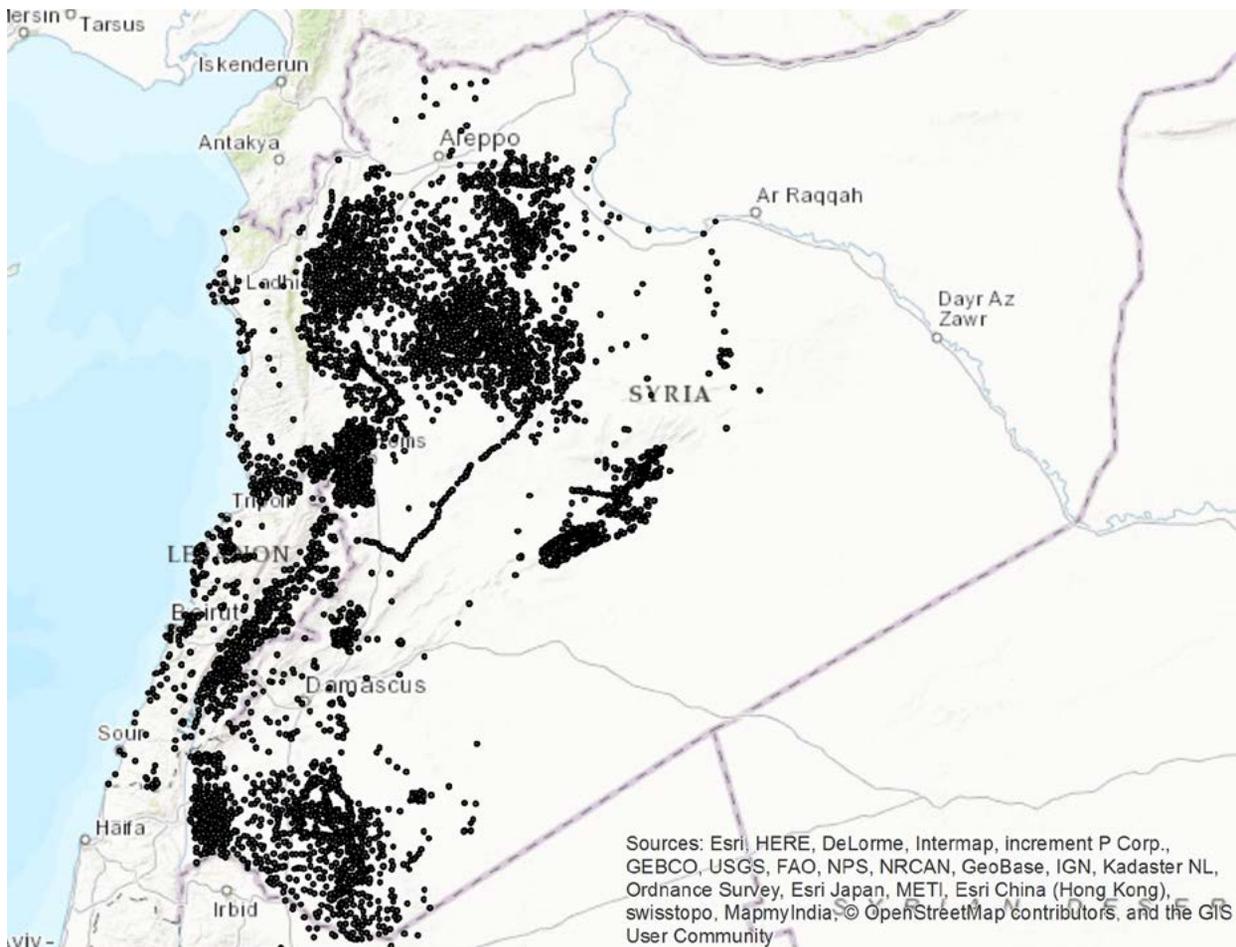


Figure 3: The PaleoSyr/PaleoLib database: in December 2015, 7,315 sites and 16,779 archaeological entities were recorded (© PaleoSyr/PaleoLib project).

our colleagues for this data sharing: the resulting GIS and database are open to the participants, although, so far, they have been used mainly by the project core team.

It was intended to record enough data to obtain a territorial continuity from the Ghab and the Rouj to the southern Hauran, by bringing old and new surveys together, but also by including data records of sites and their components, i.e landscape data, fauna, and botanical samples. Two main tables record site features: one for general references and one for descriptions of a site's archaeological features, including landscape developments (hydraulic structures, agro-pastoral features, etc.). Secondary tables record fauna and vegetation. Today, 7315 sites, classified by 16,779 archaeological units, have been recorded (Figure 3): Bronze Age (700) and Classical (2000) sites are better represented than other periods.

Barcelona), Homs region, Palmyra region (DGAM, Univ. Durham), coastal Syria (DGAM), Qalamun (DGAM, Univ. Tübingen), southern Syria (DGAM, Univ. Paris1, Univ. Nice), Bekaa, ASPRO database (MOM Lyon).

A successful collaboration links the PaleoSyr/PaleoLib Project and Durham University's Fragile Crescent Project by relating the latter's reference system for chronology, glossary and database fields, and thus providing easy database interoperability. This project is still ongoing, through the Heritage Environment Record of Syria Project (Durham University), which aims to build a general archaeological reference map of recorded sites and monuments.

Since this large corpus is not homogeneous, it is necessary to be able to estimate the degree of liability, accuracy, and quantity of samples used, addressing archaeo-historical issues. The archaeological data is recorded with annotations concerning degrees of data certainty and accuracy. The latest data processing, always under review, develops methodologies for integrating uncertainty in our interpretations (Fusco 2016). A first tool is the multi-criteria analysis applied to our data to estimate reliability and accuracy when considering the whole corpus, or when comparing parts of the corpus sorted for specific studies, e.g. that of the 'Arid Margins' and southern Syria. These

methods allow good descriptions of data quality: spatial distribution, chronological distribution, quality and intensity of surveys, dating tools, etc. Consequently, it is possible to select and extract for study specific datasets representing periods, gathering a maximum of data with a maximum of accuracy and a minimum of uncertainty.

The goal is to change our general way of thinking of historical-archaeological interpretations by considering: levels of information, rather than quantities of data; sets of possible *scenarii*, rather than definitive and unique answers; data and questions covering different aspects, rather than ideal graphs or results.

The methods we are developing aim at an understanding on a macro scale, while preserving detail and without impoverishing information, and at proposing degrees of weighting in our comparisons. To reach this goal, we are currently developing spatial-analysis visualisation tools to obtain concurrently different cartographic representations of the spatial distribution of the dataset by periods.

Conclusions

The PaleoSyr/PaleoLib program 2010-2014 is over. Tools and reference data are new and numerous. The next steps are:

- to achieve the ongoing core studies;
- to achieve the development of specialized tools for analysis and interpretation;
- to assess and enlarge the database, and to launch specific studies on periods and on types of archaeological remains;
- to exploit the PaleoSyr FCP main corpus as a shared reference for 'Endangered Heritage' in Syria.

Bibliography

BRAEMER, F., GEYER, B. and DAVTIAN, G.

2016 From Site Catchment Analysis to Regional Settlement Pattern Analysis: Making a Regional Map of Environmental Resources' Potential. The

Case of Arid Syria. In: R. A. Stucky, O. Kaelin, and H. P. Mathys (eds), *Proceedings of the 9th ICAANE*, 2: 819-830. Wiesbaden, Harrassowitz.

2014 Man/environment interactions in the Bronze Age Levant: Climatic crisis or fluctuations, chronology and settlement patterns in the Third Millennium Syrian arid steppe area villages. In: L. Nigro (ed.), *The seven plagues. Catastrophes and destructions in Palestine and Egypt during the pre-classical period. Volcanic eruptions, earthquakes, floods, wars, famines and epidemics in the archaeological record and in Biblical and ancient Egyptian sources: an innovative approach*: 87-116. ROSAPAT 11. Rome, 'La Sapienza' University Studies on the Archaeology of Palestine and Transjordan.

BRUNEL, L.

2015 L'évolution des paysages de pierre sèche au mont Liban, *ArchéOrient - Le Blog*, 9 janvier 2015 [on line: <http://archeorient.hypotheses.org/3576> (accessed 16 May 2017)].

BRUNEL, L. and JACOB-ROUSSEAU, N.

Forthcoming Les rejmet, un élément méconnu des paysages de pierre sèche du Mont-Liban. Exemples dans le Kesrouan. *Tempora, Annales d'histoire et d'archéologie*. Beyrouth, Presses de l'Université Saint-Joseph.

FUSCO, J.

2016 *Analyse des dynamiques spatio-temporelles des systèmes de peuplement dans un contexte d'incertitude. Application à l'archéologie spatiale*. Unpublished PhD Thesis, Nice University.

NORDIGUIAN, L. and JACOB-ROUSSEAU, N.

Forthcoming Les stigmates de la Grande Guerre sur le paysage rural du Mont Liban, *Actes du colloque 'La Grande guerre au Proche-Orient: savoirs, vécus, mémoires'*. Beyrouth.

SORREL, P. and MATHIS, M.

2016 Mid- to late Holocene coastal vegetation patterns in Northern Levant (Tell Sukas, coastal Syria): Olive tree cultivation history and climatic change, *The Holocene* 26: 858-873.

TRABOULSI, M.

2004 *Les précipitations au Proche-Orient: variabilité spatio-temporelle et relations avec la dynamique de l'atmosphère (1960-1961-1989-1990)*. Unpublished PhD Thesis, University of Bourgogne.

Qalaat Al-Mudiq, Citadel of Apamea: Past and Present

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Abstract

The Syrian-European mission of Qalaat Al-Mudiq/Citadel of Apamea focussed in 2004 and 2005 on emergency consolidation and restoration on the medieval fortifications built on top of the hill, following the collapse of the medieval glacis and part of the slope. A coring was done to verify the stability of the ground and this showed not only that the entire hill is unstable but also that it is an archaeological tell, approximately 20 m thick. Preliminary archaeological soundings were thus done at the bases of the zones to be consolidated, and these yielded ancient fortifications belonging to the Bronze Age and Hellenistic periods. Consolidation and restorations were done at three particularly endangered areas, including a medieval tower. Since then, the monuments have suffered further damage, which all seemed to be repairable, but the entire site is now endangered by the same threat that brought down the medieval glacis.

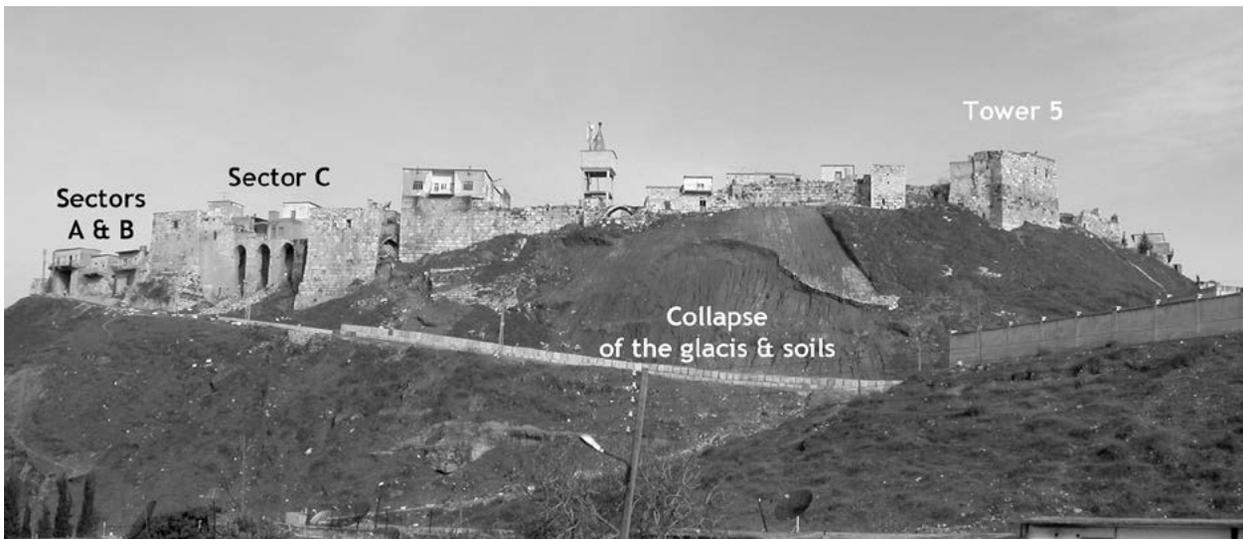


Figure 1: View of the south front of Qalaat Al-Mudiq, with indication of the fieldworks sectors. View to the north (© Archaeological Mission of Qalaat Al-Mudiq-Citadel of Apamea).

Qalaat Al-Mudiq is located on the western slope of the Ghab Valley, perched at c. 100 m above the surrounding plain (Figure 1). At the foot of Jebel Al-Zawiye, the site is close to Apamea on the Orontes, one of the four cities of the tetrapolis created by Seleucos I, around 300 BC. If Apamea is known for its Greek, Roman, and Byzantine phases, and at the beginning of the Islamic period, Qalaat Al-Mudiq is better known for its prehistoric and Bronze Age levels found at its base, and for later Islamic fortifications on its summit (Al Shbib and Gelin 2016). The top of the hill is currently occupied by a modern village whose inhabitants live in the medieval fortifications.

During the winter of 2002-2003, part of the medieval stone glacis covering the slope of the hill collapsed, threatening not only the stability of the fill thus exposed, but also the medieval fortifications¹ built on the top of the mound. The reason for this collapse is that violent rains soaking into the ground caused mounting pressure on the glacis and a resulting landslide of the earthen fill contained by the sloping wall. The glacis collapsed, as it was no longer supported by its lower parts due to an access way to the entrance of the village dug in the 1920s in the slope of the hill and recently enlarged.

¹ And of the modern dwellings inside.

The General Directorate of Antiquities and Museums of Syria created two missions to intervene on these monuments: one by the University of Architecture in Damascus aimed at stabilizing the glacis and the slope, the other by the European Program of Cultural Heritage Training and the French Institute for the Near East-IFPO to stabilise three sectors of the medieval defence system. This second mission was directed by M. Gelin (IFPO) from 2004, and joined by S. Al Shbib (DGAMS) in 2005.² This mission led the archaeological excavations undertaken at the bases of the fortifications to be preserved and the restoration of the structures.³

Qalaat Al-Mudiq in the past

Medieval period

Tower 5, facing the city of Apamea and its theatre, was built on the highest point of the citadel and was an important element of the defence system. It is one of the largest towers in Qalaat Al-Mudiq, about 13 m x 17 m in dimensions and preserved to a height of 12 m. The archaeological work consisted mainly of excavating the tower, inside and out, to examine its base in order to determine the state of the foundations before the restoration operation, and to collect associated archaeological material. These investigations determined that this tower was built over an older building, that it reused some Byzantine material in its foundation, and that it had many stone blocks coming from the ancient theatre. The tower was erected in one phase⁴ on very strong foundations (going deep into the slope and on a thick bed of rubble), and conceived as a vantage point to cover the entire valley. It also replaced previous fortifications from the Islamic period. On the slope, a previous stone glacis was covered by the one visible today and appeared to be contemporaneous with the tower: the glacis currently visible (the one that collapsed) belonged to a medieval restoration.

² We warmly thank the organisers of this Congress for providing the opportunity to point out the importance of Syria's cultural heritage, especially during these difficult times, and to let us present our researches from Qalaat Al-Mudiq. We also deeply thank all the heads of the institutions and administrations who allowed us to work at Qalaat Al-Mudiq, and N. Khoury, curator of the museum of Apamea.

³ Before this mission, the project managers were E. Al-Ejji-DGAMS (civil engineer) and M. Gelin-IFPO (archaeologist). The participants of the mission were: 1) for the excavations: the two directors, M. Gelin and S. Al-Shbib-DGAMS (archaeologist) for the Hellenistic period, and B. Michaudel-IFPO for the medieval period; 2) for the archaeological material: M.-O. Rousset-CNRS, ceramologist (medieval period), S. Elaigne, ceramologist (Hellenistic period), M. Al-Maqdissi-DGAMS, ceramologist (Bronze Age period), H. David-Cuny (draughtsman); 3) for the building restoration: S. Zugmeyer (architect, tower 5), M. Hijazi-DGAMS (civil engineer, sectors A and B), J.-C. Bessac-CNRS (stone architecture and elements of construction), M. Al Heib-Mines School, Nancy (subsoil stabilisation), A. El Bush-DGAMS and A. Abu Arraj-DGAMS (topographers), and P. Courbon (topographer).

⁴ Research led by J.-C. Bessac, to be published in a forthcoming publication. See his main results in Gelin 2007: 4-6.

The date of this tower was attributed to the mid-13th century AD (Dangles 2004: 195) after an inscription, although nothing proves that this inscription dates to the time of construction of the tower. However, the date matches the pottery found inside the tower, relating to the Mameluke period (second half of the 13th century AD), according to M.-O. Rousset, and corresponds to the technical building characteristics of the time (between the beginning of the 12th and beginning of 14th centuries AD), according to J.-C. Bessac.

Hellenistic period

West of the entrance to the present village (sector A), a great vaulted room was in danger of collapsing on its southern side. Our team examined the foundations of this side of the building and extended the work westwards, on the upper part of the slope. A stone wall (Figure 2), already visible at the base of the room before our excavations, was associated with other structures found on top of the slope. The plan of these masonries, their technical characteristics (construction, tool marks, dimensions of blocks, and the regular level of their bases and courses, and the pottery sherds found nearby), allowed us to date it with certainty to the Hellenistic period and, probably, to the beginning of this period.⁵ We also established that these constructions were linked to fortifications and we were able to restore the plan of the curtain walls and part of a tower.

This evidence of Greek fortifications, never established before at Qalaat Al-Mudiq, allows us with great probability to associate the founding of this stronghold to the Seleucids. Qalaat Al-Mudiq obviously represented the citadel of the Seleucid city of Apamea. A possibility exists that it could also be linked to the Lagids at the end of 4th century BC, but we have no evidence for this hypothesis.⁶

Bronze Age period

Excavations took place east of the entrance of the current village (sector B) in a vaulted room that needed to be conserved. Surprisingly, the Hellenistic curtain wall from sector A did not appear here. Its stones were probably robbed and reused in later constructions. However, a mudbrick wall, the function of which was not determined, was found associated with pottery dated to the Late Bronze Age.

In sector A, below the Hellenistic wall located at the foot of the vaulted room, excavations uncovered a large

⁵ Unfortunately, at this state of our research, we cannot be more precise in the dating. The pottery was found on the slope near the structures and not directly associated with them. S. Elaigne dates the corpus from the end of 4th century BC until the first half of 2nd century BC.

⁶ Antigonos is supposed to have occupied the site and founded a Pella. See Bernard 1995.



Figure 2: Sector A. The Hellenistic stone wall (on the left, modern dwelling; on the right, white stones of a modern stair), view to the east (© Archaeological Mission of Qalaat Al-Mudiq-Citadel of Apamea).

wall, 3 m long and 1.70 m high, made of mudbricks (Figure 3). Its western continuation was found in the slope and it is also visible to the east, behind the pillars of the medieval buttress located between sector B and the medieval gate (Figure 4). In this sector C, the erosion of the soils was very active at the top of the slope and exposed this wall. In both sectors A and C, the wall was located exactly at the edge of the slope. If vestiges of this wall from sectors A, B, and C can be associated together, the wall would be at least 92 m long and would constitute a fortification wall (Gelin 2013). However, even though many ceramic sherds from the



Figure 3: Sector A. Vertical view of the mudbrick rampart probably from the Bronze Age; the north is down (© Archaeological Mission of Qalaat Al-Mudiq-Citadel of Apamea).



Figure 4: Sector C. The archaeological layers behind the pillars of the Medieval buttress show a thick mudbrick wall, a probable continuation of the Bronze Age (?) rampart. View to the north (© Archaeological Mission of Qalaat Al-Mudiq-Citadel of Apamea).

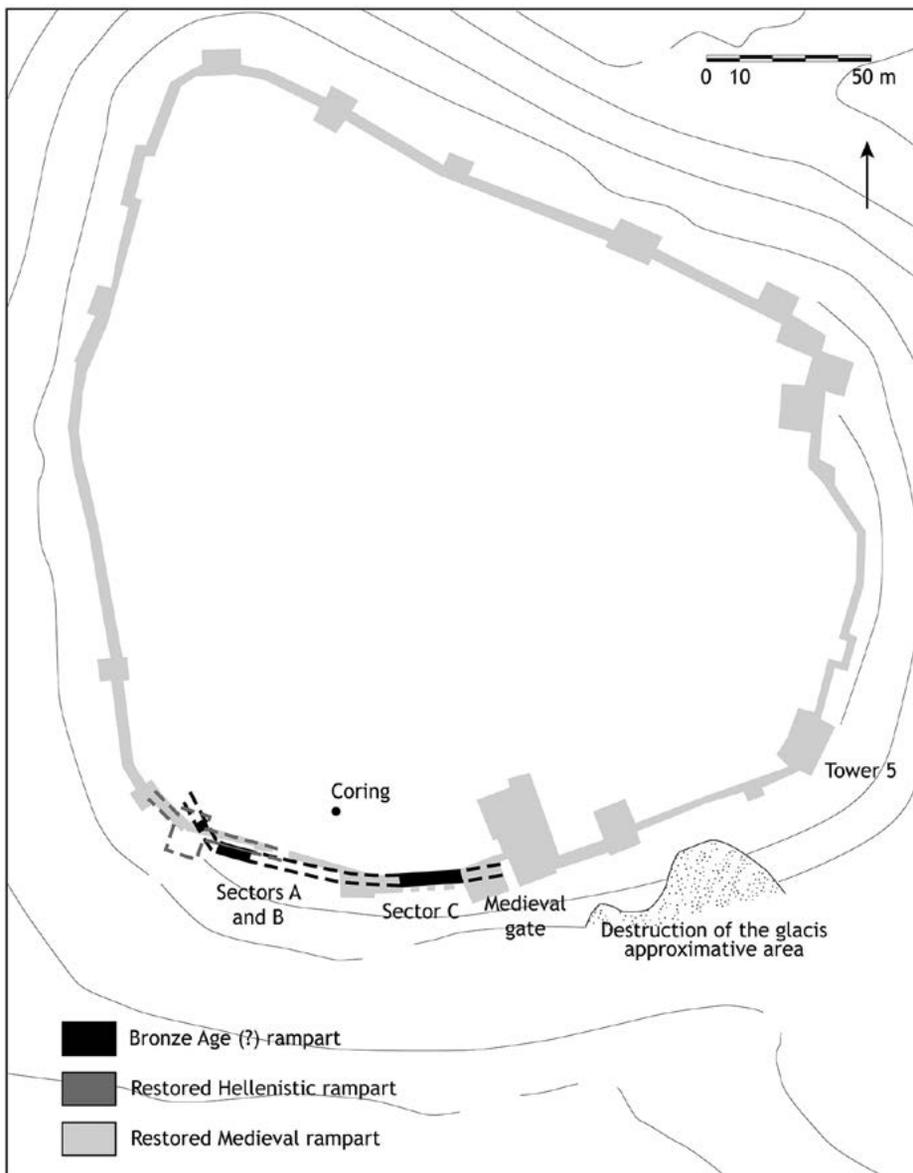


Figure 5: Restoration of the successive fortifications from the Bronze Age (?), Hellenistic, and Medieval periods (Drawing M. Gelin after a plan of Ph. Dangles).



Figure 6: The tower 5 after restoration, with the two curtains consolidated. View to the northwest. (© Archaeological Mission of Qalaat Al-Mudiq-Citadel of Apamea).



Figure 7: Aerial view of the tell in 2015. The road surrounding it has pierced the stone glacis and the earthen fill. The north is on the top (© Google Earth).



Figure 8: The previous road cut in the 1920s and recently enlarged, which caused the collapse of the glacis and soils of the tell. View to the northwest (© Archaeological Mission of Qalaat Al-Mudiq-Citadel of Apamea).

Early Bronze Age were found in the mudbricks, we cannot assert that this wall was built in this period.⁷

It is obvious, however, that Qalaat Al-Mudiq played a role during the Bronze Age period, as a Bronze Age ceramic sherd – located in archaeological layers some 17 m below the surface level – was found in a coring done on top of the hill for building preservation purposes. All these elements (the mudbrick fortification wall, the associated Bronze Age ceramics, the archaeological layers, the ceramic sherd found in the coring, and the previous discovery of levels from this period at the base of the hill) indicate that Qalaat Al-Mudiq is an archaeological tell, probably dated to the Bronze Age period.

Finally, it can be said that Qalaat Al-Mudiq played the role of a stronghold from, at least, the Bronze Age period until Islamic times. It is noticeable, too, that the fortifications followed the same outline during the three main periods uncovered. However, two important periods in the life of the city of Apamea, Roman and Byzantine, left no remains on the tell, at least in the sectors excavated. Archaeological research will hopefully resume in the future and provide answers to the numerous unanswered questions.

Qalaat Al-Mudiq in the present

Preservation and restoration (Figure 5)

The medieval fortifications are located at the edge of the slope of the tell. Even though they were founded on the earlier, stronger walls (older fortifications), they were destabilised by erosion. The sudden collapse of the glacis highlighted the risks for the walls built either in the same sector or nearby.

The two vaulted rooms, both parts of the entrance to the current village (sectors A and B), were consolidated using the same materials (rubble stones and lime mortar). The eastern part of tower 5 was at the risk of separation from the rest of the building, as it is located partly at the edge of the slope and partly on the slope. The southeast angle was particularly endangered because of extensive vertical cracks. Several stones were also badly damaged in the facings of the tower and inside the eastern gallery of the building. Additionally, the current occupation of the upper level brought water evacuations directly to the foot of the building. Inside the tower, the foundations were exposed.

Because of these risks, we made a coring in the village to test the stability of the subsoil: it showed that the entire subsoil is made of unstable soils (archaeological earth

of different compositions) with several voids, from the surface of the tell until the bedrock, some 22 m below.

After having re-oriented the water canalisations of the modern dwelling,⁸ our mission undertook the consolidation and restoration of the medieval tower using mortar injections, fill or replacement of eroded stones, fixing with stainless steel tie-beams the southeast angle, general cleaning of the facings of the walls, and raising the internal levels once the outside ones were stabilised with lime and beaten earth (Gelin 2010). The new stones were selected from a quarry where no black powder was used and their surfaces were hand-cut to give the same appearance as the 'original' blocks. The extremities of the curtain walls linked to the tower have also been consolidated and stabilised. As a result of these measures, the tower and the two vaulted rooms were preserved, and, we hope, are out of immediate danger of collapsing again (Figure 6).

Recent damage to the cultural heritage of Qalaat Al-Mudiq

From what we can see from photographs and images, recent events have caused much damage to the buildings we preserved or uncovered. Several of the stones from tower 5 have broken and several new cracks have appeared (Figure 7). In sector C, for example, the pillars have been destabilised, the mudbrick wall is very probably severely damaged, and the medieval gate has also been damaged, showing cracks and the destruction of a window and parts of the upper floor. We hope that these damages are repairable, as it seems they do not severely affect the structure nor the stability of the buildings, except for the pillars and vaults of sector C.

However, in our opinion, the most serious problem is the new road that has been dug on the slope of the tell, from the entrance of the village to the base of the hill, surrounding the tell on its western, northern, and eastern sides (Figure 8). As we saw at the beginning of this intervention, it was such a cut that led to the collapse of the glacis and the fill, and that threatened the upper fortifications and dwellings. We hope that the engineers of the General Directorate of Antiquities and Museums will have the possibility to intervene soon to refill the empty spaces with strong materials and to restore the stone glacis, as the stability of the entire archaeological tell is now threatened.

Bibliography

- AL SHBIB, S. and GELIN, M.
2016 Qalaat Al Mudiq/Apamean Citadel (Hama). In: Y. Kanjou and A. Tsuneki (eds), *A History of Syria in One Hundred Sites: 427-429*. Oxford, Archaeopress.

⁷ We can only say that the earth used to make the bricks was extracted from a place where an Early Bronze Age occupation existed.

⁸ There was no question of dismantling the modern dwelling.

- BERNARD, P.
 1995 Une légende de fondation hellénistique: Apamée sur l'Oronte d'après les *Cynégétiques* du Pseudo-Oppien, *Topoi Orient-Occident* 5/2: 361.
- DANGLES, Ph.
 2004 La refortification d'Afamiyya-Qalat al-Mudiq sous le sultanat ayyoubide d'Alep (fin XII^e-mi XIII^e siècle). In: J. Mesqui, N. Faucherre, and N. Prouteau (eds), *La fortification au temps des Croisades*: 189-204. Rennes, Presses universitaires de Rennes.
- GELIN, M.
 2013 Note sur le rempart de 'l'âge du Bronze' à Qalaat el Mudîq, citadelle d'Apamée de l'Oronte. In: M. Al-Maqdissi, D. Parayre, M. Griesheimer, and E. Ishaq (eds), *Un 'cœur syrien', Mélanges dédiés à la mémoire d'Antoine Souleiman*: 129-142. Studia Orontica 11. Damascus, Studia Orontica.
- 2010 Conservation et mise en valeur du patrimoine archéologique au Proche-Orient: quelques réalisations de missions archéologiques, *Journal of Historical, Philological and Cultural Studies* 27-1, *En l'honneur des 75 ans de Guénnadi Andréïévitch Koshelenko*: 62-84. Moscow, Academy of Science.
- 2007 Qalaat el Moudiq, citadelle d'Apamée de l'Oronte. Résultats des travaux de 2004. In: J. Abdul Massih (ed.), *Résultats du Programme de formation à la préservation du patrimoine culturel syrien*: 357-382 (Arabic version: 383-399). Documents d'Archéologie syrienne 11. Damas, Documents d'Archéologie syrienne.

Tell Maksour

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Abstract

Tell Maksour is located on the left bank of the Orontes River in the Hama governorate. The site consists of four tells (A, B, C, D). Emergency excavations led by a Syrian mission on Mound A started in 2009. In 2012, excavations by another Syrian team, formed and directed by A. W. Abu Saleh, led to the discovery of levels, situated southeast of the tell, dating to the classical periods. Discoveries included a wall dating to the beginning of the Roman era, as well as several rooms decorated with mosaics and frescoes.

Tell Maksour (Mound A) is located in the governorate of Hama, south of the Al-Ghab Plain. It is 1 km from the village of Nahr Al-Bared and 2 km to the west of the Orontes River (Figure 1). Tell Maksour is one of four mounds (A, B, C, D) that collectively constitute the site, which is c. 55 ha (Figure 2). The size of the elliptical Mound A (Sector A) is c. 10 ha. It is perched approximately 242 m above sea level and 23 m above the surrounding plain. Emergency excavations were carried out there in 2009. In 2012, a Syrian excavation mission was formed to work on the site for two consecutive excavation seasons in 2013 and 2014. During the 2013 season, the mission drew the contour plan for the site and its buffer zone and established a grid map for the entire site. Excavations started at Mound A after applying the grid map onto the work area (Figure 3).

The importance of Tell Maksour can be attributed to its connection with the Al-Ghab Plain, closely related to the Orontes River. Indeed, the plain was an important passage for military and commercial caravans, a fact reflected in the large number of tells spread over the area. For instance, Ashur Nasir in 884-885 BC followed his ancestors' route and marched towards northern Syria, only to head south afterwards along the Orontes River before reaching Lebanon and the Mediterranean Sea, without facing any resistance (Hitti 1957: 151). Another example is Shalmaneser III (859-824 BC) who, in 853 BC, fought the Battle of Qarqar in the Orontes Valley against the coalition of the states of Syria, mainly the Aramean king of Damascus and the representatives of Tyre and other Phoenician states (Hitti 1957: 151).

The surroundings of the site

The location is surrounded by many tells and archaeological sites (Figure 4), including (Ghazi and Daoud 2011: 90):

1. The Hellenistic temple rebuilt during the Roman era near the spring of Nahr Al-Bared. Some of the temple walls are still standing. Temples were built close to the springs in relation with

the sacredness of the tree-stone-water trinity which was ritually symbolic (Syrnge 1992: 23-24). It is believed that the temple was linked to Tell Maksour during the Hellenistic and Roman eras (Figure 5).

2. Tell Dibbin: 3 km to the south. The pottery pieces collected from the tell and the surrounding farming land indicate that these sherds date to the Iron Age, the Hellenistic period, and the Ayyubid and Mameluke periods (Ghazi and Daoud 2011: 92).
3. Tell Al-Acharneh: 4 km to the southeast. The tell has different layers dating to Iron Age I and II, and to the Late Bronze Age as identified by the Canadian mission (Fortin and Cooper 2011: 227).
4. Tell Ammurin: 2.5 km to the east. It includes layers belonging to different eras.
5. Tell Shamrah: 2.5 km to the northeast. The discovered pottery pieces date to the Hellenistic and Roman periods (Ghazi and Daoud 2011: 94).
6. Apamea: some 16 km to the northeast. It dates to the classical periods, as well as to the Bronze Age. Apamea is mentioned in ancient texts under the name 'Nikhi', with two variations: 'Nieai' and 'Niyya' (Hannoun 2008: 2).
7. Joret Ein Elkorum: 10 km to the northwest. It is a pyramidal tomb with remains of buildings and walls from the Byzantine period (Mourterde 1950: 16).
8. Rasha village: 8 km to the west. It contains a pyramidal tomb and remains of Byzantine buildings. To the west, Roman sarcophagi were found.

These sites are listed here to clarify the point that Tell Maksour is located in a very important, culturally rich area, and was influenced by its surroundings throughout history (Abou Saleh 2015: 126).

Site stratigraphy

The stratigraphy at Tell Maksour covers the periods from the 5th millennium BC until the Islamic periods, as



Figure 1: Satellite photo of Tell Maksour (© Google Earth).

evidenced from the 2009 excavations. This was further confirmed by the soundings of the 2012 season (Figures 6-7). In addition to the pottery and granite pieces collected from the surrounding area, the topographical survey of the main tell showed that Tell Maksour extended to the neighbouring small mounds. The land restructuring that took place in the 1950s unfortunately destroyed many of the existing archaeological layers.

The discovered walls of the fortification from the second layer of Sector A, located to the southeast of the tell, date to the Roman period. Above it there is a layer from the Roman-Byzantine era, topped by Islamic layers, where the Ayyubid, Mameluke, and Ottoman periods are the most representative. However, this chronology cannot be certified by stratified excavations as the area was entirely bulldozed. Nevertheless, the Islamic occupation can be confirmed by some of the archaeological findings collected on the surface, such as two coins. In Layer I, Stratum I, finds include pieces of pipes and granite tools. This layer was in fact used to fill the Byzantine layer, thus forming a new settlement layer, i.e. that of the Islamic period.

Stratum I, Layer II: a mosaic floor (made using the *opus tessellatum* technique) extends over some of the rooms of the Byzantine Stratum I. It was damaged during the earthquakes of the 6th century AD, i.e. 526 and 528, which hit Apamea and the surrounding area (Balty and Balty 1999: 17).

Stratum II is dated to the Roman period and consisted of three layers (3-5), as discovered in sounding (S1). Excavations in S1 yielded these three layers deposited directly on the bedrock. Therefore, no older occupation was found, at least in this sector. The resemblance of the architecture of Tell Maksour with that of the city of Apamea, especially during the classical period, suggests a possible strong connection between the two sites.

Discovered buildings in Sector A

Many rooms were discovered in Stratum I made of stone walls. The builders used stone wedges to cut and remove the stones from older walls, such as W1, W2, and W3. They then used these older walls as foundations for the walls of the new building (Figure 8). The construction techniques showed that the walls of Stratum I were

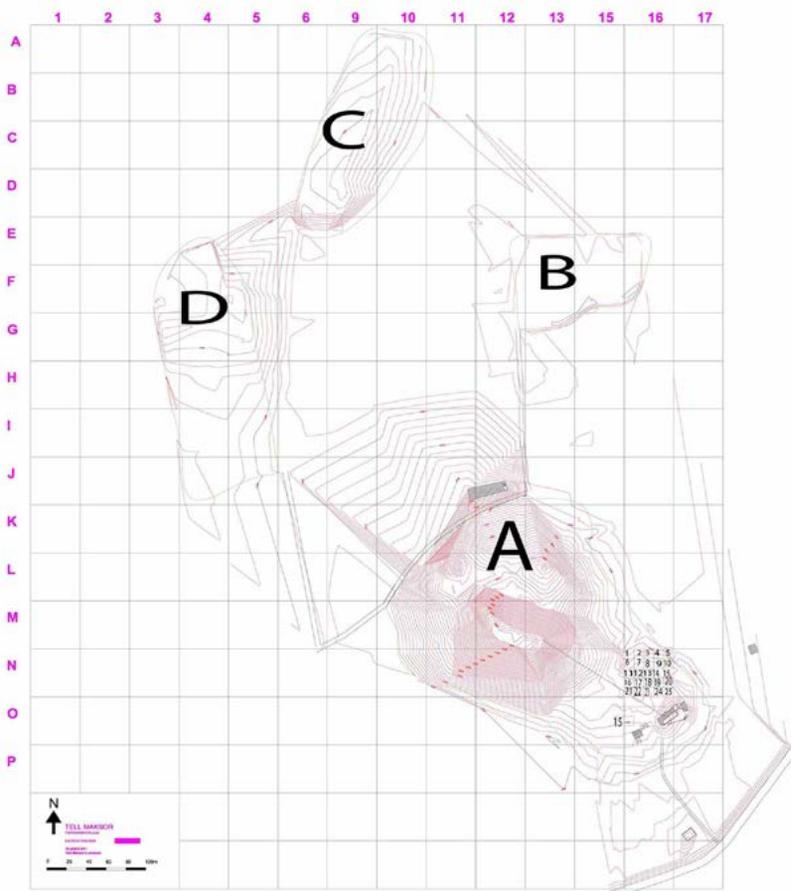
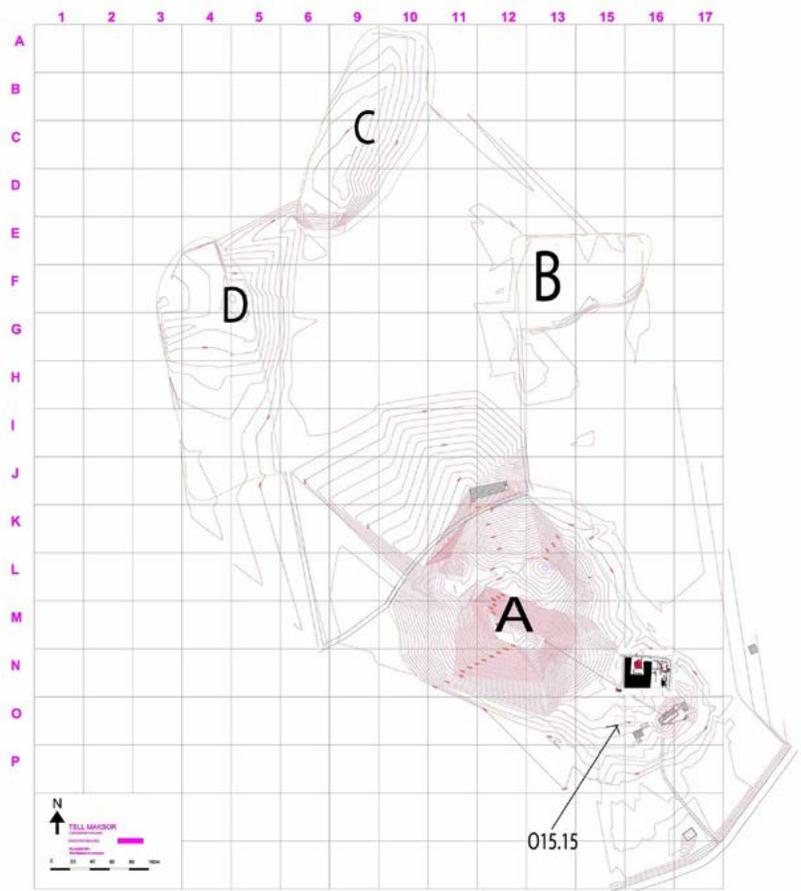


Figure 2: The four mounds (A, B, C, and D) of Tell Maksour (© Abou Saleh).

Figure 3: Excavation grid in Mound A (© Abou Saleh).



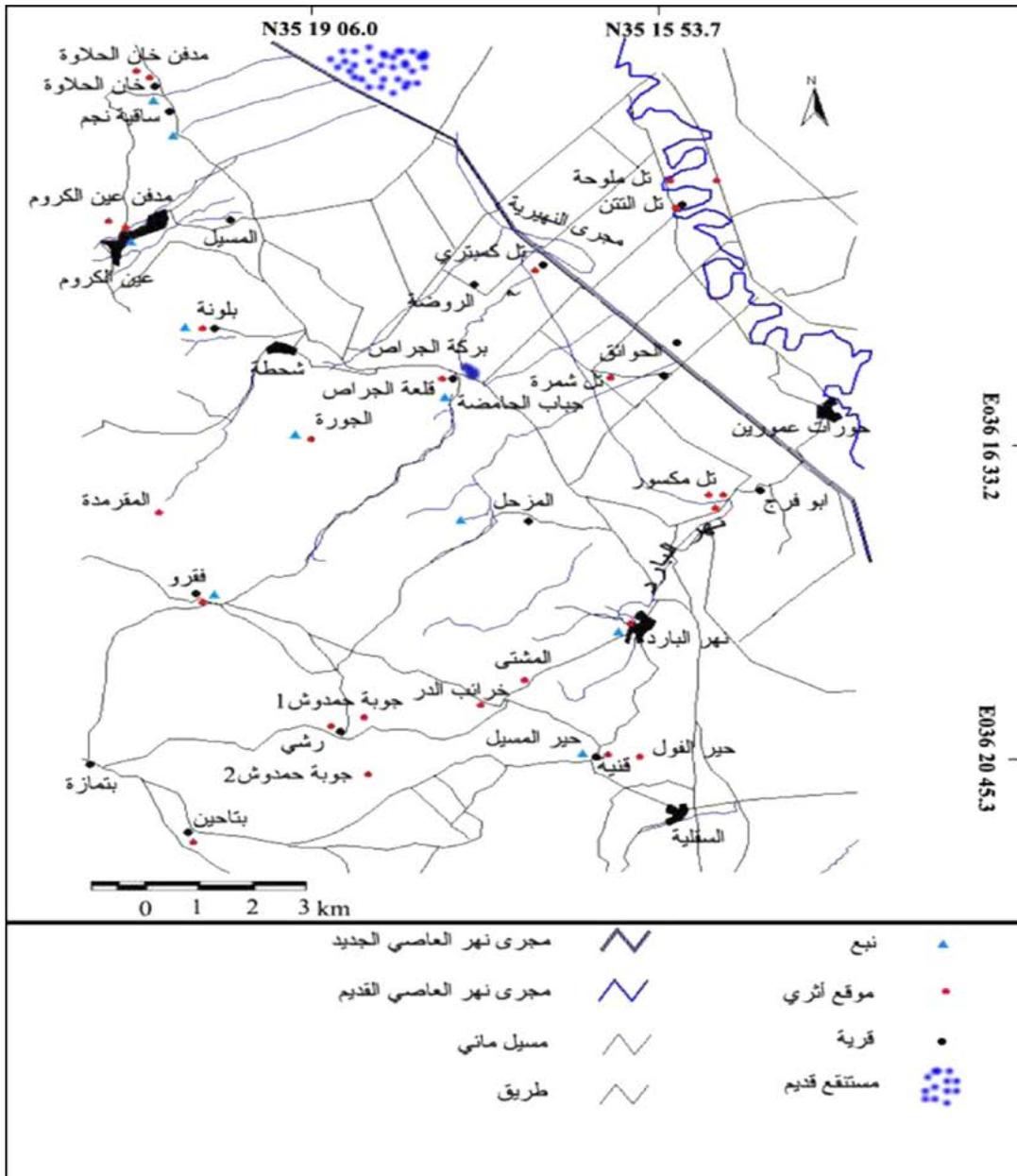


Figure 4: Map of the archaeological sites around Tell Maksour (© Abou Saleh).

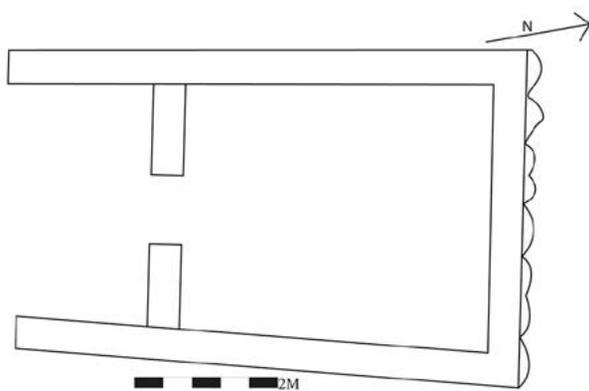


Figure 5: The Hellenistic temple (© Abou Saleh).

made of regularly shaped stones, using large stones in the corners and completing the construction with rubble masonries (Figure 9). They were then covered with a double-layered fresco. Red tiles were used for the roofs of these rooms. The excavation team discovered a room with a large number of tiles, which may indicate that it was used as a storage for tiles to be used in the construction of the rooms for Stratum I (Figure 10). At the eastern side, the tiled roof had clearly collapsed onto the mosaic floor (Figure 11). The floors of rooms R1, R8, and R9 were also covered with mosaic, using the *opus tessellatum* technique.¹ The geometric designs characterize the mosaic floor of room R8, discovered

¹ A mosaic technique widely used with geometric designs, using tesserae of uniform size.

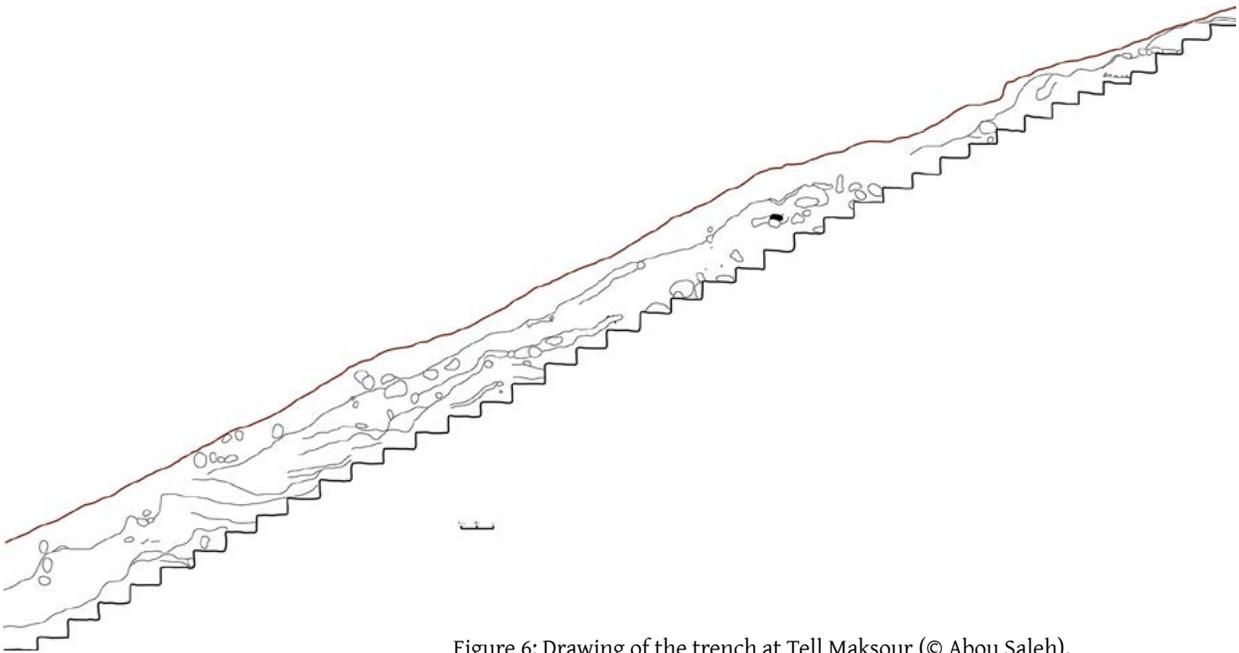


Figure 6: Drawing of the trench at Tell Maksour (© Abou Saleh).



Figure 7: Photo of the trench at Tell Maksour (© Abou Saleh).

during the 2009 season, as well as the floor of room R1 excavated during the 2013 season.

Sector A mosaics

Two other rooms with mosaic floors (using the *opus tessellatum* technique) of geometric design were

discovered, i.e. the mosaic found in room R8 (Figure 12). The design of the mosaic in room R10 displayed a circle within a square, encompassing a flower with six petals (Figure 13). Such designs appeared in the so-called 'Triclinos' buildings (with three spaces) in Apamea during the 1st century AD. (The mosaic in room R10 at Tell Maksour was a continuation of an artistic tradition.) In surrounding sites, such designs appeared on the door of the pyramidal tomb at Joret Ein Elkorum (Figure 14), dating to the late 6th/early 7th century AD. The *opus tessellatum* mosaic in room R1 was mostly damaged, except for the strips adjacent to the walls and a small part of the mosaic, made from black, white, red, and yellow marble tesserae, which showed a repeated pattern of a two-handled cup (Figure 15).

In square O16.10.A, the 2014 excavation unearthed part of a 10 cm x 10 cm *opus tessellatum* floor mosaic, which, unlike previous mosaics discovered during previous seasons, belonged to a stratum older than Stratum I. It was made of 47 pieces of white limestone.

Sector A Fresco

In room R2, near wall W7, and room R3, in front of wall W7, and to the southwest of wall W7, the mission discovered frescoes made of wet plaster that fell off the walls, face down, and onto the fallen ceiling tiles, when the building collapsed. The fresco in room R2 was about 2 m², while it was c. 6m² in room R3. The frescoes in Sector A consisted of two layers belonging to two different periods. The outer layer was almost 1.5 cm thick, made of lime, sand, and vegetal remains, and was mostly red and white. The internal layer was about 1 cm thick, made of lime, sand, and coarse vegetal remains,

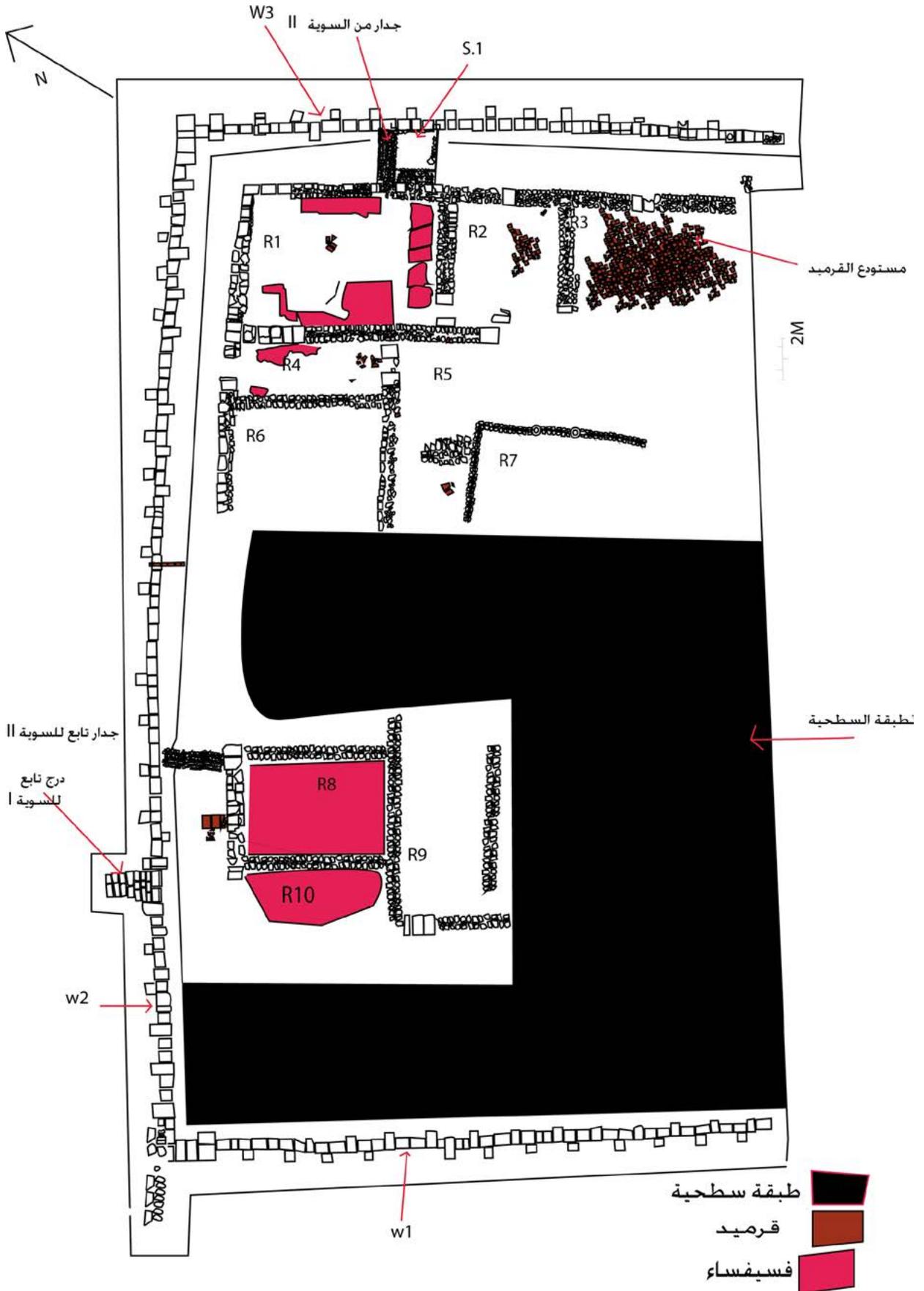


Figure 8: Building, Stratum I, Sector A (© Abou Saleh).

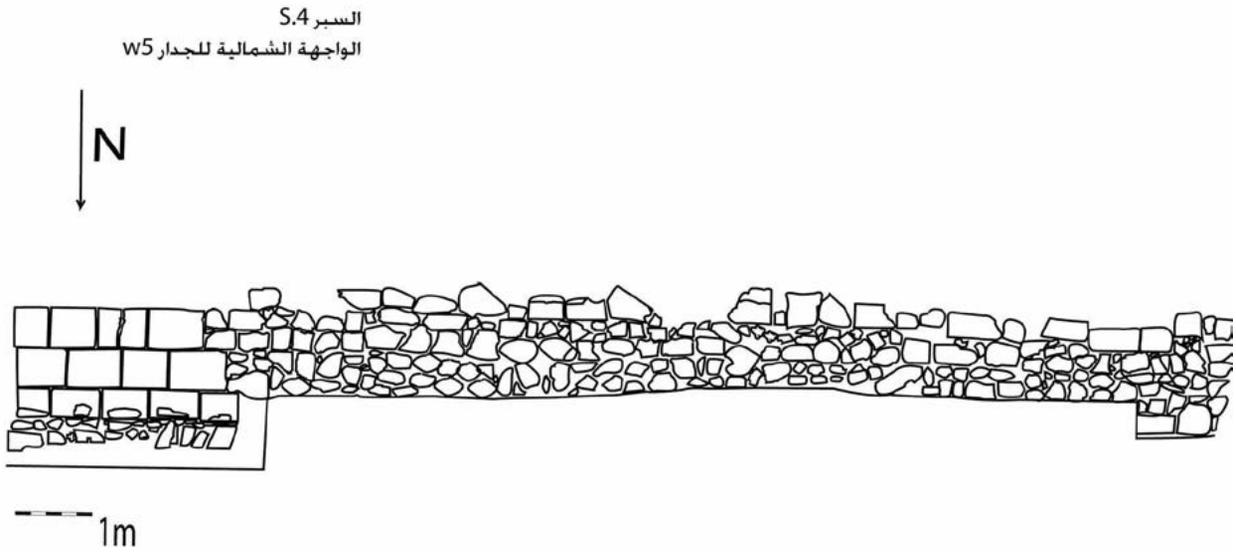


Figure 9: Section of walls of Stratum I (© Abou Saleh).



Figure 10: Storage of tiles in one room, Stratum I (© Abou Saleh).

and was mostly red, blue, green, pink, and white. The fresco displayed two skillfully portrayed individuals on the second, or older layer.

Sector A tiles

The tiles found in room R6 were of two types:

- Type 1: is a 54 cm x 48 cm orange rectangle, made of lime, sand, and ground tiles. It has two edges along the opposite longer sides and only one along the opposite shorter sides. The longer side is 5 cm wide and 7 cm high, while the shorter side is 5 cm wide and 4 cm high.



Figure 11: Collapse of the brick roof onto the mosaic (© Abou Saleh).

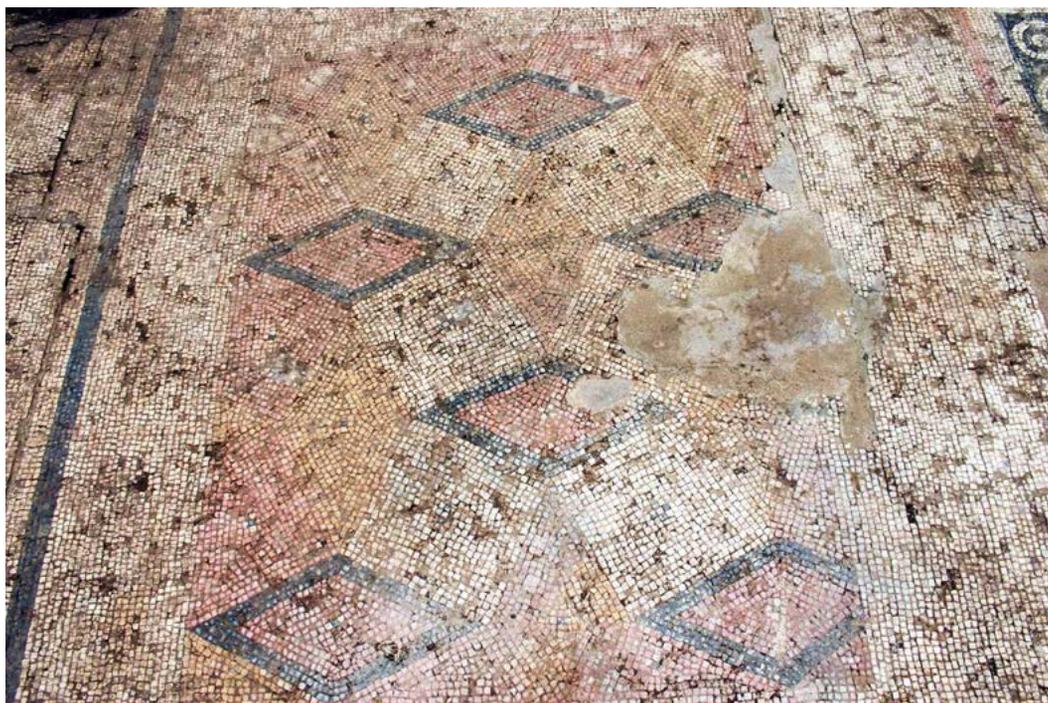


Figure 12: Mosaic floors using the opus tessellatum technique, Sector A (© Abou Saleh).



Figure 13: Design of a mosaic showing a circle within a square that encompassed a flower with six petals (© Abou Saleh).



Figure 14: Door of the pyramidal tomb in Joret Ein Elkorum (© Abou Saleh).

- Type 2 is a 52 cm x 45 cm grey rectangle, made of lime, sea sand, and ground tiles. The width of the longer side is 3.5 cm, but 2 cm for the shorter one.
- On the surface layer: a cylinder seal stamp, 2 cm long, and 0.9 cm in diameter (0.4 cm diameter of the hole). Engraved on it is a legendary scene of a man facing a mythical animal with wings, and whose head is not clear because it was damaged. The man is wearing a hat and a cloak that falls from just under his neck to under his knees. His right hand is stretched towards the mythical animal, while his left hand is

Sector A finds

Many archaeological finds were discovered in sector A Stratum, the most important of which are:



Figure 15: Damaged mosaic in room R1 (© Abou Saleh).

stretched behind him. On top of his left hand is a genie whose hands are raised upwards. In front of the man, there is a deer whose front legs are slightly raised.

- Square N16.13, Stratum I: A bronze figurine of goddess Athena, most probably to be fixed on a helmet worn in battle, or on a shield. The figurine is 6 cm long. Athena has neat, wavy hair showing from underneath her helmet, on top of which stands a 2.1 cm long acanthus leaf. At the bottom of the figurine, there is a 2 mm hole towards the back. The neck of the figurine is 4 mm long while the chest is 2.1 cm wide. The figurine is fractured on the bottom and at the back. What confirms that the figurine was fixed onto a helmet is the existence of a horizontal groove under the bottom of the figurine. A metal wire was inserted inside the groove, to be tied to the hole underneath the acanthus leave. Athena is wearing military dress, with folds. According to an initial estimation, the figurine dates to Roman times, probably to the beginning of the 2nd century AD (Figure 16). The figurine can be compared with the full statue of Athena (Minerva), found in Suweida, that dates to the 1st century AD. There is a resemblance in the shape of the helmet and the acanthus leaf, despite the difference in size

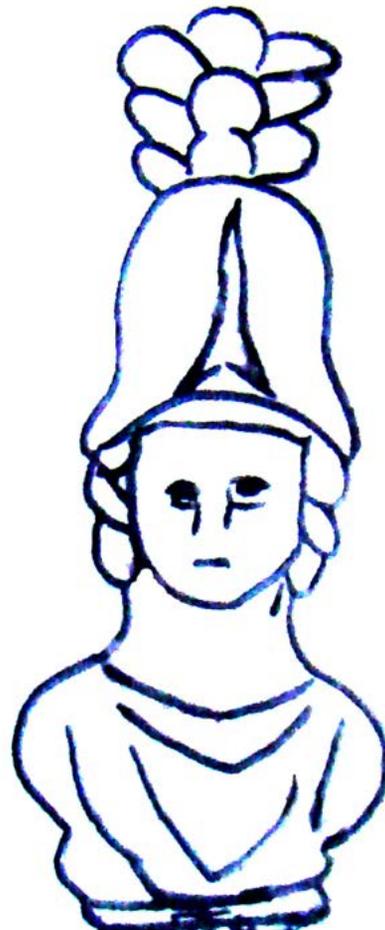


Figure 16: Metal figurine of Athena dated probably to the beginning of the 2nd century AD (© Abou Saleh).

(National Museum curators 2006: 114). Athena is one of the Greek goddesses, sprung from Zeus' forehead. She offered the divine olive tree to the city of Athens, named after her. She triumphed over Poseidon, the god of the sea. Athena is identical to Minerva in the Roman period, and her birthday is celebrated in March (Bodvineak *et al.* 2011: 13-14).

- Square N.16.12, Stratum I: a small brown and purple glass bulb.
- Square O.15.15: a grey oil lamp with a handle (Figure 17), as well as a bronze lamp with siphon.
- Square N.16.13 (rooms R7 and R5): in room R7, Stratum I, a figurine was found of a knight wearing a hat (in an abstract form) and riding a horse. Only the horse's head and neck remained. Similar figurines were found at Tell Jindaris and Tell 'Ain Dara. It is known as the 'Parthian Knight'.
- Stratum II, during Survey S1: in the 6th layer of the survey, a loomweight, 8.1cm high, was found. The base is 4 cm thick and the top is 2 cm. The top had a hole of 0.5cm in diameter. The loomweight is similar to those discovered at Tell 'Ain Dara and Tell Jindaris, and belongs to the Roman period stratum (Abou Assaf 2000: 100).

Sector A pottery styles

Several types of pottery were discovered in Stratum I, some of which are:

- The base of a vase decorated with the two letters 'Y' and 'O' (which could be the potter's initials or a mark of the workshop) (Figure 18). The outside is decorated with vegetal designs (Ace plant), stretching from the base towards the body. It is beige and brown on the outside, and brown on the inside. The fingerprints of the maker are seen on the inside, indicating that the vase was made on a mould. The texture is smooth and contains many coal particles.
- A fragment of well-burnished red fabric (*terra sigillata*), decorated with circles (Figure 19).
- In Room R2, layer II: vases of red clay, made of coarse lime and small grains of river-sand (Figures 20-21).
- In Room R5, layer II: a handle with a yellowish-brown rim, made of a smooth mixture containing particles of fine lime (Figure 22).
- In square N.16.14: a sample of fine ware, with thin red handle and a lip curving outward (Figure 23).

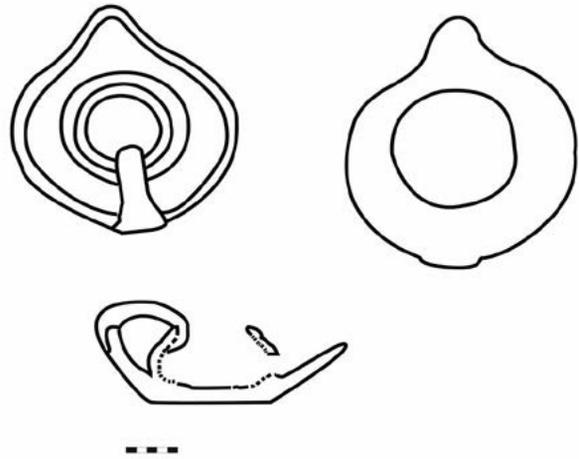


Figure 17: A terracotta grey oil lamp with a handle (© Abou Saleh).

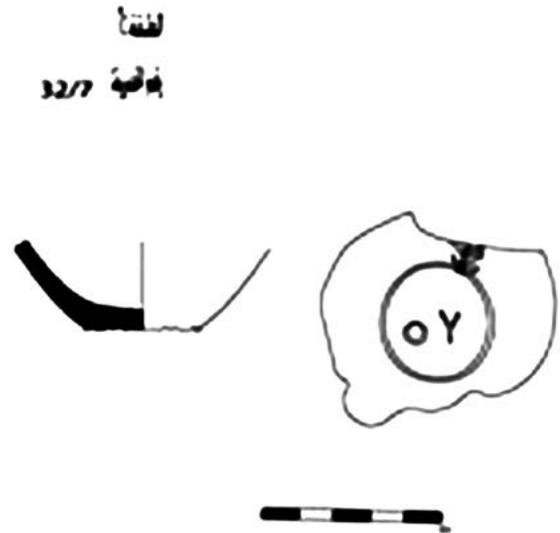


Figure 18: Base of a vase decorated with the two letter Y and O (© Abou Saleh).

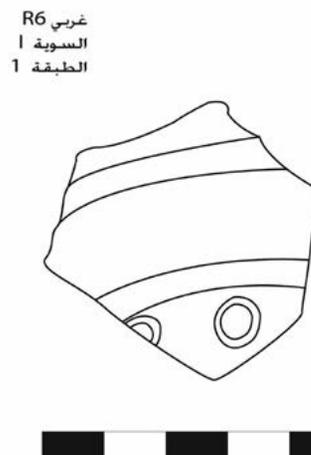


Figure 19: Fragment of terra sigillata decorated with circles (© Abou Saleh).

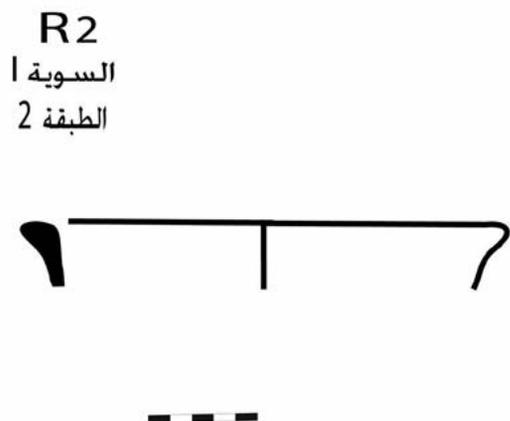


Figure 20: Roman pottery (© Abou Saleh).

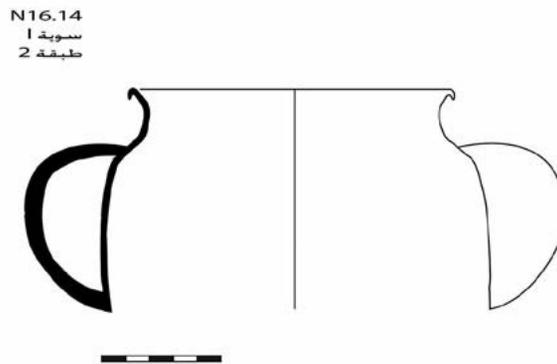


Figure 23: Roman pottery (© Abou Saleh).

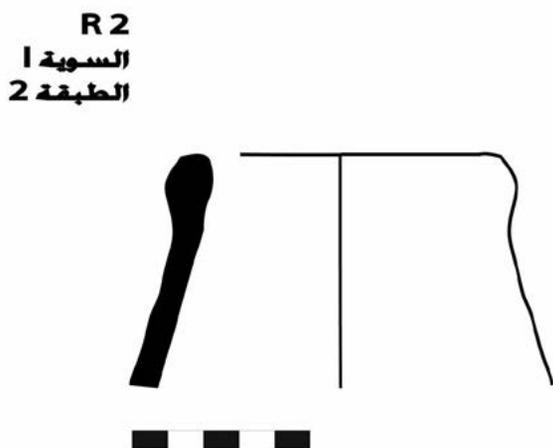


Figure 21: Roman pottery (© Abou Saleh).

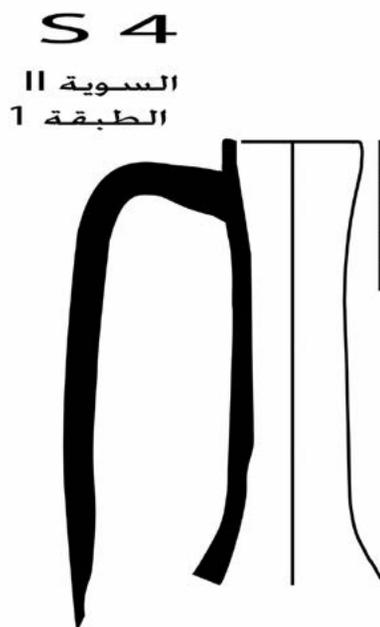


Figure 24: Roman pottery (© Abou Saleh).

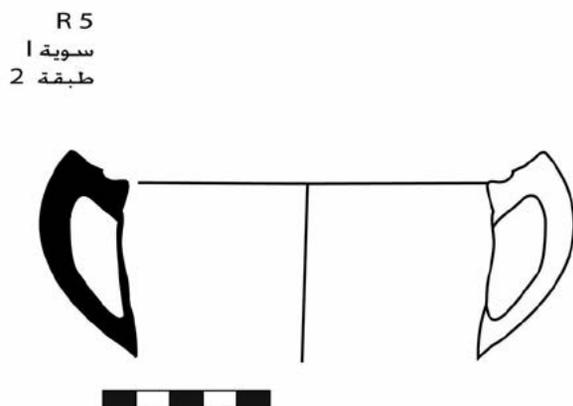


Figure 22: Roman pottery (© Abou Saleh).

- Pottery of stratum II: The most important was part of a pot (*lekythos*), found in Survey S4 and layer IV, made of thin yellowish-brown clay (Figure 24).

Sector B

During the 2009 survey, tombs were discovered in this sector along with two ceramic burial jars placed opposite each other. These tombs date to the Hellenistic period.

Conclusions

The site of Tell Maksour is still in need of extensive archaeological work in order to accurately identify its archaeological strata. The importance of this site

is indisputable, due to its strategic location as part of the fertile Al-Ghab Plain, near the Orontes River and Apamea, and not far from the Syrian coast (only 40 km).

Bibliography

- ABOU ASSAF, A.
2000 *Ein Dara. 2-Archaeological Finds* (in Arabic). Damascus, Ministry of Culture.
- ABOU SALEH, A.
2015 Preliminary report on Tell Maksour Excavation Mission in 2012, *Chronique archéologique en Syrie VII*: 125-140 (in Arabic).
- BALTY, J. and BALTY, J.-C.
1999 *Apamée: site et musée*. Damas, Ministère de la Culture.
- BODVINEAK, M. N., COCAN, M. A., RABINOVICH, M. B. and SELETSKI, B.
2011 *Dictionary of Gods and Myths*. Aleppo, Ministry of Culture.
- FORTIN, M. and COOPER, L.
2011 Tell 'Acharneh: Campagne de 2009, *Chronique archéologique en Syrie V*: 131-136.
- GHAZI, H. and DAOUD, S.
2011 Results of the archaeological survey at the south of Al-Ghab, *Chronique archéologique en Syrie 5*: 89-105 (in Arabic).
- HANNOUN, N.
2008 *Cities of Old Ages in the Governorate of Hama* (from a lecture in Arabic at the First Annual Syrian Historical-Archaeological Symposium).
- HITTI, P. K.
1957 *The History of Syria, Lebanon and Palestine* (2nd ed), Vol. I. (in Arabic). Beirut, Gorgias Press.
- MOURTERDE, R.
1950 A travers l'Apamène, *Mélanges de l'université de St-Joseph XXVIII*: 3-16.
- NATIONAL MUSEUM CURATORS
2006 *Highlighting the national museum in Damascus*. Beirut, The National Museum.
- SYRNGE, P.
1992 *Symbols in History, Arts and Life*. Damascus, Ministry of Culture.

A Summary of the Archaeological Discoveries in the Homs Gap by a Syrian-Lebanese-Spanish Mission (2004-2010)

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Abstract

The archaeological discoveries in the Homs Gap by a Syrian-Lebanese-Spanish mission from 2004 to 2010 have enhanced our knowledge of this region. More than 160 sites were found dating from the Middle Paleolithic to the Ottoman period. This paper focusses on the Epipaleolithic and Neolithic periods and on the megalithic phenomenon.

From 2004 to 2010 a Syrian-Lebanese-Spanish mission, directed by M. Al-Maqdissi, M. Haïdar-Boustani, and J. J. Ibáñez, carried out archaeological investigations in the Homs Gap. In ancient times, the Homs gap, the gateway to Syria, was a favourite trade and invasion route from the coast to the interior, and as such presents a great value for archaeological research. In order to complete the blanks of our archaeological knowledge of this area of Syria, the project aimed to inventory all the sites within this geographical region. However, it focussed on two main topics: (1) the origin and the development of the Neolithic in the area; and (2) the urban organization in the region at the end of the Early Bronze Age (middle of the 3rd millennium BC). Following the archaeological survey (2004-2007), a geophysical survey (2008) was done on selected sites with the objective to test the potential of buried structures. Proper excavations started only in 2008 and lasted until 2010.

The area of archaeological investigations extended between the city of Homs to the east, Qalaat Al-Husn, the famous medieval castle, to the west, the parallel of latitude 3852.28 to the north, and the border with Lebanon to the south, an area covering around 560 km² (Figure 1). These geographical limits of our field research have been fixed in relation with other areas investigated by other archaeological missions. Three main geographical areas can be distinguished: the basaltic plateau to the east corresponding to the west bank of the Orontes River, the basaltic hills in the central area, and the Bouqaiia Basin to the west.

More than 160 archaeological sites were identified, covering the entire region (Figure 1). According to the collected material during the survey campaigns (2004 to 2007) (Haïdar *et al.* 2009; 2008; 2005), this region is almost continuously occupied from the Lower

Paleolithic until today. However, in the present state of our research we have found no clear evidence of Pre-Pottery Neolithic.

As results have been published in many other reports and articles, we chose in this paper to summarize only the most important data relative to the Epipaleolithic and Neolithic of this region in Syria, and to the megalithic phenomenon.

Jeftelik, an Early Natufian site

Jeftelik is an Early Natufian site located on the western bank of the Nahr Al-Kebir River, in the northern part of the Bouqaiia Basin. The first occupants established their settlement on the eastern side of a hill that is nowadays terraced and cultivated (Haïdar-Boustani *et al.* 2007; 2005; Ibáñez *et al.* 2012; 2008; Rodríguez Rodríguez *et al.* 2013; 2010). The richness of the Natufian artefacts found on the surface called for a geophysical survey using electrical tomography, which demonstrated the existence of large architectural structures. Based on this, the team chose the locations to be excavated. Below the archaeological remains of the Ottoman, Roman-Byzantine, and Bronze Age periods, the Natufian layers were uncovered in situ. During the course of three fieldwork seasons (2008-2010), a round structure of 6 m in diameter (structure 1), surrounded by a peripheral stone wall of 1 m maximum in width, was found (Ibáñez *et al.* 2012; Rodríguez Rodríguez *et al.* 2013). This slanted wall towards its base gave the structure a shape of a truncated cone. Its interior was filled with a very compact sediment with two stone alignments that could indicate the existence of internal divisions. We should stress that the excavation of this structure is partial. So to better understand this structure and

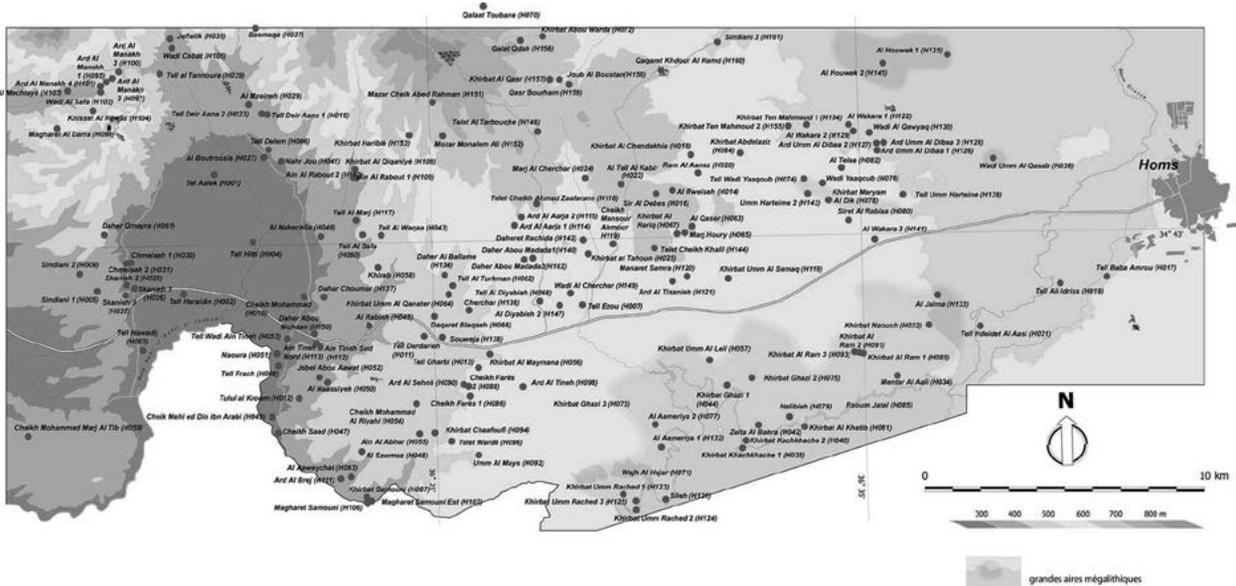
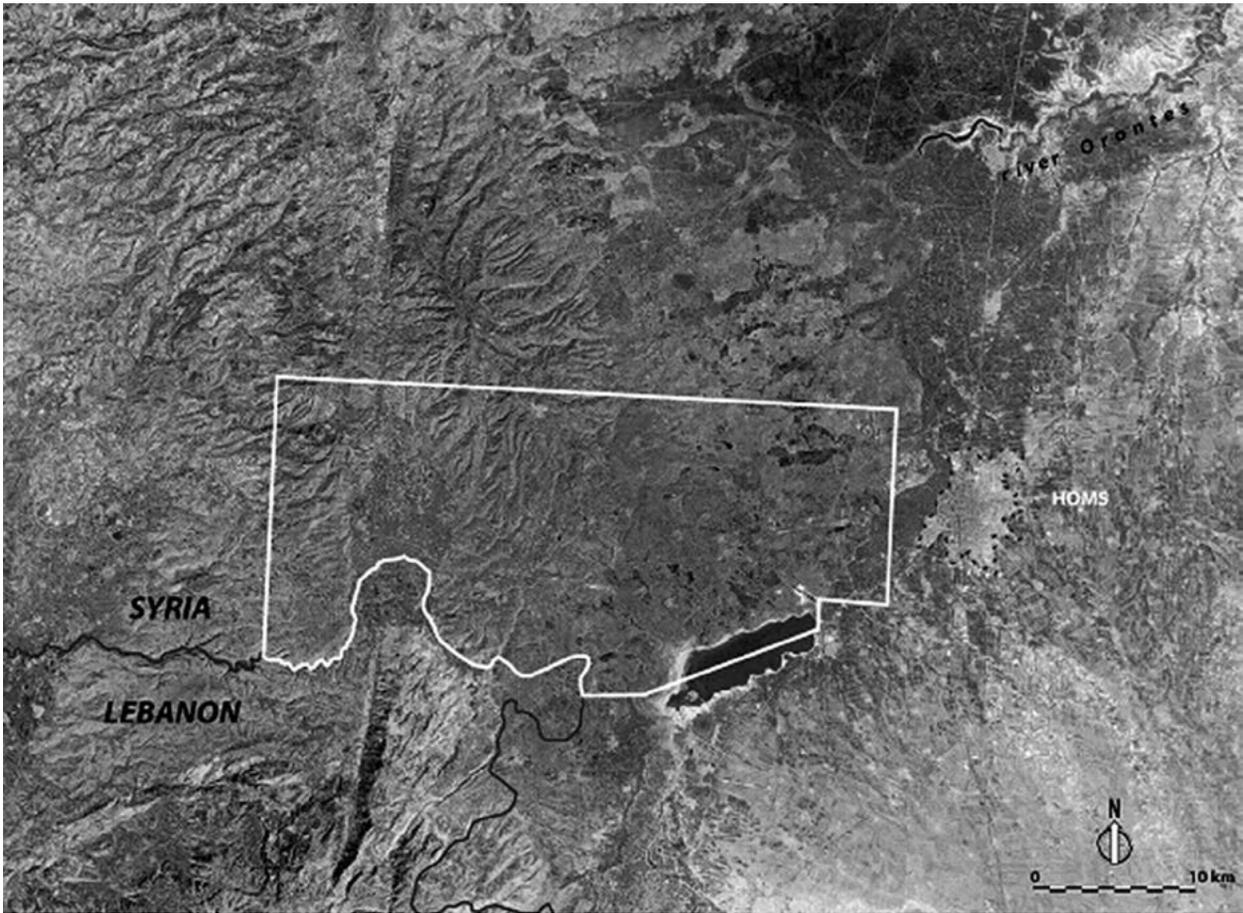


Figure 1: Maps showing the location of the survey area and the geographical repartition of all the archaeological sites (© The Syrian-Lebanese-Spanish mission in the Homs Gap).

several others stone structures around it (Figure 2), further excavations need to be conducted.

The chipped stone artefacts are characteristic of the Natufian culture (Haïdar-Boustani *et al.* 2007; Rodríguez Rodríguez *et al.* 2013). They are made mainly from local

fine-grained flint which is knapped and shaped in situ. The aim of the debitage was to produce blades, bladelets, and elongated flakes. The most abundant artefacts are flakes with simple retouch, end-scrapers, and geometric microliths. Most of the latter are Helwan lunates with simple bifacial retouch (Figure 3), which predominate



Figure 2: Jeftelik, an overview of the excavations and the peripheral wall of structure 1 (© The Syrian-Lebanese-Spanish mission in the Homs Gap).

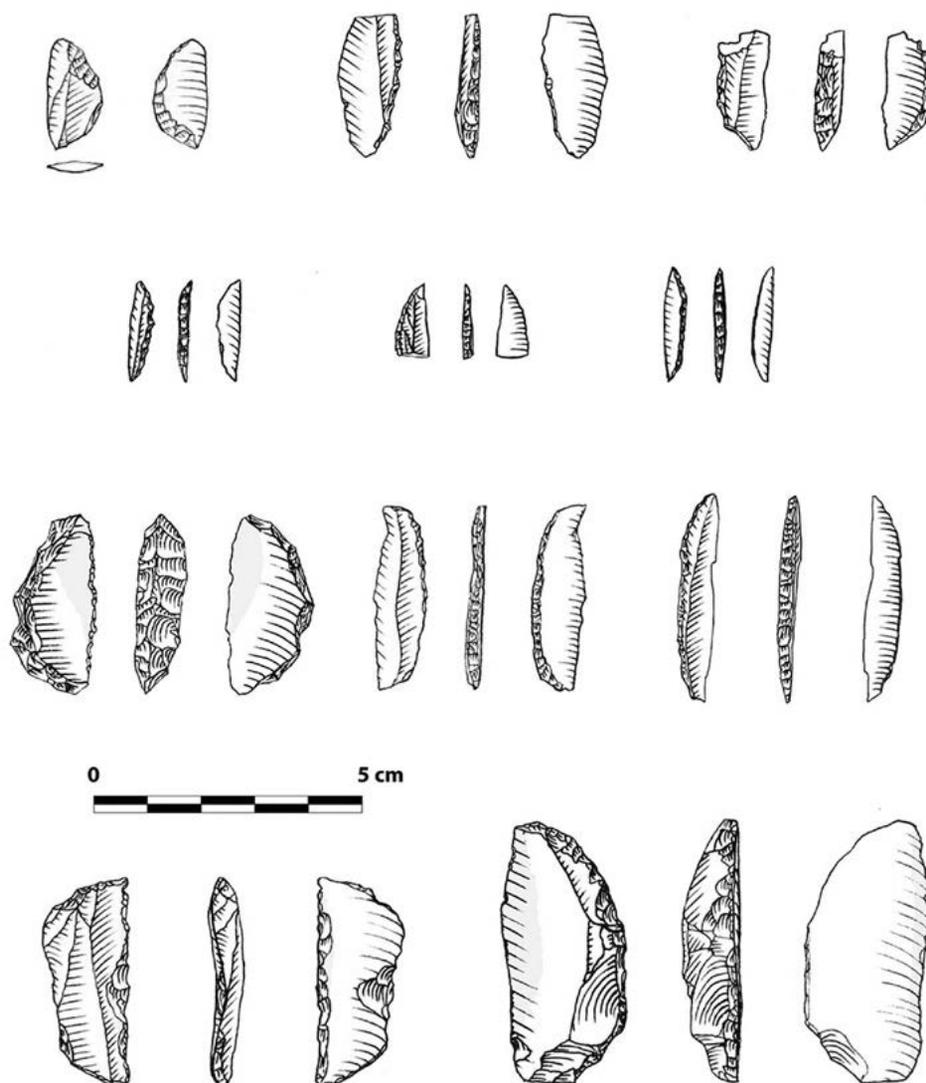


Figure 3: Jeftelik, lunates (© The Syrian-Lebanese-Spanish mission in the Homs Gap).



Figure 4: Jeftelik, engraved pebble

(© The Syrian-Lebanese-Spanish mission in the Homs Gap).

over those with steep retouch. These morphological characteristics of the microliths fit within the classical definition of the Early Natufian assemblages (Belfer-Cohen 1991). The large number of microlithics suggests that hunting was an important activity, together with the gathering of plants, as indicated by the presence of gloss on some pieces.

Milling and pounding tools are also abundant, but most of these were recovered on the surface of the site. Also on the surface of the site we found some symbolic objects. One of the most interesting artefacts is a polished pebble engraved on one of its faces with chevron patterns, separated in two halves by two central parallel lines (Figure 4) (Haïdar-Boustani *et al.* 2007; Rodríguez Rodríguez *et al.* 2013; 2010).

Three samples of charcoal collected during the excavation were dated by C14 AMS, giving the following dates: 12100 ± 70 BP,¹ 12075 ± 45 BP² and 12110 ± 45 BP³ (Ibáñez *et al.* 2012; Rodríguez Rodríguez *et al.* 2013). These dates indicate an occupation period between the late 13th and early 12th millennium cal. BC. The dated samples were collected from contemporary sedimentary layers of the large structure 1 cited above and from later ones.

Tell Al Marj, a pottery Neolithic site

Tell Al Marj is located 40 km east of the Mediterranean coast, on top of a hill in the eastern side of the Bouqaia Basin (Haïdar-Boustani *et al.* 2009; 2008; 2007; Ibáñez

et al. 2008). The quality and variety of the material found on the surface caught our attention. Therefore, we conducted an electronic survey to detect possible constructed structures. The positive results warranted excavations, which revealed the presence of rectangular buildings (Figure 5) with walls of basalt blocks, stone pavement, and floors of beaten earth. The width of the walls is around 50 cm, but their base has not yet been reached. Taking into consideration the stratigraphy observed in a trench dug by the inhabitants for a well, we can assume that the walls were preserved to a height of around 70 cm. Among the many lithic tools, projectile points are numerous (Figure 6). The small arrowheads with wings and tang correspond to the Ha-Parsa, Nizzanim, and Herzliya types, common in the southern Levant. Some arrowheads are similar to the lozenge type of Byblos. Beside these types there are also some broken Amuq points. Glossed pieces are also attested. The pottery (Figure 7) is more comparable in shape and decoration to the pottery of Byblos and the Yarmukian culture of the southern Levant, than to ceramics from the northern sites (Haïdar-Boustani *et al.* 2009; Ibáñez *et al.* 2008).

According to the dating by C14 AMS, 7120 ± 50 BP, Tell Al Marj was occupied at the very end of the 7th millennium, or the beginning of the 6th millennium cal BC.⁴

The megalithic necropolises

One of the most spectacular archaeological discoveries in this region of Syria is a considerable and extended megalithic landscape, spreading along the north of the Qattina Lake (Figure 8). This basaltic plain contains thousands of mounds. Some small necropolises are also spread throughout the investigated area, and are located on top of basaltic hills dominating the surroundings (Armendáriz *et al.* 2011: fig. 1). Up to now, no archaeological excavation has been carried out on these sites. Our knowledge of these megaliths is based on the external observations of the monuments and their distribution in space. Descriptions of these necropolises have been presented in previous publications (e.g. Armendáriz *et al.* 2012; 2011; 2008; Ibáñez *et al.* 2010). What we should stress here is the complex spatial pattern documented near the Qattina Lake. There is a hierarchy in the organization of the funerary territory and specific types of monuments are concentrated in special areas. The largest and most complex mounds are situated on natural elevations (Armendáriz *et al.* 2011: fig. 2). Besides the tombs, other structures have been documented which might be walls, alleys, enclosures, etc. But in some cases the structures connected to the mounds suggest that some ritual practices could have been carried out there. This megalithic landscape is a

¹ Beta - 257748, calibration 2 sigma: 12190 BC: 11830 BC. Sample collected in DH906, US38 (OxCal).

² CNA527, calibration 2 sigma: 12097 BC: 11856 BC. Sample collected in DHI906, US28 (OxCal).

³ CNA528, calibration 2 sigma: 12137 BC: 11879 BC. Sample collected in DJ907, US22 (OxCal).

⁴ Beta - 262211, calibration 2 sigma: Cal BC 6060 to 5900. Sample collected in KB 504 SU 16 (OxCal).



Figure 5: Tell Al Marj, rectangular buildings (© The Syrian-Lebanese-Spanish mission in the Homs Gap).



Figure 6: Tell Al Marj, flint arrowheads (© The Syrian-Lebanese-Spanish mission in the Homs Gap).



Figure 8: One of the many chambers in the megalithic landscape along the Qattina Lake
(© The Syrian-Lebanese-Spanish mission in the Homs Gap).

the south (e.g. Byblos and the Yarmukian Culture) than to the north (e.g. Ras Shamra or Amuq). The megalithic necropolises extending near the Orontes River show the existence of a hierarchical pattern that could be more related to the sedentary Bronze Age population than to nomadic groups.

Like other foreign archaeological missions, our work in the Homs Gap was interrupted because of the war. However, it is important to continue our work as soon as possible so as to supplement the data already acquired. Given the significant data obtained at Jeftelik, it is necessary to continue the excavations and to open new squares to better document the structures. Since it is a sedentary Natufian settlement, knowledge of the structures is crucial scientifically. It is also necessary to continue the work at Tell Al Marj. Indeed, we have not yet reached bedrock in the last excavations and the fauna has yet to be studied. For the megaliths, it would be important to make some new excavations to resolve a number of issues related to the architectural, chronological, and cultural aspects of these structures.

Bibliography

ARMENDÁRIZ, A., TEIRA, L., AL-MAQDISSI, M., HAÏDAR-BOUSTANI, M., IBÁÑEZ, J. and GONZÁLEZ URQUIJO, J.
2008 The megalithic necropolises in the Homs Gap (Syria). A preliminary approach. In: J. Córdoba, M. Molist, C. Pérez, I. Rubio, and S. Martínez (eds), *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East April 3-8, 2006*,

Vol. I: 151-162. Madrid, Universidad Autónoma de Madrid Ediciones.

ARMENDÁRIZ, A., IBÁÑEZ, J. J. M., AL-MAQDISSI, M., HAÏDAR-BOUSTANI, M., TEIRA, L. and GONZÁLEZ URQUIJO, J.

2011 The megalithic necropolises at the West of Homs (Syria). In: T. Steimer-Herbet (ed.), *Pierres levées et stèles anthropomorphes et dolmens/Standing stones and anthropomorphic stelae and dolmens, Colloque International, Amman 15-17 juin 2007, Lyon, Maison de l'Orient Méditerranéen*. British Archaeological Reports International Series 2317: 55-65. Oxford, Archaeopress.

ARMENDÁRIZ GUTIERREZ, A., TEIRAL, L. TAPIA SAGRANA, J., HAÏDAR-BOUSTANI, M., GONZÁLEZ URQUIJO, J. E. and IBÁÑEZ ESTEVEZ, J. J.

2012 Las necrópolis megalíticas de la región de Homs (Siria). In: J. R. Muñiz Alvarez (ed.), *Ad orientem del final del paleolítico en el norte de España a las primeras civilizaciones del oriente próximo. Estudios en homenaje al profesor Juan Antonio Frenandez-Tresguerres Velasco: 479-499*. Pola de Siero (Asturias), Mensula.

BELFER-COHEN, A.

1991 The Natufian in the Levant, *Annual Review of Anthropology* 20: 167-186.

GARRARD, A. and YAZBECK, C.

2013 The Natufian of Moghr el-Ahwal in the Qadisha valley, Northern Lebanon. In: O. Bar-Yosef and F. R. Valla (eds), *Natufian Foragers in the Levant: 17-27*. International Monographs in Prehistory, Archaeological Series 19. Ann Arbor, Michigan, University of Michigan.

- HAÏDAR-BOUSTANI, M., IBÁÑEZ, J. J., AL-MAQDISSI, M., ANGEL ARMENDÁRIZ, A., GONZÁLEZ URQUIJO, J. and TEIRA, L.
 2008 Prospections archéologiques à l'Ouest de la ville de Homs: rapport préliminaire, campagne 2005, *Tempora* 16-17: 9-38.
- 2007 New data on the Epipalaeolithic and Neolithic of the Homs Gap: Three campaigns of archaeological survey (2004-2006), *Neo-Lithics* 1/07: 3-9.
- 2005 Prospections archéologiques à l'Ouest de la ville de Homs: rapport préliminaire, campagne 2004, *Tempora* 14-15: 59-90.
- HAÏDAR-BOUSTANI, M., IBÁÑEZ, J. J., AL-MAQDISSI, M., ANGEL ARMENDÁRIZ, A., GONZÁLEZ URQUIJO, J., TEIRA L., RODRÍGUEZ, XAVIER TERRADAS, A., BOIX, J., TAPIA, J. and SABREEN, E.
 2009 Prospections archéologiques à l'Ouest de la ville de Homs: campagnes 2006-2007, *Tempora* 18: 7-49.
- IBÁÑEZ J. J., HAÏDAR-BOUSTANI, M., AL-MAQDISSI M., ARMENDÁRIZ A., GONZÁLEZ URQUIJO J. and TEIRA L.
 2010 Découverte de nécropoles mégalithiques à l'ouest de Homs. In: M. Al-Maqdissi, F. Braemer, and J.-M. Dentzer (eds), *Hauran V. La Syrie du sud du Néolithique à l'antiquité tardive. Recherches récentes*, Vol. I: 359-366. Actes du colloque de Damas 2007, Bibliothèque archéologique et historique 191. Beyrouth, Institut français du Proche-Orient.
- 2008 Archaeological survey in the Homs Gap (Syria). Campaigns of 2004 and 2005. In: J. Córdoba, M. Molist, C. Pérez, I. Rubio, and S. Martínez (eds), *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East, April 3-8, 2006*, Vol. II: 187-203. Madrid, Universidad Autónoma de Madrid Ediciones.
- IBÁÑEZ, J. J., TERRADAS X., ARMENDÁRIZ, A., GONZÁLEZ URQUIJO, J., TEIRA, L., BRAEMER, F., GOURICHON L., HAÏDAR-BOUSTANI, M. and RODRÍGUEZ RODRÍGUEZ, A.
 2012 Nouvelles données sur les architectures des sites natoufiens de Jeftelik et Qarqaaq 3 (Syrie centro-occidentale et du sud). In: J.-L. Montero Fenollós (ed.), *Du village néolithique à la ville syro-mésopotamienne*: 9-33. Bibliotheca Euphratica 1. Universidad da Coruña.
- PAZ, Y.
 2005 The Megalithic Manifestation of the Urban Process at the Golan during the Early Bronze Age, *Mediterranean Archaeology and Archaeometry* 5/1: 5-14.
- RODRÍGUEZ RODRÍGUEZ, A., HAÏDAR-BOUSTANI, M., GONZÁLEZ URQUIJO, J., IBÁÑEZ, J. J., AL-MAQDISSI, M., TERRADAS, X. and ZAPATA, L.
 2013 The Early Natufian Site of Jeftelik (Homs Gap, Syria). In: O. Bar-Yosef and F. R. Valla (eds), *Natufian Foragers in the Levant*: 61-72. International Monographs in Prehistory, Archaeological Series 19. Ann Arbor, Michigan, University of Michigan.
- 2010 Jeftelik: a new Early Natufian site in the Levant (Homs Gap, Syria), *Antiquity* 84, Issue 323, Project Gallery, March 2010, <http://www.antiquity.ac.uk/projgall/ibanea323/>

Palmyra.

30 Years of Syrian-German-Austrian Archaeological Research (1981-2010)

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Abstract

The archaeological research of the Syrian-German-Austrian mission to Palmyra focussed on four fields: Tomb no. 36 and research on other temple-like tombs; the quarries of hard limestone situated 15 km northeast of the city; the textiles found in the tombs of Palmyra; the urbanism of pre-Roman Palmyra, and the excavation of the residence of a noble Palmyrenian in the area south of the wadi.

In 1980, a new branch of the German Archaeological Institute was inaugurated in Damascus with the kind support of the Directorate General of Antiquities and Museums in Syria. One year later, in 1981, a Syrian-German joint archaeological mission started its work in Palmyra. This paper gives a summary of the archaeological research of this mission for the last 30 years. Our investigations focussed on four fields. First, the so-called temple-tomb (no. 36) was excavated, studied, and published in detail. Parallel to the work on this tomb a comparative study was done on all the temple-like tombs at Palmyra. The mission worked afterwards in the limestone quarries situated about 15 km northeast of Palmyra. For the first time, a cartographic mapping of these quarries was undertaken, as well as a study of the different techniques used for extraction, production, and transport of stones. In a third project, the more than 2000 textile fragments found in the tombs of Palmyra were cleaned, restored, documented, studied, and presented to the public. The last project of the mission was concentrated on the urbanism of the so-called 'Hellenistic' town of Palmyra. The location of this pre-Roman settlement dating from the 3rd century BC onwards was proved in the area south of the wadi by a geophysical survey and by several test trenches. At this location, a rich residential building was excavated, demonstrating the far-reaching trade connections of Palmyra from late Hellenistic to Roman times (see Schmidt-Colinet 2005; Schmidt-Colinet *et al.* 2013 for full bibliographic references of the Syrian-German-Austrian archaeological research in Palmyra).

Tomb no. 36 and other temple-tombs

(Figures 1-2; Al-Assaad 1983; Schmidt-Colinet 1997; 1992; 1985)

The temple or house-like tomb no. 36 is situated in the centre of the so-called 'Valley of the Tombs'. With about 18 m in length from edge to edge and about 300 graves (*loculi*), it is the largest representative of this palace-like type of tombs at Palmyra. The architectural decoration of the building allows a dating to c. 210 to 230 AD. Furthermore the tomb can be attributed probably to the family of the famous *Iulius Septimius Aurelius Vorodes*.

The documentation of the more than 700 fallen blocks of the structure enabled the drawing of an exact reconstruction of the building. The architecture documents a fusion of different traditions as well as the grandiose will of the building's commissioner. The palace-like façade of the entrance contrasts with the square, two-storey, and uncovered peristyle courtyard in the centre of the structure. Design and metrology of the building reveal at every point Roman principles of design, brought into line with oriental taste.

The themes and stylistic evidence of the architectural sculpture prove close relations with foreign sarcophagi workshops on the Syrian coast and their connections to Roman art: Dionysos-Baalshamin sitting in the vineyards, Nereids, and Eros riding on dolphins, sea monsters holding a shell between them, victories, winged Medusas, and tragic masks. On the other hand, the exceptionally rich architectural decoration of the highest quality executed by local workshops enables us to reconstruct pattern books which partly can be traced back to native textile patterns. The sarcophagi and grave reliefs, which again conform to local traditions, give much new information about costumes and adornments of the Palmyrene upper class of the 3rd century AD. The small finds, such as pottery, lamps, etc., again prove relations with workshops outside Palmyra. The osteo-archaeological evaluation

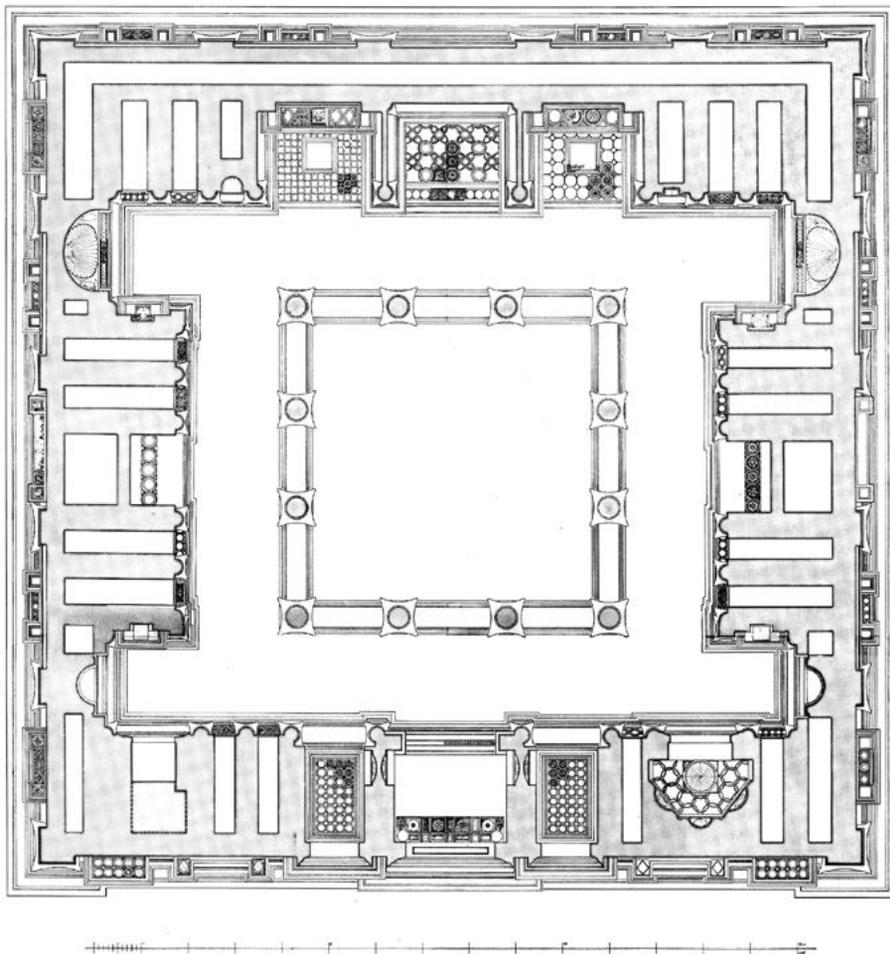


Figure 1: Palmyra, tomb no. 36, ground plan reconstructed (© The Syrian-German-Austrian mission to Palmyra).

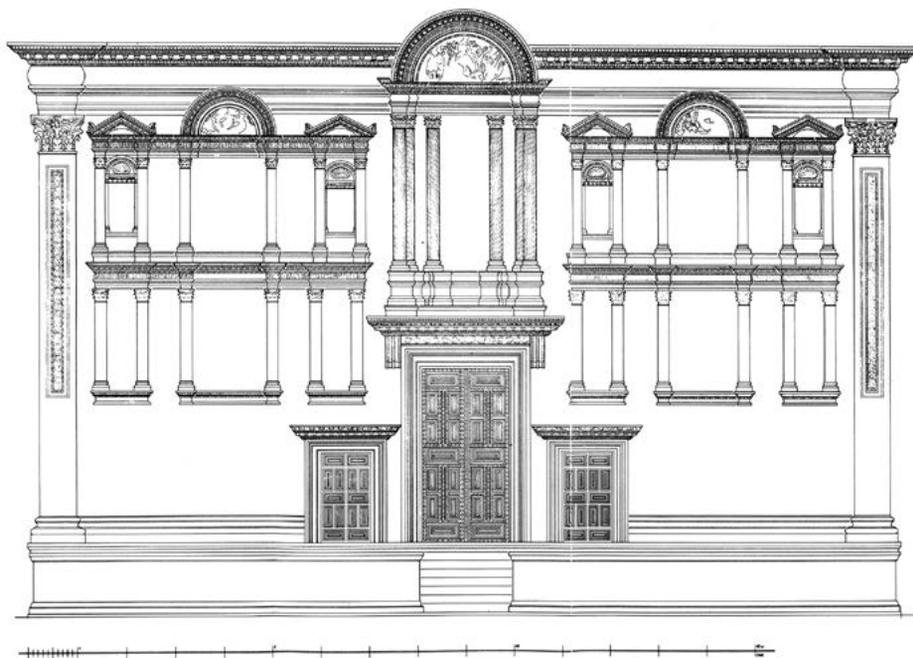


Figure 2: Palmyra, tomb no. 36, entrance facade reconstructed (© The Syrian-German-Austrian mission to Palmyra).

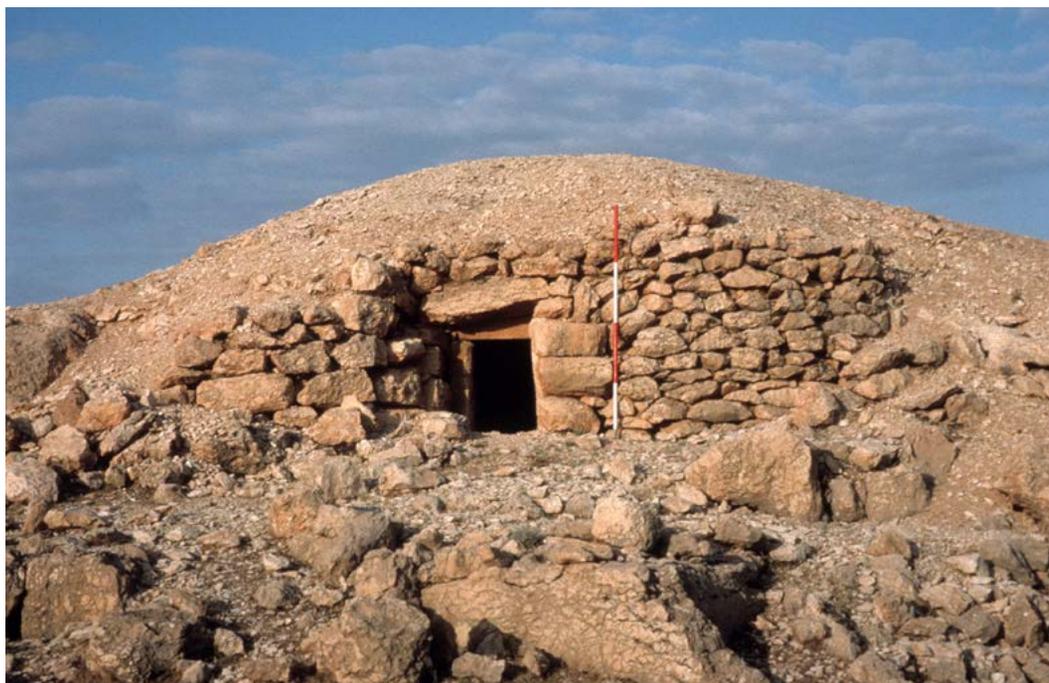


Figure 4: Palmyra, quarry no. 3, 'dragon house' (© The Syrian-German-Austrian mission to Palmyra).

cartographic mapping of the quarries, a study of the different techniques used for extraction, production and transport, as well as investigating the infrastructure of the people working in, or living near, the quarries. One of the quarries gives detailed information about the daily life and social environment of the workers. For example, caves artificially enlarged were used as living quarters. The amount of water supply necessary was made possible by a sophisticated system of water channels and cisterns laid out over the area. 'Dragon houses' constructed with broken or rejected blocks were used as shelters for guardians and for storing working material. Graffiti on the walls of those houses give names and professions of masons and quarry workers. Loading ramps provided all over the quarries allow for a reconstruction of the means of transport, also known from sculptured representations: carts with a loading height of about 1 m and pulled by bulls.

Many unfinished blocks left in the quarries, as well as traces of tools on the quarry walls, give reliable information about the different methods used for extraction and for manufacturing the raw material. They testify to a change of techniques and tools during the first half of the 2nd century AD. With the new technique it was possible to extract larger blocks with less effort and within a shorter period of time. Thus, the interdependency and correlation between the building ethos at Palmyra, i.e. the building boom in the first half of the 2nd century AD and the development of new methods of extraction and production, can be effectively proved. Furthermore, the different traces

of the tools used give hints for a dating of otherwise undated buildings in the town, and thus make more clear the chronology of the urban development of ancient Palmyra.

Textiles from Palmyra

(Figures 5-6; Schmidt-Colinet 1995a; Schmidt-Colinet and Stauffer 2000; Schmidt-Colinet *et al.* 1999).

The more than 2000 textile fragments found in the tombs of Palmyra provide one of the largest groups of antique textiles with proven origin. They were all found either as parts of mummies or as isolated fragments in so-called 'tower tombs', dated by inscriptions from the 1st century BC to the 2nd century AD. Within an international and interdisciplinary project, the textiles were cleaned, restored, and documented. They are presented partly to the public in permanent exhibitions in the Museums of Palmyra and Damascus. The textiles give an unusual amount of information about the history of Palmyra, i.e. economy and trade (silk route), daily life and culture, as well as different burial customs (mummification) and religion.

Two groups of textiles can be distinguished: textiles of local production and fabrics imported from India and China. The locally produced fabrics are made of cotton, linen, or wool, generally of outstandingly high quality and with sophisticated designs. Wool was dyed using different colours from plants or animals. The dyestuffs were produced locally or imported from as far away as



Figure 5: Palmyra, linen textile after restoration (© The Syrian-German-Austrian mission to Palmyra).



Figure 6: Palmyra, silk fabric imported from China, from the tower tomb of Kitot (40 AD) (© The Syrian-German-Austrian mission to Palmyra).

India. Silk fabrics were imported from China. Some of them can be attributed to certain imperial workshops from the Chinese characters they contain. The designs found on the local Palmyrene textiles also appear on sculptures and buildings. Obviously, the same patterns were used in textile workshops, sculpture ateliers, and architectural workshops. Thus, the typical ‘arabesque’ architectural decoration of Palmyra can be largely traced back to patterns of local textiles.

Pre-Roman Palmyra

(3rd century BC to 3rd century AD) and the investigation of a ‘khan’ (Figures 7-8; Schmidt-Colinet 2008; 2002; Schmidt-Colinet and Kh. Al-Assaad 2013; Schmidt-Colinet and W. Al-Assaad 2000).

For several reasons the ‘Hellenistic’ town was supposed to be situated outside the Roman town, in the area south of the current wadi. By means of geophysical prospection, underground dwellings were made visible without excavating, within an area of *c.* 20 ha. Two test trenches proved the location of the pre-Roman settlement in this area dated from the 3rd century BC onwards. The pottery finds confirm that the area was inhabited from the 3rd century BC to the 3rd century AD. During the last years of excavations, a caravan building, or residence of a caravan leader, was excavated and studied. The extraordinary wall decoration of this building, with paintings and stucco, as well as the huge amount of different small finds, give a vivid idea of the daily life, and enormous wealth of the people who profited from the far-reaching connections of the Palmyrene trade. Furthermore, the small finds of this ‘khan’ proved global trade connections from Spain to China.

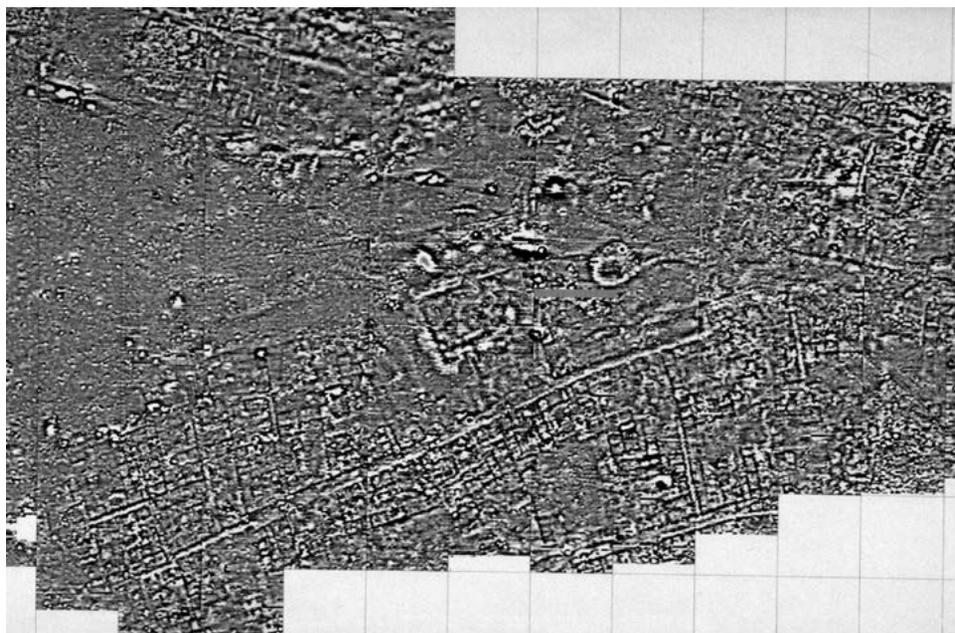


Figure 7: Palmyra, area of the 'Hellenistic' town, magnetogram of the underground settlement (© The Syrian-German-Austrian mission to Palmyra).

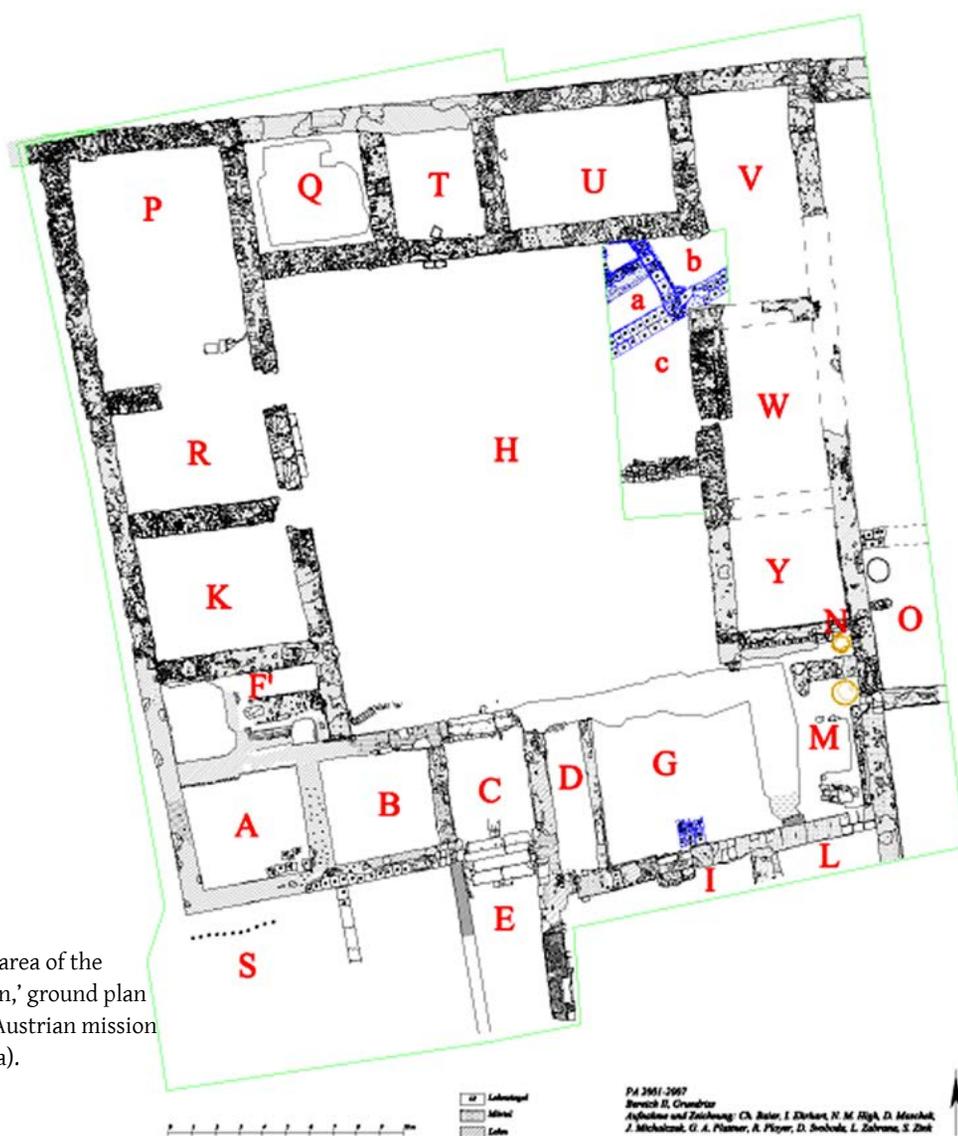


Figure 8: Palmyra, area of the 'Hellenistic' town, 'Khan,' ground plan (© The Syrian-German-Austrian mission to Palmyra).

Surprising though the chronology of the building is, the khan was only built in the middle of the 1st century BC (that is, shortly after the installation of the Roman province of 'Syria' in 64 BC) and was destroyed at the end of the 3rd century AD (perhaps during the destruction of Palmyra by Aurelian in AD 273). The recent first volume of the *Topographia Palmyrena* I, 'Atlas de Palmyre', published in cooperation with an international team, should become a standard guide for further studies in this field.

Bibliography

AL-ASSAAD, Kh.

1983 The Temple Tomb no. 36 in the West Necropolis of Palmyra. A Preliminary Report (in Arabic), *Annales Arabes Archéologiques Syriennes* 33/2: 123-140.

SCHMIDT-COLINET, A.

2008 Zur Urbanistik des hellenistischen Palmyra. Zweiter Vorbericht, *Zeitschrift für Orient-Archäologie* 1: 452-478.

2005 Twenty Years of the Syro-German Mission at Palmyra, *Annales Arabes Archéologiques Syriennes* 45/46: 207-214.

2002 Archaeological News from Hellenistic Palmyra, *Parthica* 4: 157-166.

1997 Aspects of 'Romanization.' The Tomb Architecture at Palmyra and its Decoration. In: S. E. Alcock (ed.), *The Early Roman Empire in the East*: 157-177. Oxford, Oxbow Books.

1995a The Textiles from Palmyra, *ARAM* 7: 47-51.

1995b The Quarries of Palmyra, *ARAM* 7: 53-58.

1992 *Das Tempelgrab Nr. 36 in Palmyra. Studien zur Palmyrenischen Grabarchitektur und ihrer Ausstattung.* Damaszener Forschungen Vol. 4. Mainz, Von Zabern.

1990 Considérations sur les carrières de Palmyre en Syrie. In: M. Waelkens (ed.), *Pierre éternelle du Nil au Rhin. Carrières et préfabrication*: 88-92. Bruxelles, Crédit Communal.

1985 *Das Tempelgrab Nr. 36 in der Westnekropole von Palmyra, Damaszener Mitteilungen* 2: 17-35.

SCHMIDT-COLINET, A. and AL-ASSAAD, Kh.

2000 Zur Urbanistik des hellenistischen Palmyra: Ein Vorbericht, *Damaszener Mitteilungen* 12: 61-93.

SCHMIDT-COLINET, A. and AL-ASSAAD, W. (eds)

2013 *Palmyras Reichtum durch weltweiten Handel. Archäologische Untersuchungen im Bereich der hellenistischen Stadt* (with English and Arabic summaries). Vienna. Holzhausen Verlag.

SCHMIDT-COLINET, A., AL-ASSAAD, Kh. and AL-ASSAAD, W.

2013 30 Years of Syro-German/Austrian Archaeological Research in Palmyra. In: M. Gawlikowski and G. Majcherek (eds), *Fifty Years of Polish Excavations in Palmyra 1959-2009. Int. Conference, Warsaw, 6-8 December 2010*: 299-318. *Studia Palmyrenskie* 12. Warsaw, University of Warsaw Press.

SCHMIDT-COLINET, A. and STAUFFER, A.

2000 *Die Textilien aus Palmyra. Neue und alte Funde.* Damaszener Forschungen 8. Mainz, Von Zabern.

SCHMIDT-COLINET, A. STAUFFER, A. and AL-ASSAAD, Kh.

1999 Les textiles de Palmyre/Los tejidos de Palmira. In: D. Cardon (ed.), *Teintures précieuses de la Méditerranéen*: 38-45, 89-95. Carcassonne Musée des Beaux-Arts et Terrassa.

The Nymphaeum in Apamea

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Abstract

As part of the Centre Belge de Recherches Archéologiques à Apamée de Syrie (CBRAP), the nymphaeum located in the centre of ancient Apamea was excavated between 1978 and 1984. The investigation and the publication of the building was carried out as a collaborative effort between archaeology and architectural researches.

The nymphaeum is located c. 30 m north of the ancient city's most important crossroads, on the eastern side of the 'Great Colonnade'. This prominent position in the city's centre, close to the main transport axis, is generally characteristic of Imperial nymphaea in the Middle East. It demonstrates the central role of these installations, both as dispensers of water and as conveyors of the city's self-representation and image. In the course of the excavation parts of an *opus caementicium* ceiling were unearthed, as well as over 100 architectural pieces and more than 50 sculpture fragments. Their findspots connect them to the nymphaeum, meaning that they provide the basis for reconstructing and dating the building and its furnishings. The building opens up, in a horseshoe shape, to the 'Great Colonnade' and is framed by ten pillars. Situated between these and the nymphaeum's wall, a service gangway was found, with canal systems of terracotta pipes regulating the water supply and drainage. In the southern gangway, a paved ramp, providing access to the latrine, is located to the east of the nymphaeum. In front of the nymphaeum wall, there is a canal-like basin, separated from the paved courtyard by a stone parapet. The architecture of the elevation can be reconstructed on the basis of the building remains, preserved in situ, and the numerous surviving structural components.

The architecture (Figures 1-4)

Only the northern and eastern bases of the nymphaeum walls survive. A pilaster separates the wall's straight segment from the segmental curved section. Another pilaster is located at the western head of the nymphaeum wall. These pilasters, including their yet to be reconstructed twins to the south, were crowned with Corinthian capitals and bore arches built with keystones, on which the *opus caementicium* roof construction rested. Dowel and mounting holes for waterspouts survive on the upper edge of the base wall. Thus, 12 waterspouts can be reconstructed for the entire building. Over the base wall, built in grey limestone, a two-storey recessed *aedicula* architecture of veined yellow and white limestone can be reconstructed. The lower order of this architecture consisted of unfluted

columns topped with Corinthian capitals and was higher than the upper order. The upper, smaller order consisted of fluted pilasters bearing ionic capitals. The architecture culminated in pediments bordered by corner horns. Both orders were furnished with statues (see below).

The central fountain house ('*naiskos*') consists of two risalites, forming a rectangular niche in between them. This niche was covered with a monolithic slab. Its upper surface show water channels, while there are dowel holes at the front for fastening waterspouts. Above this 'cascade' a monumental *aedicula* was raised, its two columns probably resting on bases with vegetal decorations and bearing gilded Corinthian capitals. The entablature above the columns was decorated with a Doric triglyph frieze, bearing traces of red and blue paint. The *aedicula* was crowned with a monumental pediment. A canal-like basin situated in front of the base wall is bordered, on the courtyard side, by a balustrade of pink limestone. The basin surrounds a horseshoe-shaped courtyard, sloping slightly from east to west and paved with slabs of various colours: light red, grey-green and veined yellow, and black limestone. The courtyard has two drains on its western side, one to the north and one to the south.

Roofing

A reconstruction of the building's roofing is made possible by three elements: the building remains, surviving in situ; the remaining fragments of the *opus caementicium* ceilings; and an analysis of the surviving structural components, in particular of the keystones of three arches of different sizes. The following reconstructions would be possible:

1. The eastern area of the nymphaeum (apsidal part of the courtyard and the fountain house) was roofed by a half-dome made of *opus caementicium*. An arch (a) existed under this half-dome, supported by the nymphaeum's eastern set of pilasters.
2. The square part of the courtyard was also covered with an *opus caementicium* barrel vault.

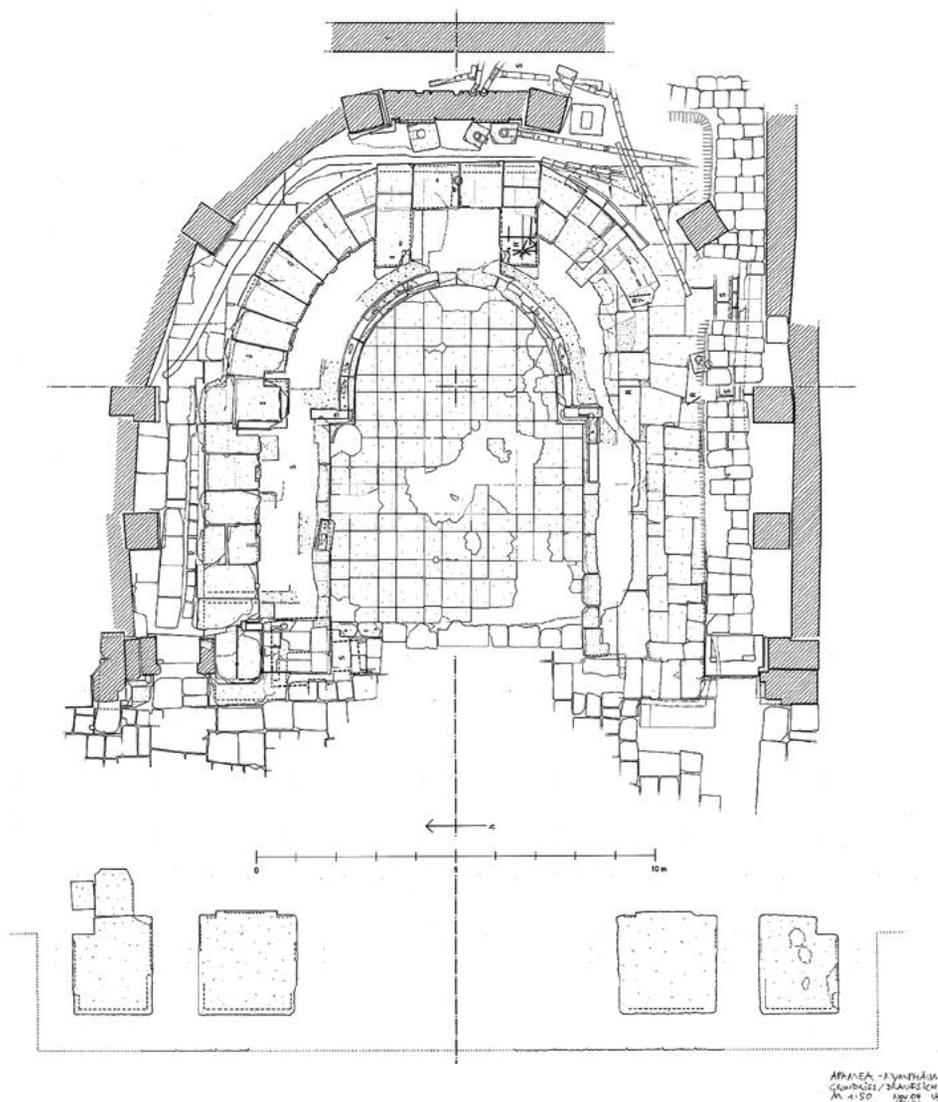


Figure 1: Apamea, Nymphaeum. Ground plan (© CBRAP).

This vault was in a higher position than the half-dome over the fountain house. On its eastern side it met the above-mentioned keystone arch (a); on its western side, it was supported by a second arch (B), above the nymphaeum’s western pair of pilasters.

3. The barrel vault’s weight was alleviated over the pillars positioned behind the nymphaeum’s wall.
4. The portico lying to the west of the nymphaeum juts out into the colonnade and opens up to this with a third arch (c).

Water supply, drainage, and canal systems

The basin was supplied with water via the ‘cascade’, across the slab covering the niche in the fountain house, and through the above-mentioned waterspouts in the nymphaeum wall. Water could be taken from the courtyard side, where running water enhanced the floor colouring. Water used for cleaning the courtyard

floor, as well as a residual overflow, could flow away via the drains in the floor on the courtyard’s western side. The basin was drained through canals, square in cross-section, at the northwest and southwest ends of the base wall. In the ‘service corridor’ between the wall of the nymphaeum and the pillars – in particular in the fountain house area – a complex conduit system and pressurised pipeline system are attested by numerous terracotta pipes and limestone distribution headers (or tube elbows). The pipes sloping southwards and eastwards imply that the water was disposed of in the direction of the ‘Great Colonnade’ or towards the district south of the nymphaeum. Water was probably adducted to the nymphaeum via the solid wall (oriented north-south) at the back of the building.

Comparison and general architectural typology

The architectural type, the canal systems, and the statuary make clear that the structure must be interpreted as a monumental fountain or nymphaeum.

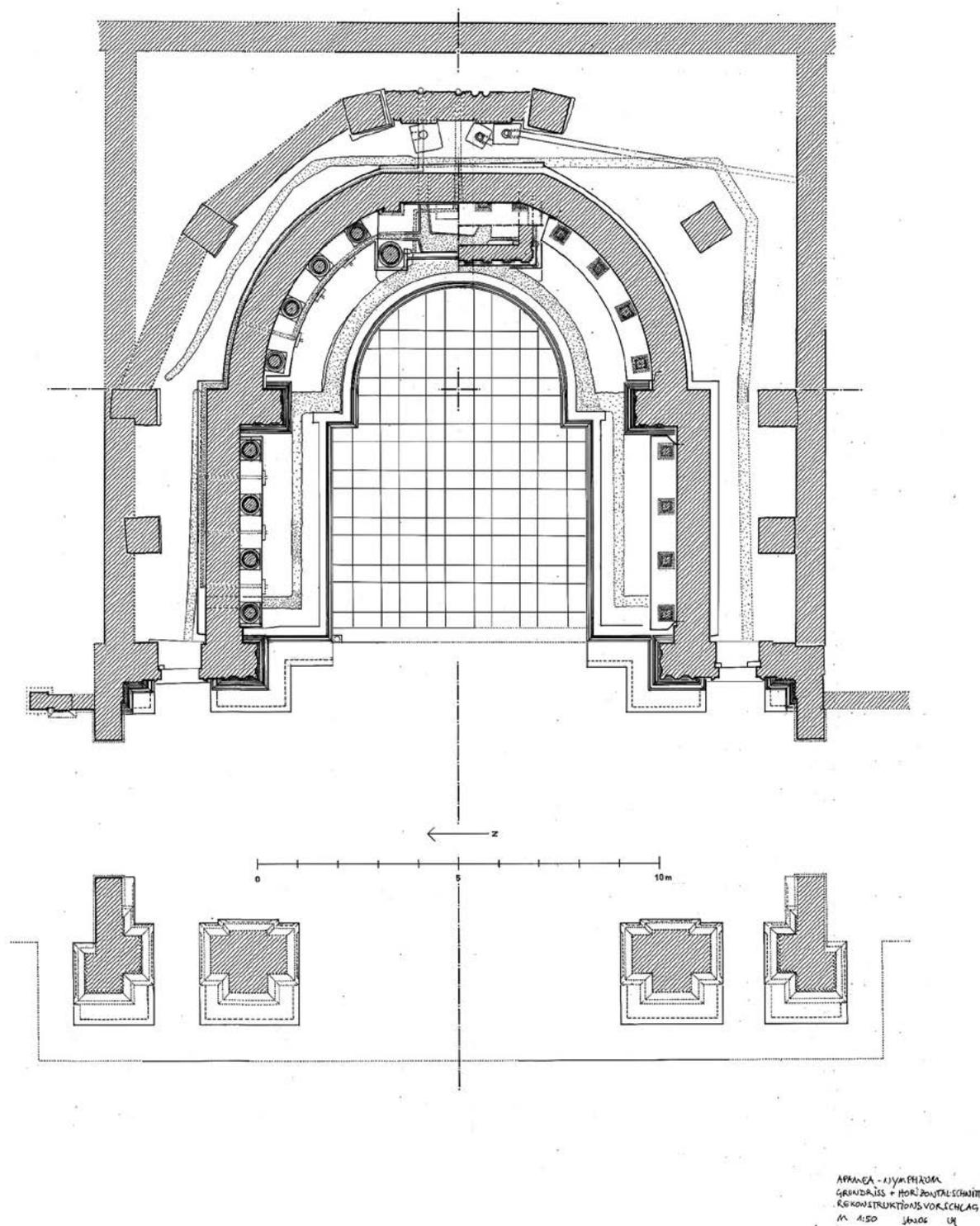


Figure 2: Apamea, Nymphaeum. Ground plan reconstruction (© CBRAP).

Whereas general studies on the Imperial nymphaea of the western Roman Empire, northern Africa, Greece, and Asia Minor have existed for many years, nymphaea of the Syro-Palestinian region have only very recently been coherently studied. Many of these structures demonstrate, like the Apamean one, the

variety of colours used in the building materials. In Apamea, too, the colour of the various elements must have exerted a particular attraction. Two-storeyed architectural structures with statuary display can also be reconstructed for some other Near-Eastern nymphaea, albeit still unpublished. The

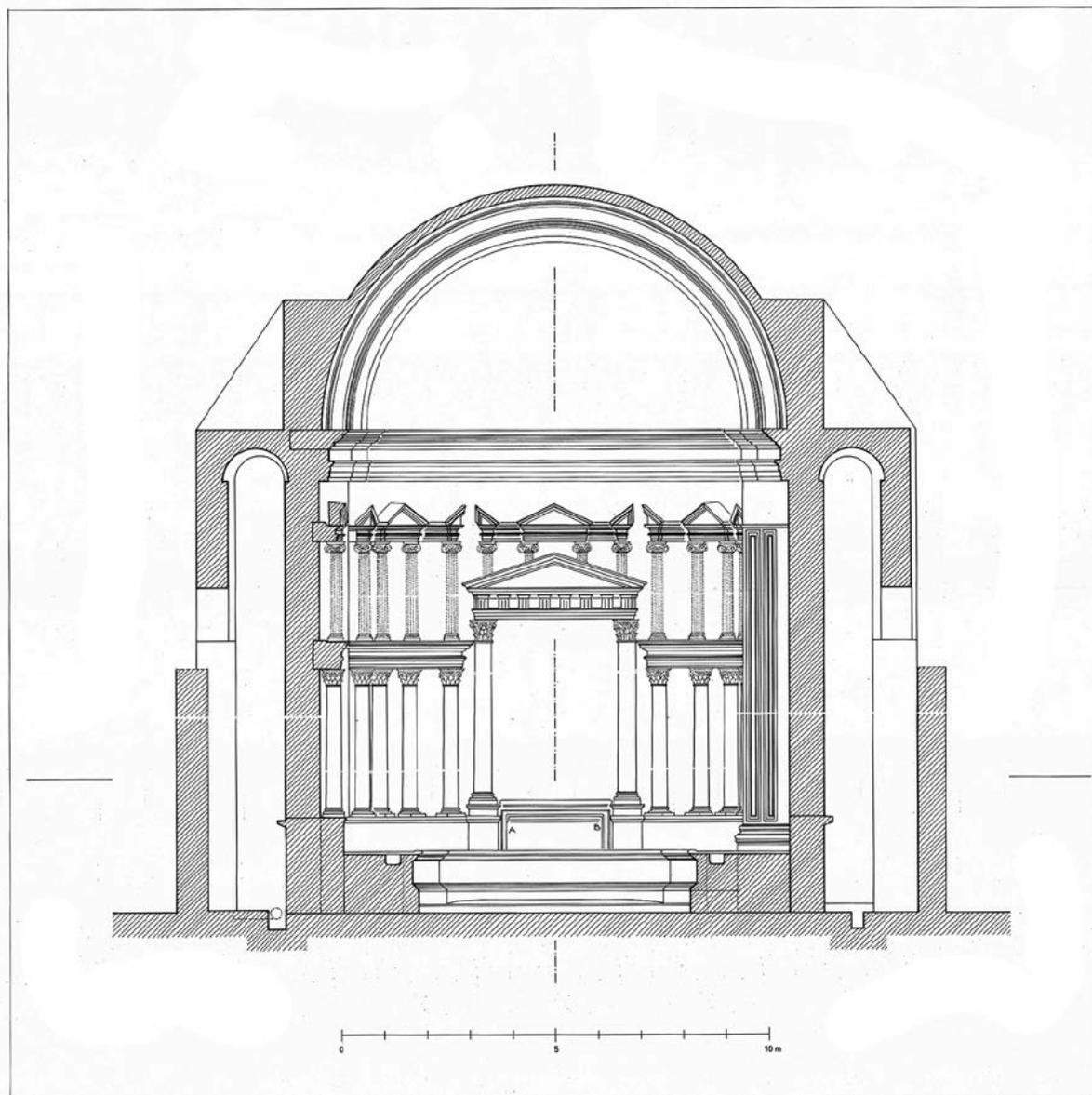


Figure 3: Apamea, Nymphaeum. Section North-South reconstructed (© CBRAP).

Apamean nymphaeum's ground plan and elevation compiles elements of different types of monumental fountains: the rectangular fountain house with corner projections; and the semi-circular/curved or sigma fountain ('exedra-nymphäum'). This latter type is combined with the type featuring the semi-circular/curved portico design ('Kreissegment-Porticus'). A two-storey *aedicula* architecture of a façade-nymphaeum ('Fassadennymphäum') was placed on top of this horseshoe-shaped layout.

The statuary programme (Figures 5-8)

In the area surrounding the nymphaeum in Apamea more than 50 sculptural fragments of imported marble

were discovered. All figures – as far as their state of preservation could tell – have not been elaborated at the back, attesting that they were set up in niches or in front of walls. Individual parts of the figures, in particular heads, arms, as well as other body or clothing elements, were worked separately and attached. Some figures reveal traces of red, blue, or green paint. The following figures can be identified: Hygieia, Asklepios, Athena, Herakles (Farnese type), one of the Three Graces, two boys carrying fruit, two reclining figures (Nymph, Psyche ?), Hermes (?), a Muse (?), fragments of other female draped figures, as well as numerous fragments of figures which cannot be identified with any certainty. Despite differing in quality, the figures from the nymphaeum are similar stylistically. In

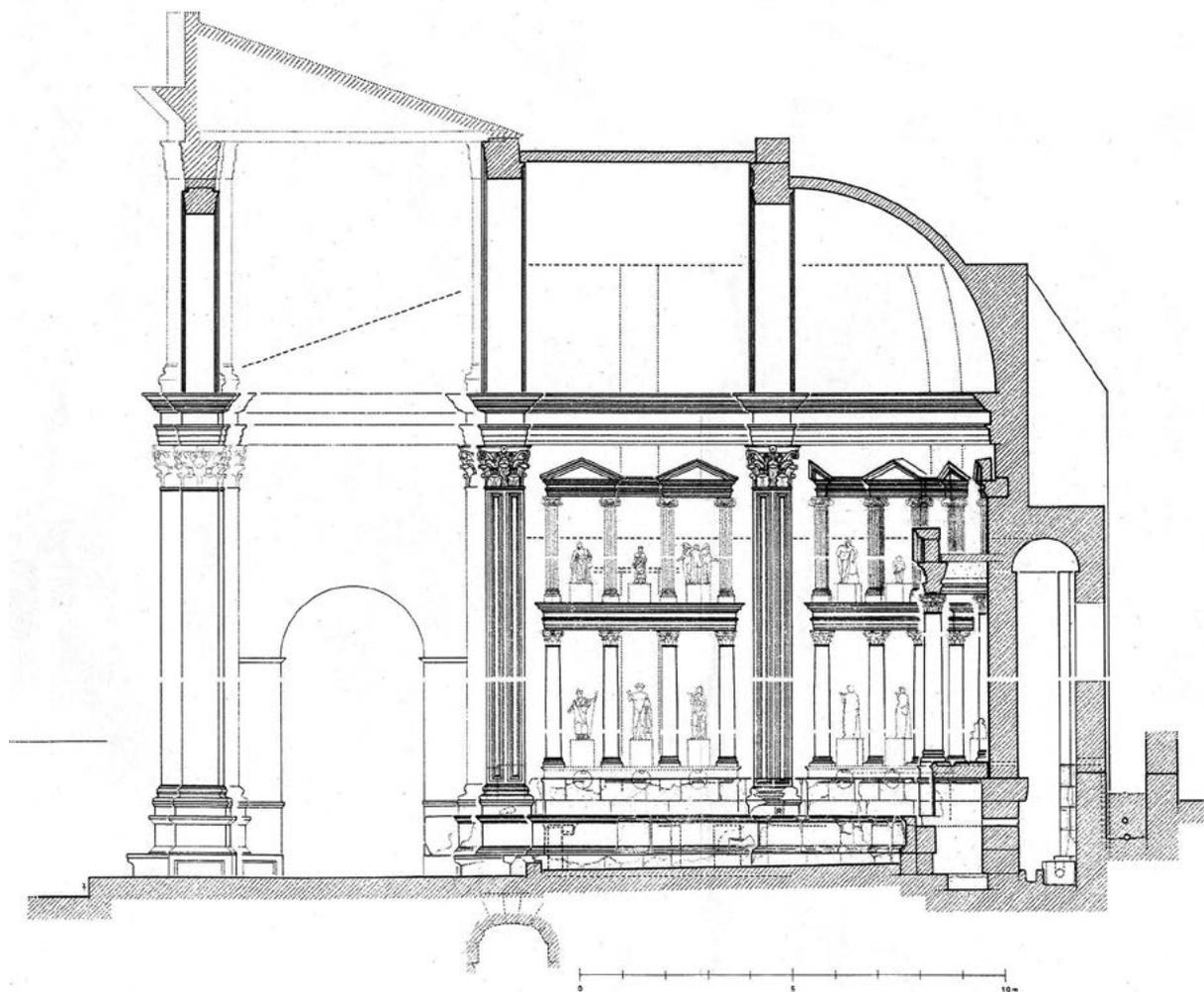


Figure 4: Apamea, Nymphaeum. Section West-East reconstructed (© CBRAP).

addition, technical details, such as the attachment of marble sections, are identical. Some of these cases are copies of famous Classical and Hellenistic Greek sculptures.

All in all, the figures suggest a statuary programme similar to those common in other Imperial nymphaea and related public buildings. A particularly close similarity seems to exist to the statuary in Gortyn/Crete and Byblos. In some other locations, we also find deities appearing in the same combination as at Apamea, for instance Asklepios and Hygieia in the gymnasium of Salamis/Cyprus. In general, the closest parallels for the variants of individual figure types, their hairstyles, and the stylistic treatment, point to the late Antonine period. This suggests a chronological placement to the second half of the 2nd century AD.

In total, we are dealing with two series of smaller than life-size sculptures: one measures c. 130 cm, the other c. 95 cm. Together with the bases to be reconstructed

underneath the figures, we can calculate respectively the total height of the statues to c. 1.95 m and c. 1.50 m. From this, the conclusion points that both statue series were originally set up in the two-storeyed nymphaeum architecture, the larger figures belonging to the bottom floor and the smaller ones to the upper.

Chronology

Since neither textual nor epigraphic sources exist in order to date the nymphaeum, we must rely on the general urbanistic development of Apamea, and on the building's architecture and sculptural decoration. The 'Great Colonnade' was erected step-by-step from north to south after the catastrophic earthquake of AD 115. The sculptures can be dated to the second half of the 2nd century AD. The scarce architectural decoration also suggests a date around this time. Evidently, then, the nymphaeum forms part of a late Antonine stage in the city's reconstruction programme.



Figure 5: Apamea, Nymphaeum, Hygieia (© CBRAP).

Using relative chronology, we can also witness a secondary building project. Indeed, at a later date, the basin was backfilled up to two-thirds with *opus caementicium*. This seems to be a measure to reduce water consumption, similarly to the remodelling of the latrine. In following the findings of the latrine we can assume that this measure was probably taken in consequence of one of the earthquakes in 458, 526, or AD 528. A Byzantine inhumation burial on top of this *opus caementicium* filling proves that the nymphaeum



Figure 6: Apamea, Nymphaeum, Muse (© CBRAP).

was no longer in use in the second half of the 7th century AD.

Adjacent rooms and individual finds

Unfortunately, the numerous small finds provide no further information on the nymphaeum's architectural history. This applies even more to the finds from the rooms adjacent to the nymphaeum, for which an initial connection to the nymphaeum is far from certain. But two finds may be singled out as being of general interest for Apamea's history. In the room lying just north of the nymphaeum, a hoard of 746 Roman copper and bronze coins dated to the 4th century AD were discovered in the



Figure 7: Apamea, Nymphaeum, Heracles (© CBRAP).

debris, together with a high quality *terra sigillata* plate (bearing the stamp *planta pedis ERMES*). This hoard, still awaiting precise numismatic evaluation, constitutes the most extensive find of coins in the Syrian region. In the same room, 79 marble fragments were discovered, belonging to a Greek inscription, the letters of which were painted green and red. The inscription records a Late Antique/Early Byzantine decree (probably dated to the 4th century AD) by Apamea's municipal authority, which states that, due to the surplus in olive oil, the public lighting in the city is to be increased from 470 to 1000 candles (*KANDELAI*). It also mentions buildings and public places that will profit from this measure, thus providing us with interesting information about Apamea's topography. At the same time, the inscription is of interest for the economic and cultural history of the city. It is one of the very rare inscriptions of that period issued from a municipal authority informing us in detail on a public measure. Furthermore, the evidence for the high surplus in oil is of particular interest, not least with regard to the economic situation of the so-called 'dead cities' in Apamea's hinterland. The wealth of these places, growing since the 2nd century AD, rested primarily on the export of olive oil, cultivated in monocultures. The decline of these hundreds of localities, flourishing until late antiquity, is ascribed, amongst other factors, to the rapid decrease in opportunities to sell the overproduction of oil.



Figure 8: Apamea, Nymphaeum, Nymph (© CBRAP).

Selective bibliography (publications since 1985)

- SCHMIDT-COLINET, A.
1985 Skulpturen aus dem Nymphäum von Apamea/Syrien, *Archäologischer Anzeiger* 1985: 119-133.
- SCHMIDT-COLINET, A. and HESS, U.
2015 *Das Nymphäum von Apamea in Syrien*. Fouilles d'Apamée de Syrie Vol. 4 (with summaries in French, English and Arabic). Bruxelles, Académie Royale de Belgique.

Idlib

Tell El-Kerk. A Neolithic Mega Site in the Province of Idlib

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Abstract

Tell El-Kerk is a large tell located in the southern part of the Rouge Basin in the Idlib province. A joint DAM-Tsukuba University Archaeological Mission carried out excavations at the site from 1997 to 2010, and uncovered a series of Neolithic settlements there. This paper discusses the large extent of the Neolithic settlement at Tell El-Kerk and its attributes based on the excavation results.

The Rouge Basin and its chronology

The Rouge Basin, located 10 km west of the modern city of Idlib (in northwestern Syria), is a small tell surrounded by limestone mountains stretching 37 km north to south and 2 - 7 km east to west (Figure 1). The first intensive general survey in this basin was undertaken from 1990 to 1992, and included trial soundings at Tell Aray 1 and 2, Tell Abd El-Aziz, and Tell El-Kerkh 2 (Iwasaki *et al.* 1995). Since 1997, investigations have focused on Tell El-Kerkh, the largest tell complex in the basin. Based on these, the local Rouj Basin chronology was established. Table 1 shows the Neolithic part of this chronology. The absolute dates were calculated using over 30 ¹⁴C samples.

A history of Neolithic settlement at Tell El-Kerkh

Tell El-Kerkh consists of three artificial mounds. From south to north, these are: Tell El-Kerkh 1, Tell El-Kerkh 2, and Tell 'Ain El-Kerkh (Figure 2). Tell El-Kerkh 1 has an irregular rectangular shape measuring approximately 400 m by 400 m and a height of over 30 m above the surrounding plain. This tell had fortification walls and buildings dating to the Bronze and Iron Ages. Roman-



Figure 1: Locations of Tell el-Kerkh and other sites in the Rouj Basin, IdlibInsert (© DAM-Tsukuba University Archaeological Mission).

Table 1: Rouj Basin chronology.

Rouj Basin Chronology	Years based on 14C dating (cal.)	Levantine chronology
Rouj 2d	6100 - 5800 BC	Late PN
Rouj 2c	6600 - 6100 BC	Middle PN
Rouj 2a-2b	7000 - 6600 BC	Early PN
Rouj 1c	7600 - 7000 BC	Late PPNB
Rouj 1a	8700 - 8300 BC	Early PPNB

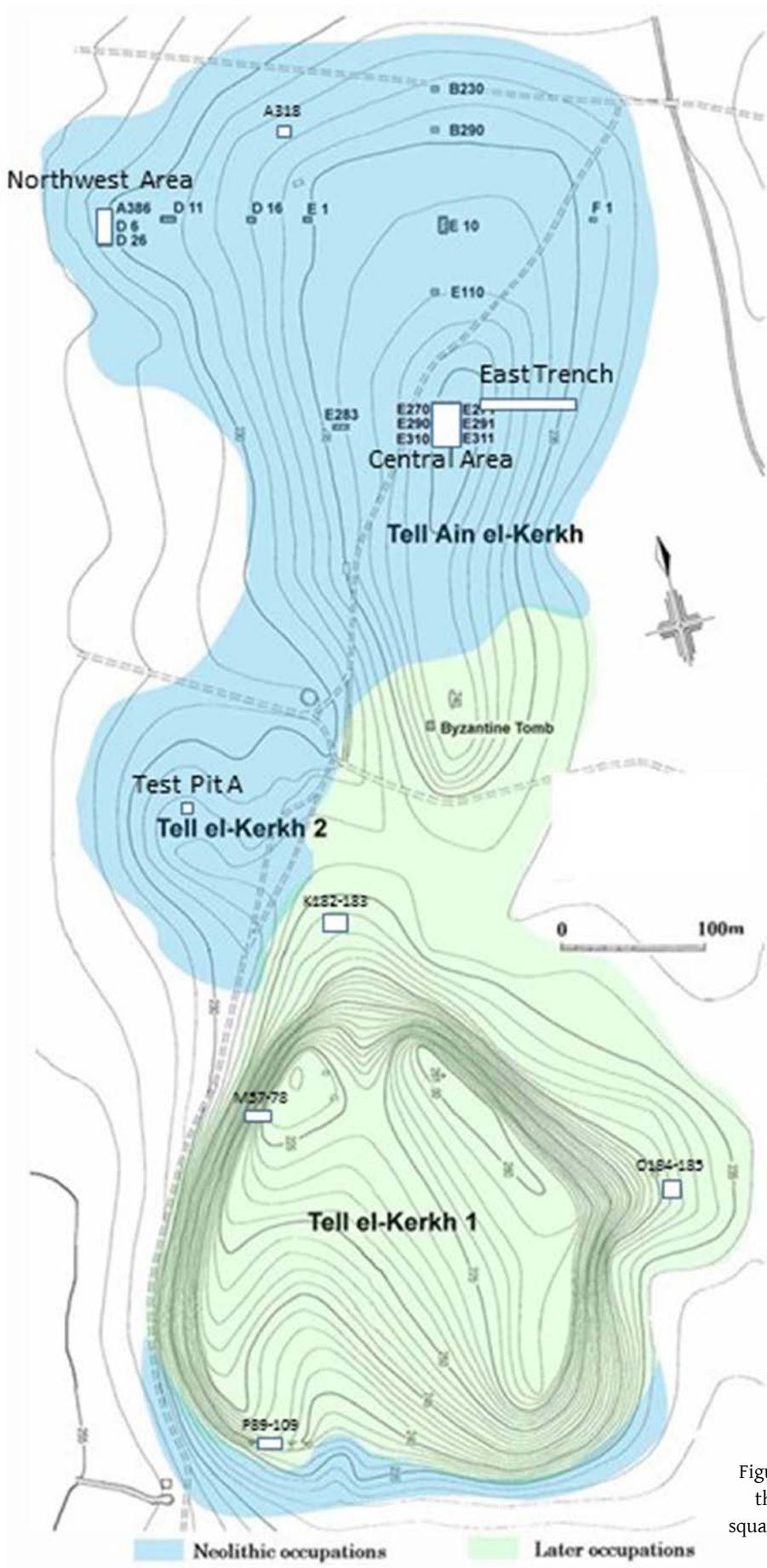


Figure 2. Map of Tell el-Kerkh and the locations of the excavated squares (© DAM-Tsukuba University Archaeological Mission).

Byzantine buildings and cemeteries were discovered at the northern and eastern foot of the tell. As some Neolithic objects were collected from the surface of Tell El-Kerkh 1, it was surmised that evidence of Neolithic occupation might have accumulated below thick post-Neolithic deposits. The south end of Tell 'Ain El-Kerkh was also covered with Roman-Byzantine archaeological layers. However, Tell El-Kerkh 2 and most of Tell 'Ain El-Kerkh contain only Neolithic levels. Therefore, we concentrated our activities in the northern part of Tell 'Ain El-Kerkh.

Excavations covered c. 650 m² in the centre of Tell 'Ain El-Kerkh, c. 200 m² in the northwest of Tell 'Ain El-Kerkh, and 25 m² in the centre of Tell El-Kerkh 2. Additionally, 11 test pits and one long trench (60 m x 2.5 m) were excavated in various parts of Tell 'Ain El-Kerkh (Figure 2). In all of these excavated areas, thick Neolithic cultural deposits were discovered. Based on the results of these excavations and systematic surface collection, the history of the Neolithic settlement at the site was reconstructed as follows (Tsuneki 2012).

Rouj 1a period: People began to settle around the low summit of the Northwest Area of Tell 'Ain El-Kerkh in the Rouj 1a period (Early PPNB period) around 8700 BC, and occupation continued for hundreds of years. The estimated settlement size is quite limited, smaller than 1 ha (Figure 3:1).

Rouj 1c period: After a hiatus, Tell El-Kerkh was reoccupied around 7600 BC. This Rouj 1c (Late PPNB) settlement expanded dramatically in the late 8th millennium BC, reaching its largest extent during the occupation history of Tell El-Kerkh. All the excavated squares that reached virgin soil, except Square D11, produced Rouj 1c cultural layers, firmly indicating that a huge LPPNB settlement lay at the base of the entire Tell El-Kerkh 2 area and almost the whole Tell 'Ain El-Kerkh area. It is assumed that the Rouj 1c settlement extended over 16 ha in total (Figure 3:2).

Rouj 2a-b period: The settlement of Rouj 2a-b (Early Pottery Neolithic) period may have extended over at least three areas: Tell El-Kerkh 2, the Northwest Area, and the main part of Tell 'Ain El-Kerkh. The estimation of the settlement size of each area is placed at 2 ha, 0.6 ha, and 7 ha respectively. In total, the settlement of the Rouj 2a-b period was about 10 ha (Figure 3:3).

Rouj 2c period: The settlement area of the Rouj 2c (Middle Pottery Neolithic) period was mostly limited to the main part of Tell 'Ain El-Kerkh. The results of excavations in the Central Area revealed a densely populated settlement, estimated to around c. 5-6 ha during this period (Figure 3:4).

Rouj 2d period: Only the Central Area and the East Trench produced Rouj 2d (Late Pottery Neolithic) layers. The settlement was thus clearly much smaller than the previous settlements. It did not exceed probably c. 1 ha (Figure 3:5).

When considering the thickness of the cultural layer of each period, almost all of the different occupation areas of each Neolithic period must have been occupied simultaneously (Tsuneki 2012: 61-63). Therefore, the Neolithic settlement at Tell El-Kerkh was not merely large in appearance but was extensive, covering over 10 ha from the middle of the 8th to the middle of the 7th millennium BC, and over 5 ha in the late 7th millennium BC.

Social entity of this large Neolithic settlement

To consider the significance of this large mega site, it is necessary to investigate some aspects of its social complexity. For the extensively excavated Rouj 2c settlement, there is some evidence of a communal building (Figure 4:1), a communal cemetery (Figure 4:2), craft specialization (Figure 4:3), long-distance trade (Figure 5:1), the concept of ownership (Figure 5:2), and various ritual practices (Figure 5:3), all of which indicate the existence of complex societies (Tsuneki *et al.* 2011; 2007). As the Rouj 1c layers have not yet been excavated extensively, there is not yet enough evidence to explain this social complexity. However, blank blade caches with a large number of sickle elements (Arimura 2011; Tsuneki *et al.* 1999) (Figure 6:1), a storehouse furnished with at least 14 large bins (Tsuneki and Hydar 2009) (Figure 6:2), a large obsidian primary core (Figure 6:3), a magnetite axe, a frog-shaped pendant (Figure 6:4) (Tsuneki and Hydar 2013), and many other structures and objects discovered from the Rouj 1c context indicate communal storage, long-distance trade, and sophisticated craftsmanship, suggesting a considerable level of social complexity.

On the other hand, we did not find clear evidence of social classes. Until now, there is no evidence for elite buildings or burials, although a few disparities were observed among the burial goods. This suggests that the Neolithic people lived in egalitarian societies, where economic and social disparity had not yet been actualized.

Neolithic cemetery at Tell El-Kerkh

One of the most important recent discoveries at Tell El-Kerkh is a Neolithic communal cemetery. The cemetery was discovered in the central area of Tell 'Ain El-Kerkh in 2007. Its excavation continued until 2010 and is not yet completed. The cemetery is located next to a habitation zone of the Rouj 2c settlement, dating to 6500-6200 BC according to the ¹⁴C taken from human

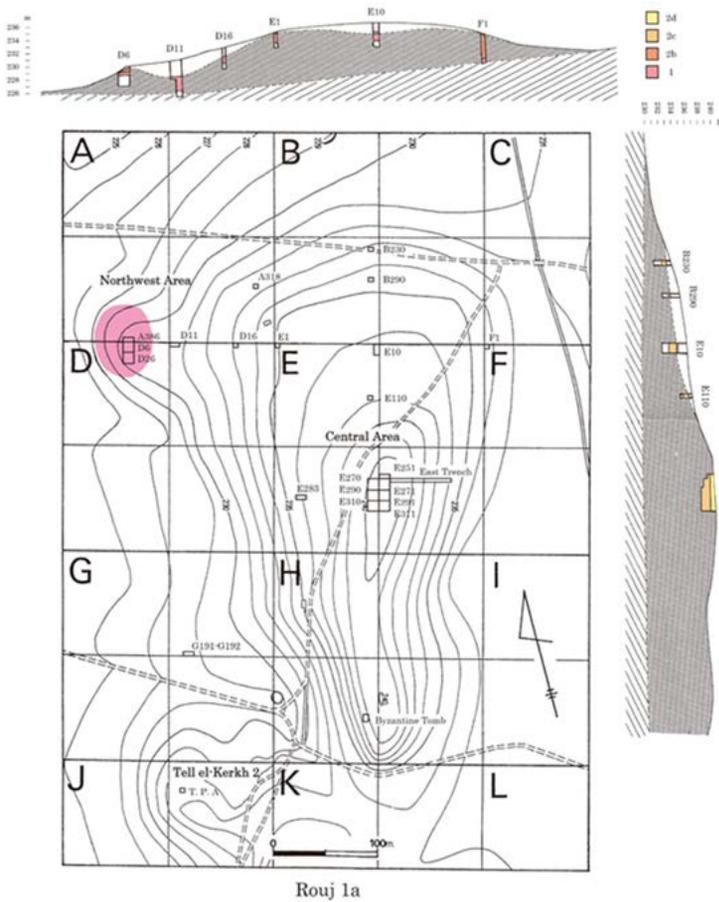
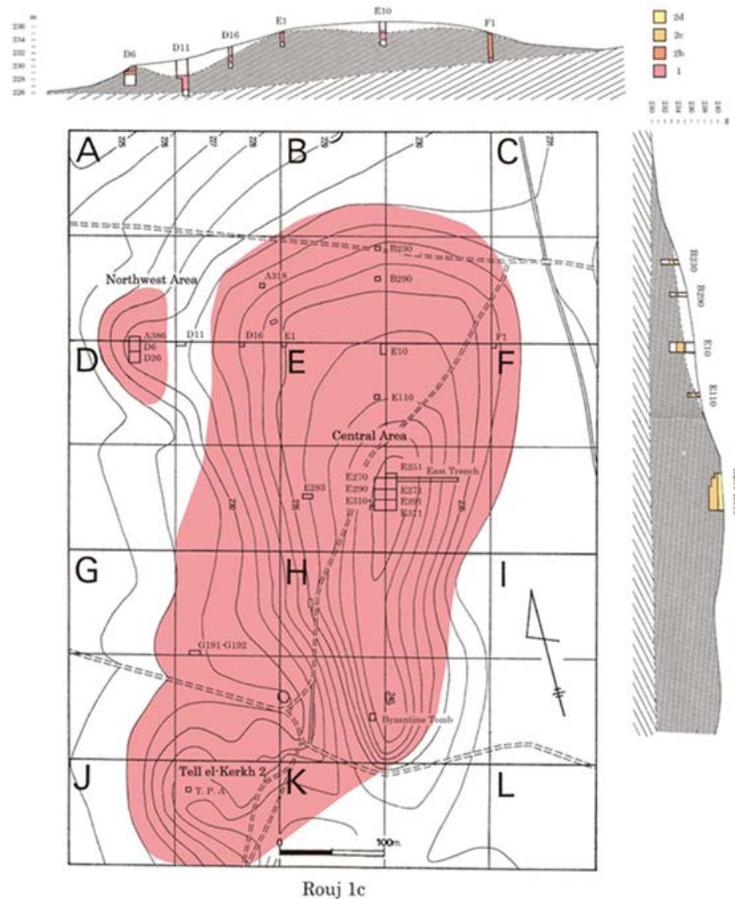


Figure 3.1 Presumed habitation area in each Neolithic period (© DAM-Tsukuba University Archaeological Mission).

Figure 3.2 Presumed habitation area in each Neolithic period (© DAM-Tsukuba University Archaeological Mission).



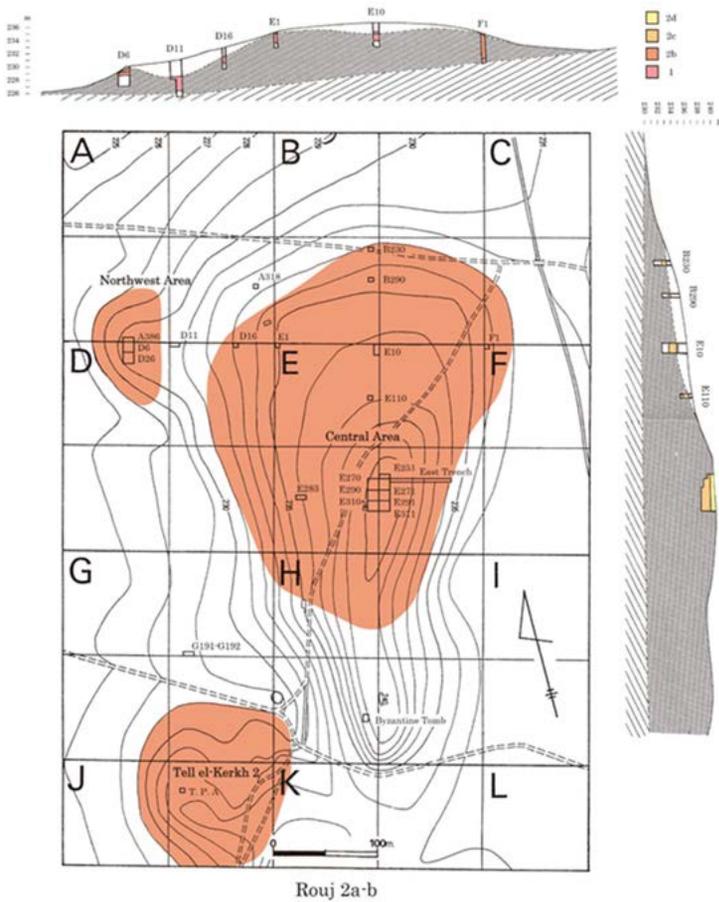
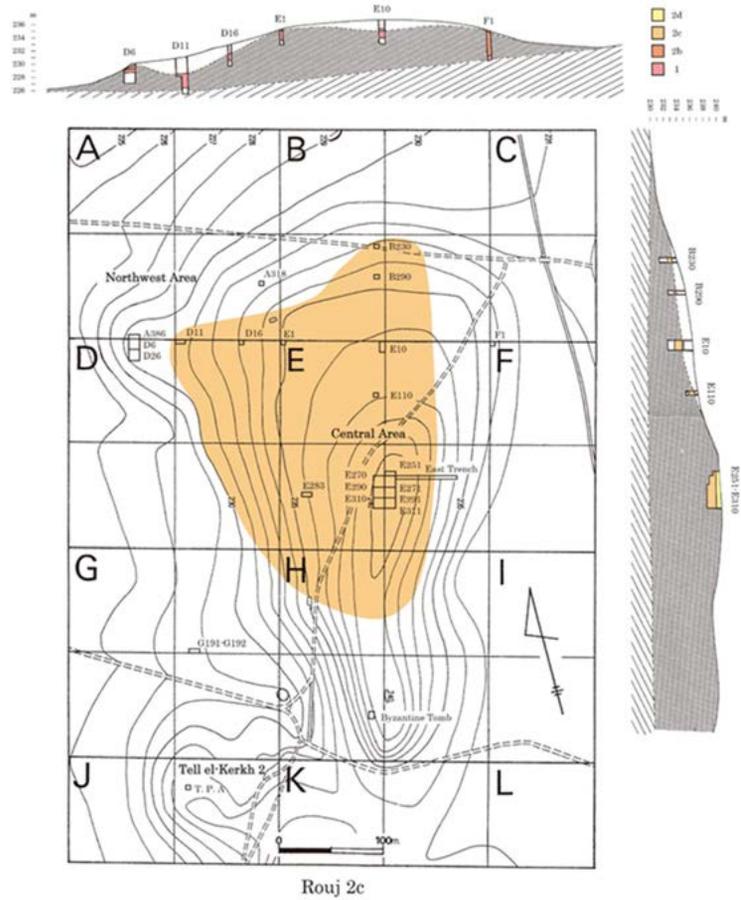


Figure 3.3 Presumed habitation area in each Neolithic period (© DAM-Tsukuba University Archaeological Mission).

Figure 3.4 Presumed habitation area in each Neolithic period (© DAM-Tsukuba University Archaeological Mission).



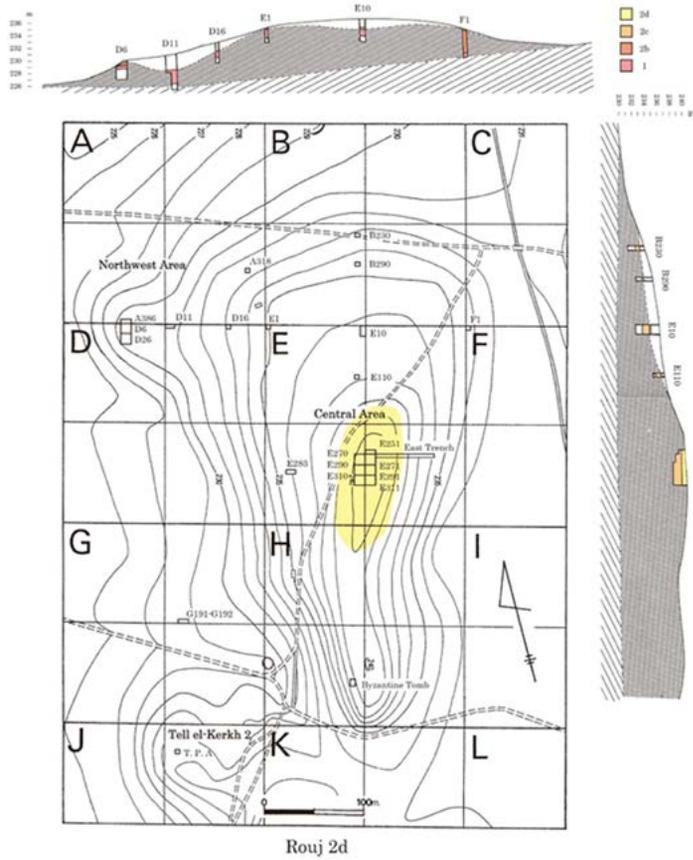


Figure 3.5 Presumed habitation area in each Neolithic period (© DAM-Tsukuba University Archaeological Mission).

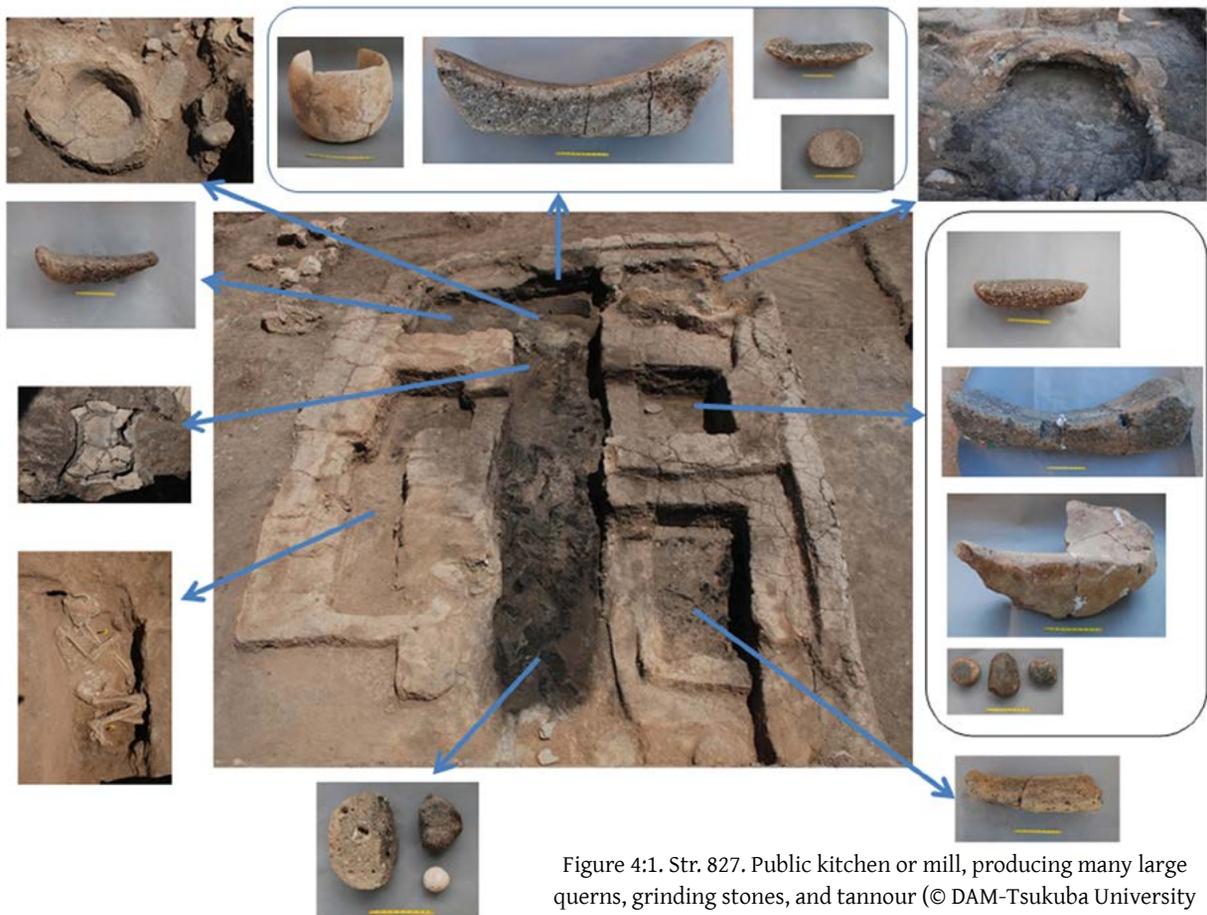


Figure 4:1. Str. 827. Public kitchen or mill, producing many large querns, grinding stones, and tannour (© DAM-Tsukuba University Archaeological Mission).

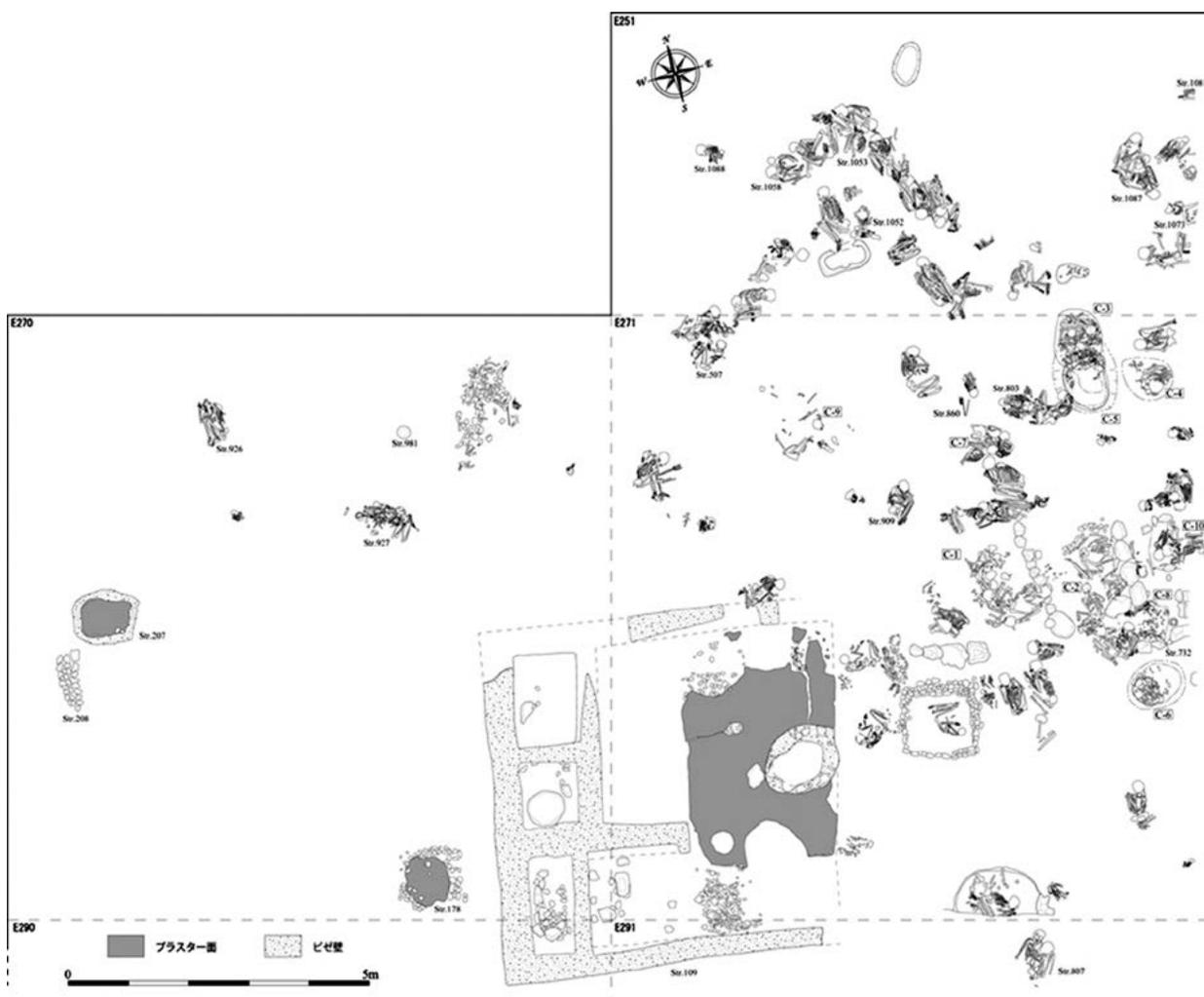


Figure 4:2. An outdoor cemetery discovered at the northeastern corner of the Central Area of Tell 'Ain el-Kerkh (© DAM-Tsukuba University Archaeological Mission).



Figure 4:3. Small stone drills and unfinished stone beads discovered from the beads workshop (© DAM-Tsukuba University Archaeological Mission).



Figure 5:1. Pendants and beads made of various kinds of exotic and local materials (© DAM-Tsukuba University Archaeological Mission).



Figure 5:2. Seals and sealings discovered from various context of the Rouj 2c layers (© DAM-Tsukuba University Archaeological Mission).



Figure 5:3. A ritual pit containing a human infant, a small pig, and a goat horn (© DAM-Tsukuba University Archaeological Mission).

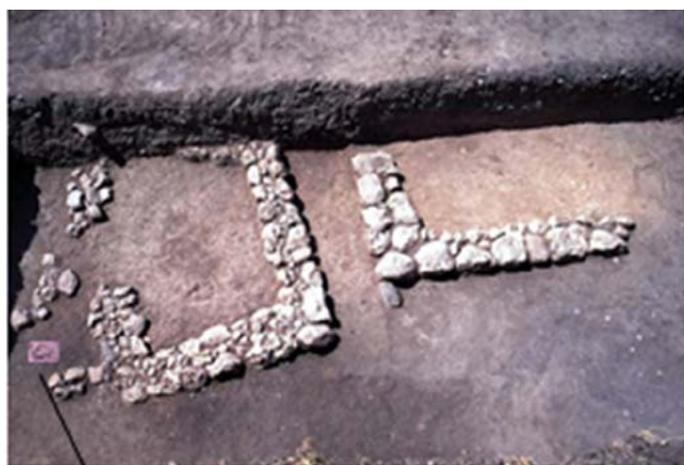


Figure 6:1. Blank blade caches from the Rouj 1c context (© DAM-Tsukuba University Archaeological Mission).



Figure 6:2. A storehouse furnished with many large clay bins (© DAM-Tsukuba University Archaeological Mission).

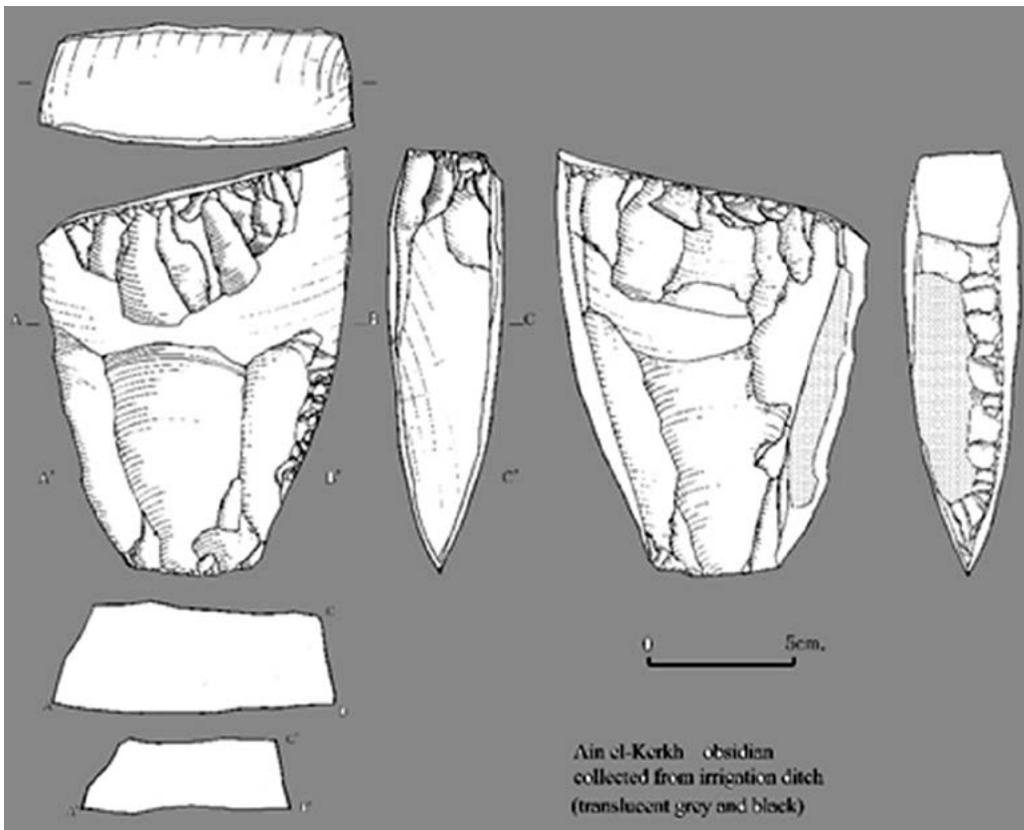


Figure 6:3. A large obsidian primary core (© DAM-Tsukuba University Archaeological Mission).



Figure 6:4. A frog-shaped stone pendant
(© DAM-Tsukuba University Archaeological Mission).

within the cemetery, but their number was quite limited.

It is notable that this cemetery is the oldest outdoor communal cemetery in the Near East, and provides significant information about the life and death of Neolithic residents (Tsuneki *et al.* 2011). Pottery Neolithic (PN) people confronted problems of high infant mortality rates and poor maternal health, and had comparatively short lives (Dougherty and Tsuneki 2014). Interpersonal violence, especially among males

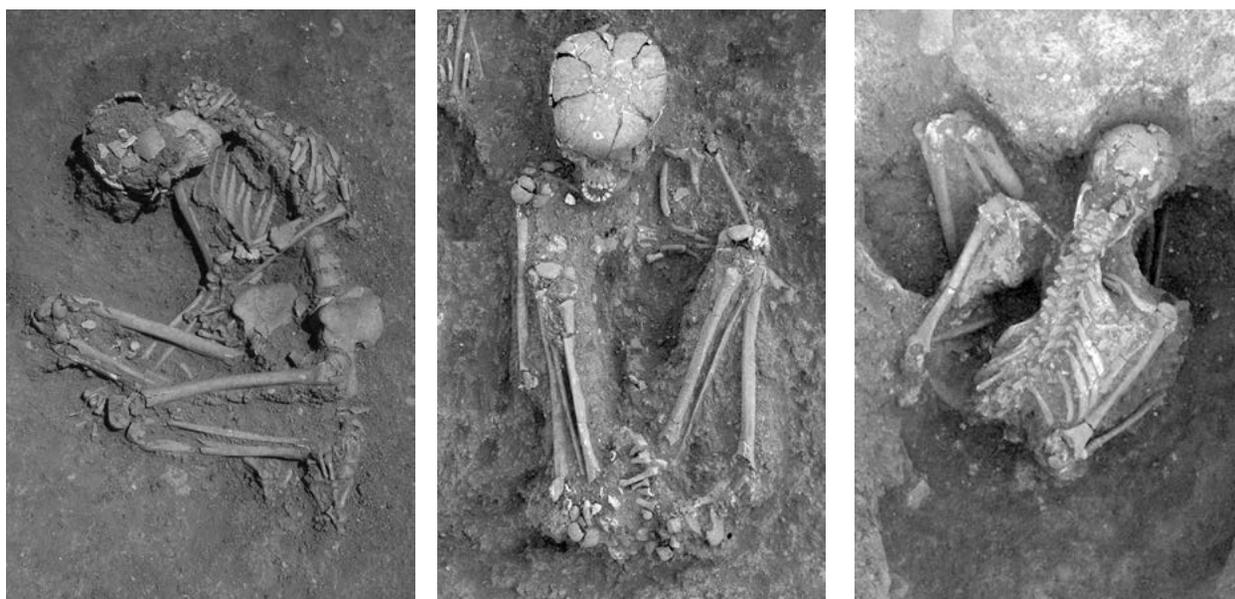


Figure 7:1. Primary burials of the Neolithic Cemetery (© DAM-Tsukuba University Archaeological Mission).



Figure 7:2. Secondary burials of the Neolithic Cemetery (© DAM-Tsukuba University Archaeological Mission).

bones. Up to and including the 2010 season, the remains of over 240 individuals have been discovered within an area measuring about 200 m² (Figure 4:2).

Burials in the cemetery can be divided into three main types: primary inhumation (Figure 7:1), secondary burial (Figure 7:2), and cremation burial (Figure 7:3). Structured burials and urn burials were also identified

(Figure 8:1) (Dougherty and Tsuneki 2016), and poor pre-natal conditions for pregnant females might be among the reasons for such a short life expectancy (Dougherty 2011). At the same time, however, they held funeral services even for small children and badly injured people, taking great care with the funeral arrangements, indicating a deep affection for their families and colleagues (Figure 8:2).



Figure 7:3. Cremation burials of the Neolithic Cemetery (© DAM-Tsukuba University Archaeological Mission).



Figure 8:1. One middle adult male (Str. 807) having fractures on his frontal bone and mandible (Dougherty and Tsuneki 2016) (© DAM-Tsukuba University Archaeological Mission).

The grave goods suggest that there was some division of labour based on gender. The discovery of stamp seals as personal property indicates that the concept of proprietorship had become a fundamental principle among Neolithic people (Figure 9). This principle was not reserved for an elite, but shared by all members of the community. Over 100 stamps were discovered throughout the Rouj 2c settlement.

Analysis of the skeletons and archaeological material was conducted. For example, studying the ratio between carbon and nitrogen isotopes extracted from human bone collagen yielded information about the diet of

the El-Kerkh Neolithic people (Itahashi *et al.* n.d.). Each neighbouring human group burial tended to show similar ratio isotopes, indicating that each family sat down to eat the same meal, which was slightly different from other families. The results of the strontium isotope analysis indicated that most of the marriages at Tell El-Kerkh were between persons using the same water system, probably in the Rouj Basin (Itahashi *et al.* n.d.). Two children who exhibited extraordinary strontium isotope values were possibly adopted or kidnapped from outside the Rouj Basin. These analyses will shed further light on life in Neolithic societies.



Figure 8:2. 8-10 years old child (Str. 507) buried with a small DFBW on its palm. It is probable that his/her parents lamented his/her death and put this lachrymal vase (© DAM-Tsukuba University Archaeological Mission).

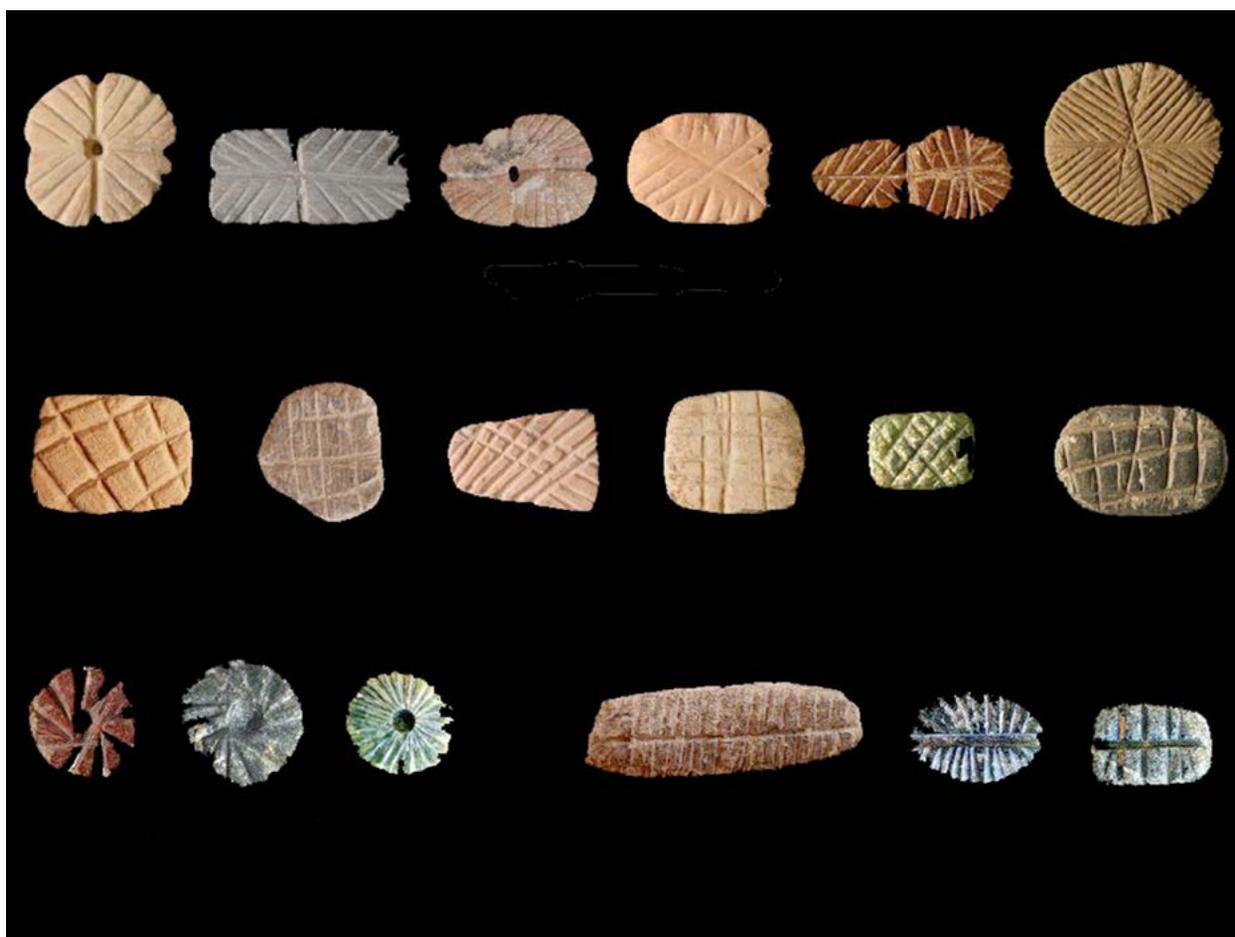


Figure 9:1. Various stamp seals discovered from Tell el-Kerkh Neolithic layers (© DAM-Tsukuba University Archaeological Mission).

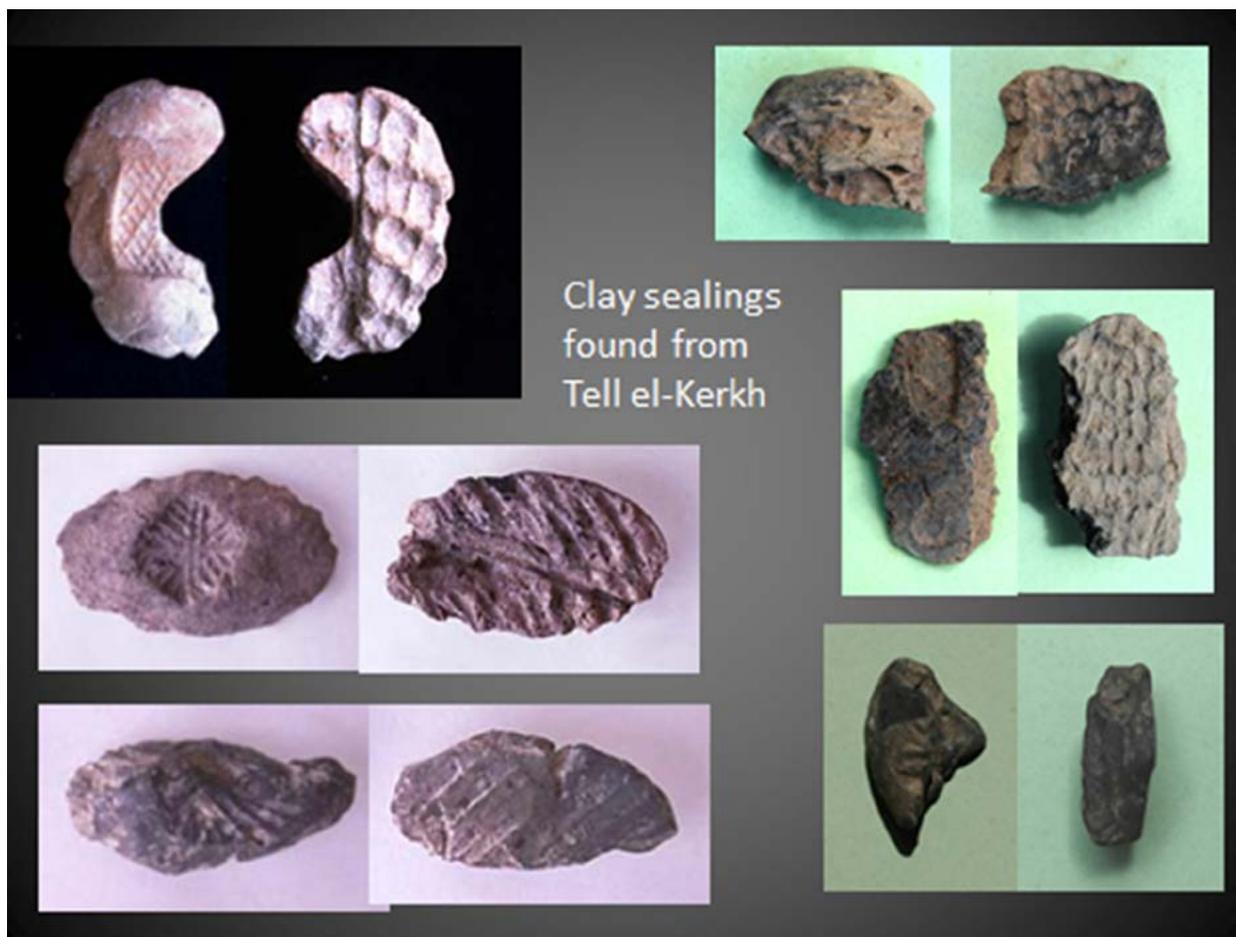


Figure 9:2. Clay sealings discovered from Tell el-Kerkh Neolithic layers (© DAM-Tsukuba University Archaeological Mission).

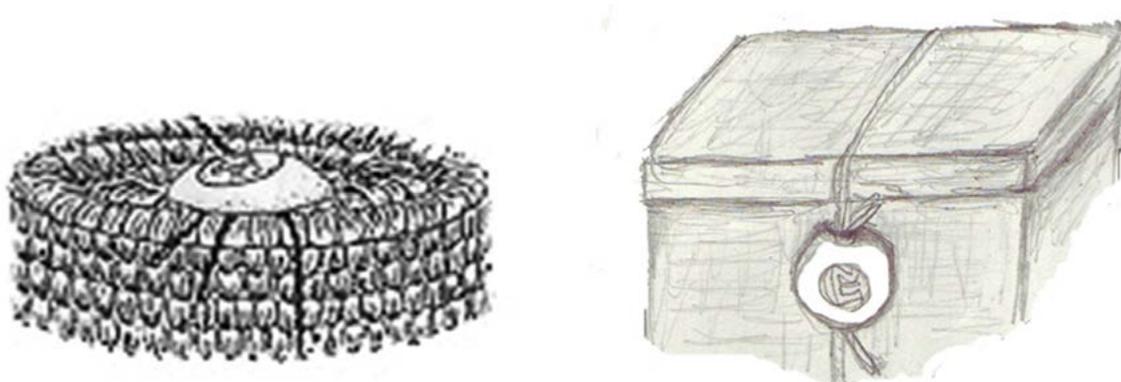


Figure 9:3. The manner in which sealings were used at Tell el-Kerkh (© DAM-Tsukuba University Archaeological Mission).

In the previous Pre-Pottery Neolithic (PPN) periods, the dead were commonly buried within living spaces, such as under the floor, in a courtyard, or near a wall foundation (ex. Ortiz *et al.* 2013). Clusters of human bones were sometimes discovered in special houses, called ‘skull buildings’ (Bienert 1995: 82), charnel houses (Moore and Molleson 2000: 278-283), and *maison*

des morts (Coqueugniot 1999). The long and complicated funeral practices, including skull decapitation and skull caches, were repeatedly undertaken in PPN societies (see Kujit 1999). The characteristics of the graves at the Kerkh Pottery Neolithic cemetery were different from these latter PPN graves, and the funeral practices undertaken there must also have been different.

The Kerkh Pottery Neolithic cemetery is the oldest outdoor communal cemetery, showing the transition phase from the PPNB individual indoor graveyard to the Chalcolithic out-of-settlement communal cemetery. The people started to mourn the dead not in their houses but in the settlement's communal enclosure. This transition indicates that the death of a community member went beyond the sphere of the individual, and the funeral ceremony became a more communal practice in this era.

Conclusion

The evidence from Tell El-Kerkh provides significant material for reconsidering why people started to congregate, how they started to create large and complex societies, and what constitutes a city. Based on the archaeological, ethnobotanical, and zooarchaeological evidence, the Neolithisation process (from hunter-gatherers to farmer-herders) appeared in the northern Levant as early as in other regions of the Near East (Willcox 2013). Tell El-Kerkh also produced a long Neolithisation sequence, beginning with the Rouj 1a period. Based on the stable food-producing subsistence (Tanno and Willcox 2006), the people of Tell El-Kerkh established a large Neolithic settlement in the Rouj 1c period, and continued to manage their settlement in the following Rouj 2a-b and 2c periods.

Of note among the Rouj 1c and the Rouj 2c settlements is the evidence for 'communal' activities shown by a storehouse furnished with many large bins, blank blade caches with a large number of sickle elements, a public kitchen, and an outdoor cemetery. Evidence of the traces of ritual practices, such as unusual animal horns, burnt bones, and intentionally broken pottery, were common in these structures, suggesting that communality and ritual were very important constituents of the Kerkh Neolithic settlements. It is uncertain whether these elements were the causes or results of the formation of large societies but they must have played important roles in their communities.

Therefore, the discipline necessary for integrating large-scale Neolithic societies at Tell El-Kerkh was not the result of social and economic power and hierarchy, but might be found in the frequent communal and ritual practices, the evidence for which was observed during the excavations.

Bibliography

- ARIMURA, M.
2011 LPPNB blade caches at Tell Ain el-Kerkh, north-west Syria. In: E. Healey, S. Campbell, and O. Maeda (eds), *The State of the Stone: Terminologies, Continuities and Contexts in Near Eastern Lithics*: 373-383. Berlin, Ex oriente.
- BIENERT, H. D.
1995 The human image in the Natufian and aceramic Neolithic period of the Middle East. In: E. H. Waldren, J. A. Ensenyat and R. C. Kennard (eds), *Ritual, Rites and Religion in Prehistory, IIIrd Deya International Conference of Prehistory*, Vol. 1: 75-103. British Archaeological Reports International Series 611. Oxford, Tempus Reparatum.
- COQUEUGNIOT, E.
1999 Tell Dja'de el-Mughara. In: G. Olmo Late and J.-L. Montero Fenollós (eds), *Archaeology of the Upper Syrian Euphrates: The Tishrin Dam Area*: 41-55. Barcelona, Editorial AUSA.
- DOUGHERTY, S.
2011 Sickness and death: evidence from human remains. In: A. Tsuneki, J. Hydar, and H. Sha'baan (eds), *Life and Death in the Kerkh Neolithic Cemetery*: 27-30. Tsukuba, University of Tsukuba.
- DOUGHERTY, S. and TSUNEKI, A.
2016 Injury-related morbidity and mortality in Neolithic Syria, Poster presentation at *The 85th Annual Meeting of the American Association of Physical Anthropologists*. Atlanta GA.
- 2014 Non-adult morbidity and mortality in Neolithic Syria, Poster presentation, *Annual Conference of Paleopathology Association (PPA) Meeting*. Calgary, University of Calgary.
- ITAHASHI, Y., TSUNEKI, A., DOUGHERTY, S., CHIKARAISHI, Y., OHKOUCHI, N. and YONEDA, M.
n.d. Food sharing and social structure within the Neolithic cemetery at Tell Ain el-Kerkh, northern Levant: Reconstruction of animal consumption based on the $\delta^{15}\text{N}$ of individual amino acids.
- IWASAKI, T., NISHINO, H. and TSUNEKI, A.
1995 The Prehistory of the Rouj Basin, Northwest Syria. A Preliminary Report, *Anatolica XXI*: 143-187.
- KUJIT, I.
1999 Keeping the peace: ritual, skull caching, and community integration in the Levantine Neolithic. In: I. Kujit (ed.), *Life in Neolithic Farming Communities: Social Organization, Identity, and Differentiation*: 37-164. New York, Kluwer Academic/Plenum Publishers.
- MOORE, A. M. T. and MOLLESON, T. I.
2000 Disposal of the dead. In: A. M. T. Moore, G. C. Hillman, and A. J. Legge (eds), *Village on the Euphrates: From Foraging to Farming at Abu Hureyra*: 277-299. Oxford, Oxford University Press.
- ORTIZ, A., CHAMBON, P. and MOLIST, M.
2013 'Funerary bundles' in the PPNB at the archaeological site of Tell Halula (middle Euphrates valley, Syria): analysis of the taphonomic dynamics of seated bodies, *Journal of Archaeological Sciences* 40-12: 4150-4161.
- TANNO, K. and WILLCOX, G.
2006 The origins of cultivation of *Cicer arietinum* L. and *Vicia faba* L.: early finds from Tell el-Kerkh, north-

- west Syria, late 10th millennium B.P., *Vegetation History and Archaeobotany* 15-3: 197-204.
- TSUNEKI, A.
2012 Tell el-Kerkh as a Neolithic mega site, *Orient* 47: 29-65.
- TSUNEKI, A. and HYDAR, J.
2013 Tell el-Kerkh 2010, *Chronique Archéologique en Syrie: Special Issue Documenting the Annual Excavation Reports Concerning the Archaeological Activities in Syria, Excavation Reports of 2010-2011*: 39-45.
- 2009 Tell el-Kerkh 2007, *Chronique Archéologique en Syrie* 3 (2008): 75-85.
- TSUNEKI, A., HYDAR, J., MIYAKE, Y., AKAHANE, S., ARIMURA, M., NISHIYAMA, S., SHA'BAAN, H., ANEZAKI, T. and YANO, S.
1999 Second Preliminary Report of the Excavations at Tell el-Kerkh (1998), Northwestern Syria, *Bulletin of the Ancient Orient Museum* XIX: 1-40.
- TSUNEKI, A., HYDAR, J., ODAKA, T., and HASEGAWA, A.
2007 *A Decade of Excavations at Tell el-Kerkh, 1997-2006*. Tsukuba. Department of Archaeology, University of Tsukuba.
- TSUNEKI, A., HYDAR, J., DOUGHERTY, S., HASEGAWA, A., HIRONAGA, N., MASUMORI, K. D., TATSUMI, Y., ITAHASHI, Y., IIZUKA, M., MATSUSHIMA, Y., MIYAUCHI, Y., MAKINO, M. and SHA'BAAN, H.
2011 *Life and Death in the Kerkh Neolithic Cemetery*. University of Tsukuba and DGAM Archaeological Mission to Tell el-Kerkh. Tsukuba, Department of Archaeology, University of Tsukuba.
- WILLCOX, G.
2013 The roots of cultivation in southwestern Asia, *Science* 341: 39-40.

Excavations at Tell Mardikh - Ebla 2004-2010: The Temples of EB IVA-B and the Royal Citadel of MB I-II

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Abstract

During the campaigns 2004 to 2008, the Italian Expedition to Ebla obtained interesting results for the cult architecture of the Early Bronze Age (EBA) IVA and IVB. Two monumental temples were discovered, the Temple of the Rock and the Red Temple. Another operation aimed since 2008 at improving knowledge on the Royal Palace E, dated to the Middle Bronze Age (MBA) I-II. The Royal Citadel extended over the entire surface of the Acropolis, covering an area of about 1400 m².

The temples of EBA IVA-B

Temple of the Rock and the Red Temple

During the excavation campaigns 2004 to 2008, the Italian Archaeological Expedition to Ebla obtained most interesting results for the cult architecture of the great urban centre of EBA IVA and IVB (Figure 1). In fact, two monumental temples were discovered, one in the southeast periphery of the Lower Town (Area HH),¹ and the other in the west sector of the Acropolis (Area D).² The two cult buildings of the Royal Archives age were called Temple of the Rock in the Lower Town, and the Red Temple on the Acropolis, and are the oldest temples not only in Ebla, but in the entire interior of Syria, west of the Euphrates. On the other hand, Temple HH4, with the adjacent Temple HH5, built over the ruins of the southern anta of the Temple of the Rock (Matthiae 2007: 499-507), and Temple D3 (Matthiae 2007: 773-779), built over the north sector of the ruins of the Red Temple, are the only cult buildings thus far known at Ebla for EBA IVB, the post-palatial period of the great urban centre of Northern Syria. Over these later temples, in an impressive stratigraphic sequence of cult buildings, two new temples were built: Ishtar's Temple on the Acropolis dated to the beginning of MBA I (Matthiae 2010: 419-422) and Temples HH3 and HH2 dated to MBA I-II in the Lower Town (Matthiae 2007: 512-513), both peculiarly featuring a tripartite plan with vestibule, anticella, and cella.

The oldest and most monumental religious building is the Temple of the Rock (Figure 2). It was built, quite likely at the beginning of EBA IVA, at a short distance from the place where, in MBA I, the Steppe Gate – the South-East City Gate – was located. If this gate stood in the same place as an older city gate of the age of the Royal Archives in EBA IVA, it is quite likely that

the latter was Kura's Gate, mentioned in the 'Ritual of Kingship' (Fronzaroli 1993: 54, 85), near which a temple of the same god Kura stood. The Temple of the Rock, c. 28 m long and c. 21.50 m wide (Figure 3), was identified for this reason with Kura's Temple, mentioned at the beginning of the three weeks' ceremonies of the 'Ritual of Kingship' (Fronzaroli 1993: 3, 54, 85). It is an imposing cult building with antae, cella, and vestibule, and with perimetrical walls 6 m thick. Its typology is characterized by two planimetric elements quite different from those typical of the later architectural tradition of Ebla, and in general of inner Syria: first, the cella is not very markedly large (*Breitraum* type),³ c. 10 m wide and c. 8.30 m long; second, the cella has the same size and proportions as the vestibule. The Temple of the Rock was built directly on the rock and featured three wells in the cella, which might have been three ancient springs, and was probably the residence of the god Kura. This god might be the lord of underground waters, like Enki,⁴ and, if so, this enigmatic deity, who was the head of Ebla's pantheon in the era of the Royal Archives, had characteristics similar to those of Ilu, the god of the Mediterranean coast, and of Dagan, god of the Euphrates Valley.

The Red Temple was built a few decades after the Temple of the Rock (Figure 4), on the western edge of the Acropolis, quite likely during Ishar-Damu's reign, the last king of Ebla in the age of the Royal Archives. In fact, an administrative text of this king mentions the delivery of 30 minas of silver in order to 'build Kura's temple' (Matthiae 2009: 770; Pomponio and Xella 1997: 242). With a precise correspondence with this textual evidence, we could observe that the Red Temple had been built over the intentionally razed ruins of a peripheral sector of the West Unit of the Central

¹ For a preliminary presentation of this monument, see Matthiae 2006.

² News about the discovery of the Red Temple was provided in Matthiae 2009: 762-773.

³ On the definitions and developments of Syrian cult architecture, see Werner 1994: 83-114, 129-141.

⁴ Matthiae 2010: 109. In general, about the figure of the god Kura, see the unconvincing hypothesis of Wilhelm 1992, and the proposal to identify this god with a deity of fields, of the type of Dagan, by Younger Jr 2009.

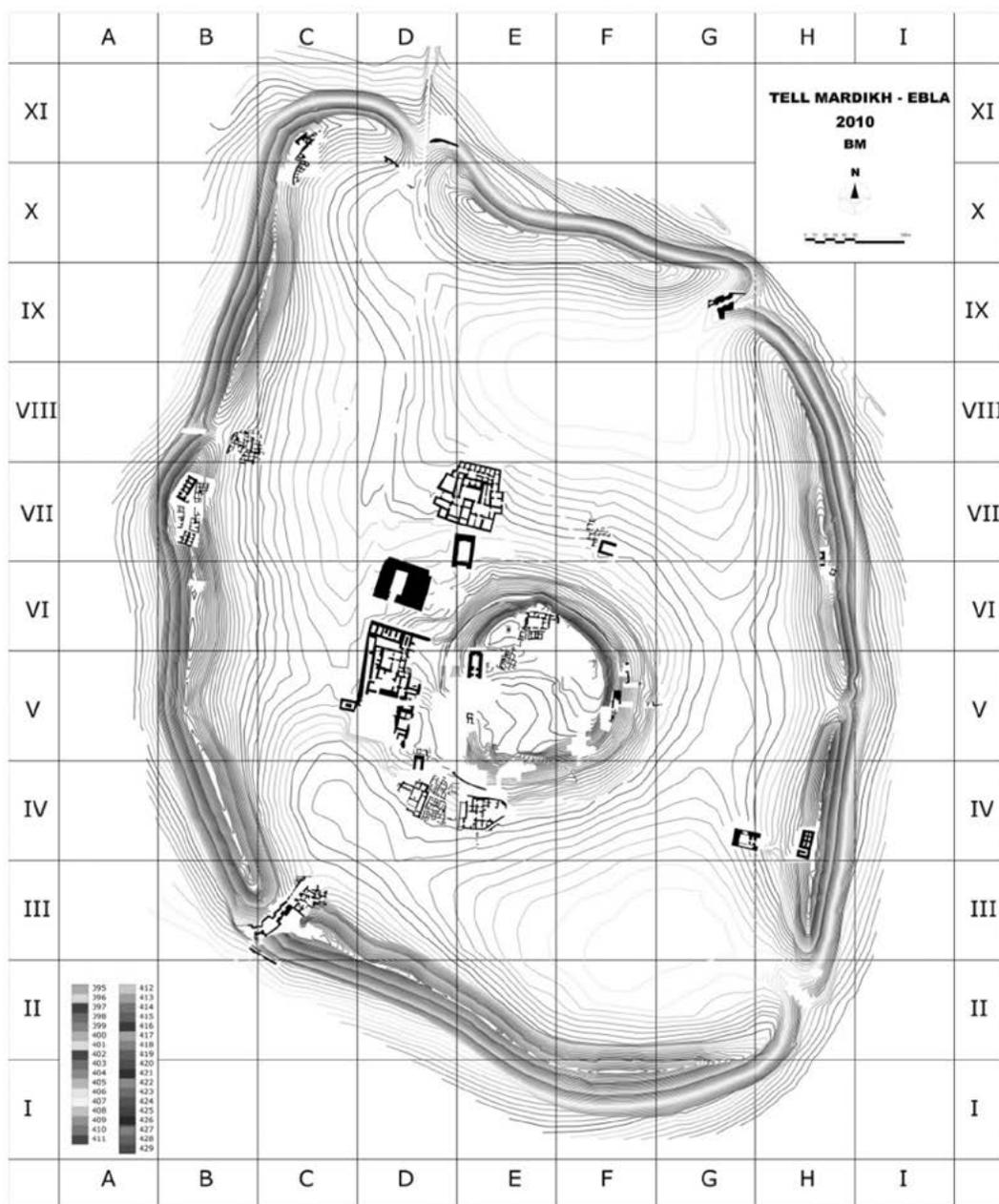


Figure 1: Map of the ancient mound of Ebla (© The Italian Archaeological Expedition to Ebla).

Complex of the Royal Palace G. As the three weeks' ceremonies of the 'Ritual of Kingship' ended in Kura's Temple in the SA.ZA_x^{ki} (Fronzaroli 1993: 87-88), that is in the Royal Palace area, the Red Temple was identified with this important cult building where the king and queen entered, at the end of the ceremonies, with the statues of Kura and his consort, Barama (Fronzaroli 1993: 7, 56). The Red Temple, like the slightly larger Temple of the Rock, is an imposing building, c. 24.20 long and c. 17 m wide (Figure 5), with perimetrical walls 3.80 m thick. The Red Temple is also an in antis structure, but the cella, c. 10.20 m long and c. 9.40 m wide, is moderately long (*Langraum* type), rather than large, with some interesting and very specific peculiarities:

first, the vestibule is quite long, although, of course, less than the cella; second, in the cella, there were four columns, two bases of which were still in place; third, the vestibule had two columns in the façade still in situ; fourth, there were four towers at the four corners, slightly projecting from the perimetrical walls.

The Temple of the Rock and the Red Temple, although probably built a few years apart, were respectively an in antis temple with large cella, and an in antis temple with long cella. The two monumental temples of Ebla, quite likely dedicated to Kura, allow us, in other words, to date the passage from the archaic plan with large cella, possibly typical of EBA III, to the classical one with long



Figure 2: Temple of the Rock at Ebla (© The Italian Archaeological Expedition to Ebla).

cella, which became exclusive in MBA I. The basic spatial homogeneity between the Temple of the Rock and the Red Temple, both clearly belonging to a well-defined architectural culture, reveal, moreover, that in EBA IVA Ebla was alien to the contemporary architectural culture of Upper Mesopotamia, as documented by the cult buildings of Tell Chuera (Moortgat 1965a: 8, 38; 1965b: 8, 14), Tell Halawa A (Orthman and Meyer 1989: 64-66), and Tell Qara Quzaq (Del Olmo Lete and Montero Fenollós 1998), all in antis temples with a long cella and not very deep vestibule.

The cult buildings of the EBA IVB in the Lower Town and on the Acropolis at Ebla, while proof of technical skill, are also evidence, on the one hand, of the coherent development of the single cella spatial organism, already begun with the Red Temple, and, on the other,

of the appearance of a new temple typology, which would later be widespread.

Temples HH4 and HH5

In the place of the ruins of the Temple of the Rock, the much more modest Temple HH4 (Figure 6), c. 17.30 m long and 10.90 m wide, is an in antis structure with clearly a long cella and a still quite deep vestibule, as in the Red Temple. The cella, 8.10 x 6.50 m, is interesting because the growing length shows beyond doubt that, in the centuries between the end of EBA IVA and the beginning of MBA I, the Ebla buildings witnessed constant increase in cella length and a corresponding decrease in vestibule length. The small Temple HH5, which slightly later flanked the North Temple HH4, is certainly a cult building, possibly an annex of the



Figure 4: The Red Temple at Ebla (© The Italian Archaeological Expedition to Ebla).

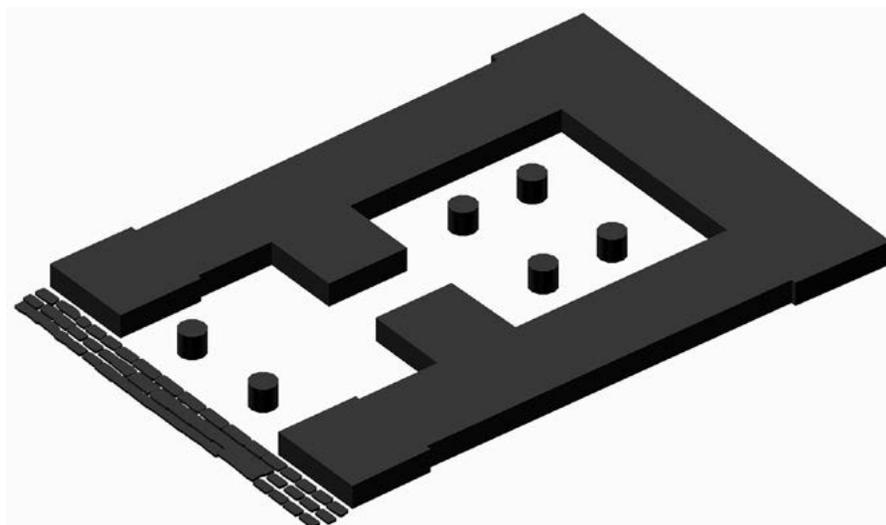


Figure 5: Plan of the Red Temple at Ebla (© The Italian Archaeological Expedition to Ebla).

The presence of the very probable tripartite Temple D2 on the western edge of the Ebla Acropolis in EBA IVB, in the same location where, in EBA IVA and in the following MBA I, had been, and would become the typical location for a palace or dynastic sanctuary, prompts some consideration. First, at Ebla there is no previous evidence for tripartite temples and for temples with a distinctly large cella, thus it seems quite clear that Temple D2 was planned by dividing an originally moderately long cella into a cella and an

anticella, certainly for ritual reasons. Second, Temple D3 peculiarly anticipates the tripartite structure of palace and dynastic temples of MBA I-II, but it was built far from any contemporary palace, because the Royal Palace of EBA IVB was the Archaic Palace in the Lower Town North (Matthiae 2013a).

It is certain that EBA IVB for Ebla was a period of political excess. Its great political role ended in terrible and total destruction at the end of EBA IVA (Matthiae

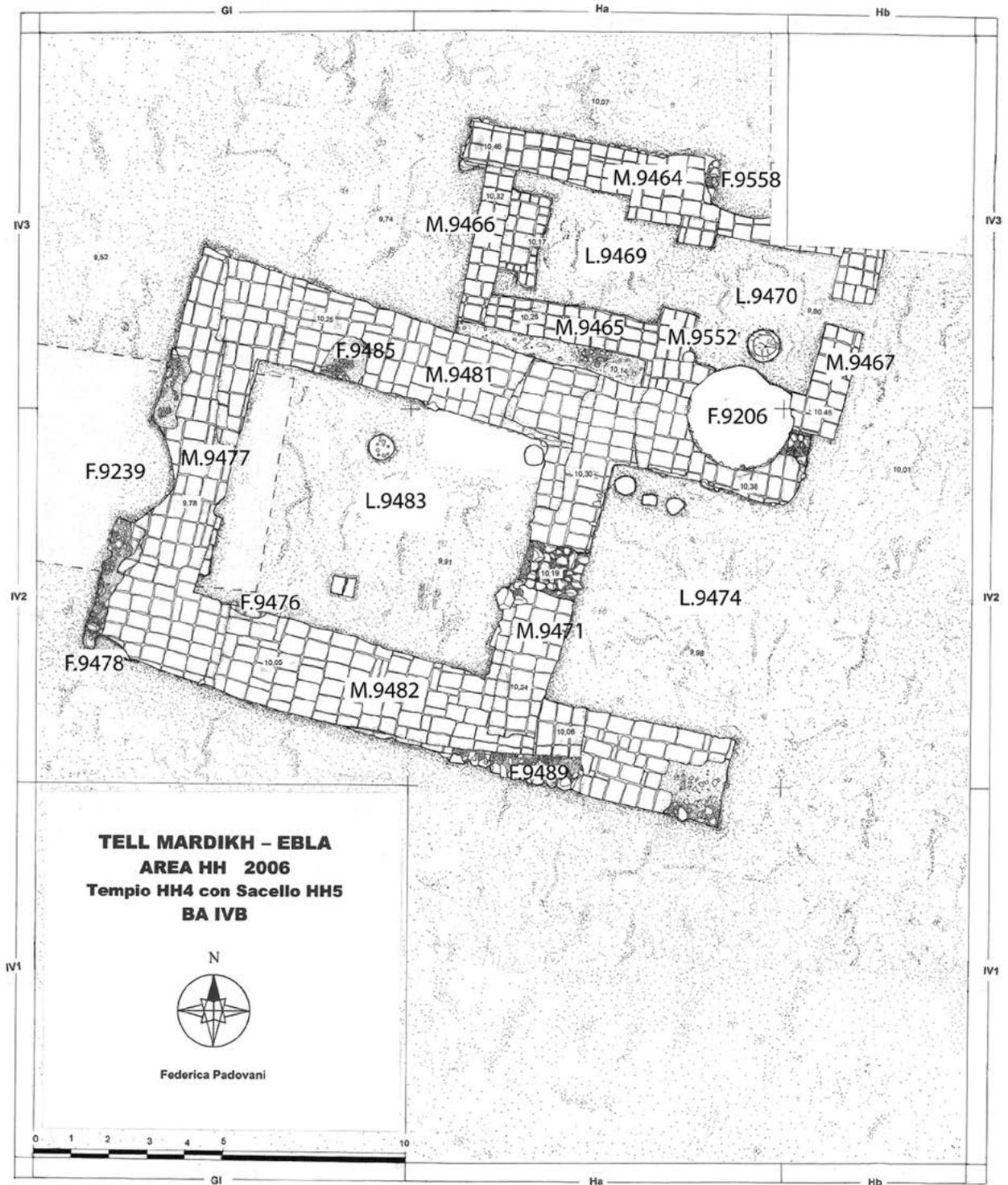


Figure 6: Temple HH4 at Ebla (© The Italian Archaeological Expedition to Ebla).

2013b: 72), and Armi/Armanum became the leading town during a large part of the Akkad Dynasty, until Naram-Sin's reign. After the destruction of Armi/Armanum by Naram-Sin, the political heritage of Ebla and Armi/Armanum shifted probably to Urshum/Urshum, at least in Gudea's time, but probably also

during the first part of the 3rd Dynasty of Ur.⁶ During those years of political excess, in EBA IVB, important innovations in architectural culture took place at Ebla, and perhaps in inner Syria in general, albeit in total

⁶ Matthiae 2013b: 71-72. On the possible identification of Armanum, see Otto 2006.

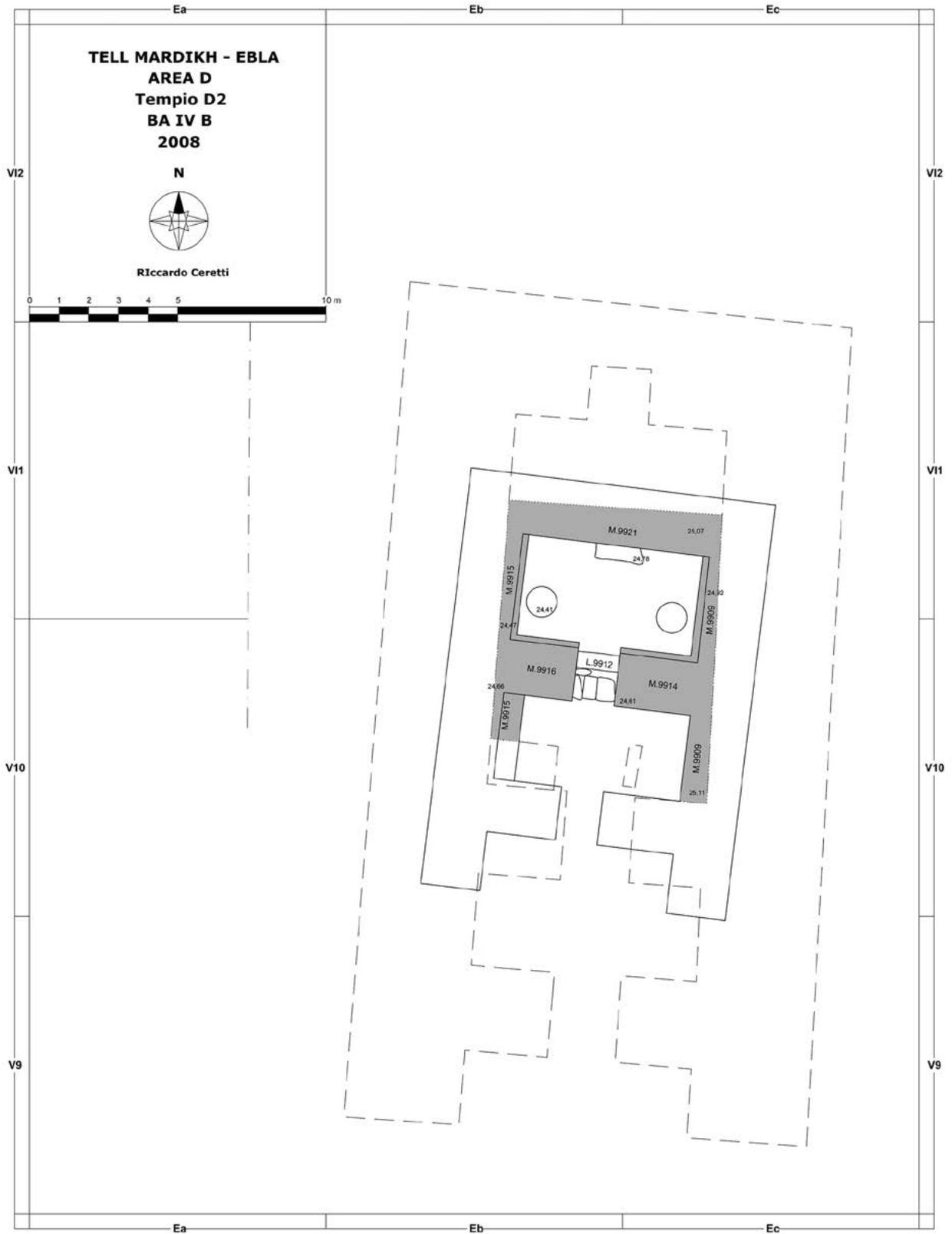


Figure 7: Temple D2 at Ebla (© The Italian Archaeological Expedition to Ebla).

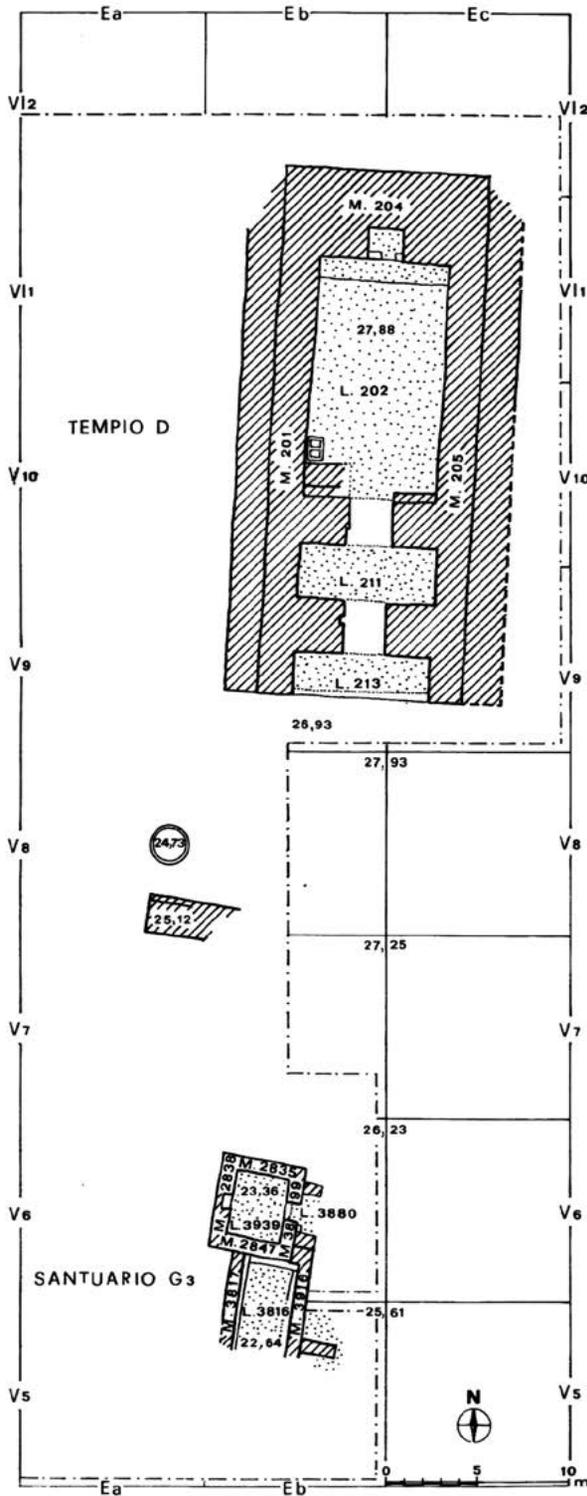


Figure 8: Ishtar Temple at Ebla (© The Italian Archaeological Expedition to Ebla).

continuity in the urban centres where the temples stood. On the one hand, the typology of the in antis temple with single long cell was definitely adopted, following the experiments of the late EBA IVA, and became the classical plan for the Old Syrian culture of Ebla in MBA I-II. On the other hand, the longitudinally tripartite temple was created very probably during this period, and, at least in some milieus, became the canonical plan for palace and dynastic temples, at least at Ebla, in MBA I-II.

The temples of MBA I-II

Ishtar Temple and Temples HH3 and HH2

As a tribute to an impressive continuity of cult places, two new temples were built over the razed ruins of the temples of those of EBA IV in the two main cultic areas of the age of the Royal Archives. These temples, both probably tripartite, are among the largest in the Old Syrian city. Ishtar’s Temple was built on the Acropolis (Figure 8). This is an imposing cult building nearly as large as the Red Temple, only slightly longer, and still in a very good state of preservation (Matthiae 2010: 419-422). In the Lower Town South-East, a more modest tripartite temple of the MBA I, Temple HH3, was very badly preserved when, probably at the beginning of MBA II, they built over it Temple HH2, also a tripartite edifice (Matthiae 2007: 512-514).

The strong analogy in the plan of the two sanctuaries of the Acropolis West and of the Lower Town South-East, both built over the Temple of the Rock and the Red Temple, forces us to deal with the problem of the titular deities of these important cult buildings. Some evidence makes it quite certain that the sanctuary in Area D on the Acropolis was dedicated to Ishtar *Eblaitu* (Matthiae 2013c: 313-314). Regarding archaeology, the important monumental basalt furniture, whose fragments were found inside the temple, or in the square in front of it, portrays the great goddess in two peculiar iconographies of hers: the ‘austere’ one, where the goddess is depicted inside a winged shrine wearing a heavy cloak (Matthiae 2013d: 539-546), on the back of a bull, and flanked by two bull-men; and the ‘licentious’ one, with the goddess front-facing holding two long blossoming stalks (Matthiae 2012) (Figure 9).

Regarding Temple HH2 in the Lower Town South-East, it was proposed that it might be dedicated to Hadad, on the base of some hints (Matthiae 2006: 481-488). In the *favissa* discovered south of the cult building, the clay figurines mostly depict chariots and charioteers, while female figures, widely attested everywhere on the site, are nearly absent. In the same context, there are some peculiar votive objects, namely small bronze snake figures. These representations might hint at Hadad going through the skies in his chariot dragged by a bull,

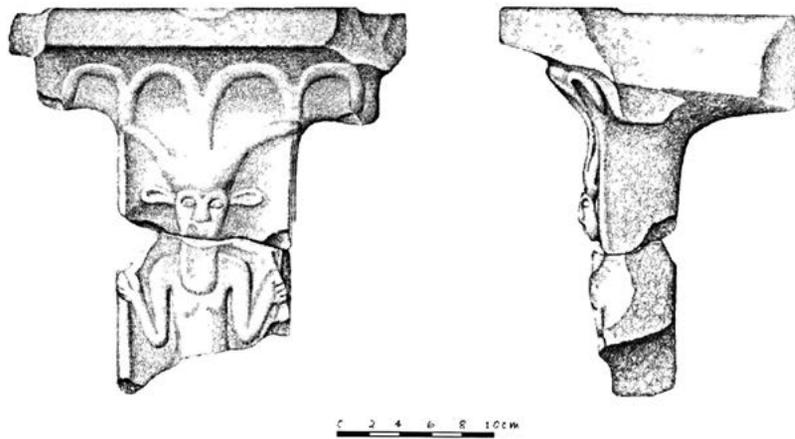


Figure 9: Monumental basalt furniture depicting the goddess Ishtar Eblaitu (© The Italian Archaeological Expedition to Ebla).



Figure 10: Fragment of a stele bearing what might be the god Hadad oldest image (© The Italian Archaeological Expedition to Ebla).

during a well-known mythical fight of this weather god. Moreover, the fragment of stele, bearing what might be Hadad's oldest image (Matthiae 2013e) (Figure 10), found in the demolition of a house in the village of Mardikh, might come from the southeast region of the Lower Town. Lastly, the peculiar presence of fragments of royal votive statues, albeit rare, in the area of Temple HH2 seems again to point to Hadad (Matthiae 2006: 485, figs. 28-29).

The tripartite structure with long cella of Ishtar's Temple on the Citadel, and of the presumed Hadad Temple in the Lower Town South-East, might be explained with a peculiar, albeit different, relation with kingship of the temples' titular deities. In any event, it clearly is a mix of the single long cella type, at that time a canonical one, and of the tripartite type, initially with large cella. In fact, in the architectural culture of MBA I-II Ebla, the temples seem to have strict canonical plans of two types only. The most widespread and common is the in antis type, with a single and markedly wide cella and a not very deep vestibule, as documented in Ishtar's Temple in the Lower Town North-West (Area P), in Shapash/Shamash's Temple in the Lower Town North (Area N) (Matthiae 2013c: 308-312), and in Rashap's

Temple in the Lower Town South-West (Matthiae 2013c: 305-308), although in two out of these three buildings the entrance is not well preserved. The second type, attested only in Ishtar's Temple in the Citadel (Area D), and in the possible Hadad Temple in the Lower Town South-East, features two antae in façade, tripartite structures, with a noticeably long cella and a not very deep anticella and vestibule.

These two MBA I-II temple typologies with antae, on the basis of the discoveries of the above-mentioned cult buildings of EBA IVA and IVB, are, as is so far clear, the results of internal developments in Ebla's architectural culture (Figure 11).

The first type, with single long cella, descends from an original, single and moderately large cella type, with very deep vestibule, of EBA IVA; the intermediate evidence includes, in late EBA IVA and EBA IVB, temples with moderately long cella, becoming deeper, and vestibules becoming shorter. It is possible that this development came from the possible knowledge by Eblaic architects of the in antis temples with long cella and short vestibule of the Euphrates and Balikh valleys, like those of Tell Chuera, Tell Halawa, and Qara Quzaq.

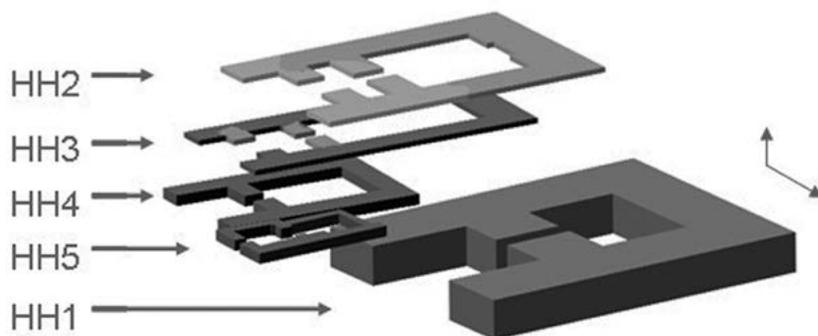


Figure 11: Development of temples from the EBIV to the MBI at Ebla (© The Italian Archaeological Expedition to Ebla).

However, it seems quite clear that, while in the palace architecture of the EBA IVA, elements of unity may be found in the Royal Palace G of Ebla, in Palace F of Tell Chuera, and in Palace B of Tuttul,⁷ in contemporary cultic architecture the articulation of inner space at Ebla and Al-Rawda, namely in inner Syria, was different from that more customary in the Euphrates and Balikh areas.

The second type, tripartite with long cella and quite short anticella and vestibule, evidently descends from the subdivision, probably occurring in EBA IVB, of the original cella into a cella and an anticella, with a consequent strong initial reduction of the cella's depth. Once the new plan was created, the need probably appeared for a larger space in the cella, and it is quite certain that only at the beginning of MBA I, they decided to give the cella of the tripartite type the same depth as the one which had become canonical for the single cella temples. In fact, in EBA IVA Ebla, the oldest known type of temple has a large cella, while the fact that both the Temple of Level VII at Alalakh, and the Hadad Temple in Aleppo Citadel (Kohlmeyer 2000; Gonnella *et al.* 2005), probably rebuilt at the beginning of MBA II, kept the large cella structure, shows that in inner Syria, between EBA IVB and the beginning of MBA I, two different and parallel trends were present in the articulation of spaces. To the north, in the Aleppo region, continuity prevailed over innovation, and the ancient spatial formulation was still employed in the most monumental cult buildings in MBA II. Therefore, it is not astonishing that Alalakh followed the Aleppo tradition. To the south, in the Ebla region, innovation prevailed, on the contrary, over continuity. In the years between EBA IVA and IVB, they set the foundations for the new, classical Old Syrian tradition of MBA I-II.

The Royal Citadel Palace

Since 2008, the archaeological exploration strategy of Tell Mardikh was to get a better understanding of the Royal Palace E of the MBA I-II on the Acropolis.

This fundamental monument, located in the extreme northern periphery of the Acropolis, was identified in 1966 (Matthiae 1967: 79-84). However, two main difficulties were encountered. First, stratigraphically, the remarkable superimposition of the later levels c. 3.50/4.00 m thick, and, second, topographically, the imposing extension of this royal building, possibly of about 15,000 m², nearly double that of the Western Palace (Matthiae 2010: 442-448), the largest palatial building of the Lower Town, and probably the residence of the Crown Prince in MBA II. As a consequence of this second obstacle, excavations in 2008-2010 were opened in adjacent sectors of the Acropolis: Area E to the north and Area F to the west (Matthiae 2011: 743-761).

Despite the fact that the earliest settlements of the Iron Age are in a bad state of preservation, an important target was to get a good pottery sequence from Late Bronze Age (LBA) I to the Persian-Hellenistic period. The second most important result is that we have now the plan of large sectors of the Old Syrian Royal Palace E, in the northwestern region of its original extension. Regarding the Royal Palace E (Figure 12), two fundamental – chronological and topographical – pieces of evidence were ascertained. First, this palatial complex was not destroyed by fire at the end of MBA II, but was re-employed at the beginning of LBA I by squatters. Second, at least on its western side, there was no perimeter wall, as encountered in all palatial buildings of the Lower Town. Clearly, the limits of the Royal Palace E were considered the fortification walls of the Citadel itself. Very important finds of the last work season were two fragments of a sculptural monument, allowing the restitution of the Obelisk of Ishtar (Matthiae 2011: 761-764, fig. 25) (Figure 13), that certainly is a pendant of the Stele of Ishtar found in 1985 (Figure 14). Both stelae were erected in the square in front of the Temple of Ishtar (Temple D of the Acropolis) in the years around 1800 BC, before they were destroyed and their fragments scattered during the final destruction of Old Syrian Ebla at the end of MBA II, around 1600 BC.

The large architectural complex of the Royal Palace E, now called Royal Citadel for its large size, probably

⁷ Matthiae 2013f. For Palace F of Chuera, see Akkermans and Schwartz 2003: 259, figs 8, 16. For Palace B in Tuttul, see Strommenger and Kohlmeyer 2000: 40-41, pl. 2.



Figure 12: Royal Palace E at Ebla (© The Italian Archaeological Expedition to Ebla).

extended on the entire surface of the MBA I-II Acropolis, and is nowadays encountered over a surface area of about 1400 m². It includes one complete sector (North-West Wing) and some parts of three other sectors (North Wing, Centre-North Wing, and West Wing). Its original dimensions were probably of nearly 130/150 m on the N-S axis and of around 100 m on the E-W axis. The complex was articulated on terraces oriented E-W: the northern sectors were the upper quarters and the southern ones the lower.

The North-West Wing is the only sector that was completely excavated. It was composed of a large court with three rooms on the northern side, a large hall divided in two parts on the eastern side, and a kind of loggia with a fine stone floor on the southern side. Some hints, such as the presence of hearths, suggest that the original function of the North-West Wing was related to food production. The North Wing, immediately to the east, on the northern border of the Acropolis, and largely hidden under important superimpositions

of the Persian period, included a large hall with S-N axis and three smaller rooms, but apparently had no communication with the North-West Wing. Walls and floors of these two northern wings were of excellent masonry technique, but both wings were certainly service sectors, exactly as it was before in the northern sectors of the Lower Town palaces.

South of the North-West Wing, the Centre-North Wing, at the base of the northern terrace, was composed of at least six rooms of more modest technique. So far, we do not know their original floors, as they were re-employed several times by squatters in LBA I. The West Wing, with a trapezoidal shape, more than 45 m long and nearly 25 m wide, was a secondary residential sector, perhaps for functionaries, formed by pairs of domestic units built on both sides of a long N-S strong wall.

Chronologically, the original floors of the Royal Citadel E-F were built directly above the levelled debris of the destructions of EBA IVA. Second, the structures of the

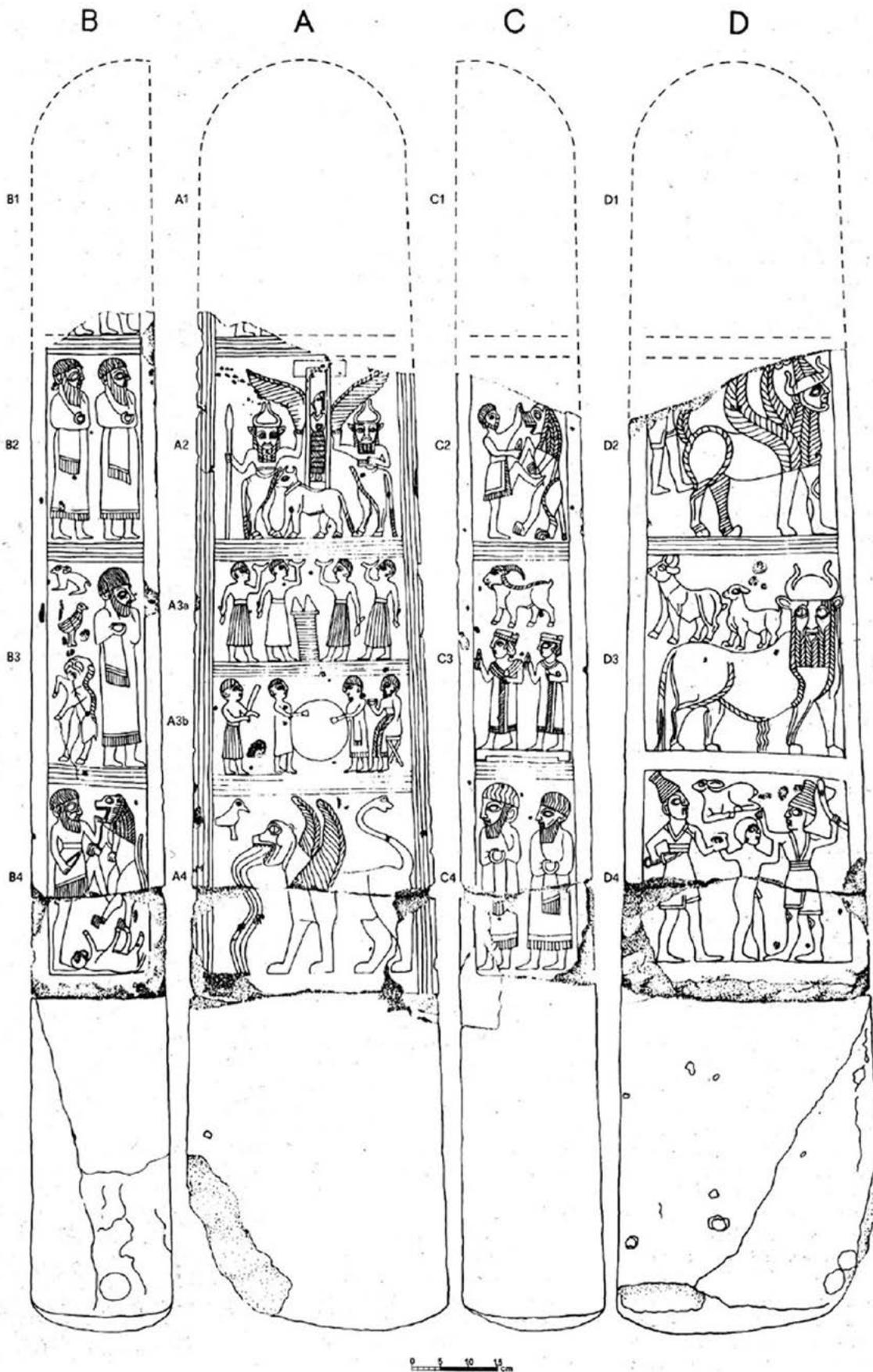


Figure 13: Two fragments of a sculptural monument, allowing the restitution of the Obelisk of Ishtar (© The Italian Archaeological Expedition to Ebla).

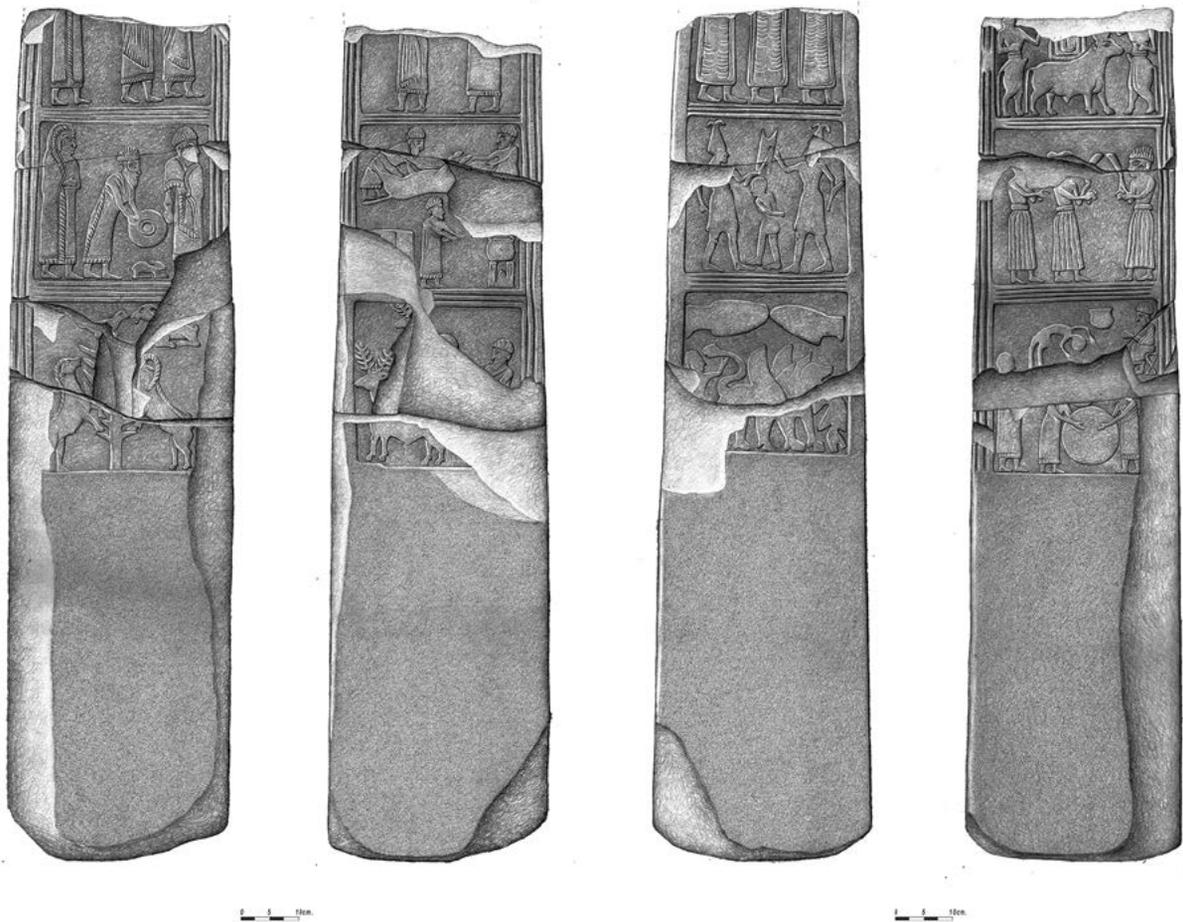


Figure 14: Stele of Ishtar found in 1985 at Ebla (© The Italian Archaeological Expedition to Ebla).

Royal Citadel date probably to a central phase of MBA I. Third, the Citadel was a huge complex, including not only the palatial buildings, but also important shrines, such as Ishtar's Temple. Fourth, the Royal Citadel, unlike what has been observed in the Lower Town, was not destroyed by fire at the end of MBA II. Fifth, squatters inhabited the abandoned official sectors of the Royal Citadel, which finally collapsed only very late in LBA I or at the beginning of LBA II (Matthiae 2011: 739-740, fig. 3).

The proposal that the Royal Citadel of Old Syrian Ebla was around 15,000 m² wide is based on the hypothesis that the Western Palace in the Lower Town of the late MBA I was built employing as a model the large Royal Citadel on the Acropolis. If this hypothesis is correct, the royal suite of the Citadel has to be searched for in the central region of the current Acropolis, and the entrance to the monumental complex was, very probably, at the top of the S-W slope of the hill, where some destroyed remains were identified above the eastern walls of the Administrative Quarter of the Royal Palace G of the Archives.

In conclusion, I want to express my deepest gratitude for the extraordinary and heroic work of the functionaries of the General Directorate of Antiquities and Museums of Damascus in defence of the cultural heritage of Syria, at the risk of their lives, in order to save it as an example of universal heritage for mankind.

Bibliography

- AKKERMANS, P. and SCHWARTZ, G. M.
2003 *The Archaeology of Syria from Complex Hunters-Gatherers to Early Urban Societies (c. 16,000-300 BC)*. Cambridge, Cambridge University Press.
- CASTEL, C. and AWAD, N.
2007 Cinquième mission archéologique franco-syrienne dans la micro-région d'Al-Rawda (Syrie intérieure): la champagne de 2006, *Orient-Express* 1: 26-32.
- 2006 Quatrième mission archéologique franco-syrienne dans la micro-région d'Al-Rawda (Syrie intérieure): la champagne de 2005, *Orient-Express* 1: 7-14.
- FRONZAROLI, P.
1993 *Archivi Reali di Ebla, Testi. XI. Testi rituali della regalità*. Archivio L.2769. Roma, Missione archeologica italiana in Siria.

- GONNELLA, J, KHAYYATA, W. and KOHLMAYER, K.
 2005 *Die Zitadelle von Aleppo und der Yempel des Wettergottes*. Neue Forschungen und Entdeckungen. Münster, Rhema.
- KOHLMEYER, K.
 2000 *Der Tempel des Wettergottes von Aleppo*. Münster, Rhema.
- MATTHIAE, P.
 2013a The Archaic Palace at Ebla: A Royal Building between Early Bronze Age IVB and Middle Bronze Age I. In: P. Matthiae, *Studies on the Archaeology of Ebla 1980-2010* (ed. F. Pinnock): 243-257. Wiesbaden, Harrassowitz.
 2013b Crisis and Collapse: Similarity and Diversity in the Three Destructions of Ebla from EB IVA to MB II. In: P. Matthiae, *Studies on the Archaeology of Ebla 1980-2010* (ed. F. Pinnock): 57-93. Wiesbaden, Harrassowitz.
 2013c About the Identity of the Titular Deities of the Old Syrian Temples of Ebla. In: P. Matthiae, *Studies on the Archaeology of Ebla 1980-2010* (ed. F. Pinnock): 301-322. Wiesbaden, Harrassowitz.
 2013d An Archaic Old Syrian Stele from Ebla and the Figurative Culture of Syria around 1800 BC. In: P. Matthiae, *Studies on the Archaeology of Ebla 1980-2010* (ed. F. Pinnock): 517-555. Wiesbaden, Harrassowitz.
 2013e A Stele Fragment of Hadad from Ebla. In: P. Matthiae, *Studies on the Archaeology of Ebla 1980-2010* (ed. F. Pinnock): 619-630. Wiesbaden, Harrassowitz.
 2013f Early Syrian Palatial Architecture: Some Thoughts about its Unity. In: P. Matthiae, *Studies on the Archaeology of Ebla 1980-2010* (ed. F. Pinnock): 235-242. Wiesbaden, Harrassowitz.
- 2012 Une nouvelle image de l'Ishtar eblaitu paléosyrienne. In: T. Boiy, J. Bretschneider, A. Goddeeris, H. Hameeuw, G. Jans, and J. Tavernier (eds), *The Ancient Near East, A Life! Festschrift Karel Van Lerberghe*: 387-407. *Orientalia Lovaniensia Analecta* 220. Leuven, Peeters.
- 2011 Fouilles à Tell Mardikh-Ébla en 2009-2010: Les débuts de l'exploration de la citadelle paléosyrienne, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 155: 735-773.
- 2010 *Ebla. La città del trono*. *Archeologia e Storia*. Torino, Einaudi.
- 2009 Temples et reines de l'Ébla protosyrienne: Résultats des fouilles à Tell Mardikh en 2007 et 2008, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 153: 747-792.
- 2007 Nouvelles fouilles à Ébla en 2006. Le Temple du Rocher et ses successeurs protosyriens et paléosyriens, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 151: 481-525.
- 2006 Un grand temple de l'époque des Archives dans l'Ébla protosyrienne: Fouilles à Tell Mardikh 2004-2005, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 150: 447-493.
- MATTHIAE, P. (ed.)
 1967 *Missione Archeologia Italiana in Siria. Rapporto preliminare della campagna 1966 (Tell Mardikh)*. Roma, Università dell'Istituto di Studi del Vicino Oriente.
- MOORTGAT, A.
 1965a *Tell Chuera in Nordost-Syrien*. Vorläufiger Bericht über die vierte Grabungskampagne 1963. Köln-Opladen, Westdeutscher Verlag.
 1965b *Tell Chuera in Nordost-Syrien*. Vorläufiger Bericht über die dritte Grabungskampagne 1960. Köln-Opladen, Westdeutscher Verlag.
- DEL OLMO LETE, G. and MONTERO FENOLLÒS, J. L.
 1998 Du temple à l'entrepôt. Un exemple de transformation de l'espace urbain à Tell Qara Quzaq en Syrie. In: M. Fortin and O. Aurenche (eds), *Espace naturel, espace habité en Syrie du Nord (X^e-II^e millénaire av. J.-C.)*. *Actes du Collège tenu à l'Université Laval (Québec) du 5 au 6 mai 1997*: 297-300. Québec-Lyon, Canadian Society for Mesopotamian Studies and Maison de l'Orient.
- ORTHMANN, W. and MEYER, J.-W.
 1989 Die Ausgrabungen in den Planquadraten L und M. In: W. Orthmann (ed.), *Halawa 1980 bis 1986*: 64-66. Vorläufiger Bericht über 4.-9. Grabungskampagnen. Bonn, Habelt.
- OTTO, A.
 2006 Archaeological Perspectives on the Localization of Naram-Sin's Armanum, *Journal of Cuneiform Studies* 58: 1-26.
- POMPONIO, F. and XELLA, P.
 1997 *Les dieux d'Ébla. Étude analytique des divinités éblaites à l'époque des Archives Royales du III^e millénaire*. AOAT 245. Münster, Ugarit-Verlag.
- STROMMINGER, E. and KOHLMAYER, K.
 2000 *Tall Bi'a/Tuttul II. Die Schichten des 3. Jahrtausends v. Chr. im Zentralhügel E*. Saarbrücken, Auflage.
- YOUNGER JR, K. L.
 2009 The Deity Kur(r)a in the First Millennium BC, *Journal of the Ancient Near Eastern Religions* 9: 1-23.
- WERNER, P.
 1994 *Die Entwicklung der Sakralarchitektur in Nordsyrien und Südostkleinasiens: vom Neolithikum bis in das 1 Jt. V. Chr.* Münchener Vorderasiatische Studien 15. München-Vienne, Profil.
- WILHELM, G.
 1992 Zum eblaitischen Gott Kura, *Vicino Oriente* 8: 179-188.

The Archaeological Park of Ebla. A Long-Term Plan for the Site and its Region

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Abstract

The Italian Archaeological Expedition to Ebla has always paid attention to the preservation of the site. When the Royal Palace G was brought to light, the expedition started considering the problem of its preservation and/or restoration in the interest of the Syrian Authorities of the site and for the general public's curiosity. In the late 1990s, thanks to an important grant from the European Community, a plan for the preservation of all the monuments of the site started. Another aspect of the Italian mission activities concerns a plan for the rehabilitation of the region where the tell sits, including three villages – Mardikh itself, Anqarati, and Mar Dibsi – aiming at exploiting the resources of the archaeological site, in order to revitalise the local economy. The last phase of the preservation of Tell Mardikh occurred in the most recent years of work of the Italian Expedition: the refurbishing of the Idlib Museum thanks to an important grant by the Italian Ministry of Foreign Affairs.

Since the beginning of the systematic archaeological exploration of the site of Tell Mardikh, the Italian Archaeological Expedition paid some attention to the preservation of the site, albeit not being directly engaged in restoration works. Two main techniques were thus adopted: first and foremost, the Expedition took care of eliminating from the site all the earth removed from the excavation areas, after it had been accurately sieved and examined. This was always a heavy financial effort, requesting the use of many tractors, but it prevented the morphology of the site from being changed as a consequence of the formation of dumps inside its perimeter. Secondly, in order to protect the buildings being brought to light, the decision was made to leave the baulks (Figure 1),¹ when they did not prevent the understanding of the building structure and planning. A few exceptions were made, one being the Damascus Gate, where the stone wall built across it, probably during the First Crusade, was left in place in order to prevent the southern structure from collapsing (Matthiae 1966: 20).

When the Royal Palace G, dating to c. 2300 BC, and its State Archives (Matthiae 1976), with their wealth of cuneiform documents, were discovered, the attention of the Syrian Authorities for the site grew, as well as the general public's curiosity. For these reasons, and for the historical importance of Palace G, the Expedition

started pondering the problem of its preservation and/or restoration. This matter was quite difficult from a theoretical point of view, particularly for scholars coming from Italy, a country where restoration techniques are quite advanced and where the problem of restoration is dealt with often in quite heated debates. The main point raised was that any restoration done on the site must be reversible and not permanent.² The main aim, therefore, was not to reconstruct the building but rather to protect its ruin, a task that required much technical expertise, which was not, at the time, affordable to the Expedition. The solution, at the time, was simply to protect the ruins, using a traditional mud plaster which had to be refurbished every year.³ Therefore, from the late 1970s to the late 1990s, the final task we had to face by the end of each campaign was the 'cleaning up' of the site, eliminating our dumps, and the refurbishing of the Royal Palace G.⁴

Restoration work on the site

In the late 1990s we received an important grant from the European Community targeted specifically towards the restorations at the site. A plan for the preservation

¹ For the largest part of the excavations, the Wheeler-Kenyon methodology was used for the excavations, with 5 x 5 m squares, leaving an effective 4 x 4 m square with 1 m large baulks. In some instance, the baulks were removed, in order to complete the exploration of a building, as was the case with the Royal Palace G, whereas in other instances, like the Western Palace, in the Lower Town West, the baulks were left in place because they did not hamper understanding of the structures, and, additionally, protected the ruins brought to light. In fact, the baulks blocked in part the collapse of the ancient structures, and, at the same time, created a protection for the preserved floors. Of course, the result was not agreeable to see, and some ancient structures were unreadable.

² See in this regard the 'Carta del Restauro' (Restoration Chart) of the Italian Ministry of Education, circular 117 of April 6th, 1972 (www.webalice.it/inforestauro/carta_1972.htm), an update of a similar document made in 1932: https://it.wikipedia.org/wiki/Carta_italiana_del_restauero (1932).

³ The plaster was prepared with the same earth of the tell and mixed with straw provided by the villagers of Mardikh. The colour was the natural colour of the earth used on the tell, in order to make it very clear that it was a protection and not a restoration.

⁴ The average surface area excavated each year was of 1300 m² at a depth fluctuating between 2 and 6 m on average. The amount of earth displaced was, therefore, quite huge, and some years it was even necessary to remove it twice during a campaign. As regards to the restoration of the Royal Palace G, as the plaster did not contain any protective substance, it was subject to deterioration, more or less strongly according to the amount of rainfall of each year. It had, anyhow, to be attentively checked every year.



Figure 1: The region of the Western Palace, before restoration, showing the typical excavation grid in 4 x 4 m squares (© Missione Archeologica Italiana in Siria).

of all the monuments of Ebla commenced with the help of an experienced Italian team of restorers.⁵ As the architecture of Early and Middle Bronze Age Ebla is traditionally a mudbrick architecture, which is notoriously very difficult to protect and restore, we decided to start gradually with monuments featuring a large amount of stone structures, thus giving our team the possibility to study the problems of mudbrick preservation. Our plan started in 1996 in Area P, in the Lower Town North, and included a number of very important monuments whose mudbrick structures, however, were less preserved. These were the Archaic Palace of the Early Bronze Age IVB/Middle Bronze Age I (Matthiae 1995: 659-681), and the Northern Palace, Temple P2 and Monument P3, all dating to the Middle Bronze Age I-II (Matthiae 1993). These monuments had different levels of preservation, from the two palaces where a limited amount of mudbricks were preserved, to Monument P3 whose structure was made only of stone, to the Temple whose substructure only was preserved. The wall structure of the palaces was quite typical for their periods, with two lines of large undressed stones and a filling of small stones and earth, which was relatively easy to refurbish and

strengthen with a mix of earth, chemical products, and a small amount of cement (Figure 2). Several technical analyses were made beforehand on the structures (Figure 3) in order to ascertain their exact nature and state of preservation prior to proposing strategies for restoration and protection (Figure 4).⁶

Regarding the general aspect of the final 'product', another problem was the representation of floors, either where they were originally present or to indicate their absence. For instance, in Temple P2, where the preserved stone structures all belong to a level lower than the original floors, the cella was left with an irregular earth flooring, even featuring fallen blocks, in order to represent as accurately as possible this situation (Figure 5). Preserved floors were covered with a layer of 'textile not-textile', a special product allowing the floor underneath to be protected from water infiltration (Figure 6) and at the same time allowing it

⁵ The team was organized by the society Wunderkammer of Ravenna under the direction of U. Capriani.

⁶ Analyses were also made on the individual components of building materials in order to use earth and stone, and in particular limestone, as close as possible to the original material. For the analysis of the geological landscape of the Ebla region, see Arnoldus-Huyzendveld 2013, and for an analysis of building materials with a special focus on the Royal Palace G, see Santarelli and Spreafico 2013. A first description of the project, with the problems related to the preservation of mudbrick structures at Ebla is to be found in Mari *et al.* 2000, with related bibliography.



Figure 2: One moment in the restoration process of the Northern Palace: the stone base of the wall is already restored, and the workmen place over it two courses of modern bricks, made with the traditional technique (© Missione Archeologica Italiana in Siria).

to 'breathe'. Finally, the textile was covered with a layer of whitish stone crumble.

Another component of the project was the indication of the limits of the excavation areas, aiming at creating tourist paths, but also at preventing the limits themselves from crumbling and falling down. We also wanted to create a removable limit, following not only the usual criteria of our restoration schools, but also leaving us the possibility to work again in an already excavated area if the need arose for such an operation. The solution for this was to build up slightly sloping walls of cement bricks: these are only leaning against the earthen excavation limit (Figure 7), and can thus be easily removed. The final aspect of these containing walls is given by a slight layer of plaster, painted with the same colour of the tell soil, in order to make them less intrusive (Figure 8). The result seemed to us quite convenient: the excavation limits were quite clear, and yet the overall aspect of the site was not spoiled (Figure 9). At the same time, we also started to trace some paths



Figure 3: Chemical analysis of a portion of a mudbrick wall in the Western Palace (© Missione Archeologica Italiana in Siria).

for tourist visits, and to do some experiments with posters that included explanations in three languages about the monument and the restoration work.

As these experiments were in our opinion successful, we went on with the plan and included also Areas Q and B which were restored in the same way. The monuments that were conserved there included the Western Palace, Reshef's Temple, and the Sanctuary of the Deified Royal Ancestors,⁷ whereas it was chosen to close the Royal Tombs, under the Western Palace, as they could not be entered for fear of their ceilings collapsing.⁸

The excavations brought also to light the imposing forts and fortresses on the ramparts, in particularly in Areas V and AA (Matthiae 2000) to the west and northwest, and the large Southern Palace in Area FF (Matthiae 2004: 326-346). In these three areas, the excavation team was followed step-by-step by the restoration

⁷ For the Western Palace, see Matthiae 1980. For Reshef's Temple, see Matthiae 2010: 432. For the Sanctuary of the Deified Royal Ancestors, see Matthiae 2010: 435-438.

⁸ The Royal Necropolis was found in 1978, after the collapse of a part of the floor of the court L.2950, leading into the Tomb of the Princess. The complex including the Tomb of the Princess, the Tomb of the Lord of the Goats, and the Tomb of the Cisterns was excavated between 1978 and 1979 (Matthiae 2013). Other tombs were also found and were mostly covered by the walls of the Western Palace, indicating that they had been used and sealed before the building of the palace. Due to the collapse and pillage of the walls covering them, the tombs were discovered and emptied probably in late antiquity (Matthiae 1980: 100-102).

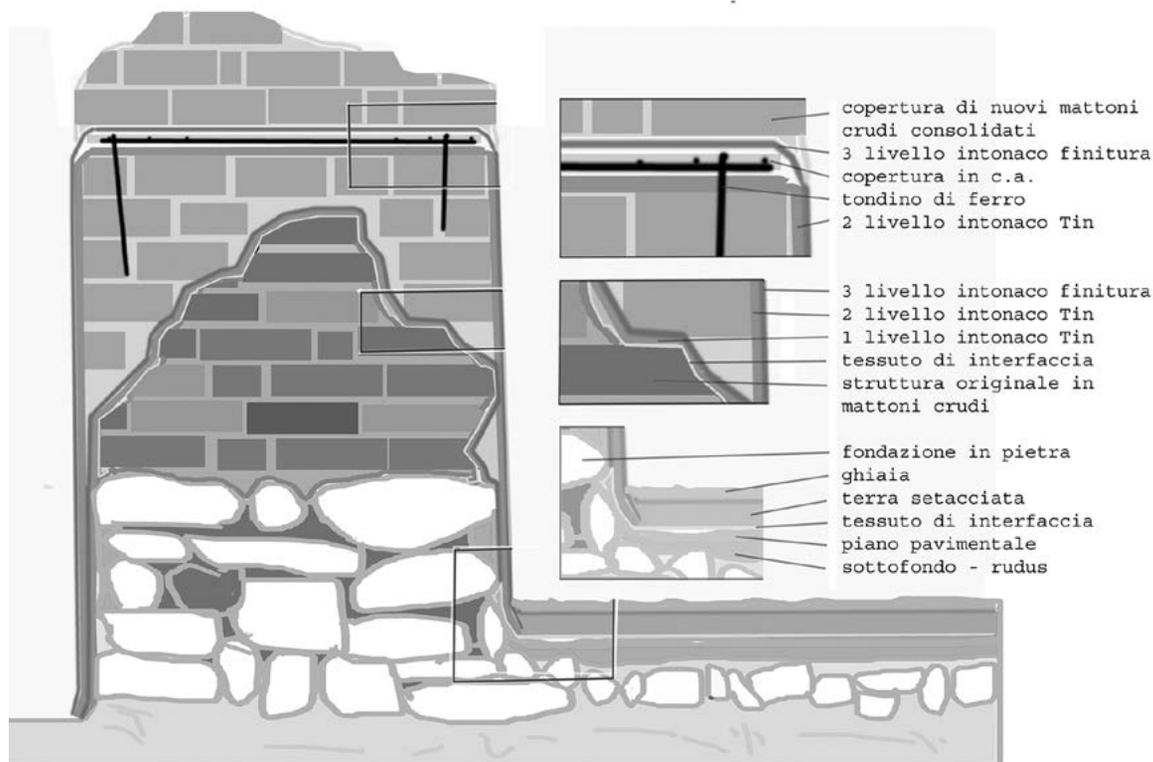


Figure 4: Proposal of restoration of a stone and mudbrick wall, after the chemical analysis are done (© Missione Archeologica Italiana in Siria).



Figure 5: Ishtar's Temple (Temple P2) in the Lower Town North, after restoration: the floor is left irregular and without covering, in order to show that the original floor is not preserved (© Missione Archeologica Italiana in Siria).

team, which started immediately to operate on the exposed structures. Thus the two large buildings of the Western Fort (Area V) and of the Northern Fort (Area AA) were immediately protected and made visible also for tourists. Only one problem was postponed, namely the restoration of a section of the huge fortification wall of the Early Bronze Age IVA-B, found in Area AA, where it had been encased in the Middle Bronze Age I rampart.⁹

⁹ The wall was 6 m wide and quite well preserved. The restoration team created only a temporary wooden structure to prevent it from

The Damascus Gate presented a different problem. As already noted above, the cross-wall, built in the Middle Ages, had been left in place for static reasons, thus

collapsing, while awaiting a more in depth study of the problem of mudbrick structures. While the restoration project went on, the Expedition started to study with the villagers of Mardikh the question of the presence of cultivation on the site. Traditionally, the site was allotted to some family in the village who cultivated mainly wheat using traditional techniques. Over the years, the work was mechanized, thus creating potential danger for the archaeological strata. Therefore, the Expedition discussed the possibility to block completely these activities on the site, while, at the same time, providing each year towards the elimination of vegetation.



Figure 6: Western Palace in the Lower Town West: the original floors covered by layers of special textiles, before the final restoration (© Missione Archeologica Italiana in Siria).



Figure 7: Detail of modern containing wall in the Western Palace of the Lower Town West (© Missione Archeologica Italiana in Siria).



Figure 8: Detail of the final aspect of the modern containing walls in Area B, in the Lower Town West (© Missione Archeologica Italiana in Siria).



Figure 9: Aerial view of the Northern and Archaic Palace, in the Lower Town North, after restoration (© Missione Archeologica Italiana in Siria).

blocking the complete view of the Gate. However, it was necessary to remove it.¹⁰ In order to do so, we had to consolidate the massive stone tower, standing south of the gate, whose bulk was starting to endanger even the cross-wall, and the stones of which were slowly giving way on both sides. The restoration of the Damascus Gate was connected to another aspect of the rehabilitation of Tell Mardikh, in which the Italian Expedition cooperated also with the Authorities of the Idlib Province. A plan was launched for the rehabilitation of the region where the tell stands, including three villages – Mardikh itself, Anqarati, and Mar Dibsi – aiming at exploiting the resources of the archaeological site, in order to revitalise the local economy based on tourism, on traditional handicraft, and on the exploitation of agricultural resources such as olive oil, honey, etc. In this plan, the entrance was planned in the southern part, where a new ticket office was built by the Mohafazat of Idlib, through the Damascus Gate,¹¹ and had to end in the north, where the previous office stood and where the DGAM had previously built an attractive red-brick building which would become the site museum (Figure 10).¹² The site museum housed an exhibition of posters

¹⁰ The removal of the medieval wall was necessary for two reasons: 1) it blocked the view of the gate; 2) it was starting to collapse under the pressure of the south tower, and was thus becoming also a danger for passersby.

¹¹ Besides building the new ticket office and parking area to the south, the Mohafazat of Idlib had also created a larger parking area to the north, close to the small museum, for buses to wait there for tourists completing their tour and exiting the site from the northern Aleppo Gate.

¹² The Directorate General of Antiquities and Museums of Damascus (DGAM) provided cleaning and refurbishing of the building in the

and a few objects and pottery, in order to connect a visit to the site with a visit to the Idlib Museum. At the same time, a Cultural Centre was built at the entrance to the village, to be included in the same general master-plan of revitalising the local economy.

The restoration of the Idlib Museum

The last phase of the preservation of Tell Mardikh belongs to the most recent years of work by the Italian Expedition. After a pause in 2008, when the European grant ended and when smaller scale operations without the help of the technical team were implemented, a new venture was made possible thanks to an important grant by the Italian Ministry of Foreign Affairs, mainly aiming at refurbishing the Idlib Museum (Figure 11).¹³ We had thus the opportunity to think our plan over again, to make some change to it, and to carry on new operations while still actively excavating.

The result of this last step was the elaboration of a complete plan for the refurbishing of the Museum, while the Mohafazat was starting to make structural changes to the building and to refurbish it. Another part of the plan was a study, in cooperation with local communities and Syrian NGOs, to create preserved areas around the archaeological site, following the UNESCO usual criteria for the presence of cultivations or houses around

years preceding the recent crisis.

¹³ Service Contract No AID006932. Arch. Cesare Mari of Panstudio Architetti Associati was in charge of the technical part for the Italian side.



Figure 10: The site Museum of Ebla, built near the entrance to the site by the DGAM (© Missione Archeologica Italiana in Siria).

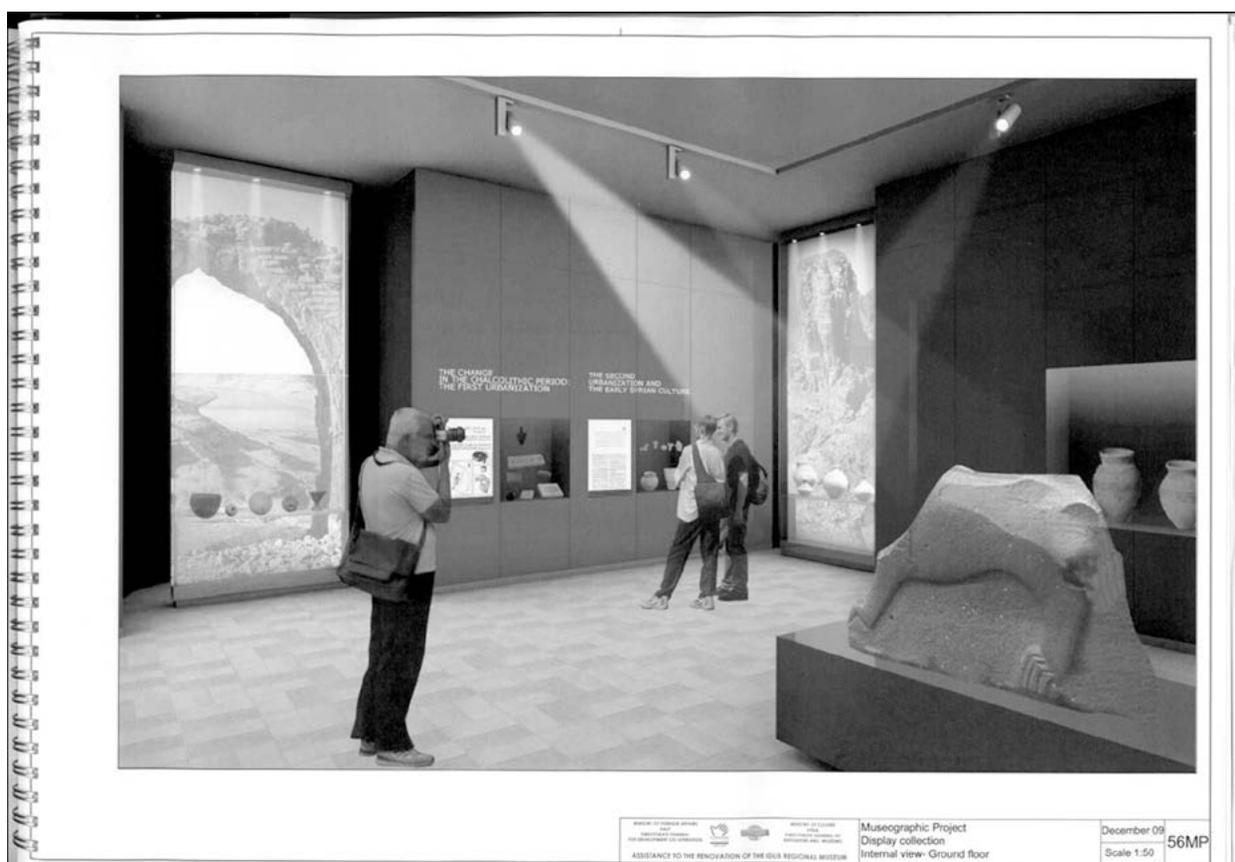


Figure 11: Rendering of the refurbishing of the Idlib Museum (© Missione Archeologica Italiana in Siria).

historical sites. The study also included restoration of the oldest parts of the village of Mardikh, including a mosque and a few traditional beehive mudbrick houses (Figure 12), which were meant to be part of the visit to the site, and a first analysis of the possible handicraft and agricultural activities in Ebla.

For such study, another technical team was put in place headed by an architect who was already working on a new itinerary inside the tell,¹⁴ to create safe passageways for tourists, and to produce, in agreement with us, new

¹⁴ The specialist in charge of this second phase of the project was E. Mura.

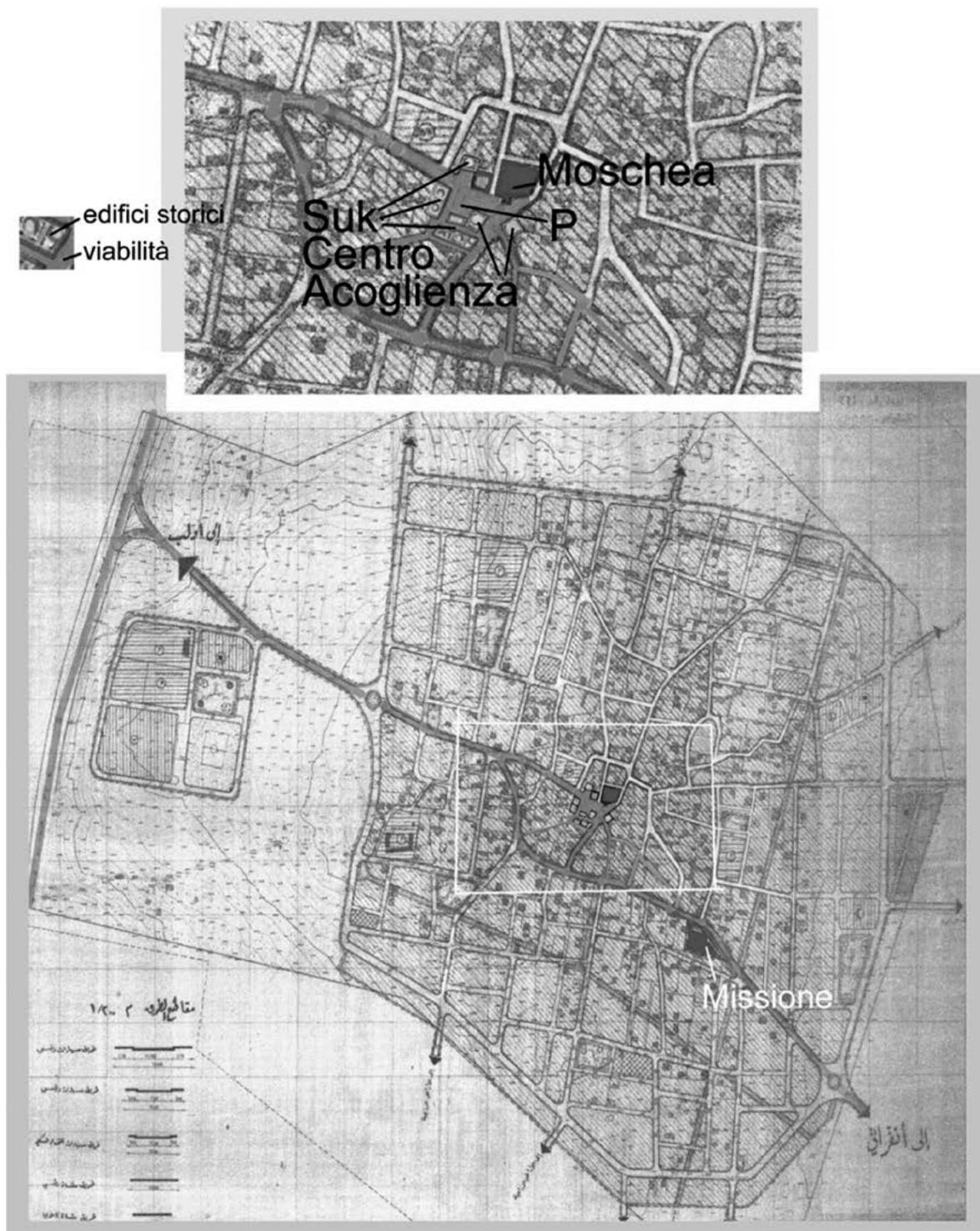


Figure 12: Plan of the village of Mardikh with the areas of proposed interventions (© Missione Archeologica Italiana in Siria).

posters. For the posters, here again, we decided to use a system making them almost invisible on the site: instead of using vertical stands, we preferred low daises covered in a sand coloured plaster (Figure 13). This choice brought to the need to produce posters more resistant to weathering, as they were placed almost horizontally and were not protected by a canopy.

Restoration of Palace G

Concurrently, we also started to deal with the final restoration of the Royal Palace G. The technique employed, the same used for other mudbrick structures on the tell and the one Italian restorers usually adopt in similar instances (Dezzi Bardeschi 2004: 91-94), was



Figure 13: Poster with explanations about the site, located on the east side of the Western Palace
(© Missione Archeologica Italiana in Siria).

quite successful. The ancient extant structures were protected by a double course of new mudbricks, where the clay had been mingled with chemical products, in order to make them more resistant to weathering.¹⁵ Some parts of the building, particularly staircases, were covered with temporary structures, which even though were not pleasing to the eye, were nonetheless quite effective. Another difficult problem, stemming from the height of the preserved structures and from the location of the Palace at the foot of the Acropolis, was preventing water from seeping into the structure in case of rainfall. For this reason, drains were created both on top of the walls and on the edges of the Acropolis slopes; however these were not always very effective.¹⁶

¹⁵ Ethyl silicates or acrylic resins were used for this, in particular 'Primal' in a 5% solution (Mari *et al.* 2000: 934). While the use of these kinds of products does not alter the original colour of clay, it was decided to make the colour of modern bricks slightly darker than the old ones, in order to make them clearly distinct from the original wall. Moreover, bricks used for the restoration of the Royal Palace G, are of the same size as those used for the restoration of the Middle Bronze Age buildings, thus making the restoration definitely recognizable and adhering to the usual restoration conventions.

¹⁶ One major problem was the fact that while it was possible to check on the structures only once a year when the Expedition was present, and to thus repair eventual damages to the restoration, these drains had to be checked and cleaned more often, in order for the system to be really effective.

A big problem was the final rendering of the Palace plastering. When we discovered the building, the ancient, and dazzling, white plaster was well preserved in a number of spots; we therefore made the new plaster white (Figure 14). Yet, the final results were far from being satisfactory, and we decided to 'dirty' it, to put a sort of 'patina', which, in our opinion, would have made it more acceptable from an aesthetic point of view. Unfortunately, the crisis in Syria prevented us from accomplishing our goals. Meanwhile, the absence of the Expedition has damaged the restoration undertaken,¹⁷ which requires constant control and periodical refurbishing because of the traditional techniques used. So, in the future, when hopefully it will be possible to be on the site again, the question that arises will be whether to reconstruct the situation we had at the time of our discoveries, giving back to the village their site as it was when we left it, or to leave heaps of ruins, cleaning what it will be possible to clean, and, eventually, going on with the renewed excavations.

In our opinion, as we are living in exceptional times and facing exceptional challenges, we should forget parts

¹⁷ Updates about the situation at Ebla, and for all the main archaeological and historical sites of Syria, are found at the DGAM website (<http://www.dgam.gov.sy/>). Ebla was the subject of some looting, and is now occupied by armed groups with light camps.



Figure 14: General view of the Royal Palace G, from the South, after restoration (© Missione

of our principles of restoration and rebuild as much as we can, while remaining scientifically correct and documenting all our steps. Following the most recent declarations of UNESCO, individuals become who they are not only because of their education but also because of the landscape they live in. Thus, this landscape must not be destroyed, as it forms part of the heritage of all of us, with landscape meaning and including the physical heritage of monuments, ancient and modern, the natural landscape, customs, and traditions. We strongly believe that the great challenge of the new Middle East, after this too long period of wars and threats had ended, will be to rebuild the landscapes, and we, as scholars who have largely benefited from the brotherly welcome and cooperation of the peoples and authorities of these countries, should be ready to help in any way possible, as a tangible mark of our gratitude for all those beautiful and fruitful years.

Bibliography

ARNOLDUS-HUYZENDVELD, A.

2013 A Thin Basis. The Soil Landscape of Ebla and Tell Tuqan. In: P. Matthiae and N. Marchetti (eds), *Ebla and Its Landscape. Early State Formation in the Ancient Near East*: 324-333. Walnut Creek, CA, Left Coast Press.

DEZZI BARDESCHI, C.

2004 Metodologie di scavo e cantieri di restauro italiani in Vicino Oriente dal dopoguerra a oggi. In: D. D'Angelo and S. Moretti (eds), *Storia del restauro archeologico*: 89-94. Firenze, Appunti.

MARI, C., CAPRIANI, U., FINOTELLI, F. and MARABINI, S. 2000 Restauro e valorizzazione turistica del sito di Ebla (Siria). Prime fasi sperimentali di restauro, consolidamento e protezione. In: P. Matthiae, A. Enea, L. Peyronel, and F. Pinnock (eds), *Proceedings of the First International Congress on the Archaeology of the Ancient Near East, Rome, May 18th-23rd 1998*, Vol. II: 929-944. Rome, Università degli studi di Roma 'La Sapienza'.

MATTHIAE, P.

2013 The Princely Burial Area in the Lower Town of Amorite Ebla. In: P. Matthiae and F. Pinnock (eds), *Studies on the Archaeology of Ebla. 1980-2010*: 393-403. Wiesbaden, Harrassowitz.

2010 *Ebla. La città del trono. Archeologia e storia*. Torino, Einaudi.

2004 Le Palais Méridional dans la Ville Basse d'Ébla paléosyrienne: Fouilles à Tell Mardikh (2002-2003), *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 148: 301-346.

- 2000 Nouvelles fouilles à Ébla (1998-1999): Forts et palais de l'enceinte urbaine, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 144: 567-610.
- 1995 Fouilles à Ébla en 1993-1994: Les palais de la Ville Basse nord, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 139: 651-681.
- 1993 L'Aire Sacrée d'Ishtar à Ébla: Résultats des fouilles de 1990-1992, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 137: 613-662.
- 1980 Campagne de fouilles à Ébla en 1979: Les tombes princières et le Palais de la Ville Basse à l'époque amorrhéenne, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 124: 93-118.
- 1976 Ébla à l'époque d'Akkad: Archéologie et histoire, *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 120: 190-215.
- MATTHIAE, P. (ed.)
- 1966 *Missione Archeologica Italiana in Siria. Rapporto preliminare della campagna 1965 (Tell Mardikh)*. Roma, Istituto di Studi del Vicino Oriente, Università.
- SANTARELLI, M. L. and SPREAFICO, G.
- 2013 Archaeometrical Analysis of Architectural Components of Royal Palace G. In: P. Matthiae and N. Marchetti (eds), *Ebla and Its Landscape. Early State Formation in the Ancient Near East*: 367-375. Walnut Creek CA, Left Coast Press.

Tell Afis: From the Late Bronze to the Iron Age

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Abstract

Tell Afis is a multi-phase site. Thanks to its favourable position, it was settled continuously from the Chalcolithic to the late Iron Age. The last excavations were concentrated on the acropolis, where a residential quarter dating to two phases of the Late Bronze Age IIB (13th-12th century BC), a domestic unit dating to three phases of Iron Age I (12th-10th century BC), and a sequence of superimposed temples with their annexes dating from Iron I (11th century BC) to Iron III (7th-6th century BC), were brought to light. Architectural and material culture from this long sequence of occupation give evidence of distinct cultural horizons, with their regional orientations; these can be connected with the transformations of the social and political scenario of northwestern Syria during these periods.

The 1986-2010 excavations at Tell Afis revealed and clarified the uninterrupted and lengthy history of occupation of this site from the Chalcolithic to the final Iron Age. The settlement was probably founded in the Middle Chalcolithic Period, emerging around 4000 BC, during the Late Chalcolithic 1-2 period, as a stronghold located in a fertile alluvial plain (the Jazr of the medieval sources) along the route connecting the inner steppe to the Mediterranean Sea. It was then walled by an imposing stone glacis (Giannessi 2012; Mazzoni 2013). A well-planned storage and domestic unit was built in the same area during the Early Bronze Age III-IV, while in the EB/MB phase an industrial pottery unit with its various installations replaced this housing quarter (Felli and Mazzoni 2007; Felli and Merluzzi 2008). Afis reached its greatest extension, corresponding to the current actual tell with its nearly 28 ha, during the Middle Bronze Age I, when both the lower town and the acropolis were surrounded by thick brick walls and ramparts, and in the Iron Age II-III, when the whole town was walled (Mazzoni 2002-2003). In this later period the town, hence named Hazrek, became the capital of the kingdom of Hamath and Lu'ash, according to the Aramaic inscription on the stele of King Zakkur (Musée du Louvre AO 8185, KAI 202) and the fragments of Aramaic inscriptions found during the excavations at Afis (Amadasi 2014).

The 2005-2010 archaeological campaigns were concentrated on the acropolis and were dedicated to clarifying the Late Bronze and Iron Age sequences and investigating the urban layout, especially of the Aramaean town with its public architecture (Figure 1). While only a limited exposure of the Early Bronze Age IVA-B and the transitional EB-MB periods could be achieved on the western margin (Area E) of the citadel mound and on the eastern slope trench (Area N) due to the thick accumulations of later periods, the Middle

Bronze Age fortifications on the eastern (Area N: Phases XIa-e) and western (Area E) slopes of the citadel and on the northern slope of the lower town north (Area B) could be more extensively investigated. However, it was on the topmost mound that the excavations were able to bring to light more of the Late Bronze and Iron Age structures and provide consistent data and abundant material useful for investigating the urban development, as well as outlining the cultural transformation and ultimately the historical context of the town during these phases.

Afis in the Late Bronze Age

The Late Bronze Age period is documented only on the acropolis by domestic, residential units, and structures belonging to the citadel walls. After the collapse of the Middle Bronze Age town and the destruction of the citadel walls, sparse and isolated graves with their simple funerary equipment were dug in the MB ruins on both the eastern (Area N) and western (Area E) edges of the citadel. Grave 1 of phase X in Area N, probably dated to the MBII or the MB/LB transition, yielded figurines with lingering MB traits (Cecchini *et al.* 2008; Di Michele 2012). Grave 2 yielded a necklace with a pendant consisting of a Mittanian Common Style cylinder seal. These finds indicate that the area had a funerary use between the end of the Middle Bronze Age and the Late Bronze Age I.

The Late Bronze Age sequence in Areas E and N is coherent despite some differences due to the different extent of their exposure and their functional purpose. In Area E, excavations extended over the whole side of the slope and were able to provide a sequence of four architectural phases for the LB I (VIIIc-a, and IIB (VII, VI, Vb). The smaller slope trench in Area N gave evidence for three architectural phases for the LBI

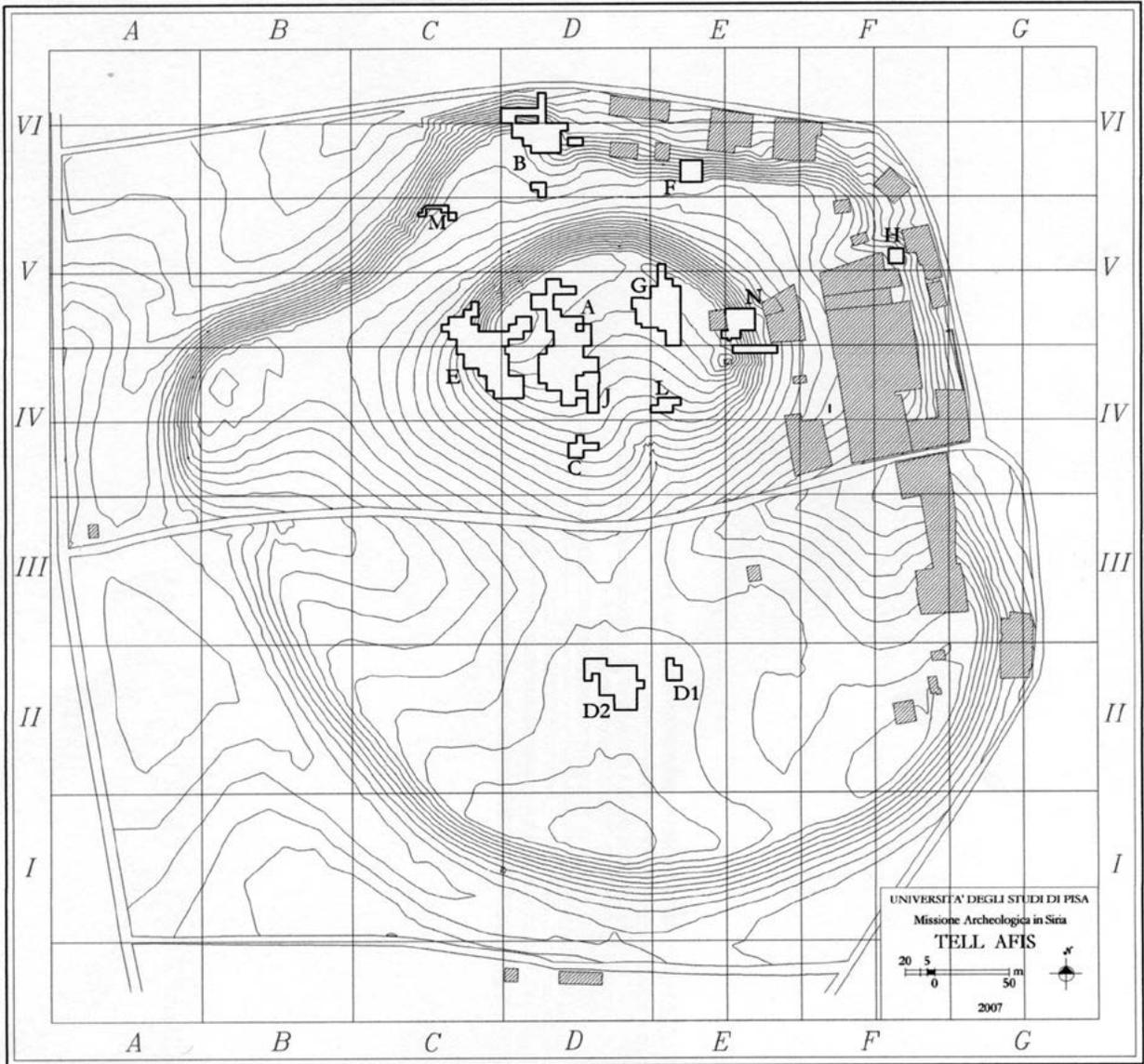


Figure 1: Plan of Tell Afis with excavation areas (2007) (© The Italian archaeological mission at Tell Afis).

(Phases IXd-a) and LBIIB (Phases VIII-VII) (Cecchini *et al.* 2008: 385). Here, excavations revealed a domestic sector continuously rebuilt and refurbished after some ruptures (Phase IXa), and provided with a kiln (VIIb) and an outer wall in bricks with stone foundations reinforced at its base by an external glacis, again made of bricks (Phase VIIc).

Three distinct occupational and more substantial architectural phases of a Late Bronze Age IIB residential quarter were brought to light in Area E on the western slope of the acropolis (Venturi 2014). They were preceded by a phase of occasional occupation, witnessed by graves excavated over the MBII citadel walls, some traces of functional use (Phase VIIa-c), and material characterized by lingering MB traits, possibly dating to an initial LBIA (Venturi 2014: 303-305, fig. 6).

The earlier phase of LBIIB (VII) is represented by a large building (F) exposed for nearly 400 m² and composed of a NW wing which included a large hall (F8), rooms for administrative functions where cuneiform tablets were discovered (F2, 12, 13), and a southeastern wing which included a kitchen (F3) (Venturi 2014: 298-299, fig. 2; 2012: 2-6, fig. 2c) (Figure 2). The building was then abandoned and the area was used for a probable short time in Phase VIa-b, as attested by functional installations, refuse dumps, pits, and ovens (Venturi 2013a: 230, figs. 3-4). It was then rebuilt (Phase Vb) with three buildings, all furnished with numerous jars in situ: residence E, only partially explored to the north, residence A to the NW provided with ashlar door-frames and a porch on its entrance opening onto street C, and to the SE the pillared house B, made of a hall divided in two parts by five stone pillars, one

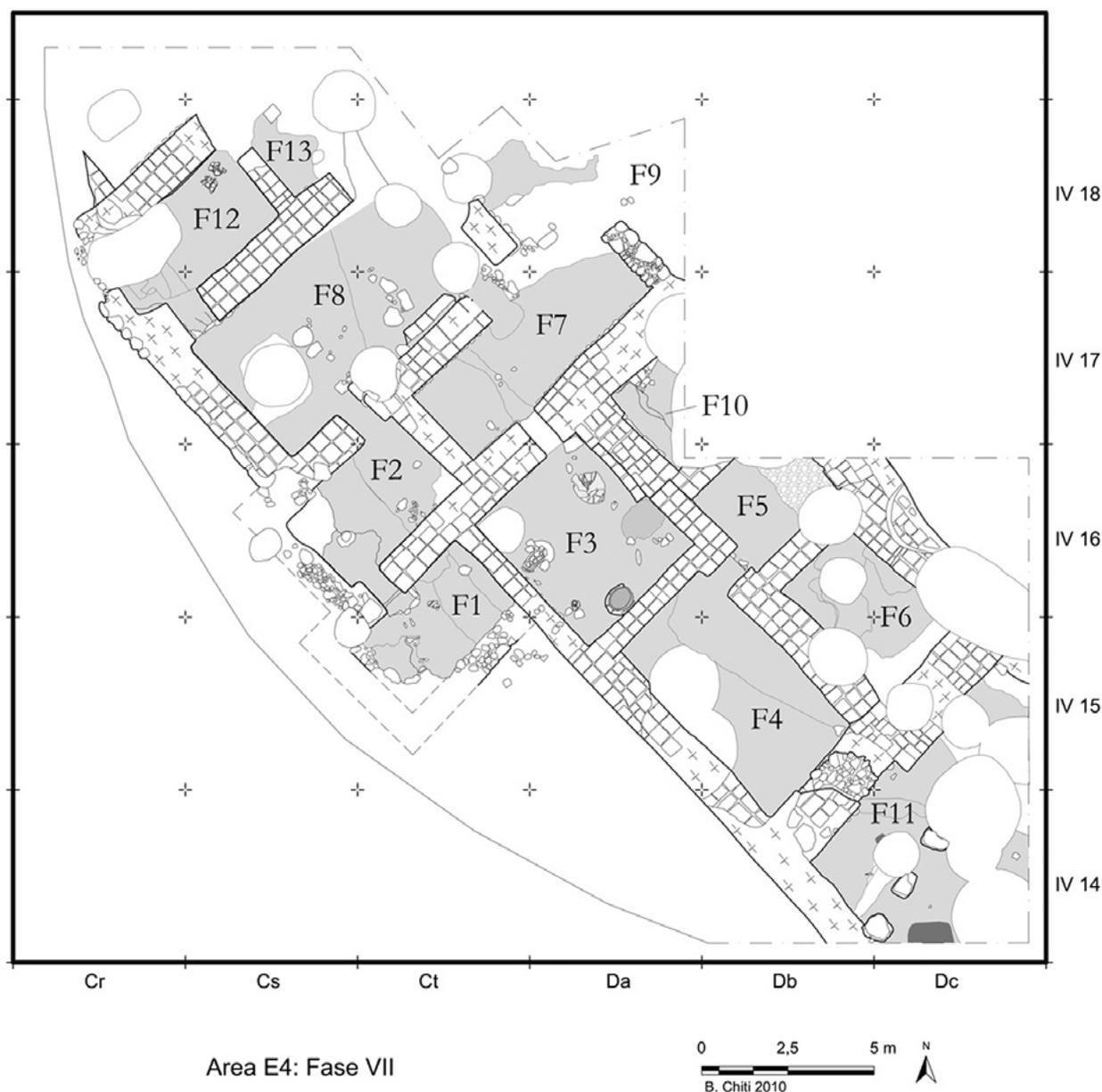


Figure 2: Area E4b: Building F, Phase VII, Late Bronze Age IIB (© The Italian archaeological mission at Tell Afis).

paved with flagstones on the east containing a large inventory of vessels and a hearth, and one to the north with a plastered floor (Venturi 2014: 299-300, fig. 5; 2012: 6-7, fig. 2a). A 'Stone Spirit' idol was found near one of the pillars, suggesting the presence of rituals for the cult of the ancestors (Venturi 2005: 70, fig. 54.8). The cuneiform tablets give information on the political situation of the region under Hittite dominance and assign a mid-13th century BC date to Building F (Archi 2012a; 2012b). Consequently, Phase Vb with Buildings A, B, and E (Figure 3) has to be dated to the beginning of the 12th century BC, whilst the end, documented by the violent destruction by fire of these buildings, can be

assigned to the period of turmoil which put to an end the LB kingdoms with most of their capitals and towns.

Pottery and other material from the Late Bronze Age sequence show elements of continuity in the initial period, in the LBI, with new traits emerging only in the course of the LB II. The presence of Common Style seals is indicative of the gravitation of the town towards the Mittanian milieu, following the demise of the Middle Bronze Age powers. With the mid 13th century BC, in LBII, there is a notable increase of new cultural traits in pottery production, such as mass-produced plain common ware, drab wares with the diagnostic shallow bowls (Venturi 2012: 9-19, 25-26), the one-handed

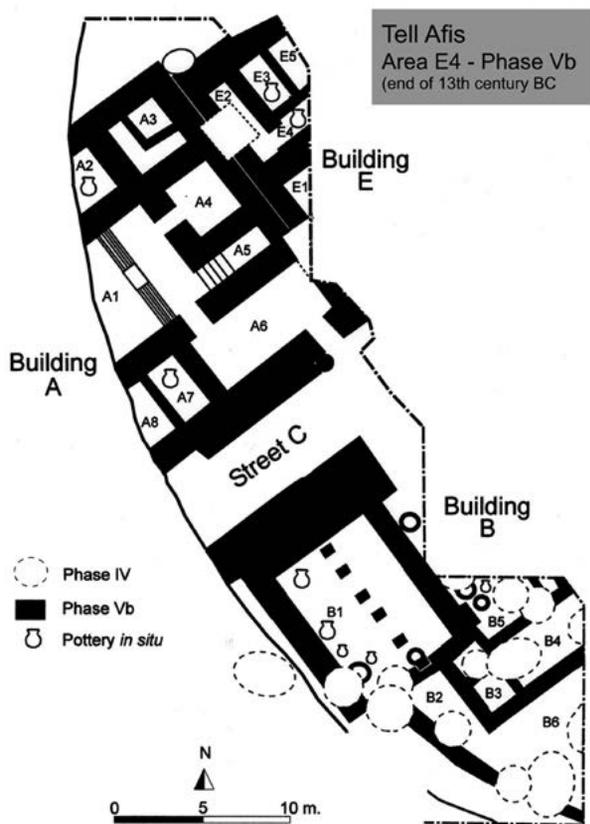


Figure 3: Area E4b: Buildings A,B,E, Phase Vb, Late Bronze Age IIB (© The Italian archaeological mission at Tell Afis).

fusiform jugs with pointed bases, the straight-sided kraters, and the large carinated pithoi with their distinct potmarks (Venturi 2014; 2012). Forms and manufacture show a notable influence of the Anatolian productions, reflecting possibly the political predominance of the Hittites in the region (Venturi 2014; 2012: figs. 4-8). The presence of a few objects and seals imported from Anatolia (Venturi 2012: 19-23, fig. 9) seems also to indicate a more than marginal role of Afis in the Hittite territorial organization, a fact that is well confirmed by the diplomatic texts found in Building F.

Tell Afis in the Iron Age I

Following the destruction of the final LBIIIB settlement, the site was not abandoned and occupation on the citadel continued during the 12th century BC. An initial phase of squatting among the ruins of the main buildings (Area E: Phase Va), possibly of late 12th century BC date, was followed by a phase of rebuilding which culminated in the planning of a dense domestic agglomeration covering the entire citadel. The eastern slope was then walled, probably in a mature phase of Iron Age I (Area N: Phase VI), with three separate parallel walls built with stone foundations and a mudbrick superstructure. These followed the inclination of the slope and were

built over the LBII structures (Cecchini *et al.* 2008: 385-386). On the inside, a casemate structure seems to have been added to the wall.

Excavations in Area E have supplied consistent evidence for reconstructing the Iron I Afis sequence, thanks to the large exposure and well-preserved conditions of the domestic quarter that extended over the western sector of the citadel (Venturi 2015; 2013a; 2013b; 2000). The houses of Phases IV-I were progressively rebuilt and modified following a common architectural tradition and technique, with rather thin walls and foundations in small stones. The urban layout was not dense, with open common spaces and numerous facilities, especially sunken pits for storage and refuse, basins, and banquettes, as documented in Phase IV (Venturi 2013a: 234, fig. 11). The following Phase III presents a denser layout and a larger number of multi-room houses which maintained the same NE-SW orientation (Venturi 2013a: 234, fig. 12). The main axis of circulation replacing the LB Road C also maintained this same orientation. A small building in antis, with the entrance to the southwest, was probably a shrine occupying the northern higher part of this unit; the presence of a small 'Stone Spirit' idol could suggest the persistence of a local ancestor cult, as documented in the LB Pillared House B (Mazzoni 2012: 327-28, figs. 3-4). This quarter extended to the centre of the acropolis. On the northeastern summit, another group of houses with similar plans divided by rectilinear roads gives evidence of a sequence made of two phases, each characterized by different rebuilding and floors (Pucci 2000: 27-29). The centre of the acropolis was occupied by a temple in antis, with walls built of mudbricks (Mazzoni 2014a: 47-51, fig. 14; 2012: 23-26) (Figure 4); houses abutted it on the west. Urbanism and architecture show distinct new trends in the use of the spaces and building techniques. Continuity in the occupation of the acropolis characterized the Iron I settlement dynamics at Afis throughout all of Iron Age I. The density of the domestic agglomeration, with well-planned houses furnished with facilities for storing and processing food and weaving textiles, is indicative of a diffused social and economic stability, possibly linked to the formation of households and to some demographic growth. This process apparently culminated in the mature phase of Iron Age I (B-C) probably in the 10th-9th centuries BC.

The material culture of Phases IV-III is similarly characterized by new trends. In Area E Phase IV, 15% of the assemblage is painted and 11% is local painted, while 4% is imported (Proto White Painted/White Painted I and Late Helladic IIIC Middle/Late). This dates Phase IV to around 1125-1050 BC and phase III to 1050-950 BC (Venturi 2015; 2013a: 234-236; 2011). The vessels found in Temple AIII.1-2, such as the painted keroi and the pedestalled cups, had a cultic function and can be

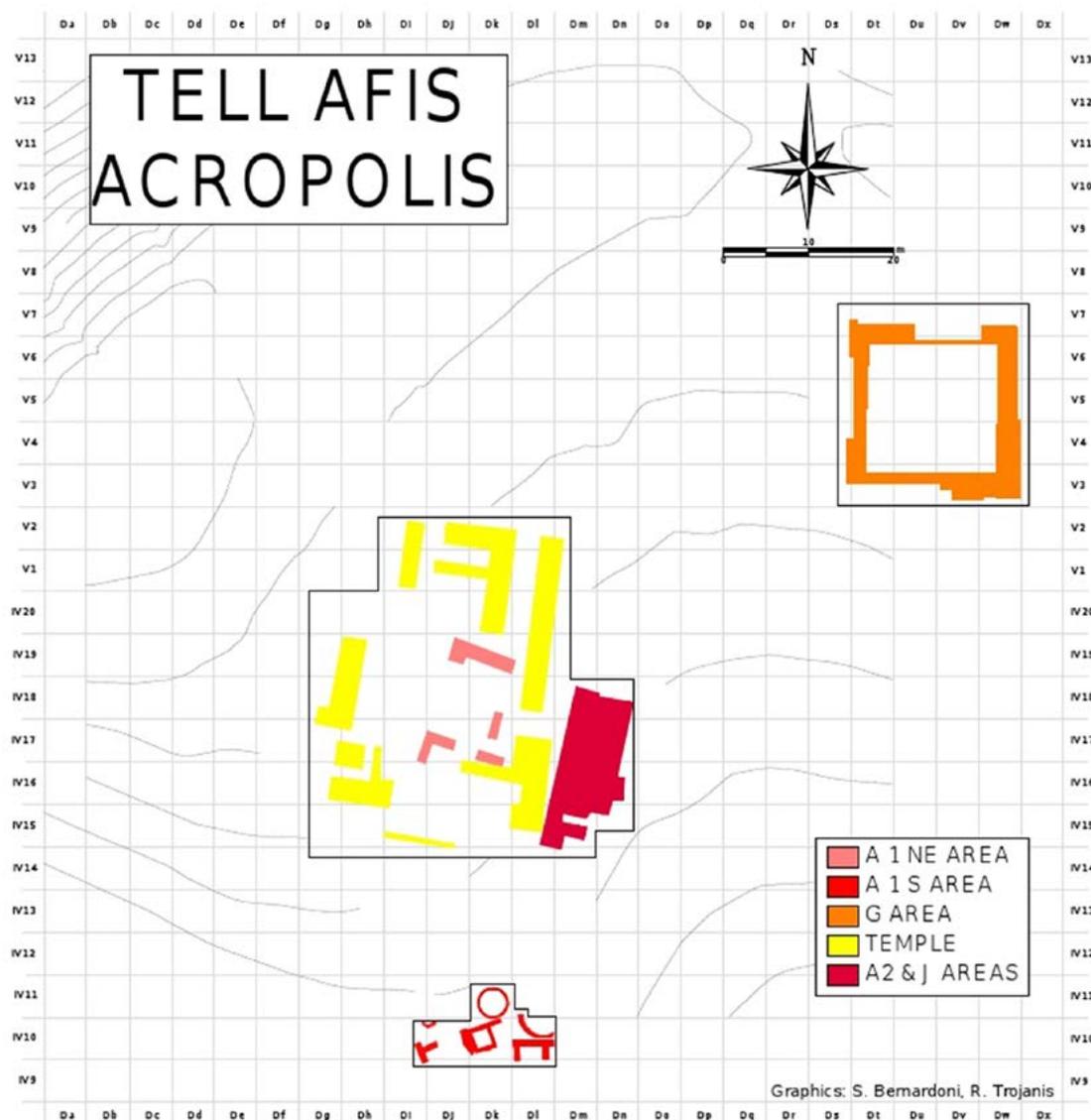


Figure 4: The Sacred Compound of the acropolis, Iron Age I-III (© The Italian archaeological mission at Tell Afis).

compared with other assemblages from other temple of this same period (Minunno 2016).

Further new elements are represented by loomweights made in crude clay found on the floors of the houses, documenting a domestic activity of weaving and the diffusion of the vertical loom (Cecchini 2011). There is also evidence of violin-shaped fibulae (Venturi 2005: 75, fig. 54.7) and crude stamp and cylinder seals in linear and schematic style. The one found in Temple AIII.1 belongs to the linear style group: it shows the statue of the Storm God standing on his bull in a procession scene (Mazzoni 2014a: 50-51, fig. 16). As already pointed out, this may have been the Ba'al Shamim of the stele of Zakkur, who might be associated with the high pyramidal mountain visible on the northwestern

skyline of Afis, the Jebel El 'Aqra (Mount Sapon/Cassius). This mountain, which today still indicates the direction of the coast and the Mediterranean Sea, was believed to be the seat of the Ba'al Safon of Ugarit in the Late Bronze Age and of Zeus Casios in classical times.

Tell Afis in Iron Age II-III

Phases II-I in Area E correspond to a period of continuous use of the domestic quarter with traces of unsubstantial changes. However, at some point, the houses were abandoned and their remains razed quite regularly, and there are no clear signs of a violent destruction to be connected with a specific event. In Area G, the excavations of the Square Court have revealed that the area where this underground

structure was constructed had been carefully prepared by cutting the rise constituted by the accumulation of the earlier Iron I settlement. This included two phases of a domestic unit. Once this elevated area had been cut regularly (by picks whose marks were visible on the vertical surfaces), the eastern wall of the Square Court leant against it (Cecchini 2014; 2000: 20-22; 1998: 282-284). A similar process of alteration of the urban layout can be also documented in Area A to the west. There, the houses to the west of Temple AIII.1 were razed in a quite regular horizontal way and the space resulting from their destruction was left empty to accommodate the open-air plaza that surrounded the new monumental temple AI-II built over the earlier AIII.1 temple.

These activities changed dramatically the organization of the acropolis and its function. Most of the high plateau of the citadel was, in fact, re-planned as a sacred compound composed of individual free-standing buildings of various use and function (Figure 4). The temple was rebuilt on a monumental scale with thick stone foundations and a cultic terrace, and services were added respectively to the east and south, while the Square Court G was created to the east. We cannot date precisely when this re-planning of the acropolis was carried out, but it is clear that it was the result of a single urban project which restricted the area to an exclusive official use. As a consequence, the residential sectors were relocated outside the acropolis in the lower town. The excavations have, in fact, revealed the presence of a dense agglomeration of houses all over the lower town (Areas B, D, F, H, and M).

Two factors are certainly relevant in this process. First, the urban transformation of the acropolis seems to correspond to a conspicuous growth of the town, which regained the size of the MB settlement. Both urban interventions, the re-planning of the acropolis and the re-occupation of the lower town, were definitely two components in a single process of urban renovation. Second, a transformation of the material culture, and notably of pottery, matched both activities. This is well documented for the domestic units of the lower town, showing a distinct pottery horizon in Areas B and D attributed to the Iron Age II (Mazzoni 2014b). The same transformation marks the occupation of the acropolis: the late Iron Age I pottery horizon of the domestic sectors was substituted by an equally distinct pottery horizon, identified as Iron Age II, in the different buildings overlapping the earlier domestic sector. It is thus clear that the urban renovation of Afis paralleled the renovation of the local material culture. Archaeologically, this process marks the passage from Iron I to Iron II, but exactly when and why it emerged in Afis is far from having been ascertained.

The epigraphic material found in the compound offers significant clues for understanding the historical

context as a relevant background for this development. It is important to stress that the tablets belong to the sacred compound of the renovated acropolis even though they were not found in situ in primary contexts. The most significant document is the fragment of the Aramaic stele found in the 'Basalt Stratum' of Temple AI, constituted by a layer of flakes and fragments of basalt elements and parts of sculptures that covered the ruins of the southern end, the entrance, and the vestibule of the temple. The inscription of this stele mentions the name of Haza'el, possibly the famous king of Aram. G. Amadasi has attributed it to the same scribal school as the stele of Zakkur, but to a slightly earlier date, towards the end of the 9th century BC (Amadasi 2014: 54-55, fig. 2; 2009). The stele of Zakkur, now in the Louvre, was probably found in Afis in 1903 by the French Consul in Aleppo, H. Pognon (Amadasi 2014: 54-55, fig. 1; Mazzoni 2013). This stele reports the success of Zakkur, king of Hamath and Lu'ash, in defending his town, Hazrek, from the assault of a coalition of local kings headed by the king of Aram Bar-Hadad, as well as his building achievements. Also found in Court G was an ostrakon inscribed [lwr], probably the name of the god Iluwer to whom Zakkur offered his stele (Amadasi 2014: 55-57, fig. 4).

These finds indicate that the urban renovation of Afis was carried out when the Aramaean leaders (Haza'el, Bar-Hadad, and Zakkur) competed for the control of the region, in the second half of the 9th century BC. Again, this consideration does not provide a precise date for the rebuilding activities undertaken in Afis. However, as already pointed out, they correspond well to the activities that Zakkur claimed to have carried out as reported in his stele, dating to around 800 BC.

The archaeological data, and particularly the stratigraphy and inner sequence of the structures of the compound, provide further relevant information. But, due to the fact that the buildings of the acropolis were free-standing above (and below) ground structures lying at different elevations, and that the latest were disturbed by post-depositional events, quarrying activities, and pits, the synchronization of the stratigraphy across the compound is not easy. The main building of the compound was Temple A, where excavations have documented that the Iron I Temple AIII.1 was abandoned and sealed without a violent destruction, becoming a sort of high platform for the new temple AII, preserved only by its stone foundations, which were raised directly over the AIII.1 brick walls. The AII structures were then obliterated inside the much larger and monumental Temple AI, a free-standing tripartite Langraum building (38/32 m x 28 m), with a vestibule, a long hall 1.67 m high, a rear room, and rooms along the sides. Its southern short façade with its preserved 8.50 m stone threshold was enclosed by square and abutting side towers (Mazzoni



Figure 5: Area J: Terrace J, Iron Age II (© The Italian archaeological mission at Tell Afis).

2012: 29-34, fig. 5). As we have noted, Temple AIII.1-2 belongs to a distinct tradition in the use of bricks without stone foundations, while the successive AI-II temple shows a technical change in the use of stones of a very large size. To the east of Temple AI the best preserved structure is Terrace J (Figure 5), which also underwent at least two construction phases and was furnished with various cultic installations where residuals from animal sacrifices were found (Carenti 2012; Di Michele 2014). Its southern side was provided with a basalt pedestal with a square cavity that would have supported a statue or a stele, and faced onto an open-air area furnished with a plastered podium. As the eastern foundations of AI, cut through the destruction layer of Terrace J on its western side, the Terrace was built before AI and was probably contemporary of AII. Moreover, Terrace J was separated by Street E from Temple AII to the west and the poorly preserved Building B to the north. The northern part of the Terrace was damaged by the foundations of Building C, which were partially preserved in this zone, while to the north only the foundation trenches could be traced. Furthermore, Annexe H to the south of Temple AI was built over an earlier Iron I domestic unit. It contained two square rooms (H2, H3) and three circular silos (H1, H4, H5), and was separated from Temple AI by the open plaza with its two floors F1-2 (Mazzoni 2014a: 46-47, figs.

8, 11). Floor 2, the older and deepest, was clearly related to H1 and H5, while F1, the latest, apparently covered these structures. F1 then overlapped the earlier court with the plastered podium.

The stratigraphy of the area indicates two building phases, and various sub-phases. The earlier phase is represented by Temple AII, built over the Iron I Temple IIIA.1, by Terrace J and probably Building B, with Street E and an open-air space, to the south of Terrace J, probably the forerunner of Plaza F. This phase was characterized by at least two sub-phases documented by the enlargement of Terrace J and by the various cultic installations found on its surface. It is possible that Annexe H may have been built in the late sub-phase of this earlier phase. The second and latest building phase consists of the monumental AI temple with its southern Plaza bordering to the south H1,5 and Building C to the east.

It is even more difficult to connect this sequence to the sequence documented in Area G to the east with its Square Court of uncertain purpose. This court is a square open-air structure below ground level covered with a cobbled floor enclosed on all sides by large mudbrick walls (Cecchini 2000: 20-22; 1998: 282-284). S. Cecchini noted that Building G was constructed by excavating and levelling a 20 m x 20 m square space to a depth of 5 m below the surface, so that the walls rose a few meters above the old ancient surface of the acropolis, outside the building. As noted above, traces left by picks were visible on the eastern sections of this cutting, which was slightly oblique so that the wall was 2.20 m thick on the top and 1.80 m at its base. Two main phases could be identified: the phase of construction and use of the court with its cobbled floor (L.1344), created by levelling and erasing the Iron Age I domestic unit, and the phase of its fall into disuse and transformation into a large dump, F.1008, for discarding residue of a probably sacred nature, e.g. collective meals. These phases were separated by the thick layer constituted by the debris of the mudbrick walls which had fallen inside the court.

Both phases document assemblages of the standardized Orange Simple Ware, rarely burnished and red-slipped (Mazzoni 2014b: 354-358); homogeneity in the fabrics and continuity in the formal repertoires constitute a marked trait across all the building phases of the acropolis, despite the different documented functional uses. There is certainly a richer inventory of fine and decorated wares and forms in some of the cultic contexts, such as the bichrome painted incense burners decorated with geometric motifs and with plastic petals and the pottery 'funnels', with an end covered by a bluish-whitish glaze and a horn-like handle from the Temple AI area (Mazzoni 2015: 119-121, fig. 10.3; Soldi 2015: 90-91, fig. 4; 2012; 2009: 108-112, figs. 9-10),

or the large amount of Red Slip ware from the dump in Area G (Soldi 2013). The main bulk of the pottery documentation from the compound belongs, however, and not unlike that from the domestic wings of the Lower Town, to the uniform and mass production attested throughout Syria from the 9th to the 7th centuries BC, and which became increasingly standardized as a result of the impact of Assyrian industrial modes of production (Mazzoni 2014b: 364).

Conclusion

To conclude, the different building phases documented on the acropolis of Tell Afis indicate that the compound was planned and transformed over quite a lengthy period. Originally, it was the result of a single project of urban renovation resulting in a change in the use of the area and a relocation of the domestic wings to the lower town. While the fact that Temple AII was apparently located in the same position, and even founded directly over the AIII.1 walls, may indicate some continuity, the change in architectural technique with the extensive use of stones attests, however, to new emerging architectural traditions which will then culminate with the construction of the following Temple AI. The presence of Terrace J, with its installations and different sub-phases, shows that the area was dedicated to rites and activities connected to a cult. The summit of the acropolis became a unique public space or a sacred compound, a fact that may allude to a change in the administrative control of the town, with a greater role performed by the centralized cult. There are no direct documents attributing this renewal to a distinct component among those populating the Syrian scenario at that time. The Aramaic inscriptions above-mentioned indicate extensive activity by the Aramaeans in the area, but they cannot be assigned properly to any building phase. However, the fact that the initial re-planning was followed by further and coherent re-buildings and the presence of different sub-phases in Terrace J, indicate that the founding earlier phase of the compound witnessed a long duration. The various cultic installations and the enlargement of the terrace seem to respond to a continuous and wider use of the area, without substantial breaks. This was a flourishing period for the acropolis of Afis.

The second and latest building phase seems to continue along the same trend with the monumentalization of Temple AI, but a change in the functional characteristics of the area is certainly evident. Terrace J and Court G fall, in fact, into disuse, probably superseded by Temple AI. This may indicate the growth in centralization of the cult with rites performed inside and alongside the building. As often stressed, the documentation from Plaza F, such as seals and other material found in related contexts and other find spots, assign this latest building phase of the compound to the Assyrian period.

In the absence of direct sources providing us with more precise chronological terms, we are left again with the above-mentioned textual data. The stele of Haza'el and the stele of Zakkur provide us with a chronological lapse of time between the period of the supremacy in northern Syria of the famous king of Aram, well documented by dedicatory inscriptions, and the period of autonomy of the political entity of Hamath and Lu'ash under the ruler Zakkur, antagonist of Bar-Hadad, son of Haza'el. Zakkur claims to have rebuilt his capital Hazrek. These events can be fixed in the second half of the 9th century BC. The fragment of the stele of Haza'el was found in the 'Basalt Stratum' and probably stood in the vestibule of the AI temple alongside other monuments.

This data seems to suggest two different hypotheses: was Temple AII or, instead, Temple AI built by Zakkur, as claimed in his stele? Now if we attribute to him the AII temple, including the urban renovation of the town, we should assign Temple AI to the Assyrian phase, after 738 BC, when Hazrek was transformed into an Assyrian province (Hatarikka). In this case, Temple AII would have lasted from 800 to 738 BC. If, instead, we date Temple I to the time of Zakkur, around 800 BC, we then have to attribute to it a very long period of use in the 8th and 7th centuries BC, and date Temple AII back to the mid-9th century BC. This is not unrealistic, if we consider that the two main Aramaean towns, Guzana/Tell Halaf (Novák 2013a; 2013b) and Sam'al/Zincirli Höyük (Schloen and Fink 2009a; 2009b) were newly founded in the 9th century BC and embellished with monumental structures by their rulers: Kapara, who transformed a village, founded by a group of Aramaeans in the 10th century BC, into his capital Guzana, and Kilamuwa who set his memorial stele at the entrance of his palace. Both capitals were extensively rebuilt in the Neo-Assyrian period.

We can finally conclude that the urban renovation of Afis is to be dated to the course of Iron Age II, probably to the mid 9th/end of the 8th century BC. The sacred compound was probably the work of an Aramaean ruler, possibly a forebear of Zakkur, or Zakkur himself, around the mid or end of the 9th century BC. It is, however, clear from the archaeological evidence that it was under the Assyrians that the temple attained its main flourish.

Bibliography

- AMADASI, M. G.
 2014 Tell Afis in the Iron Age: The Aramaic Inscriptions, *Near Eastern Archaeology* 77/1: 54-57.
 2009 Un fragment de stele araméenne de Tell Afis, *Orientalia* 78: 336-347.

- ARCHI, A.
2012a Hittites at Tell Afis: the Cuneiform Tablets, *Orientalia* 81.1: 32-55.
2012b The Texts from Tell Afis: Evidence from the Periphery of the Hittite Empire, *Origini* XXXIV: 413-420.
- CARENTI, G.
2012 Tell Afis (Syria): Ritual Meals and Foundation Ceremonies. Findings from the 2009-2010 Excavation Campaign. In: Ch. Lefèvre (ed.), *Proceedings of the General Session of the 11th International Council for Archaeozoology Conference (Paris, 23-28 August 2010)*: 183-190. British Archaeological Reports International Series 2354. Oxford, Archaeopress.
- CECCHINI, S. M.
2014 Tell Afis in the Iron Age: The Official Buildings in the Eastern Acropolis, *Near Eastern Archaeology* 77/1: 58-63.
2011 Loomweights and the Textile Industry in north Syria in the Early Iron Age. In: V. Karageorghis and O. Kouka (eds), *On Cooking Pots, Drinking Cups, Loomweights and Ethnicity in Bronze Age Cyprus and Neighbouring Regions. An International Archaeological Symposium held in Nicosia November 6th-7th 2010*: 195-199. Nicosia, Leventis.
2000 Un bâtiment mystérieux sur l'acropole de Tell Afis. In: P. Matthiae, A. Enea, L. Peyronel, and F. Pinnock (eds), *Proceedings of the First International Congress on the Archaeology of the Ancient Near East, Rome, May 18th-23rd 1998*, Vol. I: 199-204. Roma, Università degli studi di Roma 'La Sapienza'.
1998 Area G. The Iron I-III Levels. Architecture, Pottery and Finds. In: S. M. Cecchini and S. Mazzoni (eds), *Tell Afis (Siria). Scavi sull'acropoli 1988-1992. The 1988-1992 Excavations on the Acropolis: 273-365*. Pisa, Ricerche di Archeologia del Vicino Oriente 1, Edizioni ETS.
- CECCHINI, S. M., AFFANNI, G. and DI MICHELE, A.
2008 Tell Afis. The Walled Acropolis (Middle Bronze Age to Iron Age I). A work in progress. In: J. M. Cordoba, M. Molist, M. Carmen Pérez, I. Rubio, and S. Martinez (eds), *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East*, Vol. I: 383-386. Madrid, Consejo Superior de Investigaciones Científicas (CSIC).
- DI MICHELE, A.
2014 Iron Age II Terrace J at Tell Afis (Syria). In: P. Bieliński, M. Gawlikowski, R. Koliński, D. Ławecka, A. Sołtysiak, and Z. Wygnańska (eds), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East 30 April-4 May 2012, University of Warsaw*, Vol. 2: 703-707. Wiesbaden, Harrassowitz.
2012 Fortification and burial grounds in Tell Afis (Syria) between Middle Bronze Age and Late Bronze Age. In: F. Borrell Tena, M. Bouso García, A. Gómez Bach, C. Tornero Dacasa, and O. Vicente Campos (eds), *Broadening Horizons 3. Conference of Young Researchers Working in the Ancient Near East: 169-182*. Barcelona, Universidad Autónoma de Barcelona.
- FELLI, C. and MAZZONI, S.
2007 Bridging the 3rd/2nd millennium divide: the Afis and Ebla evidence. In: C. Marro and C. Kuzucuoğlu, *Sociétés Humaines et Changement climatique à la fin du Troisième millénaire: une crise a-t-elle eu lieu en Haute Mésopotamie?*: 205-224. Varia Anatolica XIX. Paris, Institut Français d'Études Anatoliennes-Georges Dumézil.
FELLI, C. and MERLUZZI, E.
2008 EB-MB Afis: a single cultural tradition between two phases? In: H. Kühne, R. M. Czichon, and F. Janoscha Kreppner (eds), *Proceedings of the 4th International Congress of the Archaeology of the Ancient Near East: 97-105*. Wiesbaden, Harrassowitz.
- GIANNESI, D.
2012 Tell Afis and the northern Orontes region in the Post-Ubaid period. In: C. Marro (ed.), *After the Ubaid: Interpreting Change from the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent. International Workshop held at Fosseuse, 29th June-1st July 2009*: 261-274. Varia Anatolica XXVII. Paris, Nathan Image.
- MAZZONI, S.
2015 Open Spaces around the Temples and their ritual use: archaeological evidence from the Bronze and Iron Age Levant. In: N. Laneri (ed.), *Defining the Sacred. Approaches to the Archaeology of Religion in the Ancient Near East*: 118-133. Oxford, Oxbow Books.
2014a Tell Afis in the Iron Age: The Temple on the Acropolis, *Near Eastern Archaeology* 77/1: 44-52.
2014b The Archaeology of Tell Afis and the Iron Age II-III in Syria: A Reassessment. In: F. Baffi, R. Fiorentino, and L. Peyronel (eds), *Tell Tuqan Excavations and Regional Perspectives. Cultural Developments in Inner Syria from the Early Bronze Age to the Persian/Hellenistic Period. Proceedings of the International Conference May 15th-17th 2013*: 343-390. Collana, Università del Salento. Dipartimento di Beni culturali - Collana del Dipartimento.
2013 Tell Afis: History and Excavations, *Near Eastern Archaeology* 76/4: 204-213.
2012 Temples at Tell 'Āfis in Iron Age I-III. In: J. Kamlah (ed.), *Temple Building and Temple Cult: Architecture and Cultic Paraphernalia of Temples in the Levant (2-1. Mill. B.C.E.)*: 23-40. Abhandlungen des Deutschen Palaestina-Vereins 41. Wiesbaden, Harrassowitz.
2002-2003 Tell Afis: A Walled Town of Many Phases, *Annales Archéologiques Arabes Syriennes* XLV-XLVI: 99-106.
- MINUNNO, G.
2016 Iron Age I Kernoi from Tell Afis, *Levant* 48/1: 52-62.
- NOVÁK, M.
2013a Between the Mušku and the Aramaeans. The Early History of Guzana/Tell Halaf. In: K. Aslihan

- Yener (ed.), *Across the Border, Late Bronze-Iron Age Relations between Syria and Anatolia. Proceedings of a Symposium held at the Research Center of Anatolian Studies, Koç University, Istanbul May 31- June 1 2010*: 293-302. Leuven, Peeters.
- 2013b Gözân and Güzâna. Anatolians, Aramaeans, and Assyrians in Tell Halaf. In: D. Bonatz and L. Martin (eds), *100 Jahre archäologische Feldforschungen in Nordost-Syrien – eine Bilanz Internationales Symposium des Instituts für Vorderasiatische Archäologie der Freien Universität Berlin und des Vorderasiatischen Museums der Staatlichen Museen zu Berlin vom 21. Juli bis 23. Juli 2011 im Pergamonmuseum*: 259-311. Schriften der Max Freiherr von Oppenheim-Stiftung. Wiesbaden, Harrassowitz.
- PUCCI, M.
- 2000 Area G: quadrati EdV5-6-7. In: S. Mazzoni et al., *Tell Afis (Siria) 1999, Egitto e Vicino Oriente XII*: 27-29.
- SCHLOEN, J. D. and FINK, A. S.
- 2009a New Excavations at Zincirli Höyük in Turkey (Ancient Sam'al) and the Discovery of an Inscribed Mortuary Stele, *Bulletin of the American Schools of Oriental Research* 356: 1-13.
- 2009b Searching for Ancient Sam'al: New Excavations at Zincirli in Turkey, *Near Eastern Archaeology* 72/4: 203-219.
- SOLDI, S.
- 2015 Identity and Assimilation at the Edge of the Empire: Aramaeans, Luwians and Assyrians through the Archaeological Record in the Northern Levant. In: G. Garbati and T. Pedrazzi (eds), *Transformations and Crisis in the Mediterranean 'Identity' and Interculturality in the Levant and Phoenician West during the 12th-8th Centuries BCE. Proceedings of the International Conference Held in Rome, CNR, May 8-9 2013*: 85-97. *Rivista di Studi Fenici*, Supplemento XLII. Pisa, Fabrizio Serra.
- 2013 Red Slip Ware from the Acropolis of Tell Afis: The Evidence of Area G. In: S. Mazzoni and S. Soldi (eds), *Syrian Archaeology in Perspective. Celebrating 20 Years of Excavations at Tell Afis*: 199-217. *Ricerche di Archeologia del Vicino Oriente* 4. Pisa, Edizioni ETS.
- 2012 Notes on the Glazed Funnels from the Iron Age Temple AI at Tell Afis. In: R. Matthews and J. Curtis (eds), *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East*, Vol. 2: 459-477. Wiesbaden, Harrassowitz.
- 2009 Aramaeans and Assyrians in North-Western Syria: Material Evidence from Tell Afis. In: Ch. Kepinski and A. Tenu (eds), *Interaction entre Assyriens et Araméens, Syria* 86: 97-118.
- VENTURI, F.
- 2015 Ceramic Identities and Cultural Borders in the Northern Levant between the 13th and 11th Centuries BCE. In: G. Garbati and T. Pedrazzi (eds), *Transformations and Crisis in the Mediterranean 'Identity' and Interculturality in the Levant and Phoenician West during the 12th-8th Centuries BCE. Proceedings of the International Conference Held in Rome, CNR, May 8-9 2013*: 35-48. *Rivista di Studi Fenici*, Supplemento XLII. Pisa, Fabrizio Serra.
- 2014 The Late Bronze Age Sequence at Tell Afis. In: F. Baffi, R. Fiorentino, and L. Peyronel (eds), *Tell Tuqan Excavations and Regional Perspectives. Cultural Developments in Inner Syria from the Early Bronze Age to the Persian/Hellenistic Period . Proceedings of the International Conference May 15th-17th 2013*: 297-323. Collana, Università del Salento. Dipartimento di Beni culturali - Collana del Dipartimento.
- 2013a The Transition from the Late Bronze Age to the Early Iron Age at Tell Afis, Syria (Phases VII-III). In: K. Aslihan Yener (ed.), *Across the Border, Late Bronze-Iron Age Relations between Syria and Anatolia. Proceedings of a Symposium held at the Research Center of Anatolian Studies, Koç University, Istanbul May 31-June 1 2010*: 227-244. Leuven, Peeters.
- 2013b The 'Transitional' 12th Century BC. The Beginning of the Iron Age in Syria and in the Eastern Mediterranean. In: S. Mazzoni and S. Soldi (eds), *Syrian Archaeology in Perspective. Celebrating 20 Years of Excavations at Tell Afis*: 117-138. *Ricerche di Archeologia del Vicino Oriente* 4. Pisa, Edizioni ETS.
- 2012 New evidence of cultural links between Syria and Anatolia through analysis of Late Bronze Age II Tell Afis material culture, *Orientalia* 81/1: 1-31.
- 2011 Un vase zoomorphe du Fer I à Tell Afis (Syrie), *Syria* 88: 251-263.
- 2005 Area E4b Sud: Bronzo Tardo II-Ferro I. In: S. Mazzoni (ed.), *Tell Afis (Siria) 2002-2004, Egitto e Vicino Oriente XXVIII*: 69-76. Pisa, Edizioni ETS.
- 2000 Le premier âge du Fer à Tell Afis et en Syrie Septentrionale. In: G. Bunnens (ed.), *Essays on Syria in the Iron Age*: 505-536. *Ancient Near Eastern Studies Supplement* 7. Leuven, Peeters.

Tell Mastuma: Rise and Fall of an Iron Age Rural Settlement in Northwest Syria

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Abstract

Tell Mastuma is a tell-site located 5 km south of the city of Idlib in northwest Syria. The site was excavated by the team from the Ancient Orient Museum, Tokyo between 1980 and 1995. The most extensively investigated level was that of the Iron Age, which may be dated between the 10th and the early 7th centuries BC. Although the excavation was closed in 1995, the team returned to the site between 2004 and 2006. The work during this period included: 1) a surface survey of the tell sites in the vicinity of Mastuma; 2) the further study of the excavated material including flora and faunal remains; and 3) obtaining radiocarbon samples from the excavated layers. The results of these post-excavation studies reveal that the Iron Age settlement of Mastuma was an independent and well-planned settlement, using the local resources effectively. In Iron Age II the settlement expanded to its maximum size with a local 'temple' structure built near the southern gate. After the late 8th century BC, the settlement started to shrink rapidly and was finally abandoned by the early 7th century BC. This paper summarizes and discusses the rise and the fall of the Iron Age settlement at Mastuma, including the results obtained since 2000.

Introduction¹

Very few Iron Age 'villages' or 'rural' settlements have been excavated on a large scale in Syria. One of these few is Tell Mastūma (hereafter Mastuma), located in the Idlib province in northwest Syria. It is a small tell-site of c. 3 ha and a diameter of c. 200 m. It rises c. 20 m above the surrounding environs (Figures 1-2). The triangulation point of the mound measured 478.50 m above sea level. The site is located c. 5 km south of the modern city of Idlib (Figure 3). The modern village of Mastuma is located just to the south of the mound, and the old road connecting Idlib and Ariha to Lattakieh (al-Ladhiqīyah) runs just to the east of the mound. The surrounding area of the site is covered by extensive olive tree cultivations which gave it the name 'Idlib akhdar' (green Idlib).

In this paper, a summary of the excavated results – as well as recent studies of the Mastuma Iron Age settlement – will be discussed.² For the latter, the rise and fall of the settlement will be reviewed, based on evidence from both archaeological and textual records.

After the excavations were completed in 1995, a study of the Mastuma results was conducted both in Japan and in Syria. Between 2004 and 2006, we were able to obtain a grant to conduct several study seasons in Syria to analyze excavated objects stored in the National Idlib Museum, as well as in our dig house in the Qumainās (Qminas/Qaminas) village, which lies to the east of Mastuma.

The mound of Mastuma and its environs

If we approach Mastuma from Idlib, after crossing several low hills, we see a mound covered with olive groves (Figure 4). The site looks higher than is actually measured. This is because it is located on the edge of a limestone hill consisting of parts of the foothills of Jabal Al-Zawiyeh (locally known as the 'Jabal Arbain'). The low limestone hills around Mastuma rise higher than the main mount of Al-Zawiyeh around Ariha. In other words, Mastuma is located at the edge of the foothills on a strategic location looking down on the Idlib Plain. Indeed, the city of Idlib is well visible from the site's hilltop (Figure 5).

The Idlib Plain, which extends east of Mastuma, consists of *terra rossa* soil forming a fertile region for grain cultivation. On the other hand, the limestone hills mentioned above forms a suitable area for fruit tree cultivation – such as olives, grapes, figs, pistachios, and almonds. Thus, people who lived in Mastuma during the Iron Age must have enjoyed a wide variety of agricultural products.

Based on the surface survey conducted by the Japanese and Italian missions,³ several similar, small-sized Iron

¹ I would like to express my sincere thanks to the organizers of ISCAH Beirut 2015 for providing me with a chance to present our excavation results from Tell Mastuma. My sincere gratitude also goes to Shigeo Wakita (former AOM) who was the director of the Mastuma excavation project. He kindly supported my research since 1994 when I first joined the excavation. Other members of the project, Prof. Akira Tsuneki, Hisahiko Wada, and Keiko Ishida, to name but a few, showed great support as well. I would also like to sincerely thank the Syrian Directorate General of Antiquities and Museums (current Director General: Mahmoud Hammoud), Maamoun Abdulkarim, Ahmad Deeb, and the staff of DGAM Idlib. Without their help, support, and encouragement, our project at Mastuma would not have been possible.

² The final report of the Japanese excavations is published as Iwasaki *et al.* 2009. A summary of the site can be also seen in Tsumoto 2016.

³ For example, see Tsuneki 2009; Ciafardoni 1992; Mazzoni 2005.

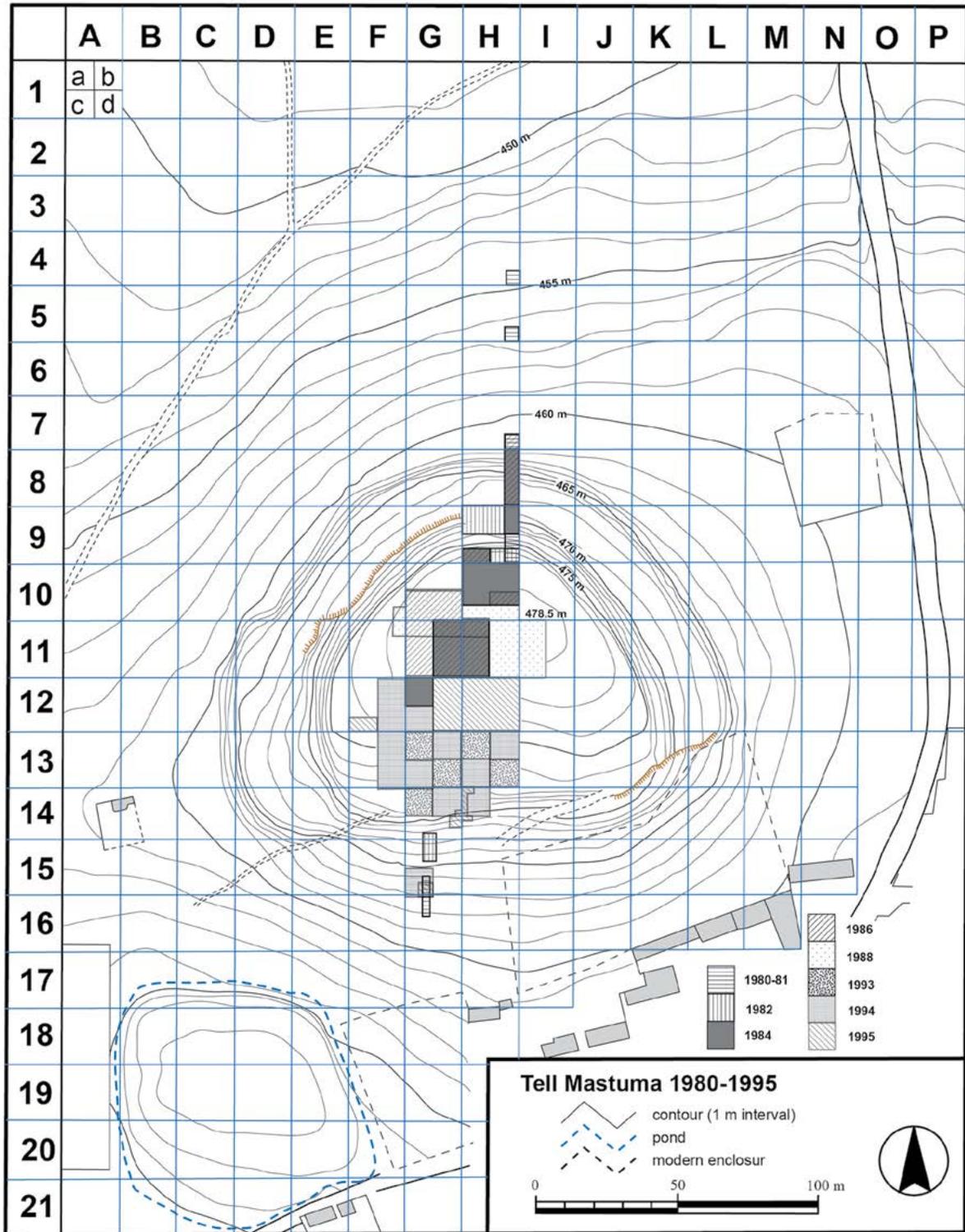


Figure 1: Topographical plan of Tell Mastuma and the excavated area by the AOM team (© Mastuma Excavation Archive).



Figure 2: View of Tell Mastuma from the south: the village of Mastuma on the foreground (© Mastuma Excavation Archive).

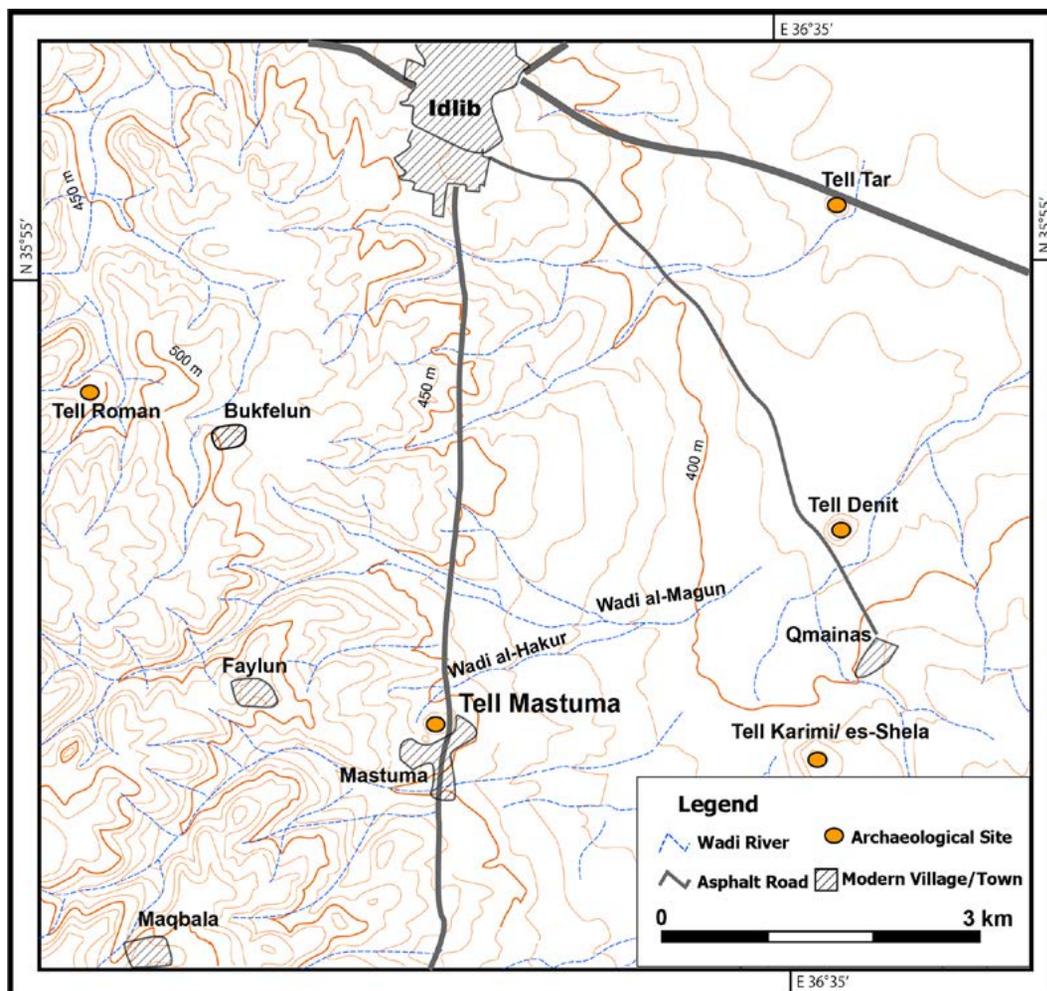


Figure 3: Topographical landscape around Tell Mastuma (© Mastuma Excavation Archive).



Figure 4: View of Tell Mastuma from the north (© Mastuma Excavation Archive).



Figure 5: View of the city of Idlib in the background, from the hilltop of Mastuma (© Mastuma Excavation Archive).

Age sites (c. 1-3 ha) occupy the limestone hilly area, which seems to have been extensively exploited during the Iron Age. On the other hand, much smaller sites (c. 1 ha or less) are dispersed over the flat Idlib Plain. Mastuma seems to have served as one of the major centers for agricultural production, at the buffer zone between the hilly area and the Idlib Plain.

North of Mastuma (Figure 3), there is a shallow but wide *wadi* valley (*wadi* Al-Hakur), which runs from west to east and cuts the northern side of the site. This constitutes a natural defense of the site and forms a good viewpoint for observing the Idlib Plain. A large terrace occupying the middle part of the slope of the mound was found during the excavations of the North Trench (excavated between 1980 and 1988). This terrace is not part of the ancient fortification system but was formed as a result of modern soil accumulation from agricultural activities.

A large pond is situated to the southwest of the mound. It might have fed the ancient settlement of Mastuma. Indeed, it is known locally that there was once a spring which fed water to the pond. Today, this spring has dried up and the dry pond was turned into a playground.

Occupation sequence of Mastuma

Excavations at Tell Mastuma began in 1980 and were continued intermittently until 1995 by a team from the Ancient Orient Museum, Tokyo (AOM), led by Prof. Egami Namio, and later by Shigeo Wakita. A total of eight seasons were conducted, attesting that the site was occupied from the Pottery Neolithic up to the Persian Period.

The earliest Mastuma occupation is dated to the early 6th millennium BC (Pottery Neolithic to Halaf Period) and was established on the limestone bedrock. After the Neolithic occupation, identified in the deep trench (Square 15Gc: Layer i) on the southern fringe of the mound, the site was re-occupied c. 3000 BC (EBI-II period; North Trench: Strata X-XIII; Square 15Gc: Layer h). This settlement was short lived and the next occupation was established around 2500 BC (EBIVA period). The zenith of the settlement of the site was probably during the EBIVB period (c. 2250/2200-2000 BC), which was identified both in the northern and southern slopes of the mound (North Trench: Strata VI-IX and Square 15Gc: Layers c-g). The Middle Bronze Age (c. 2000-1600 BC) occupation was recognized on the northern slope (North Trench Strata II-V) and sporadically on the hilltop (Stratum II). The size of the Middle Bronze Age settlement is yet uncertain but it seems that it was less extended during this period than during EBIVB. So far, there is no evidence of a Late Bronze Age occupation either from the ceramics or from the building structures. We can thus assume

that there was a hiatus in the site occupation during this period.

The main occupation found at Mastuma is that of the Iron Age. However, the size of the Iron Age settlement seems to be not much different from that of the Middle Bronze Age, i.e. c. 1 ha in area. The AOM team excavated c. 40% of the settlement, which makes the site the largest exposed Iron Age rural settlement in the northern Levant. As we will see below, the Iron Age settlement seems to have lasted at least from the 10th century to the early 7th century BC. After a gap of 150 to 200 years, the site was sporadically occupied during the Persian period, probably between the 5th and the 4th centuries BC, as attested from Greek imported wares.

Rise and fall of the Iron Age settlement

The basic archaeological sequence of the Iron Age at Mastuma is based on Mazzoni's, as established at Tell Afis,⁴ even though there are other alternative chronological sequences proposed by Lehmann⁵ and Whincop.⁶ The Mazzoni sequence seems to be the most comprehensive one at the moment covering the entire Iron Age and combining both archaeological and textual data.

Iron Age I

The beginning of the Iron Age settlement at Mastuma is unknown, probably due to the fact that the earliest level under the Middle Bronze Age layers was not excavated. Nevertheless, based on ceramic typology and radiocarbon dating,⁷ the earliest level (Strata I-2d and I-2c) reached by the excavation dates to the 10th century BC, i.e. the Iron Age I period. This level was reached in Square 12Fd and the South Gate area (Squares 14Gb, 14Gc, 14Ha, and 14Hb) (Figure 6). The ceramics of this level contain abundant painted wares, mainly in jar/jug forms, painted in red and/or black (monochrome and bichrome).⁸ There are also two skyphos fragments,⁹ probably belonging to the Late Helladic IIIC pottery, which is one of the hallmarks of Iron Age I period. The characteristic cooking pot of this period contains crushed shell temper and out-turned thickened rims.¹⁰

Stratum I-2c has some Red Slip (Burnished) ware in bowl and jar forms, suggesting probably the beginning of the Iron Age II period. Indeed, the appearance of Red Slip (Burnished) ware is still not fully investigated and

⁴ For example, see Mazzoni 2000.

⁵ Lehmann 1996.

⁶ Whincop 2009.

⁷ Nishiyama 2009a: 523, 526-27.

⁸ Wada 2009a: 172-173.

⁹ Wada 2009a: 155, Fig. 4.41.34; 173, Fig. 4.52.

¹⁰ Wada 2009: 112, Fig. 4.10.16-22.



Figure 6: Excavated Iron Age structures of Stratum I-2. Note that several building levels are overlaid in this plan (© Mastuma Excavation Archive).



Figure 7: Aerial view of southern excavated area: House b4-1 of Block b4-1 is seen in bottom right (© Mastuma Excavation Archive).

discussed in the northern Levant. The specimens from Mastuma can hopefully provide one of the clues to its appearance in future researches.

Because the Iron Age I settlement was not extensively excavated, we do not know the exact extent of it. If we believe the accuracy of the scarce evidence of Stratum II-2d on the northern edge of the hilltop (i.e. Block 8: semicircular shaped peripheral residential zone),¹¹ then the size of the Iron Age I settlement should almost be of the same size of the Iron Age II one.

The urban Iron Age settlements at Tell Afis, located c. 16 km east of Mastuma¹² and the ancient city of Hamath (modern Hama), were established and flourishing settlements in the Iron Age I period.¹³ It could be that both of these urban centers had control over Mastuma, even if this hypothesis is not yet substantiated by any textual evidence.

Iron Age II

The most extensively excavated Iron Age settlement at Mastuma belongs to the Iron Age II. This period revealed at least three sequences (from old to new: Stratum I-2c, I-2b, and I-2a). The ceramics from the

earliest level (Stratum I-2c) feature characteristics from both Iron Age I and II, but the Red Slip (Burnished) ware, found mainly in platter and bowl forms, dominates quantitatively the ceramic assemblage.

Stratum II-2b is the most extensively excavated area, extending from the northern edge of the hilltop to its southern edge (Figures 6-7). The size of Mastuma during this period reached c. 1 ha. The settlement was surrounded by a residential block of semicircular form in its northern half, which might have also served as the outer settlement wall. The inner residential area was separated into several blocks; one of them, Block 4, contained a large building (House b4-1),¹⁴ probably a temple of communal role.¹⁵ (Figure. 8)

The most characteristic type of pottery excavated from this level was large storage jars (c. 100-120 cm in height) and these dominated most of the ceramic assemblage (Figure 9). These storage jars were for storing liquid (water, oil, etc.) but were also probably used to produce and store wine. Indeed, installations for extracting grape juice were identified at several places in the residential blocks (e.g. Wada 2009a: 120, Fig. 4.15 and 122). In addition, fragments of storage jar rims were re-used as loomweights (Nishiyama 1998), and jar

¹¹ Wada 2009a: 265-266.

¹² For example, see Mazzoni 1998.

¹³ Fugmann 1958; Riis 1948; Riis and Buhl 1990.

¹⁴ Wada 2009: 185-199.

¹⁵ Nishiyama 2012.

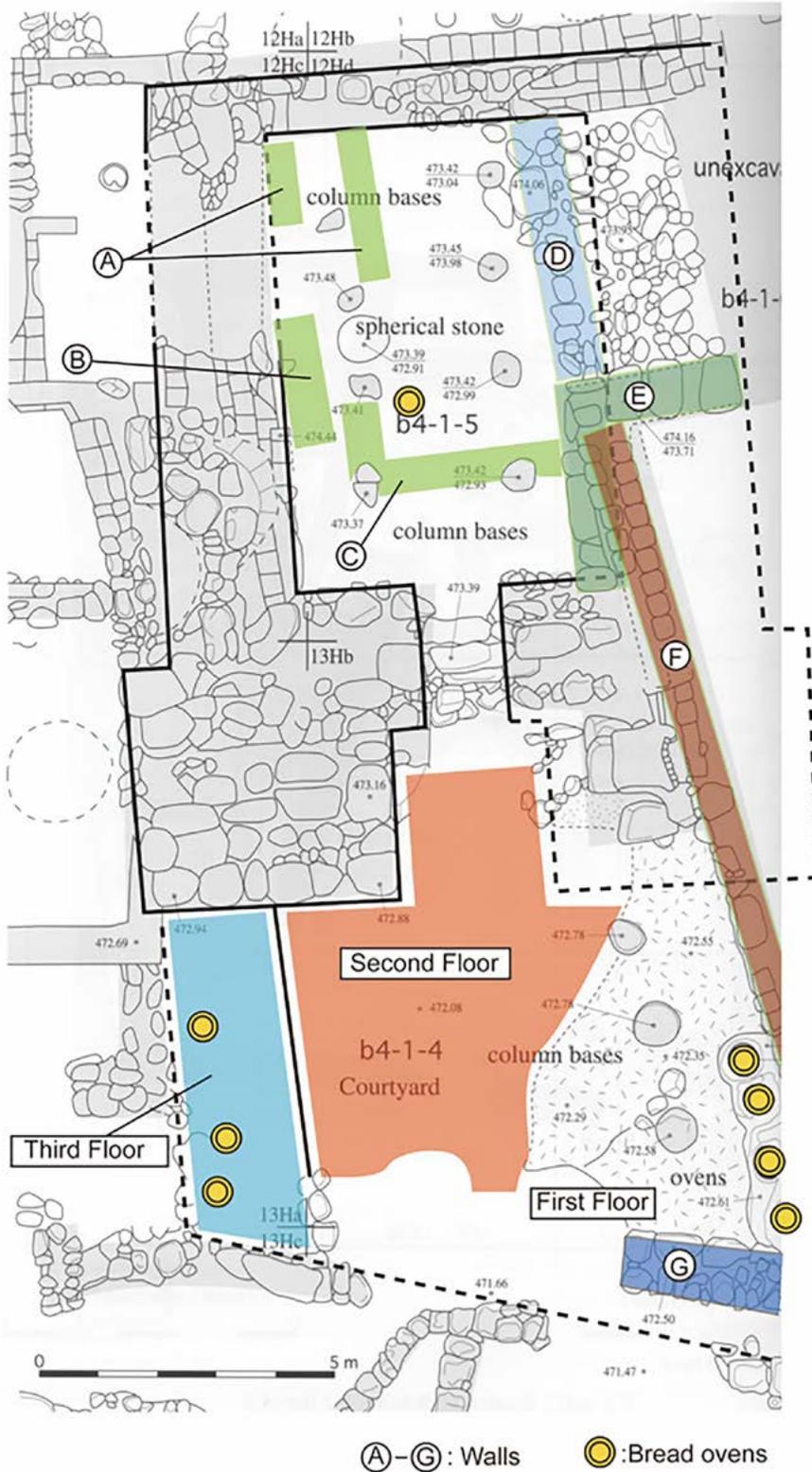


Figure 8: Hypothetical reconstruction of 'temple structure' of House b4-1 (after Nishiyama 2012: Figure 97 modified by the author).

body sherds were sometimes found scattered on the inner streets of the settlement (e.g. the 1st Street: see Fig. 6), attesting that inhabitants of Mastuma recycled extensively storage jars. In conclusion, the large storage jar was one of the most common objects of material culture known to the people of Mastuma during Iron Age II.

According to charred grape seeds, olive stones, and grains identified during this period, the basic subsistence economy of the period was most likely fruit tree and grain cultivation. In addition, abundant evidence of textile production, including loomweights, spindle whorls, and bone spatulas, was found in this level. More than 1200 loomweight fragments attest



Figure 9: Large storage jar found in situ during the excavation.

that textile manufacturing was not limited to clothing but included also the manufacture of sacks used for agricultural purposes (transportation and storage).

Nevertheless, Mastuma was not simply a rural settlement during Iron Age II. Although it must have provided agricultural products for nearby urban centers, namely Tell Afis (ancient Hazrek), it probably also had independent contacts with regions of the Syrian coast and beyond. The latter proposal is supported by the presence of Egyptian and Egyptianizing objects,¹⁶ Greek (Euboean Subprotogeometric II-III pendant semicircle skyphos)¹⁷, and Cypriot (Cypriot Geometric III: White Painted III/Bichrome III/Black-on-Red I) imports,¹⁸ as well as shell beads from the Mediterranean.¹⁹ Some of these objects may have arrived directly at Mastuma rather than being brought from urban centers, such as Hazrek. Indeed, some ceramics, such as the ‘flat-based’

large storage jars were not found at Afis. The evidence indicates that Mastuma had networks for trade and craft production independently from the urban centers, which implies that Iron Age rural settlements were not necessarily completely dominated and controlled by such centers.

On the other hand, during Iron Age II, textual evidence from both local and Assyrian sources informs us that the region was ruled by strong urban centers which controlled political territories. In the case of the region around Mastuma, the Hamath-Lu‘aš kingdom was the dominating power, and during the latter half of Iron Age II its capital was Hazrek.²⁰ Mastuma must thus have been politically controlled by the kingship of Hazrek. Archaeologically, a structure found at Mastuma could be linked to Hazrek: House b4-1 in Block 4 has a large courtyard with a central room fitted with many pillars. Such a layout resembles religious buildings found at many sites in the Levant during the Iron Age. If this building is to be identified as a local temple or shrine, it may be related to the larger temple and other religious/cultic structures found at Tell Afis,²¹ indicating that the settlement at Mastuma had political and religious ties with the urban center of Hazrek. An interesting point is raised by the stela of Zakkur found at Afis. The Aramaic inscription tells that King Zakkur, ruler of Hamath and Lu‘aš, built ‘shrines’ over all his land, together with the rebuilding of Hazrek.²² If the Mastuma building can be considered as a religious structure, then House b4-1 in Block 4 must have been one of the ‘shrines’ erected by Zakkur around the beginning of the 8th century BC.

The Iron Age II period was also the time of continuous Assyrian aggression against the northern Levant, as notably represented by the military campaigns of Ashurnasirpal II (r. 883-859), Shalmaneser III (r. 859-824), and Tiglath-Pileser III (r. 745-727). In the Assyrian royal annals, one of the ‘royal cities’ of Hamath is mentioned as ‘Aštamaku’. Some scholars have identified this with Mastuma (or Stūma), but others have discarded such assumptions.²³ Although there is no decisive archaeological or textual evidence, considering its strategic location and its prosperity in Iron Age II, Mastuma is still the strongest candidate for being the ancient Aštamaku.

By the last quarter of Iron Age II, i.e. Stratum I-2a, the settlement started to decline. The residential entrance blocks on the southern edge (Blocks 1 and 2)

¹⁶ Nishiyama 2009b: Fig. 8.31.1-2.

¹⁷ Wada 2009a: 269, Fig. 4.134. 5a and b.

¹⁸ Wada 2009a: 244, Fig. 4.108.16.

¹⁹ Tomé and Nishiyama 2005.

²⁰ An overview of the Hamath kingdom is summarized in Bryce 2012: 133-138. For Zakkur, see Bryce 2012: 137. See also relevant parts in Dion 1997; Hawkins 2000, 1982; Lipiński 2000; Sader 1987, for the Hamath kingdom.

²¹ Nishiyama 2012.

²² Side B, lines 4-10, Millard 2000: 155; cf. Nishiyama 2012: 115-117.

²³ For example, see Ikeda 1979: 79; Lipiński 2000: 280-281; Schachner 2007: 224-225; Yamada 2000: 173, n. 339.

disappeared and the large building in Block 4 (assumed as a temple complex) was demolished. These events roughly parallel the Assyrian conquest of the northern Levant during the reign of Sargon II (c. 720 BC), the period when the city of Hamath was destroyed.

Iron Age III

This period marks the final decline of the Mastuma settlement (Strata I-1z and I-1y). It probably corresponds to the final quarter of the 8th, up to the first quarter of the 7th century BC. The northern sector of the settlement reduced in size and the southern part was transformed into a cemetery (Figure 10). The last part of the Iron Age settlement was identified in the northwestern sector. After that, the site was totally abandoned. After a 150-200 year gap, small huts were built and numerous pits were dug mainly in the southern part of the hilltop.

The Iron Age III period (c. 7th century BC) represented the height of Assyrian control of the region. Nearby Afis was turned into the Assyrian governor's residence of Hatarikka. Mastuma was probably abandoned due to social turmoil caused by the Assyrian conquest and to the disappearance of political and religious ties with the capital, Hazrek; in other words, Mastuma was no longer protected or supported by its capital.

We could see faint evidence of Assyrian culture in the glazed wares from Stratum I-1: One is the glazed tripod bowl²⁴ and the other is a two-handled glazed flask/squat jar.²⁵ Both have blue to greenish glaze over the vessel surface and resemble other vessels found on sites to the east of the Euphrates, such as Deve Hüyük²⁶ and the Yunus cemetery at Carchemish.²⁷ Assyrian aggression and ultimate dominance over the region certainly ushered in a new material culture, but it is certain that the majority of settlements, both urban and rural, were abandoned. One of the reasons was perhaps the Assyrian resettlement program.²⁸

It could also be that devastation of agricultural lands, brought about by these continuous conflicts, may have pushed populations to move to other sites. The example of Mastuma shows that the settlement was gradually abandoned during the course of several decades. No evidence of violent destruction was identified on the site. Rather, the settlement was slowly abandoned and deserted, thus suggesting a sequence of social turbulence caused by Assyrian conquests and control policy.

²⁴ Wada 2009b: 308, Fig 5.3, Color Pl. 6.5, B&W Pl. 5.4.1.

²⁵ Wada 2009c: 366, Fig. 6.31.45, Color Pl. 6.4, B&W Pl. 6.3.6.

²⁶ Moorey 1980: 17, Fig. 3: 23-25.

²⁷ Woolley 1939/40: Pl. XIVa.

²⁸ For example, see Oded 1979.

Conclusion

In this paper, we have discussed the rise and fall of the Iron Age settlement at Tell Mastuma, a rural site in northwest Syria. Although the size of Mastuma is not large, the site has revealed an extensive building area of rural nature, shedding a new light on how rural settlements survived and subsisted during the turbulent times of the Iron Age.

Sometime during Iron Age I a settlement was established and had an extent similar to that of the Middle Bronze Age. It also had an outer wall made of residential quarters. It fully expanded during Iron Age II, adding several other residential quarters. It also had a large building which served probably as the local temple. The settlement flourished through producing agricultural products (grain and fruit); textile and wine production were also widely attested. The Iron Age II period shows that Mastuma was not totally dependent on, or controlled by, urban centers such as Afis. Although it held certain political and religious ties to the urban centers, it also maintained some independence as attested from agricultural and craft productions found on the site and imported from the Syrian coast and beyond.

The settlement started to decline during the last quarter of the 8th century and rapidly diminished and was abandoned by the first quarter of the 7th century BC. Its decline was probably due to the devastation of agricultural lands due to Assyrian aggression and control.

The story of the Mastuma settlement sheds light on the lives of ordinary people who endured a turbulent political situation during the Iron Age. We hope this will give courage and hope to people who have suffered, or are still suffering, from the current crisis in Syria.

Postscript: Description of site condition at Mastuma between 2011 and 2017

After the current crisis started in Syria in March 2011, the site of Mastuma suffered severely from military activities. We were unable to cover or protect the excavated area before the conflict and the majority of building structures remained exposed during the crisis (see Fig. 11 for the status before the crisis). After 2011 we could only tentatively observe the scale of destruction via satellite images.

The following account is based on the observations made from Google Earth images. In July 2011, several tents and huts were set up in the northern excavated sector and on the northeastern hilltop (Figure 12). In addition, some digging was observed on the southeastern hilltop where a dirt road leading to the



Figure 10: Schematic plan of Stratum I-1 (after Wada 2009b: Figure 5.1). Note that majority of building structures in the southern part have disappeared and were turned in to pits.

hilltop exists. On an October image, we see two military vehicles (probably tanks) on the eastern hilltop and we notice that the tents/huts expanded into the southern excavated area (namely Block 4). By June 2012, the number of huts seems to be unchanged, but we see two military vehicles on the northeastern hilltop. It seems that the surface of the western hilltop had been heavily

damaged by military vehicles. We can also observe numerous holes, especially on the eastern slope of the mound; these might be military trenches. Because of the presence of military vehicles and appearance of trenches, probably preparation for battle, we can assume a growing tension around Mastuma.



Figure 11: Mastuma before the conflict: Image taken on March 22, 2010 (after Google Earth).



Figure 12: Mastuma on July 31, 2011 (after Google Earth).



Figure 13: Mastuma on September 3, 2012 (after Google Earth).

By September 2012, the southern excavated area was extensively damaged by military activities. A large bulldozed passage (c. 10-15 m in width) was made, crosscutting the area from southwest to northeast (Figure 13). The southern parts of Blocks 3 and 4 were destroyed, and the main courtyard of Block 4 was covered with debris. We can still see one tent in Block 4 and several tent/huts in the northern excavated area. Two tank-like vehicles are seen.

In January 2013, the village of Mastuma appeared in the news related to the military offensive against Idlib. Then, in 2014 and 2015, Mastuma appeared in the news as one of the focal points of military aggressions against Idlib. Because of this situation, the destruction of the site accelerated.

In August 2013, the southwest hilltop was more disturbed and Block 3 seems to be at the brink of total destruction. The northern area continued to deteriorate, probably by the military resident in the tents and huts. A long military trench seems to have been dug around the terrace in the middle of the slope from the west side to the north, probably to control traffic towards the city of Idlib. A dirt road connecting the Idlib-Ariha road was cut, going around the southeast edge of the mound and connecting to the road leading to the southeast corner of the hilltop.

In February 2014, the entire hilltop surface was badly damaged by soil-moving activities, probably to make

earthen bunkers (Figure 14). The trench on the terrace seems to expand. Excavated areas are visible only in the central area and the southern edge of the hilltop. By September, the majority of the hilltop was turned into a series of bunkers and trenches. The tents/huts disappeared and small buildings started to appear in the north, south, and east of the hilltop. The excavated area is visible only in the northern part of Block 4 and part of Block 1 in the entrance area. A long wall was constructed at the western fringe of the mound.

In April 2015, several dirt roads were cut to access the hilltop from the southern edge of mound. The main one connected the Idlib-Ariha road and the west hilltop. This made it much easier for vehicles to access the hilltop. The road seems to lead to the building complex on the northwestern hilltop. By August the long wall on the western fringe of the mound was partly destroyed and the buildings on the hilltop seemed to be severely damaged. This may imply that some fierce fighting took place at the site.

In June 2016, the site seems to be deserted. No building structures can be observed and the long wall on the western fringe of the mound was further destroyed. We also detect no olive trees on the mound and numerous holes were seen on the slope of the mound. It seems that heavy shelling took place. The last image we see on Google Earth is dated 21 February 2017, showing more or less similar conditions, but the excavation area seems to be more obscured by military activities (Figure 15).



Figure 14: Mastuma on February 7, 2014 (after Google Earth).



Figure 15: Mastuma on February 21, 2017 (after Google Earth).

Only the Deep Sounding (Square 15Gc) on the southern edge and the North Trench are clearly visible.

As far as we can see from the satellite images, the destruction caused by conflicts at Mastuma seems to be stabilized for the time being. Regrettably, the damage caused on both excavated and unexcavated areas are severe and irreversible. Nevertheless, we still hope that we can recover some remnants of history when the time comes to return to Mastuma. Until that day, our duty is to study the excavated material and data and to publish the results for the benefit of scholars, as well as for the wider general public. In this way, we believe we can contribute to the reconstruction of one of the crucial periods of Syrian history.

Bibliography

- BRYCE, T. R.
2012 *The World of Neo-Hittite Kingdoms: A Political and Military History*. Oxford, Oxford University Press.
- CIAFARDONI, P.
1992 Inseguimenti aramaici e pre-aramaici nella regione di Idlib. In: S. Mazzoni (ed.), *Tell Afis e L'età del Ferro: 37-74*. Pisa, Giardini Editori e Stampatori in Pisa.
- DION, P.-E.
1997 *Les Araméens à l'âge du fer: histoire politique et structures sociales, Études Bibliques. Nouvelle Série 34*. Paris, J. Gabalda.
- FUGMANN, E.
1958 *Hama. Fouilles et recherches de la Fondation Carlsberg 1931-1938, II 1: L'architecture des périodes pré-hellénistiques*. København, Nationalmuseet.
- HAWKINS, J. D.
2000 *Corpus of Hieroglyphic Luwian Inscriptions, Vol.1: Part 2: Text. Amuq, Aleppo, Hama, Tabal, Assur Letters, Miscellaneous, Seals, Indices (CHLI I/2)*. Berlin, Walter de Gruyter.
- 1982 The Neo-Hittite states in Syria and Anatolia. In: J. Boardman, I. E. S. Edwards, N. G. L. Hammond, and E. Sollberger (eds), *The Cambridge Ancient History, vol. III/1. The prehistory of the Balkans; and the Middle East and the Aegean world, tenth to eighth centuries B.C.: 372-441*. 2nd edition. Cambridge, Cambridge University Press.
- IKEDA, Y.
1979 Royal Cities and Fortified Cities, *Iraq* 41: 75-87.
- IWASAKI, T., WAKITA, S., ISHIDA, K. and WADA, H. (eds)
2009 *Tell Mastuma: An Iron Age settlement in northwest Syria*. Tokyo, Ancient Orient Museum.
- LEHMANN, G.
1996 *Untersuchungen zur späten Eisenzeit in Syrien und Libanon: Stratigraphie und Keramikformen zwischen ca. 720 bis 300 v. Chr.* Münster, Ugarit Verlag.
- LIPINIŃSKI, E.
2000 *The Aramaeans: their ancient history, culture, religion*. Louvain, Peeters.
- MAZZONI, S.
2005 Tell Afis, the Survey and the Regional Sequence. In: S. Mazzoni et al., *Tell Afis (Siria) 2002-2004. Egitto e Vicino Oriente* 28: 5-14.
- 2000 Syria and the periodization of the Iron Age. A cross-cultural perspective. In: G. Bunnen (ed.), *Essays on Syria in the Iron Age: 31-59*. Louvain, Peeters.
- 1998 *The Italian Excavations of Tell Afis (Syria): from Chiefdom to an Aramaean State*. Pisa, Edizioni Ets.
- MILLARD, A. R.
2000 The inscription of Zakkur, King of Hamath (2.35). In: W. W. Hallo and K. L. Younger, Jr. (eds), *The Context of Scripture: Monumental Inscriptions from the Biblical world, Vol. 2: 155*. Leiden, E. J. Brill.
- MOOREY, P. R. S.
1980 *Cemeteries of the first millennium B.C. at Deve Hüyük, near Carchemish, salvaged by T. E. Lawrence and C. L. Woolley in 1913*. British Archaeological Reports International Series 87. Oxford, British Archaeological Reports.
- NISHIYAMA, S.
2012 A Local Temple in the Iron Age Village? Reassessing a Building Complex at Tell Mastuma in the Northern Levant. *Orient: Report of the Society for Near Eastern Studies in Japan* 47: 91-123.
- 2009a Appendix 2: Radiocarbon Dating. In: T. Iwasaki et al. (eds), *Tell Mastuma: an Iron Age settlement in northwest Syria: 520-528*. Tokyo, Ancient Orient Museum.
- 2009b Chapter 8.3. Other objects. In: T. Iwasaki et al. (eds), *Tell Mastuma: an Iron Age settlement in northwest Syria: 473-503*. Tokyo, Ancient Orient Museum.
- 1998 Reusing the object: rim sherds loomweights in the early first millennium BC from Tell Mastuma, North-West Syria. *Orient: Report of the Society for Near Eastern Studies in Japan* 33: 88-102.
- ODED, B.
1979 *Mass Deportations and Deportees in the Neo-Assyrian Empire*. Wiesbaden, Ludwig Reichert Verlag.
- RIIS, P. J.
1948 *Hama. Fouilles et recherches de la Fondation Carlsberg 1931-1938, II, 3: Les cimetières à crémation*. København, Nationalmuseet/Fondation Carlsberg.
- RIIS, P. J. and BUHL, M.-L.
1990 *Hama. Fouilles et recherches de la Fondation Carlsberg 1931-1938. II 2: Les objets de la période dite Syro-Hittite (âge du fer)*. København, Nationalmuseet.
- SADER, H.
1987 *Les états araméens de Syrie. Depuis leur fondation jusqu'à leur transformation en provinces assyriennes*. Wiesbaden, Franz Steiner Verlag.
- SCHACHNER, A.
2007 *Bilder eines Weltreichs. Kunst- und kulturgeschichtliche Untersuchungen zu den Verzierungen eines Tores aus Balawat (Imgur-Enlil) aus der Zeit von Salmanassar III, König von Assyrien*. Subartu 20. Turnhout, Brepols.

- TOMÉ, C. and NISHIYAMA, S.
 2005 Animals in the Iron Age and Persian Period: Preliminary Report of Faunal Remains from Tell Mastuma, Northwest Syria, *Bulletin of the Ancient Orient Museum* 25: 87-117.
- TSUMOTO, H.
 2016 Tell Mastuma (Idlib), In: Y. Kanjou and A. Tsuneki (eds), *A History of Syria from One Hundred Sites*: 163-166. Oxford, Archaeopress.
- TSUNEKI, A.
 2009 Chapter 2. Tell-type settlements around Tell Mastuma. In: T. Iwasaki *et al.* (eds), *Tell Mastuma: an Iron Age settlement in northwest Syria*: 13-52. Tokyo, Ancient Orient Museum.
- WADA, H.
 2009a Chapter 4. Stratum I-2: Features and Pottery. In: T. Iwasaki *et al.* (eds), *Tell Mastuma: an Iron Age settlement in northwest Syria*: 91-299. Tokyo, Ancient Orient Museum.
- 2009b Chapter 5. Stratum I-1: Features and pottery. In: T. Iwasaki *et al.* (eds), *Tell Mastuma: an Iron Age settlement in northwest Syria*: 303-336. Tokyo, Ancient Orient Museum.
- 2009c Chapter 6. Review of Stratum I. In: T. Iwasaki *et al.* (eds), *Tell Mastuma: an Iron Age settlement in northwest Syria*: 339-398. Tokyo, Ancient Orient Museum.
- WHINCOP, M. R.
 2009 *Pots, People, and Politics: A Reconsideration of the Role of Ceramics in Reconstructions of the Iron Age Northern Levant*. British Archaeological Reports International Series 1902. Oxford, Archaeopress.
- WOOLLEY, C. L.
 1939/40 The Iron-Age graves of Carchemish, *Annals of Archaeology and Anthropology* 26: 11-37.
- YAMADA, S.
 2000 *The Construction of the Assyrian Empire: A historical study of the inscriptions of Shalmanesar III (859-824 B.C.) relating to his campaigns to the West*. Leiden, E. J. Brill.

Lattakieh

Tell Nahr El-Arab (Al-Shamiyeh)

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Abstract

Tell Al-Shamiyeh (Nahr El-Arab) is located northwest of the city of Lattakieh on a rocky mound near the river Nahr El-Arab. The river passes by a village known as Al-Shamiyeh situated 3 km inland. A Syrian team from the Directorate General of Antiquities and Museums in Syria conducted excavations there between 2012 and 2015 and uncovered architectural remains dating to the Late Bronze and Iron Ages and cemeteries belonging to the Middle and Late Bronze Ages.

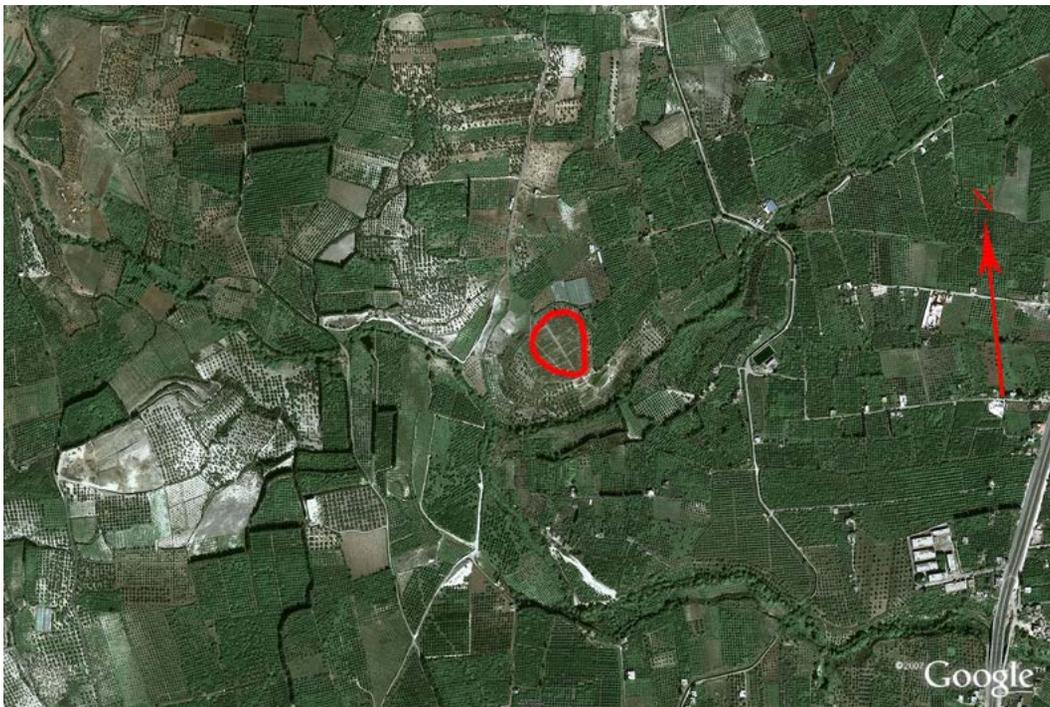


Figure 1: Satellite image of Tell Al-Shamiyeh (Nahr El-Arab) (© Google Earth).

Tell Al-Shamiyeh (Nahr El-Arab) has the shape of an equilateral triangle and extends over approximately 6 ha. The east-west axis is 240 m long, while the south-north axis extends over c. 250 m (Schaeffer 1933: 126). Satellite images of the tell show lines dividing the site into unequal parts. The survey of the tell revealed the nature of these divisions or lines, which turned out to be small alignments of rocks and dirt used by modern farmers to divide the cultivated surface of the tell (Figure 1).

In 1932, French archaeologist C. Schaeffer did four surveys on the tell, discovering architectural remains and a regular staircase, dating back to the Iron Age III, as well as a red Greek vessel painted in black, an Egyptian scarab, in addition to numerous pottery sherds dating

to the Iron Age and to the Middle and Late Bronze Ages (Schaeffer 1933: 126-127). It is worth mentioning that G. Saadé cited the tell several times during his studies of the coastal sites, especially of the site of Ugarit (Saadé 1979: 58; 1964: 93).

In 2001, a joint Syrian-Japanese mission, headed by B. Jamous, J. Haider, and A. Tsuneki, surveyed the site, unearthing pottery sherds and architectural features dating to several periods, including the Iron Age and classical periods (according to the preliminary report on the archaeological survey of sites in Lattakieh).

In 2010, a Syrian mission focussed on excavating and surveying Tell Nahr Al-Arab (Al-Shamiyeh), headed by B. Jamous, with M. Al-Maqdissi as field director and A.

Suleiman as scientific director. The mission discovered architectural features going back to the Hellenistic period, without being able to reconstitute a complete architectural unit. Along with architectural blocks that date to the Iron Age III (Phase IV), Middle Bronze Age architectural remains were found, as well as looted bottle-shaped and rock-carved tombs, belonging to the same period. In the same season of excavations, coloured pottery sherds were unearthed in a stratum dating to the Early Bronze Age III (Al-Maqdissi and Suleiman 2010).

The 2012 excavation season

In 2012, a second Syrian mission of the Directorate General of Antiquities and Museums (DGAM) was created, headed by the author.¹ The work in this season took place in three areas:

- Area I (west) in sectors V-VI.
- Area II (east) in sectors XI-XII.
- Area III, a tomb area located on the eastern slope of the tell.

Work started by preparing a topographical map of the tell, cross-referencing it with previous ones² in order to link the squares to be excavated with the original grid, and finally giving sectors and sectors labels (names).

During the 2012 excavations, a tomb was found looted and damaged. It contained pottery sherds. The tomb was labelled Tomb IV because of three other looted tombs previously discovered during Season I³ and dated to the Middle Bronze Age II.⁴

The western Field (Figure 2).

Excavation work in this field distinguished two stages of settlement throughout the Iron Age: Iron Age III, dating to the 6th century BC; and Iron Age II, dating to the 9th and 8th centuries BC.

First Stage: Iron Age III

This stage was marked by the appearance of Attic black-figures pottery in squares S10, S11, T10, Q10, R10, and R11, an indication of a Greek presence at the site. Discovered as well was a type of Rhodian jar and short-necked Phoenician jars (Figure 3). This pottery was

¹ Team: archaeologist N. Youssef, director of excavations, Damascus Archaeology Directorate; archaeologist M. Radwan and engineers R. Harfoush and E. Radwan (members), Lattakieh Archaeology Directorate; archaeologist G. Jammous, Damascus University; artist N. Ahmad and archaeologist K. Hattim from the Ras Shamra site; and S. Maya responsible for the restoration works.

² Such as the topographical map done in Season 2010 by A. Abou Arraj and Y. Khadour.

³ These three tombs were discovered by the scientific director of the 2010 mission, A. Suleiman.

⁴ Report of the excavation mission in Tell Shamiyeh 2010, Season I.

directly connected with wall W1, possibly dated to the Iron Age III, according to data obtained from the third exploration in R11. On top of that, we discovered in the niches S10 Attic pottery and short-necked Phoenician jars.

Second Stage: Iron Age II

The exploration carried out by the team near wall W6 confirmed that this had the shape of Late Bronze Age walls. Red-painted pottery was also discovered but not dated, as more excavation was needed to determine its age (Figure 4). In this field, the team also found pottery sherds dated to the Late Bronze Age. The pottery discovered in the second layer of this field is distinguished by bichrome paint (Figure 5). It is worth mentioning, however, that the percentage of painted pottery is far less in the eastern field, which raises questions on the nature of the settlement here. Such questions can only be answered by future excavations.

The eastern field (Figure 6)

The excavations carried out in this field revealed two periods of settlements: an Iron Age stratum representing two periods of settlement (Iron Age I and II); and a Late Bronze Age stratum.

The Iron Age II stratum

This sequence of occupation is represented by an incomplete building of which only four rooms were unearthed. The first room extends over squares X28, X29, and X30. It is a rectangular room, adjacent to a second room with which it shares wall W1. The jars discovered in the room are either Phoenician, which were widespread along the coast, or Canaanite jars. What is special in this room, as well, is the existence of Aramean jars, which usually have a sealed mouth or distinctive fingerprints. All these jars are common in Iron Age II (Figure 7). In addition to these jars, there were painted bowls with yellowish paint or burnished red, dating to the Iron Age, in addition to types of bichrome ware or imported geometric pottery (Figures 8-9).

The third room reflects two stages of settlement due to the emergence of new types of pottery, which makes it imperative to carefully examine the pottery in order to link it with the features found.

First stage (Squares W28-W29): characterized by the same types of pottery in the above-mentioned rooms: Phoenician jars, red-painted bowls, and red and black bichrome jars, all dating back to the Iron Age II.

Second stage (W29): it should be mentioned at this point that wall W8 dates to Iron Age II and is built on



Figure 3: A short-necked Phoenician jars in situ (© Ahmad Deb).



نماذج من الفخار المطلي

Figure 4: Red-painted pottery in Iron Age II level (© Ahmad Deb).

collected archaeological data, such as pottery sherds in particular. The interesting aspect of this area is the continuity of the settlement. The inhabitants of this site are local people with an economy based on agriculture, especially olive growing.

Eastern field stratigraphy

Century	Period	Level
10th century BC	Late Iron Age I	Level I
9th century BC	Iron Age II	Level II
8th century BC	Iron Age IIB	Level IIa
7th century BC	Iron Age IIC	Level IIb
6th century BC	Iron Age III	Level III

Tombs

The tomb area is located in the northeastern side of the tell. There are four tombs, three of them, looted a long time ago, were discovered during the 2010 excavation season, while the fourth, discovered in 2012, was intact.

Preliminary study of Tomb IV type

The tomb is a shaft tomb cut into the rock with a side entrance. There are two steps in front of the entrance which is 1.6 cm wide. The plan of the tomb is oval with a diameter of about 4.5 m. Its western side contains a longitudinal burial chamber which is 250 cm x 85 cm



Figure 5: Bichrome painted pottery (© Ahmad Deb).

and is between 105 cm and 70 cm in height. The highest point is about 177 cm (Figure 10). To the left of the entrance, there is a wall that directly connects it to the tomb. The wall is 150 cm high, made of medium-sized stones and built in a very similar way to the architecture found at Ugarit (Stucky 1983: 151-52). Towards the bottom of the wall and in the middle, there is a small niche that contains a clay oil lamp (Fugmann 1958: 131, fig. 161, E.5A 510), discovered in situ and apparently used in burial rituals (Figures 11-12).

Ceremonial findings

Pottery:

A large quantity of shattered pottery sherds of different shapes and sizes were discovered in the tomb. We found

more than 400 pieces, seven of which were intact. These are:

- Saucer lamps (2 items) (one found inside the tomb, while the other was among the debris in front of the entrance).
- An imported Cypriot 'Bilbil' juglet (missing a small piece at its base) (1 item).
- A small bowl (1 item).
- A local clay jug with a part missing at its rim (1 item).
- A medium-sized local clay jug (1 item).
- An imported Cypriot jug with a pointy base (Shaved Ware) (1 item).

As for the broken objects:

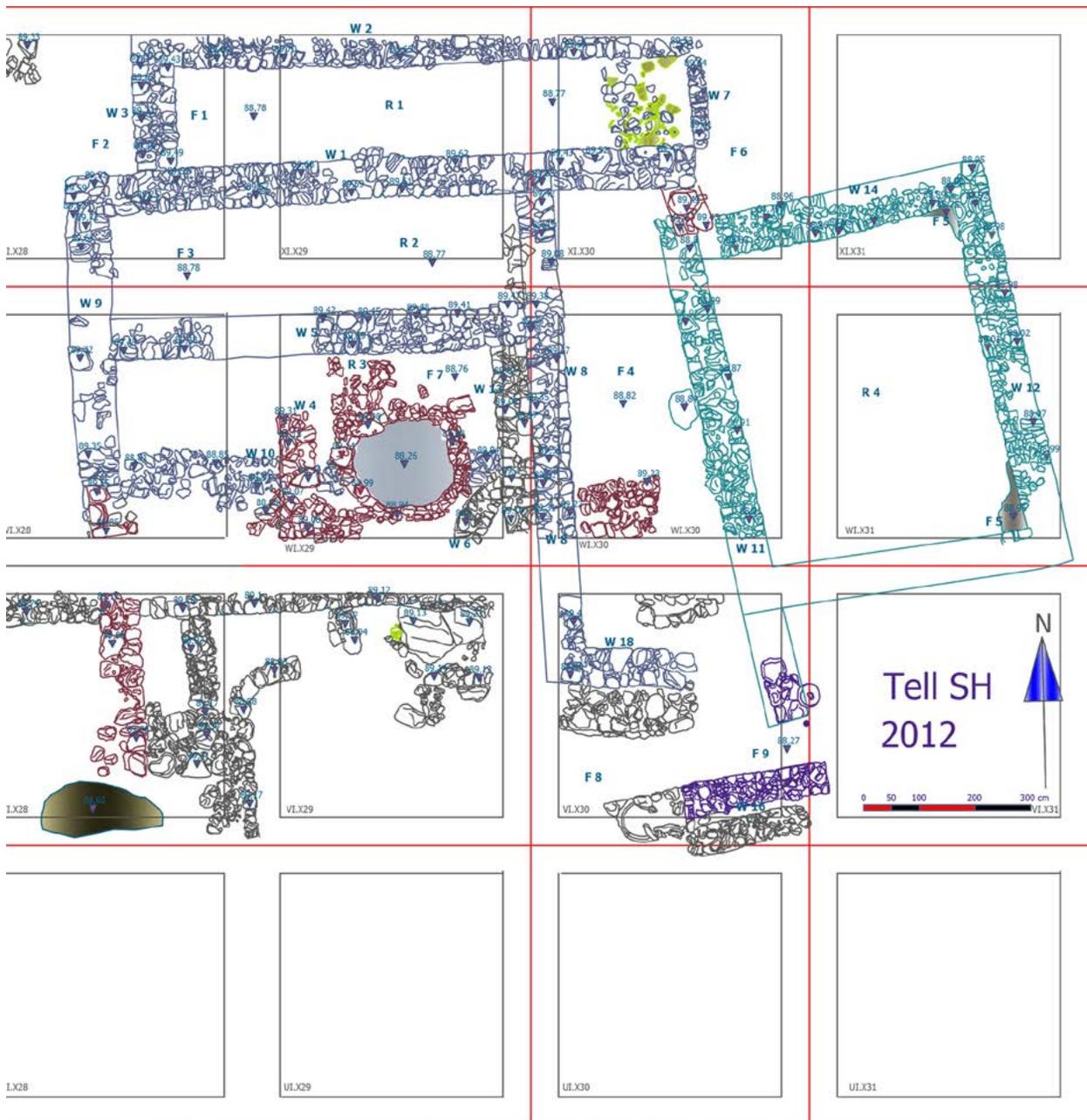


Figure 6: The eastern field (© Ahmad Deb).

- Large and small local vessels (various jugs and jars) (93 items).
- Medium- and large-sized imported Cypriot vessels that are well-made ('Bilbil': Monochrome and Base-Ring wares) (72 items).
- Local dishes of various sizes (125 items).
- Various local bowls (29 items) (Monchambert 2004: 78, fig. 19, no. 482).
- Local saucer lamps (20 items).
- Cypriot jugs with pointy base (Shaved Ware) (10 items).
- Cypriot milk bowls (White Slip milk bowl) (18 items) (Figure 13).
- Decorated and burnished Mycenaean vessel with two handles at the shoulder (Pyxis) (2 items).
- Decorated and burnished Mycenaean vessels of different sizes and with two handles and a small rim (Stirrup jar) (15 items).
- Decorated and burnished Mycenaean vase with large rim (jar with splayed rim) (3 items).
- Decorated and burnished Mycenaean vase with a small rim and two handles at the neck (conical stirrup jar) (1 item).
- A flask with two handles and a small spout in the middle (lentoid flask) (1 item).



Figure 7: A selection of Iron Age II jars (© Ahmad Deb).



Figure 8: Selection of Cypriot Bichrome pottery (© Ahmad Deb).

- In addition to a collection of indistinguishable vessels totally broken and damaged.

It is possible to present a preliminary study of the pottery composed of more than 400 items of different shapes and sizes found in Tomb IV of Tell Al-Shamiyeh. The tomb provided a large quantities of imported vessels (Mycenaean and Cypriot), in addition to a large collection of local vessels.

Imported pottery

A collection of imported vessels dating to the 4th and 3rd centuries BC was found in the tomb. This pottery is evidence of the openness of the different cultures of the Mediterranean who exchanged their products. Aegean pottery formed 33% of the total pottery found in the tomb. 18% of the pottery is Mycenaean while 82% is Cypriot.

The Mycenaean wares found in Tomb IV totalled 22 vessels divided into bottles and various vessels. It can be noticed that the Mycenaean wares discovered in Tomb IV resemble to a large extent those found on several sites along the Syrian coast, e.g. Ugarit (Monchambert 2004: 78, fig. 100), Qatna (Caubet 2009: 61), and Alalakh (Heinz 2009: 51) in Syria, and Sidon-Dakerman in Lebanon (Saidah 2004: figs 39-41), where the wares were burnished and decorated with coloured bands. These imported vessels were of the highest quality and made with the highest techniques, especially the stirrup jars, which came in different sizes. Among the special Mycenaean vessels found is a small bowl with a handle (SH 2012.A 71), burnished and painted, similar to other bowls found in Ugarit (Monchambert 2004: fig. 119, no. 1619; Yon *et al.* 2004: 130, fig. 23, no. 367). Found also was a Mycenaean bottle (SH 2012.A 71), burnished and painted, widespread at several Mediterranean sites, especially on the Syrian coast, for example Ugarit (Yon *et al.* 2004: plate 4, no. 271-272). All the Mycenaean vases in Tomb IV are made with the highest technique, with decorations and paintings of animals among other motifs. However, other vessels discovered in this tomb have geometric shapes and designs, e.g. vase SH.2012.A, examples of which were found at Ugarit (Monchambert 2004: fig. 116, no. 1578; Yon *et al.* 2004: plate 3, no. 23). Two decorated pottery vessels, called pyxis or straight-sided alabastron, with large rims and three small handles at the shoulder, were also found. Once more, similar vessels were found at Ugarit (Yon *et al.* 2004: plate 12, no. 106-107).

The Cypriot wares were less in number than the Mycenaean wares. They totalled almost 100 items, constituted of 'Bilbils' or Base Ring jugs, jugs, jars, bottles, and one-handled or Monochrome bowls. The tomb contained many 'Bilbil' vessels: ring-based jugs and bottles with white stripes. These are widely found



Figure 9: Selection of Iron Age II pottery (© Ahmad Deb).

at Mediterranean sites, especially in Cyprus (Lagarce and Lagarce 1985: Tomb 1907, 73-74, fig. 10), at Syrian coastal sites, such as at Ugarit, and Qatna in the Syrian interior (Monchambert 2004: 252-253, figs 105-106).

2015 excavations

Excavations were carried out during this season in squares U28 - U31, located at the southern side of Field IV, in order both to check the continuity of the architecture and to understand the functionality of the building.

Stratigraphy

Stratum of Late Iron Age I, 10th century BC

Stratum of Iron Age II, over three stages:

- Iron Age IIA , 9th century BC
- Iron Age IIB, 8th century BC

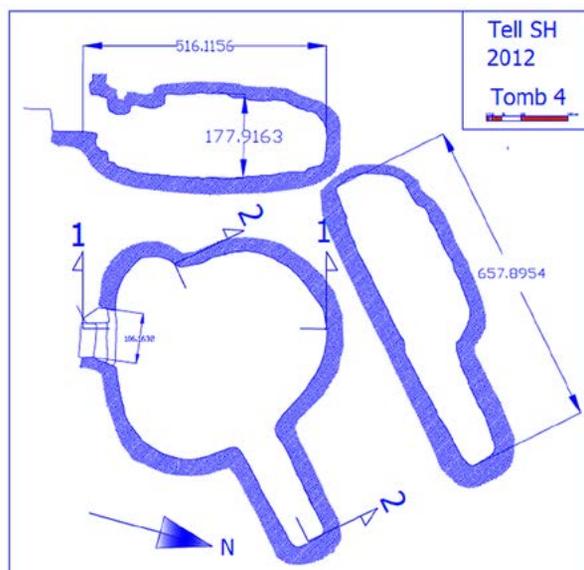


Figure 10: Tomb IV dated to the Late Bronze Age (© Ahmad Deb).



Figure 11: A clay oil lamp in situ (© Ahmad Deb).



Figure 12: The clay oil lamp found in situ (© Ahmad Deb).



Figure 13: Cypriot White Slip II bowl (© Ahmad Deb).

- Iron Age IIC, 7th century BC

Stratum of Iron Age III, 6th century BC

Excavation results: Squares U30 and U31

Work in these two squares confirmed hypotheses previously published about the existence of warehouses built to store jars associated with olive press activities. The layers of the first strata were divided into two stages:

The first stage (Iron Age II). We noticed a continuity in the architecture: wall 02, oriented east-west in Square U31 and connected with a destroyed floor, and a storage room in the northwestern side of the square dating to 850 BC.

The second stage (Iron Age II). This was dated to the 6th century BC, and revealed that the storage rooms were completely sealed with huge rocks.

We noticed a change in the functionality of the facility or place. There are some additions, such as a furnace built near the wall to the eastern side (05). It is not possible at the present to identify whether it is linked with the facility during this period. In the last layer of rocks inside the excavated area we found a bronze clip dating to the 6th century BC, and some Attic pottery sherds.

Archaeological layers

The first layer does not involve any architecture. However, what is of interest is the density of the discovered pottery, made of a mix of Late Iron Age I and Iron Age II finds. The most important piece is a pottery sherd bearing the letter *M* in Phoenician, in addition to a red and black bichrome jug.

The second layer contained a round hole (8003) of 2 m in diameter, filled with rocks and located within square U29. Did it have a certain purpose? Or is it a foundation feature, somehow related to the olive press? It dates to Iron Age III, as confirmed by pottery sherds. Mixed pottery sherds were found, of different Iron Age periods. We found also thick traces of burning as well as animal bones. The hole is intersected on the northern side by Tomb T. 8802, containing a skeleton buried in a fetal position, with bent arms drawn up to the torso and head oriented east. Study of the pottery is needed to identify the date of the tomb.

Conclusion

The field excavations for seasons 2012-2015 at Tell Nahr El-Arab (Al-Shamiyeh) enabled us to obtain important results, summarized below:

- There is an important architectural construction dating to Iron Age III in the eastern and western areas of the tell. Archaeologist C. Schaeffer (1933: 126-127) mentioned it in the explorations he did in the neighbouring area west of our excavations. We can say that the architecture revealed in the eastern area is most probably related to an industrial facility. This hypothesis is supported by the rather large rooms, whose floors contain a collection of stone and basalt rubbers and spinners. Next to these rooms there is a hall that might have been used for storage. The facility discovered in the western area is characterized by its large and relatively wide walls (up to 130 cm), indicating the existence of an important building dating to this period. We were unable to dig the entire building, however, preliminary data indicates that it is an administrative building or an important facility. Collapse of the stones in this sector, as well as the interconnectedness of the architecture to that of

an earlier period, prevented us from obtaining more precise results or better conclusions.

- The existence of Iron Age II blocks in both eastern and western areas with an architecture linked to the Iron Age III.
- The appearance of the Late Bronze Age in square V30, with pottery sherds found on the ground and associated to walls that are well built and resemble those found at Ugarit (Stucky 1983: pl. 51-52).
- The existence of a collective tomb dug into the rock, with a side entrance that can be accessed by two steps. It is built with medium and large stones and dates to the Late Bronze Age. The discovery of this tomb at Tell Nahr El-Arab occupied us for two reasons due to its importance; it being a collective tomb, dug into the rock, that dates to the Late Bronze Age, a period where tombs of this type are rare along the Syrian coast.

Bibliography

- AL-MAQDISSI, M. and SULEIMAN, A.
2010 *A Preliminary Report of the Syrian mission in Tell Al-Shamiya*. Damascus, Ministry of Culture.
- CAUBET, A.
2009 Handelszentrum Ugarit-Seine Kulturkontakte zu Qatna. In: M. Al-Maqdissi, D. Morandi Bonacossi, and P. Pfälzner (eds), *Schätze des Alten Syrien. Die Entdeckung des Königreiches Qatna*: 58-63. Stuttgart, Landesmuseum Württemberg.
- Fugmann, E.
1958 *Hama. Fouilles Et Recherches 1931-1938. II. 1. L'Architecture Des Périodes Pré-hellénistiques. National-museets skrifter 4*. Copenhagen, National Museum.
- HEINZ, M.
2009 Alalach-Konkurrent oder partner? Friedhöfe und Grablagen. In: M. Al-Maqdissi, D. Morandi Bonacossi, and P. Pfälzner (eds), *Schätze des Alten Syrien. Die Entdeckung des Königreiches Qatna*: 51-53. Stuttgart, Landesmuseum Württemberg.
- LAGARCE, J. and LAGARCE, E.
1985 *Deux tombes du Chypriote récent d'Enkomi (Tombs 1851 and 1907)*. Paris, Éditions recherche sur les civilisations.
- MOCHAMBERT, J.-Y.
2004 *La céramique d'Ougarit. Campagnes de fouilles 1975 et 1976*. Ras Shamra-Ougarit XV. Paris, Éditions recherche sur les civilisations.
- SAADE, G.
1979 *Ougarit, métropole cananéenne*. Beyrouth, IFAPO.
1964 *Histoire de Lattaquié, I*. Damas, Direction Générale des Antiquités et des Musées.
- SAIDAH, R.
2004 *Sidon et la Phénicie méridionale au Bronze récent: à propos des tombes de Dakerman*. Bibliothèque archéologique et historique 170. Beyrouth, IFAPO.

SCHAEFFER, C.

1933 Les fouilles de Minet el-Beida et de Ras Shamra-Ougarit. Campagne (printemps 1932). Rapport sommaire, *Syria*, XIV: 126-127.

STUCKY, R.

1983 *Ras Shamra, Leukos limen, die nach-Ugaritische Besiedlung von Ras Shamra*. Bibliothéque archéologique et historique 110. Paris, P. Geuthner.

YON, M., KARAGEORGHIS, V and HIRSCHFELD, N.

2004 *Céramiques Mycéniennes d'Ougarit in Ras Shamra Ougarit XIII*. Foundation A. G. Leventis. Paris, Editions Recherche sur les Civilisations.

Tell Kazel - Sumur and the Kingdom of Amurru

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Abstract

Tell Kazel is one of the main archaeological sites in the plain of Akkar. Its geographical location in the Homs Gap, the main passage between the Mediterranean coast and inland Syria, at the only break point between the two long mountain ranges of Mount Lebanon and Jabal Al-Ansariyeh, gives it a very important strategic role in controlling access to a major regional trade route. It is identified with Sumur or Simyra of the Amarna tablets (14th century BC) although not a single written document supporting this statement was found on the site. Excavations led by the American University of Beirut Museum between 1985 and 2010 brought to light a continuous occupation spanning the Middle Bronze Age up to the Hellenistic period. However, the major period attested on the site is the Late Bronze Age II, with a residential building and two superimposed temples with rich cultic material that included local and imported pottery, bronze, and faïence objects. The ceramic assemblage constitutes alone a considerable contribution to the material culture of the Northern Levant. The level to which these structures belong was destroyed by a violent fire dated to the transition between the Late Bronze Age II and the beginning of the Iron Age, a period which corresponds to the movements of the 'Sea Peoples' in the eastern Mediterranean at the beginning of the 12th century BC.

Tell Kazel is located in the Akkar Plain on the Syrian coast, 18 km south of Tartous. It was first excavated in the early 1960s by M. Dunand, A. Bounni, and N. Saliby. The AUB Museum team took up the project from 1985 until 2010 when, sadly, the civil war broke up in Syria and stopped all archaeological activities there. Prior to his excavations, M. Dunand investigated three sites in the Akkar Plain trying to identify ancient Sumur. The choice of Tell Kazel was based on its imposing size, its important fortifications, and its continuous occupation between the Middle Bronze Age and the Hellenistic period (Dunand and Saliby 1957: 3-16). Tell Kazel, along with Tell Arqa and Tell Jamous, which are 20 km equidistant from each other, is one of the three largest sites of the Akkar Plain.

The first objective of the AUB Museum excavation, was to identify Tell Kazel with Sumur or Simyra, whose name appears many times in ancient texts such as the Annals of Thutmose III, the Amarna Letters, and the Assyrian texts. These refer to a rich city in the Middle Bronze Age and an important strategic state in the Late Bronze Age I and II.

The second objective, was to fill up the gap of the transitional period, between the Late Bronze Age and the Iron Age, a period which correspond with the invasion of the 'Sea Peoples' (Badre *et al.* 1990: 13).

Tell Kazel: A city-state in the Akkar Plain during the MB and the LB I

The Middle Bronze Age period

Excavations at Tell Kazel yielded in various sectors sections of a fortification associated with a clay glacis

dated to the Middle Bronze Age period. Another important structure is a massive circular spiral stairway leading to a well (Figure 1). Hypothetical measurements suggest this feature as 30-40 m in diameter and 40 m in depth. This stairway may be compared to the ones of Mishrifeh-Qatna and Byblos. The residential settlement of this period is still, however, poorly known on the site (Badre 2013: 740). In 2010, we enlarged the sounding to go deeper in the following season, which unfortunately did not happen.

The Late Bronze Age period

The end of the Late Bronze Age I is marked by a violent fire which could be associated with the conquest of Thutmose III in the Akkar around 1450-1400 BC. A new chapter begins in the Akkar with the Egyptian intervention. The Egyptians favour Sumur over Tell Arqa, and set up a garrison with a governor or *rabišu*.

A large bastion with basalt foundations is built on the edge of the tell. Its destruction corresponds with the troubles of the Amarna period, when the troops of Abdi-Ashirta (of unknown origin) occupied the coastal cities from Sumur to Batruna. It is then that Sumur abandoned the Egyptian sphere in favour of the Hittite one. The kingdom of Amurru is thus created and close relations with Ugarit are established.

The Late Bronze Age II period in Tell Kazel was excavated in two areas. The first is a residential one in the eastern sector of the site, and the other, located on the western side, has revealed three superimposed temples (Figure 2), rendering this area sacred over four centuries, from the 14th century BC until the Iron Age I.



Figure 1: The spiral stairway (© American University of Beirut Museum excavations).



Figure 2: The three superimposed temples (© American University of Beirut Museum excavations).

The Temples

The Temple of Level 6

The plan of the first temple of Level 6 is hypothetical (Badre 2009: 258-260). It consists of a vestibule-

entrance located to the east and preceded by four aligned basalt bases, probably to support free standing pillars. It is paved with flagstone slabs. The entrance opens into a main, large rectangular hall (c. 16 m long x 8 m wide). Some circular basalt bases were found in its centre along a north-south axis, probably for columns



Figure 3: Plan of the Temple - Level 6 (© American University of Beirut Museum excavations).

supporting the roof (Figure 3). At least two offering tables were found along the western wall of the main hall. The areas around them were littered with animal bones and concentrations of ashes; this is very likely the result of cultic sacrifices. The material related to cultic rituals and offerings is very rich (Figure 4). The majority of the objects were found intact or slightly broken in situ. This, along with the total absence of any violent destruction evidence, indicates that the builders of the later temple, considered these objects as heirlooms and must have intentionally hidden them in some kind of deposit in order to save them.

This material includes two major categories: locally-made and imported material. The locally-made material includes several categories. A minority of clay vessels of different sizes and functions for common domestic

daily use; the largest category, which could have had a dual domestic and cultural function, includes plates, lamps, and miniature goblets (Figure 5); The third category represents the cultic vessels with a variety of chalices and some outstanding brazeros or incense stands (Figure 6).

Along with these clay vessels are luxury products such as beads and cylinders seals, the majority of them in faïence, and beads made of glass, carnelian, agate, amber, and lapis-lazuli (Figure 7). Among other luxurious polychrome faïence objects are a plate with tripartite division and a polychrome pommel. Until recently, they were all displayed in the Tartous Museum with the approval and encouragement of the Tartous Director of Antiquities, M. Hassan, but have now been



Figure 4: Offerings from Temple - Level 6 (© American University of Beirut Museum excavations).



Figure 5: Locally-made pottery of the Temple - Level 6 (© American University of Beirut Museum excavations).

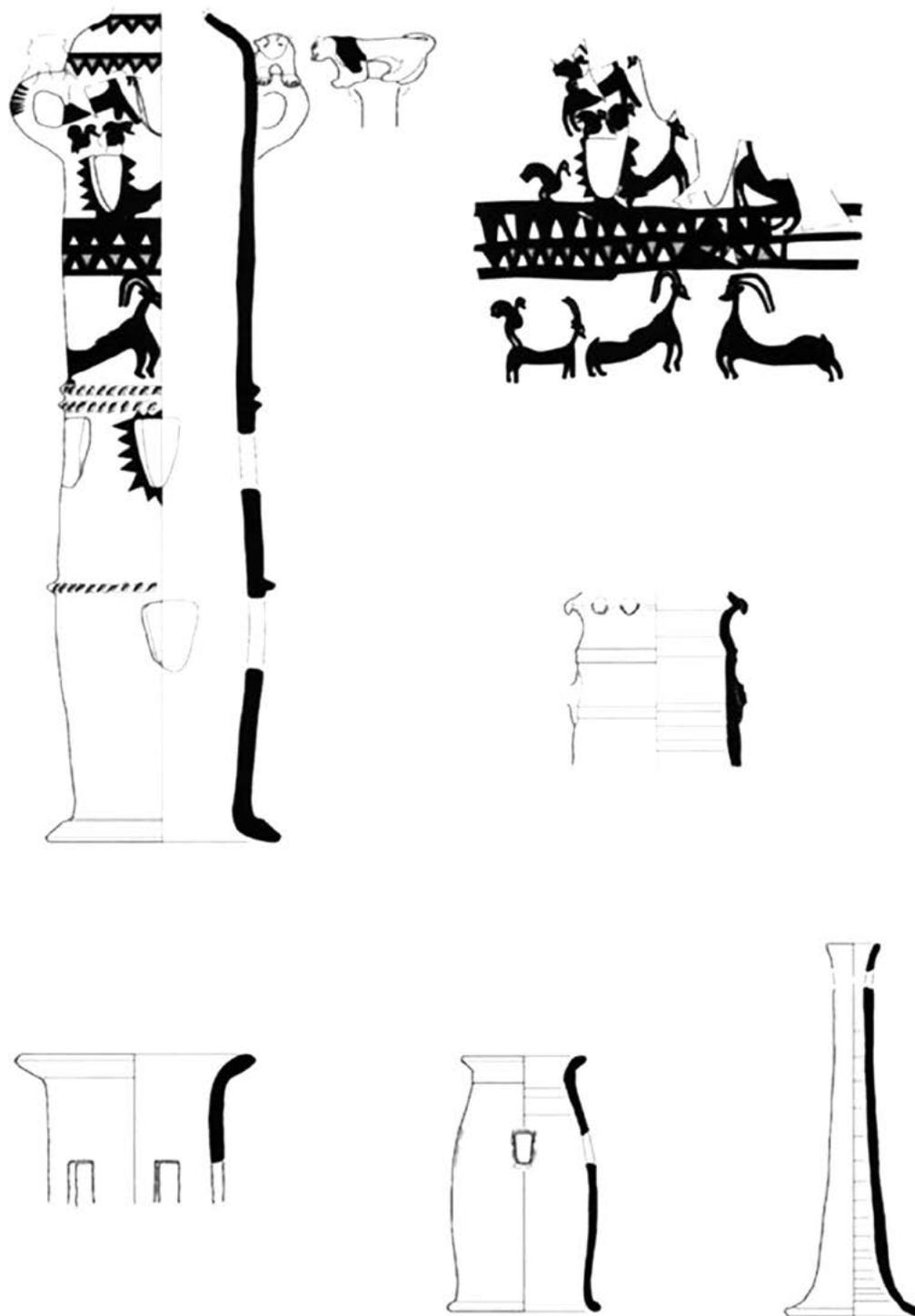


Figure 6: Brazeros of the Temple - Level 6 (© American University of Beirut Museum excavations).

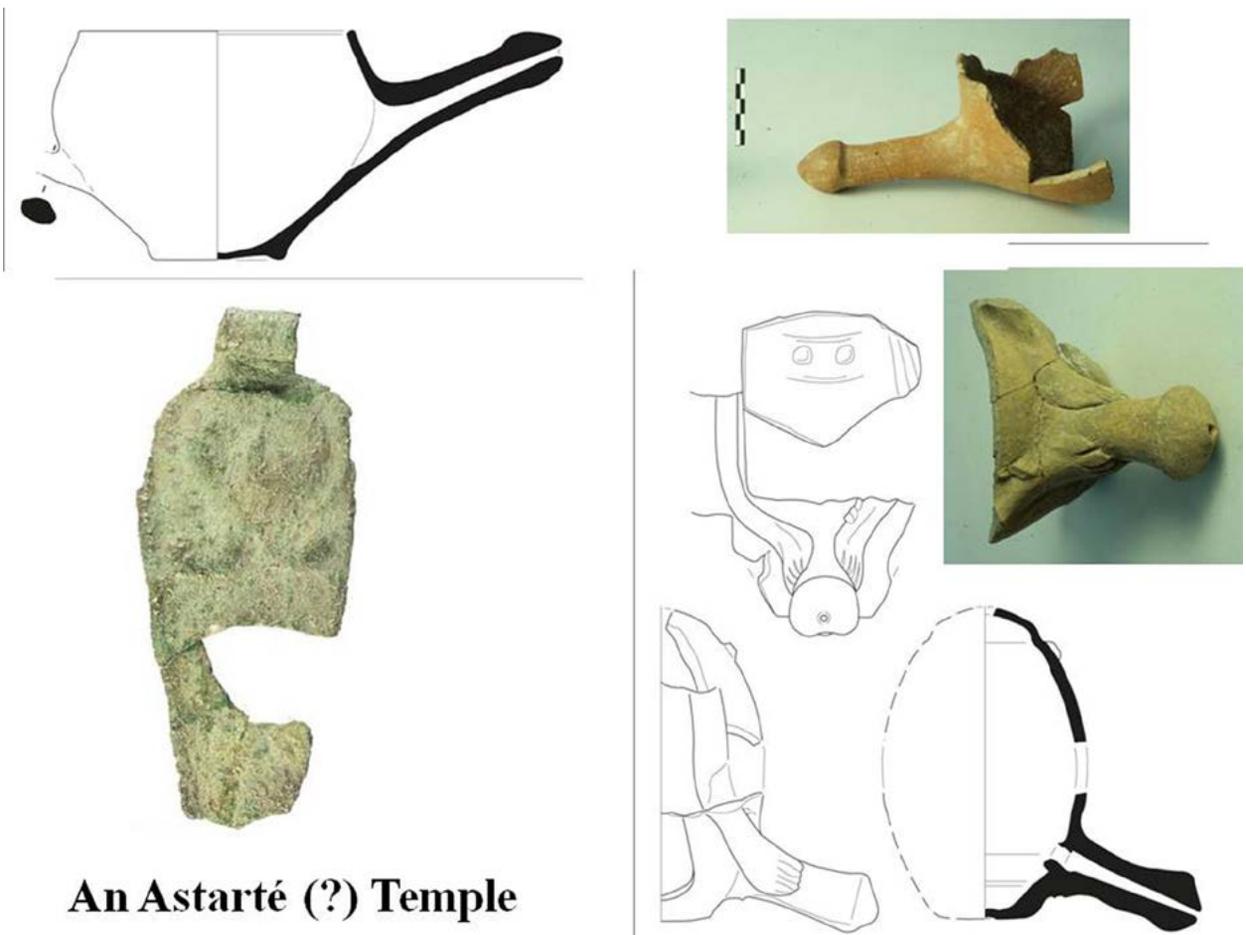
either moved to new showcases or packed for security reasons.

An interesting group of sheet bronze male and female figurines was found associated with Cypriot White Shaved juglets (Badre 2006: 76, fig. 8). In addition to

these bronze figurines, the presence as ex-votos of two pendants (Badre 2006: 74), representing the fertility goddess with a Hathoric hair-style and some vases with the male sex (Figure 8), is also related to a fertility cult. Worth noting are the lion figurines decorating the brazeros: these are generally associated with Astarte.



Figure 7: Luxury faience objects from Temple – Level 6 (© American University of Beirut Museum excavations).



An Astarté (?) Temple

Figure 8: Pendant of Astarte and vases with male sex (© American University of Beirut Museum excavations).



Figure 9: Floor of a house incrustated with shells (© American University of Beirut Museum excavations).

The combination of all of the above may suggest that Astarte was one, if not the unique goddess, venerated in this temple.

The Cypriot pottery

The strong relations between Tell Kazel and Cyprus are reflected in the very large concentration of Cypriot pottery found in the earliest excavated level. Excavations have revealed a varied typology, similar to that found at other Levantine coastal centres, which includes vessels of the Base Ring Ware, White Slip Ware, Monochrome Ware, White Shaved Ware, and in small quantities White Painted Ware, Red Lustrous Wheel-made Ware, Black on Red Ware, and wall brackets (Badre 2006: 67-71).

The Mycenaean Pottery

According to the specialist R. Jung, who has published much on this subject, '[The] Mycenaean collection makes Tell Kazel one of the richest sites for Mycenaean pottery finds in the Near East'. The selection of imported Mycenaean pottery at Kazel was guided by the demands of the consumer society at Kazel. It includes kylikes, bowls, amphoriskoi, and zoomorphic rhyta, one of which is in the shape of an animal head (possibly a boar), identical to one found at Ugarit (Jung 2006).

The Temple of Upper Level 5

At the end of Late Bronze Age I, the Amurru Kingdom dropped its allegiance to Egypt at the battle of Qadesh and moved towards the Hittite sphere. This alliance was strengthened by intermarriage between the kings of Amurru and those of the Hittites.

The Upper Level 5 temple was built directly over the destruction layer of Level 6, which was levelled for this purpose. The cella of Temple 5 is the best preserved one from its architectural aspect. It presents a rectangular room (11.6 m x 5.3 m from the interior) and shows special masonry and architectural features, such as a thick substructure of stone walls. This rubble stone masonry is enhanced by setting large and regular ashlar ramleh blocks at the angles. A mudbrick superstructure was built on top of the stone substructure; it has completely melted down as a result of its destruction by fire, leaving the surface of the stone substructure evenly levelled at a regular elevation (Badre 2009: 264-266). In the Iron Age I period, this temple was destroyed by a third one, built over it.

The cultic material of Temple 5 is scarce in general. The rare pottery material is similar to the assemblage of Level 6 and still includes some imports from the west.



Figure 10: Very large jug in Handmade-Burnished-Ware (© American University of Beirut Museum excavations).

Towards the end of the Late Bronze Age II, the city was heavily occupied. The temple was surrounded by living settlements. Some houses were built directly against the walls of the temple. Most of them had silos or sumps in their angles, among other types of installations.

In the eastern sector of the tell, contemporary residential quarters were found. Some of their rooms had their floors and their walls encrusted with shells (Figure 9). The lower phase of Level 5 ended with an abandonment.

Transitional Period: ‘The Sea Peoples’

The site was then reoccupied by squatters in the following level, which represents the Transitional Phase between the Late Bronze Age II and the Iron Age I.

This Transitional period was almost completely devoid of Cypriot and Argolid importations. Their disappearance was replaced, in this phase, by the first appearance of the new Handmade Burnished Ware or Barbarian Ware (Figure 10), which was usually associated with the ‘Sea Peoples’

These Barbarian vessels were found in significant quantities in the settlements surrounding the cella of the Temple. Simultaneously, the Trojan or Grey ware pottery appeared along with local imitations of Mycenaean pottery. An unusual and large painted pithos was found in the same room with seven other jars and pithoi of local tradition (Badre 2013: 755, fig. 17). This pithos has a very special decoration with several men and animals (scorpions, ostriches) in different fighting or sacrificing scenes.

The end of this level shows a dense settlement with a large accumulation of storage containers heavily destroyed by fire. One room of a large building was an exception in its preservation; it was filled with storage jars and pithoi (about 30 of them) set very tightly together. We date this fire level to the Transitional period between the Late Bronze Age II and the Iron Age I periods. The destruction corresponds to the period when several cities and empires collapsed and when the ‘Sea Peoples’ mentioned in the Egyptian sources appeared at the beginning of the 12th century BC. One text, in particular, mentions the settlement of the camp of these invaders in Amurru.

Bibliography

- BADRE, L.
2013 Tell Kazel-Sumur et le Royaume d’Amourrou. In: *Comptes rendus de l’Académie des Inscriptions et Belles Lettres, Séance de Mai 2013: 737-757*, Paris, l’Académie des Inscriptions et Belles Lettres.
- 2009 The Religious Architecture in the Bronze Age: Middle Bronze Beirut and Late Bronze Tell Kazel. In: *Interconnections in the Eastern Mediterranean, Lebanon in the Bronze and Iron Ages. Proceedings of the International Symposium, Beirut 2008: 253-270*. BAAL Hors-Série VI. Beirut, Ministère de la culture.
- 2006 Tell Kazel-Simyra: A Contribution to a Relative Chronological History in the Eastern Mediterranean during the Late Bronze Age, *Bulletin of American School of Oriental Research* 343: 65-95.
- BADRE, L., GUBEL, E., AL-MAQDISSI, M. and SADER, H.
1990 Tell Kazel (Syria). Excavations of the AUB Museum 1985-1987. Preliminary Report, *Berytus* 38: 9-124.
- DUNAND, M. and SALIBY, N.
1957 A la recherche de Simyra, *Annales Archéologiques de Syrie* 7: 3-16.
- JUNG, R.
2006 Die Mykenische Keramik von Tell Kazel (Syrien), *Damaszener Mitteilungen* 15: 147-218.

The Syrian-French Archaeological Mission of Ras Shamra – Ugarit

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Abstract

Established in 1929, the archaeological mission of Ras Shamra has a long history. After 70 years of almost continuous activity, it became Syrian-French in 1999¹ and both teams worked jointly in the field until the fall of 2010. After the outbreak of the war in Syria, the Syrian team, headed until 2013 by J. Haydar and since 2014 by K. Al-Bahloul, continued regular excavations on the tell of Ras Shamra. The 74th campaign took place in 2014, while the French team - due to the temporary cessation of operations in the field - re-oriented its activities, focussing on editorial policy, digitization, and scientific exploitation of the excavation archives (Matoïan 2016a). This paper aims at offering a synopsis of the excavations' results at the site of Ugarit.

The alternative programs developed in France by the mission concern essentially the scientific studies of the material (architecture, objects, texts...) with the aim of publishing it.² Since 2011, the scientific valorisation of the results was made through the publication of seven volumes of the series *Ras Shamra-Ougarit*. It consists of three monographs (*RSO XVIII, XIX, and XXIII*) and four collective works (*RSO XX, XXI, XXII, and XXIV*) bringing together 82 contributions with the collaboration of 70 authors. A joint report was also published in 2013 in the journal *Syria* (Matoïan *et al.* 2013). Additionally, articles of the members of the mission are disseminated in various external publications (periodicals, books...) and on the internet.³

In 2009, a new research program was set up with the aim of recognizing and defining the characteristics of Ugarit during the Bronze Age, using a diachronic and multi-contextual approach to study this city, its kingdom, and its environment. Within this perspective, the mission promoted multidisciplinary approaches, combining archaeological excavations, geophysical exploration, geo-archaeological research, and architectural studies, as well as participating fully in several international research networks.⁴

Recent archaeological results

Our knowledge of the city during the last period of occupation at the end of the Late Bronze Age has

increased thanks to new archaeological excavations and studies of areas previously excavated but not published in detail. Recent publications provide information on urban planning, monumental buildings and 'ordinary' buildings, and on architectural techniques, including the development of new research on ashlar masonry (Bessac 2013). Thus, by studying traces on the stones of the site's buildings, in particular the palace and the tombs, made it possible to identify both the method of extraction and the type of tool used on the blocks (a kind of bronze axe of a model close to the artefacts actually discovered on the site).

The two main intramural excavation areas, the 'Rempart' site and the 'Grand-rue' site, have provided information for a better understanding of the organization of the city of the Late Bronze Age and some of its constituent elements: fortifications, peripheral districts, and the road network, whether it be the 'peripheral street' serving the palace area and the large buildings constructed on its outskirts, or the major north-south axis ('Grand-rue') leading to the main square of the area 'Ville Sud' (whose eastern boundaries have been recognized by geomagnetic prospecting⁵ (Al-Maqdissi *et al.* 2010)), and possibly to the 'bridge-dam' (see below). At each of these sites, excavations have also revealed the remains of a large 'residence' ('Building B' on the 'Grand-rue' site), and these discoveries thus feed into the multi-disciplinary research program on the reconsideration of the 'great mansions' of the city that began in 2009 with the resumption of the study of the 'Palais Sud' (Matoïan *et al.* 2013).

The 'Grand-rue' sector also offered the opportunity to excavate a water well, located in the Late Bronze Age 'Building B'. Although not complete, this work has led to a better understanding of the mode of operation of the groundwater, which was the main water source for Ugaritians (more than 100 masonry wells are known on

¹ Work is undertaken under the auspices of the Ministry of Foreign Affairs (MAEDI, France) and the Directorate General of Antiquities and Museums of Syria (DGAMS).

² Thanks to the renewed support of MAEDI and the support of other funders (Senate, Centre national de la recherche scientifique, Amis de la Maison de l'Orient à Lyon, The Shelby White and Leon Levy Program for Archaeological Publications).

³ See www.ras-shamra.ougarit.mom.fr (heading 'Publications').

⁴ The mission has, in particular, collaborated with the projects of the 'Agence nationale de la recherche': 'Progecesa' ('Prospection géophysique et étude des centres urbains de Syrie antique', overseen by Ch. Benech); 'PaléoSyr' ('Paléo-environnements et occupation du sol en Syrie occidentale au cours de l'Holocène', overseen by F. Braemer and B. Geyer).

⁵ Research undertaken by C. Benech.



PONT-BARRAGE DE RAS SHAMRA - OUGARIT

Figure 1: 3D rendition of the 'bridge-dam' on the Nahr Ed-Delbe (Mission of Ras Shamra, realization Junior Bellecour, School of Art, Lyon).

the tell of Ras Shamra). This work also helped raise a large sample of timber (tamarisk, oak, pine...), probably from the collapsed structure of the building that housed the well (Geyer and Matoïan 2013).

Extra muros field research in the bed of the river Nahr Ed-Delbe, running south of the site of Ras Shamra, allowed the completion of the excavations (in 2009) of a unique hydraulic structure, first discovered in 1986, built of carved rectangular blocks of *ramleh*. Two phases of activity have been identified. The structure's use as a dam and a bridge is attested during a first phase most likely dated to the Late Bronze Age by the excavators, given the location and the importance of the structure. The final publication (Geyer and Calvet 2013) produced architectural restitutions, including 3D renderings (Figure 1).

In recent years, numerous monuments, or areas of excavation, discovered under C. Schaeffer (1898-1982) have been the subject of detailed architectural analysis. For example, the architectural recording of the 'Royal Palace' was finalized in 2009 by O. Callot and data is currently being processed infographically.⁶ Other results have already led either to a synthetic presentation, such as a typo-chronology of dwellings in the area east of the palatial zone, known as the 'Quartier égeen' or 'résidentiel' (Matoïan *et al.* 2013), and the study of the 'bâtiment au trône de pierre', interpreted as a cultic place (Callot 2013), or to a detailed publication such as the study on the two great shrines of the

'Acropolis' (Callot 2011). This book, accompanied by numerous restitutions, proposed a diachronic reading of these major buildings of the urban landscape, whose foundation goes back to the Middle Bronze Age.

A major research challenge is to better understand the evolution of the urban centre that developed on the site of Ras Shamra from the 3rd millennium BC until its destruction at the beginning of the 12th century BC. The concept of poles of urbanization, which must be retained in our analysis of the development of the first coastal centres, led to reopening the question of the origin of the sanctuaries on the 'Acropolis'. The joint excavation of the so-called 'Temple of Dagan' area, begun in 2008 (Al-Maqdissi *et al.* 2010), has undergone significant developments. In 2010, stratigraphic excavation in the eastern sector made it possible to associate to the Early Bronze Age a large wall (Figure 2), on which rests part of the eastern wall of the cella of the temple; the nature (possibly cultic) of the building to which it belonged remains to be determined (Matoïan *et al.* 2013).

It should also be noted that the results of the georadar survey carried out in 'Court I' of the 'Royal Palace' made it possible to question the evolution of this other urban pole of the city, following the discovery of architectural remains older than the Late Bronze Age palace.⁷ In other areas, excavations at the 'Grand-rue' site revealed the remains of post-Ugaritic occupations.

⁶ Study in progress by J.-C. Margueron and O. Callot.

⁷ Research led by the ANR Progecesa (dir. C. Benech), with the collaboration of F. Réjiba.



Figure 2: The so-called temple of Dagan: view from the East of the stone wall dated to the 3rd millennium BC beneath the podium, Ras Shamra 2010 (Mission of Ras Shamra, photograph B.-N. Chagny).

Epigraphic research

Many publications concern studies on archaeological and epigraphic material, too many indeed to be all included in this article. However, we will mention the two monographs published recently that included the *editio princeps* of 87 texts in Ugaritic (Bordreuil *et al.* 2012), and 130 letters in Akkadian (Lackenbacher and Malbran-Labat 2016) from the so-called ‘House of Urtenu’, which provide valuable data on the history of the last decades of the Bronze Age (Figure 3), and numerous studies on scribal practices (cf. Roche-Hawley and Hawley 2013).

Recent scientific results also concern the written culture of the kingdom, which brought about the celebrity of Ugarit following the discovery of a rich set of texts on religion and a new system of alphabetic writing using cuneiform signs. At the end of 2015, the examination of the cast made of a tablet (RS 15.010) in the Schaeffer archives of the Collège de France allowed the identification of a new abecedy. This discovery brings the number of this type of document to 19, and is a good example of recent contributions (Ernst-Pradal and Vita in press; 2016).

Research around Ugarit

The extension of operations beyond the boundaries of the tell of Ras Shamra (2008-2009) at port sites on

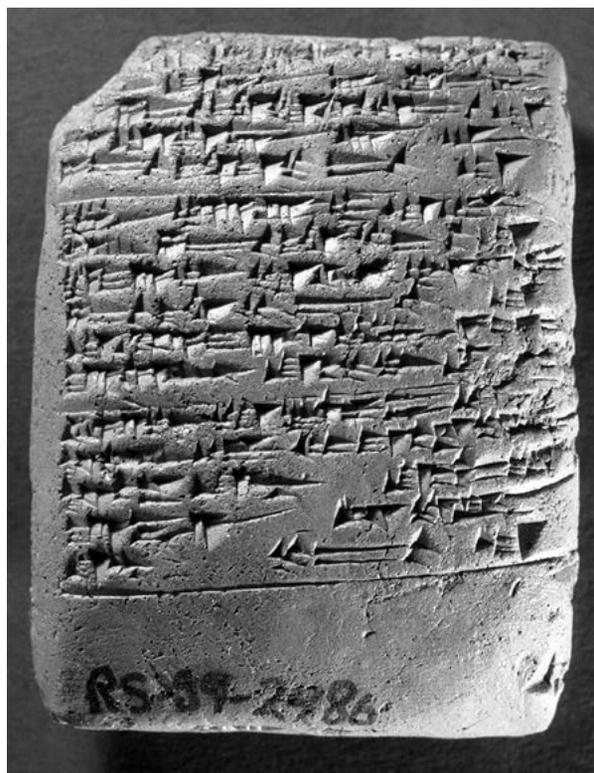


Figure 3: Tablet RS 94.2486: Letter in Akkadian from Mad(d) uallanuraš, Governor of Kizziwatna, to Niqmaddu, King of Ugarit, ‘House of Urtēnu,’ Late Bronze Age (Mission of Ras Shamra, photograph V. MatoĀian).

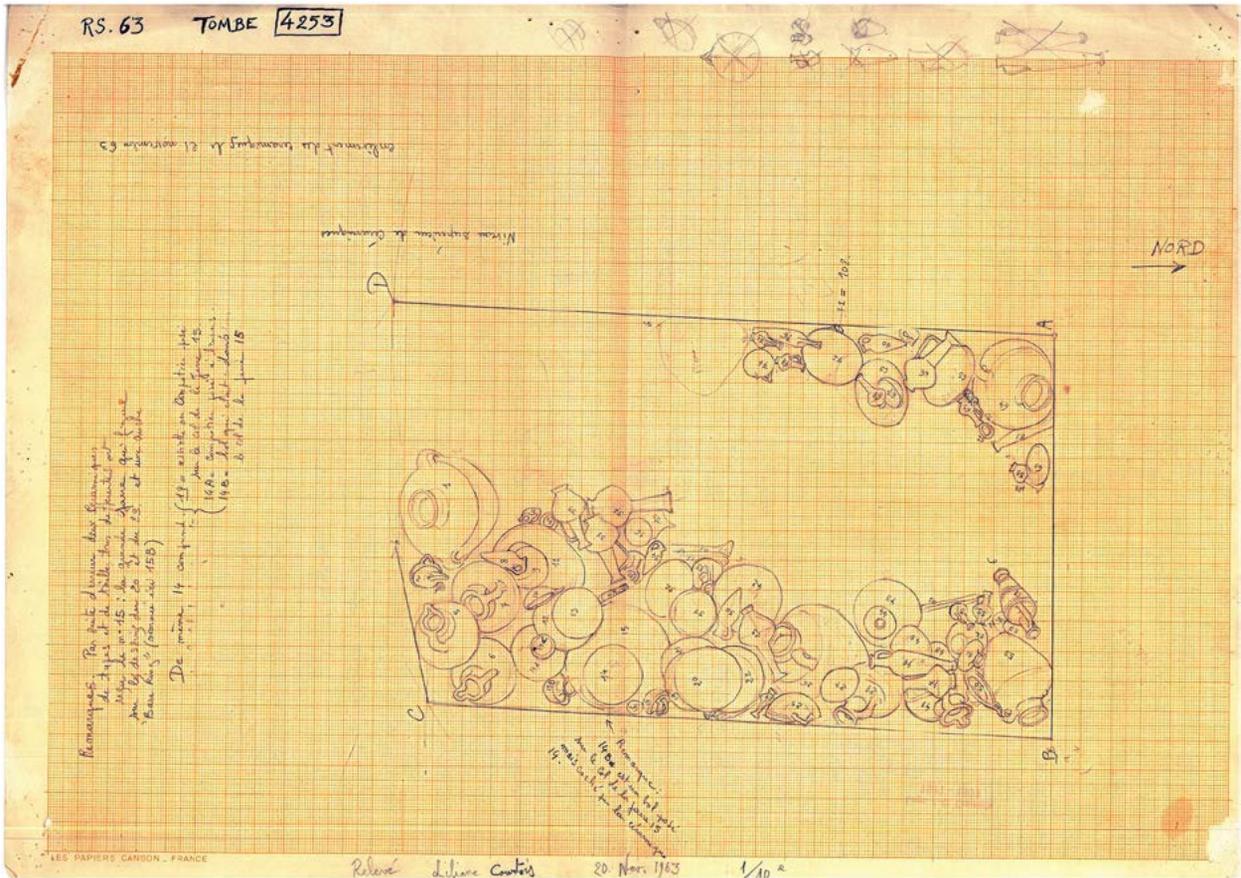


Figure 4: The tomb 4253 from the so-called ‘South Acropolis’ sector and the material found in situ, Late Bronze Age Ras Shamra – Ugarit, drawing by L. Courtois (Mission of Ras Shamra).

the Syrian coast (Ras Ibn Hani, Tell Sukas, and the mouth of the Nahr Es-Sinn), aimed at a better regional understanding of the impact of trade development in the Eastern Mediterranean during the Bronze Age, from the point of view of both land use and urban development.⁸ The first results of the study on the Ras Ibn Hani peninsula were only recently published (Goiran *et al.* 2015; Marriner *et al.* 2012). They provide a fuller understanding of the morphogenesis during the Holocene period of the sandy tombolo (1000 m x 800 m) connecting the rocky headland of Ras Ibn Hani to the mainland. The geological and stratigraphic evolution observed is similar to that shown for other tombolos of the Eastern Mediterranean, such as of that of Tyre in Lebanon. The formation of the tombolo of Ras Ibn Hani, begun about 8000 years ago, is linked to several factors: evolution of the sea level (with post-glacial marine transgression), sediment deposition, and anthropogenic action. Its summit was probably out of water in the final phase of the Bronze Age, when the cape was occupied by a new town, founded in the middle of the 13th century BC and known mostly for its monumental edifices. The study would also make

possible consideration of the existence of harbour areas in the southern and northern peninsula bays. Ugarit thus had two port areas in its immediate surroundings, Minet El-Beida and Ras Ibn Hani.

Recent multidisciplinary researches on Ugarit

Another aspect focuses on the results of the ancient exploration of the sites of Ras Shamra and Minet El-Beida, carried out for several decades by their first investigator, C. Schaeffer. The scientific exploitation of the excavation archives (especially the Schaeffer archives of the Collège de France that are again accessible) is one of the key stages in the *editio princeps* of the archaeological documentation which has remained, thus far, unpublished. The studies have two complementary objectives: to publish all the yet unpublished material, by establishing exhaustive corpuses, and to highlight themes that respond to current research issues in the field of Ugaritic studies (Figure 4); the publication, for example, of a catalogue on scarabs and scaraboids (Lagarce-Othman 2016a; 2016b), which contributes in particular to a deeper understanding of the relations that Ugarit maintained with Egypt during the 2nd millennium BC, a catalogue

⁸ Supported by the ANR PaléoSyr.



Figure 5: Wall brackets with figurative decoration from Ras Shamra – Ugarit (Mission de Ras Shamra, after Carbillet in press).

of weights (PhD of E. Bordreuil), and the study of the ‘wall brackets’ from Ugarit (Figure 5), constituting one of the most important corpuses in the eastern Mediterranean (Carbillet 2016; 2015). Additionally, several ambitious programs are under way, such as the study of religion at Ugarit from the contextualized analysis of the archaeological documentation (Figure 6), analysis of the urban and social geography of the city of Ugarit in the Late Bronze Age,⁹ or various

⁹ The program ‘Material culture and identities in Late Bronze Age Ugarit (Syria). Geo-urban sociology of a cosmopolitan Mediterranean capital’. The study of three areas: ‘South City’, ‘South-Acropolis’, and the ‘Aegean district’ has been selected by The Shelby White and Leon

cultural interactions in the Eastern Mediterranean during the 2nd millennium BC (cf. Matoïan 2015; 2014; 2013). In addition, new approaches or themes were raised: reflections on an archaeological and epigraphic atlas, development of thematic digital maps (Geyer *et al.* 2016), a program of diachronic analysis of landscapes (19th-20th centuries AD), based particularly on old photographic documentation and using an innovative approach for this region of the Levant (Jacob-Rousseau and Geyer in press; 2016), and a multidisciplinary study of textiles in Ugarit (Matoïan and Vita 2014; Sauvage

Levy Program for Archaeological Publications.

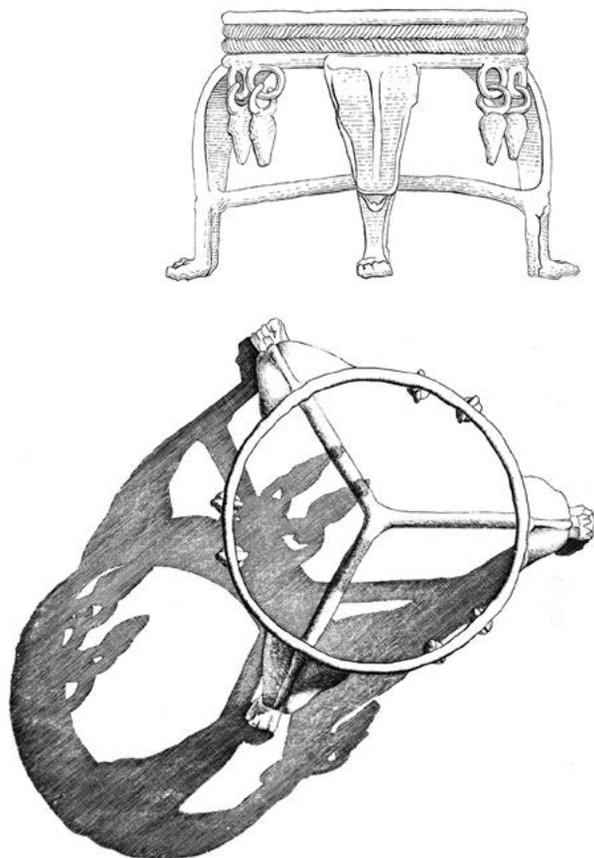


Figure 6: Drawing of the moulded bronze tripod RS 17.93, discovered in the so-called 'Maison du Lettré' in the 'Quartier égéen', Late Bronze Age, Ras Shamra - Ugarit (Mission of Ras Shamra, Schaeffer archives of the Collège de France).

and Hawley 2013; Vita 2013), which is part of the international research network 'Ancient Textiles from the Orient to the Mediterranean'.¹⁰

Research on the historical archives

To immerse oneself in the study of these archives is also to approach the distant past or memory of a discipline (Matoïan in press; 2016b). Ras Shamra is an historical site in terms of Levantine archaeology, taking us back to a time when, after the pioneering era that characterized the Near Eastern archaeology of the 19th century, research underwent remarkable developments and led to the discoveries in Syria of large sites, such as those of Tell Hariri-Mari and Ras Shamra-Ugarit. For example, a series of glass negatives made it possible to trace the material conditions of the first excavations more than eight decades ago, from the caravan trip to the site in 1929, and the construction of the first dig house by the sea in the early 1930s, to the more

or less sophisticated material used by the excavators, or even to the uncovering of major pieces of art from the ancient Near East such as the 'Stèle du Baal au foudre' and other monuments such as the royal tombs (Figure 7). Photographs reveal objects before they were restored in the workshops of the Louvre, thus making it possible to better evaluate the work of the restorers. Other negatives show the first Syrian collaborators of the archaeological mission and the restorers of DGAMS, seen on the ground, struggling with the meticulous clearing of a particular item of ivory, clay, or precious metal (Figure 8).

C. Schaeffer's correspondence proved to be another important source of information, particularly on the numerous scientific exchanges that the excavator maintained with his close collaborators (cf. André-Salvini 2016) or with foreign researchers, such as a letter dated 12 March 1948 from the famous prehistorian G. Childe (1892-1957) in connection with his request for a photograph of the swords discovered in 1929 on the 'Acropolis' in the 'House of the High Priest'. The British researcher, then director of the Institute of Archaeology at the University of London, spells out the context in which his request is made: 'I want these for the paper which I am reading at the Prehistoric Society Conference on the 18th April, when I have to talk about the Late Bronze Age in the Aegean and Central Europe, and should be very grateful if I could have nice photographs'. Then he refers to their current publications: 'I hope the Oxford University Press is getting on with its great book but I will not see it for a year or two. The new edition of my 'Dawn' is just promised, after fifteen months. Naturally it is out of date already.' This 'dialogue' is historically remarkable: the inventor of the notion of 'urban revolution' and the author of *The Dawn of European Civilization*, the first synthesis on this subject published in 1925, which had a great impact and ran to five different editions, is talking to the progenitor of *Stratigraphie comparée et chronologie de l'Asie occidentale*, a monumental reference work published in 1948.

Because of the long history of the archaeological mission of Ras Shamra, the archives linked to its activities constitute a very rich documentary corpus, with several tens of thousands of documents of different natures and states. Unlike more recent missions with digital documentation and work tools, the mission archives are essentially paper documents, along with an abundant photographic documentation and numerous casts made of archaeological objects. The majority of these archives is kept in public institutions, in Syria, and in France. Recent archives (1978-2016) are stored at the Maison de l'Orient et de la Méditerranée (MOM) in Lyon and are managed by the head of the archaeological mission. Since 2011, this documentary fund has been at the centre of several major operations

¹⁰ ATOM (2015-2018) is led by C. Michel.



Figure 7: Excavations of the Royal Tombs in the middle of the 20th century AD, Palace of Ras Shamra - Ugarit (Mission of Ras Shamra, Schaeffer archives of the Collège de France).



Figure 8: R. Hafez, director of the restoration workshop of the DGAMS, excavating the precious metal tableware discovered in 1962 in the so-called 'South Acropolis' sector, Ras Shamra - Ugarit (Mission of Ras Shamra, Schaeffer archives of the Collège de France).

enabled thanks to the support of the MAEDI, the Rhône-Alpes region, the Senate, and MOM. The results include the reclassification and repackaging of all the archives, thanks to the mobilization of several members of the mission, as well as the digitization of a large part of the fund, with the aim to create a 'double digital'

and the scientific exploitation of the unpublished documentation.

An enabling environment must be preserved for the future. To the heritage dimension of these operations was added a training component. This work made it

possible to familiarize French and Syrian students (Université Lumière Lyon 2), as well as post-doctoral students, with the archives of a large extra-metropolitan excavation mission and to train them in the practices of digitization, thanks to the support of the IT department of the MOM. The management of the archives was also the subject of several professional master's internships.

Conclusions

Two other aspects, scientific collaboration and valorisation actions, conclude this paper. The first one finds, in particular, a privileged field of application in the literature. The mission focused on the development of the joint excavation reports published in Syria, to include in the *Ras Shamra-Ougarit* (RSO) series the results of archaeological research carried out by Syrian researchers in Ras Shamra and nearby sites, such as Ras Ibn Hani, Tell Al-Shamiyeh, and Sianu (Al-Bahloul in press; Al-Maqdissi 2013; 2012; Al-Maqdissi and Ishaq 2016), and to intensify the translation potential (from French to Arabic and vice versa),¹¹ thus participating in the training of Arabic-speaking students.

Archaeological research, preservation of the heritage, dissemination of knowledge, training, and reflection on the future of a discipline are closely linked – all with the common aim of enhancing heritage and sharing knowledge as widely as possible. In order to meet the growing social demand, there is an increasing number of upgrading schemes for a wider audience. The scope/initiatives of the mission, the responses to external demand, and the frameworks in which they fit and the themes developed are all very varied: publications, conferences, exhibitions, interventions in schools, etc. Two recent examples clearly show the role that synergy plays in a joint archaeological mission within the current context. The first is the conference given in May 2016 at the Louvre, run by the two directors of the mission, on the works undertaken between 2006-2016; and the second is the exhibition *Ougarit, entre orient et Occident. La mission d'Ougarit et son héritage* (Paris, September 2016), initiated by the mission, within the framework of a partnership with the Collège de France, in order to highlight the Schaeffer archives (Matoïan and Römer 2016), and again presented in November 2016 to MAEDI.¹²

Acknowledgments

I welcome the initiative of the organizers of ISCACH Beirut 2015, and thank them warmly for their invitation to participate in this event.

¹¹ See the online version (in March 2015) of the Mission's Arabic version of the latest joint mission report in Syria 2013.

¹² On the occasion of an exhibit marking the 70th anniversary of the 'Commission des fouilles'.

Bibliography

- AL-BAHLOUL, K.
In press Rapport préliminaire sur les travaux de l'équipe syrienne à Ras Shamra-Ougarit en 2012. In: V. Matoïan (ed.), *RSO XXV*. Leuven, Peeters.
- AL-MAQDISSI, M.
2013 Notes d'Archéologie Levantine XXXIX. Rapport préliminaire sur les travaux syriens à Ras Ibn Hani (campagne 2011). In: V. Matoïan and M. Al-Maqdissi (eds), *RSO XXI*: 425-453. Leuven, Peeters.
2012 Note d'archéologie levantine XXVII. Vingt ans de fouilles archéologiques à Tell Sianu dans la plaine de Jablé (1990-2009). In: V. Matoïan, M. Al-Maqdissi and Y. Calvet (eds), *Études ougaritiques II, RSO XX*: 297-315. Leuven, Peeters.
- AL-MAQDISSI, M., CALVET, Y., MATOÏAN, V. and AL-BAHLOUL, KH.
2010 Rapport préliminaire sur les activités de la mission syro-française de Ras Shamra-Ougarit en 2007 et 2008 (67^e et 68^e campagnes), *Syria* 87: 21-51.
- AL-MAQDISSI, M. and ISHAQ, E.
2016 Rapport préliminaire de la première campagne de fouilles à Tell Shamiyeh (Nahr el-'Arab) en 2010. In: V. Matoïan and M. Al-Maqdissi (eds), *RSO XXIV*: 291-310. Leuven, Peeters.
- ANDRE-SALVINI, B.
2016 Charles Virolleaud (1879-1968) et le déchiffrement du cunéiforme alphabétique d'Ougarit à travers sa correspondance avec Claude Schaeffer. In: V. Matoïan and T. Römer (dir.), *Ougarit, entre Orient et Occident*: 22-23. Paris, Collège de France Editions en collaboration avec la Mission archéologique syro-française de Ras Shamra-Ougarit.
- BESSAC, J.-C.
2013 Les roches de construction d'Ougarit : production, façonnage, mise en œuvre. In: V. Matoïan and M. Al-Maqdissi (eds), *Études ougaritiques III, RSO XXI*: 111-141. Leuven, Peeters.
- BORDREUIL, P., PARDEE, D. and HAWLEY, R.
2012 Données nouvelles sur le déchiffrement de l'alphabet et sur les scribes d'Ougarit, *Comptes rendus des séances de l'Académie des inscriptions et belles-lettres*: 1623-1635.
- CALLOT, O.
2013 Le bâtiment 'au trône', un nouveau sanctuaire à Ougarit. In: V. Matoïan and M. Al-Maqdissi (eds), *RSO XXI*: 89-110. Leuven, Peeters.
- 2011 *Les sanctuaires de l'acropole d'Ougarit. Les temples de Baal et de Dagan*. Ras Shamra-Ougarit XIX. Lyon, Maison de l'Orient et de la Méditerranée.
- CARBILLET, A.
2016 De 'l'idole-louche' à 'l'applique murale': retour sur une catégorie d'objet énigmatique découverte à Ougarit. In: V. Matoïan and M. Al-Maqdissi (eds), *RSO XXIV*: 151-228. Leuven, Peeters.
- 2015 Appliques murales d'Ougarit décorées d'une représentation féminine en relief. In: B. Geyer,

- V. Matoïan and M. Al-Maqdissi (eds), *RSO XXII*: 195-212. Leuven, Peeters.
- ERNST-PRADAL, F. and VITA, J.-P.
In press Biographie sur la bilingue RS 15.010. In: V. Matoïan (dir.), *RSO XXV*. Leuven, Peeters.
- 2016 Une enquête paléographique: la tablette bilingue RS 15.010. In: V. Matoïan and T. Römer (dir.), *Ougarit, entre Orient et Occident*: 24-25. Paris, Collège de France Editions en collaboration avec la Mission archéologique syro-française de Ras Shamra-Ougarit.
- GEYER, B. and CALVET, Y.
2013 Le 'pont-barrage' du Nahr ed-Delbé (Ras Shamra-Ougarit, Syrie). In: V. Matoïan and M. Al-Maqdissi (eds), *RSO XXI*: 1-45. Leuven, Peeters.
- GEYER, B., JACOB-ROUSSEAU, N. and CHAMBRADÉ, M.-L.
2016 Géographie d'un royaume levantin. In: V. Matoïan and T. Römer (dir.), *Ougarit, entre Orient et Occident*: 18-19. Paris, Collège de France Editions en collaboration avec la Mission archéologique syro-française de Ras Shamra-Ougarit.
- GEYER, B. and MATOÏAN, V.
2013 Premières observations réalisées sur le puits 3150 du chantier 'Grand-rue' (Ras Shamra-Ougarit). In: V. Matoïan and M. Al-Maqdissi (eds), *RSO XXI*: 47-71. Leuven, Peeters.
- GOIRAN, J.-P., MARRINER, N., LAISNEY, D., GEYER, B. and MATOÏAN, V.
2015 Ras Ibn Hani: 'l'île' d'Ougarit. In: B. Geyer, V. Matoïan and M. Al-Maqdissi (eds), *RSO XXII*: 51-62. Leuven, Peeters.
- JACOB-ROUSSEAU, N. and GEYER, B.
In press *Des paysages du Nord du Levant révélés par les photographies aériennes: l'apport du fonds Claude Schaeffer*. *RSO XXV*. Leuven, Peeters.
- 2016 Lire les paysages depuis le ciel ou comment les géographes restituent les environnements du passé. In: V. Matoïan and T. Römer (dir.), *Ougarit, entre Orient et Occident*: 56-57. Paris, Collège de France Editions en collaboration avec la Mission archéologique syro-française de Ras Shamra-Ougarit.
- LACKENBACHER, S. and MALBRAN-LABAT, F.
2016 *Lettres en akkadien de la 'Maison d'Urtēnu'*. *Fouilles de 1994*. *RSO XXIII*. Leuven, Peeters.
- LAGARCE-OTHTMAN, B.
2016a Une empreinte au nom de Ramsès II trouvée dans le secteur de la 'Maison d'Oourtenou'. In: V. Matoïan and M. Al-Maqdissi (eds), *RSO XXIV*: 155-165. Leuven, Peeters.
- 2016b Les scarabées d'Ougarit: un corpus d'*aegyptiaca* inédit. In: V. Matoïan and T. Römer (eds), *Ougarit, entre Orient et Occident*: 36-37. Paris, Collège de France Editions en collaboration avec la Mission archéologique syro-française de Ras Shamra-Ougarit.
- MARRINER, N., GOIRAN, J.-P. and GEYER, B.
2012 Ancient harbours and Holocene morphogenesis of the Ras Ibn Hani peninsula (Syria), *Quaternary Research* 78: 35-49.
- MATOÏAN, V.
2016a La mission de Ras Shamra-Ougarit aujourd'hui, *Les Nouvelles de l'archéologie* 144 (juin 2016): 38-42.
- 2016b Patrimoine et archives: la mission archéologique de Ras Shamra-Ougarit (Syrie), *Patrimoines* 12 (décembre 2016).
- 2015 Ḥoron et Shed à Ugarit: textes et images, *Ugarit-Forschungen* 46: 235-288.
- 2014 Une statuette ou un vase en forme de déesse-hippopotame dans le Palais royal d'Ougarit, *Syria* 91: 221-245.
- 2013 Ougarit, porte méditerranéenne de l'Asie. In: P. Bordreuil, F. Ernst-Pradal, M. G. Masetti-Rouault, and H. Rouillard-Bonraisin (eds), *Les écritures mises au jour sur le site antique d'Ougarit (Syrie) et leur déchiffrement 1930-2010, Commémoration du quatre-vingtième anniversaire du déchiffrement de l'alphabet cunéiforme de Ras Shamra-Ougarit*: 99-138. Paris, AIBL.
- MATOÏAN, V. (dir.)
In press *Archéologie, patrimoine et archives, Les fouilles anciennes à Ras Shamra et à Minet el-Beida I*. *RSO XXV*. Leuven, Peeters.
- MATOÏAN, V., AL-MAQDISSI, M., HAYDAR, J. and AL-BAHLOUL, K.
2013 Rapport préliminaire sur les activités de la mission archéologique syro-française de Ras Shamra – Ougarit en 2009 et 2010 (69^e et 70^e campagnes), *Syria* 90: 439-478.
- MATOÏAN, V. and RÖMER, T. (dir.)
2016 Catalogue d'exposition: *Ougarit, entre Orient et Occident*. Collège de France-Mission archéologique syro-française de Ras Shamra-Ougarit (15-23 septembre 2016). Paris.
- MATOÏAN, V. and VITA, J.-P.
2014 Wool production and economy at Ugarit. In: C. Bréniquet and C. Michel (eds), *Wool Economy in the Ancient Near East and the Aegean: From the Beginnings of Sheep Husbandry to Institutional Textile Industry*: 310-339. Ancient Textiles Series 17. Oxford, Oxbow Books.
- ROCHE-HAWLEY, C. and HAWLEY, R.
2013 An Essay on Scribal Families, Tradition, and Innovation in Thirteenth-Century Ugarit. In: B. J. Collins and P. Michalowski (eds), *Beyond Hatti: a tribute to Gary Beckman*: 241-264. Atlanta GA, Lockwood Press.
- SAUVAGE, C. and HAWLEY, R.
2013 Une fusaiole inscrite d'Ougarit conservée dans les collections du MAN. In: V. Matoïan and M. Al-Maqdissi (eds), *RSO XXI*: 365-394. Leuven, Peeters.
- VITA, J.-P.
2013 Textile Terminology in the Ugaritic Texts. In: C. Michel and M.-L. Nosch (eds), *Textile Terminologies in the Ancient Near East and Mediterranean from the Third to the First Millennia BC*: 323-337. Ancient Textiles Series 8, Oxford, Oxbow Books.

Archaeological Excavations at Tell Tweini Syrian Mission (Field B)

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Abstract

Archaeological excavations at Tell Tweini between 1999 and 2010 contributed to the discovery of many residential quarters and architectural facilities (temples, workshops, silos and tombs) dating mainly to the Bronze and Iron Ages, and more rarely to the Classical periods. These discoveries helped understand the urban and economic development of the site throughout these ages.

Introduction

Tell Tweini is located in the Jableh Plain in northwestern Syria, 1.7 km northeast of the modern city of Jableh and 1.5 km west of the Mediterranean coast. The site is surrounded by many watercourses that empty into the Mediterranean, such as the Al-Rumaileh River to the north and the Al-Fawar River and Sheikh Hassan Al-Bari Spring respectively to the south and east. The geographical location of the tell and the presence of water sources made it a magnet for settlers since the middle of the 3rd millennium BC.

The tell has a pear-shaped projection, with its head pointing to the west. It covers an area of 11.6 ha, rising up to 26 m above sea level and 15 to 20 m above the surrounding plain.

A joint Syrian-Belgian mission began excavations at Tell Tweini in 1999.¹ The Belgian team worked mainly in the eastern parts of the site, in fields A, C, and D. The Syrian team conducted excavations mainly in Fields B and E located on the western part of the site² (Figure 1).

Archaeological and architectural remains

The results of the soundings conducted in Tell Tweini indicate that the site was established during the middle of the 3rd millennium BC, just like many other archaeological tells within the Jableh Plain (Al-Maqdissi 2008: 223), such as Tell Sianu³ and Tell Iris.⁴

¹ The Syrian-Belgian archaeological mission worked at Tell Tweini from 1999 to 2010. It was directed by M. Al-Maqdissi and M. Badawi on behalf of the Syrian side, and by K. Van Lerberghe and J. Bretschneider for the Belgian project. The author would like to thank M. Al-Maqdissi, co-director of the Syrian team and his colleagues, O. Tounissi, W. Kingarawi, A. S. Sabagh, M. Miqdad, S. Ismail, F. Ayache, S. Zalaf, S. Kobesh, and H. Hayder.

² The Syrian team under the directorship of the present author continued its work in Field E during 2013 and 2015.

³ Tell Sianu is located at the foot of the Coastal Mountain Range, 8 km east of the city of Jableh. A Syrian archaeological mission started working on the site in 1990. For more information on this site, see: Al-Maqdissi 2004; Bounni 1993.

⁴ Tell Iris is located 600 m to the southwest of Tell Sianu. A Syrian archaeological mission started working on the site in 2003. For more

This period saw the rise of the second architectural renaissance in the Near East in vast areas, stretching from the Mediterranean in the west to Iran in the east. Archaeological excavations contributed to the discovery of many architectural features dating mainly to the Bronze and Iron Ages, but also to the classical period. They yielded substantial amounts of data on the cultural and economic development of the site throughout these ages. The results of the excavations done in the sounding in Field B established the following archaeological levels (Table 1):

The Bronze Ages

Excavations showed seven archaeological levels dating to the Bronze Age, the oldest of which date to the Early Bronze Age III and IV (2500-2000 BC). These levels contained many fragments of slipped pottery and comb-incised jars known along the Syrian-Lebanese coast, such as on tells of the Jableh Plain, especially at Tell Sianu (Bounni 1993: 159, nos 4-5),⁵ and at Tell 'Arqa (Thalmann 2006: Pl. 51: 1-11) and Sidon (Doumet-Serhal 2006: photo 21: 74) in Lebanon.

The level dating to the beginning of the 2nd millennium BC was discovered in a sounding in an underground silo in the shape of a bottle constructed with field stones on the natural bedrock. This silo was reused as a tomb during the Middle Bronze Age II, as is attested elsewhere, such as at Tell Amrit (Saliby 1989, Fig. 8: 28). Inside the silo, two skeletons were found with a simple funeral assemblage, consisting of a bronze fenestrated duckbill axe and a large bichrome jug. This pattern of silos reused as tombs was found at many sites along the Syrian coast, such as Ugarit (Schaeffer 1962, Fig. 26: 4.6 and 12: 224) and Tell Sianu (Al-Maqdissi 2004: 111: 84), and in inland Syria, i.e. Mishirfeh-Qatna (Al-Maqdissi and Morandi Bonacossi 2005: 43). The large bichrome jug is also known from central and coastal Syria, from

information on these works, see: Al-Maqdissi and Souleiman 2004.

⁵ For more information on these types, see: Bounni and Al-Maqdissi 1994.

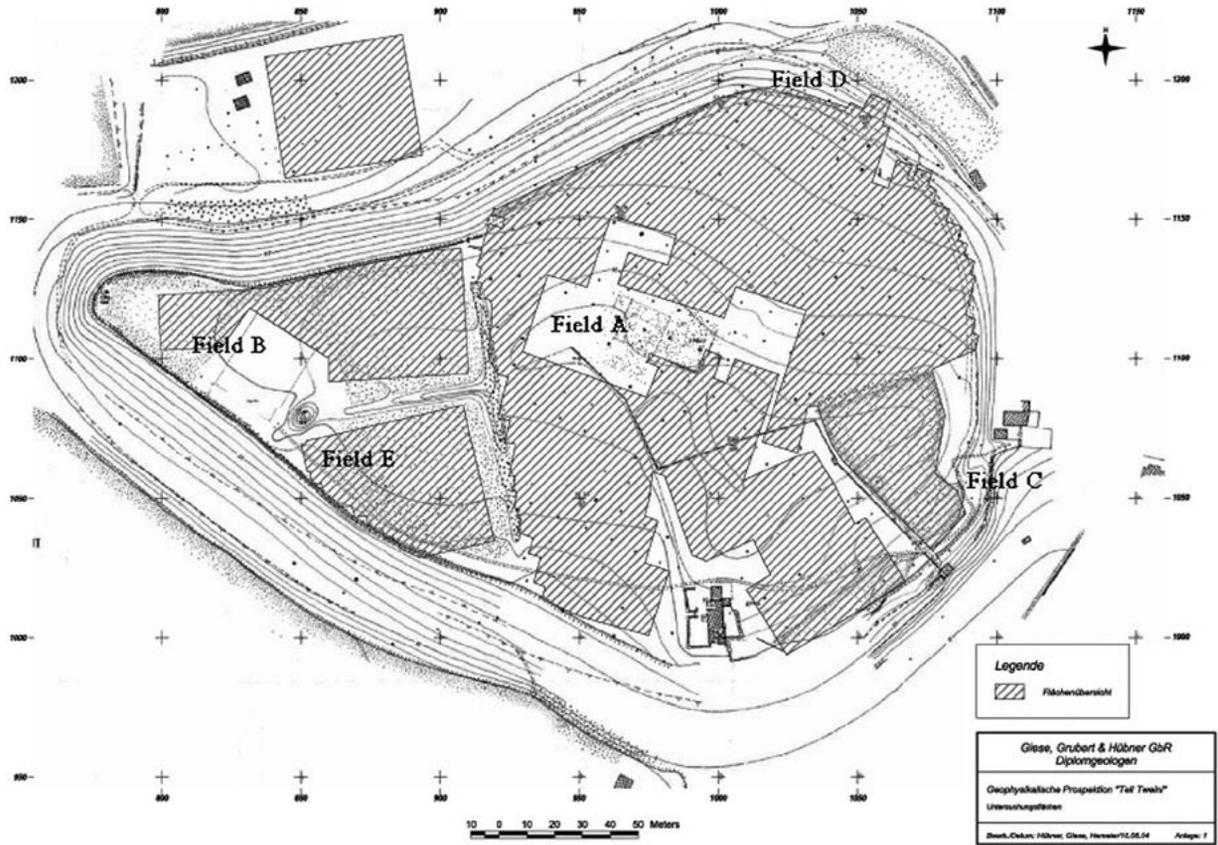


Figure 1: Tell Tweini, excavation fields (© Tell Tweini Mission).

Table 1: Field B Stratigraphy.

Stages	Chronological Period	Level in Field B	Date
Tweini B I	Roof	1	19th and 20th centuries AD
Tweini A I	Roof and individual tombs	2	19th century AD
Tweini II	Byzantine	3	6th and 7th centuries AD
Tweini III	Roman	4	4th century AD
Tweini IV	Hellenistic	5	2nd century BC
Tweini VB	Iron III	6	5th century BC
Tweini VA	Iron III	7	6th century BC
Tweini VI C	Iron II	8	7th century BC
Tweini VI B	Iron II	9	8th century BC
Tweini VI A	Iron II	10	9th century BC
Tweini VII B	Iron I	11	10th century BC
Tweini VII A	Iron I	12	11th century BC
Tweini VIII B	Late Bronze III-II	13	Mid 15th - early 12th centuries BC
Tweini VIII A	Late Bronze I	14	16th - mid 15th centuries BC
Tweini XI B	Middle Bronze II	15	18th - 16th centuries BC
Tweini XI A	Middle Bronze I	16	Early 2nd millennium BC
Tweini X B	Early Bronze IV B	17	22nd - 21st centuries BC
Tweini X A	Early Bronze IV A	18	24th - 23rd centuries BC
Tweini XI	Early Bronze III	19	26th - 25th centuries BC

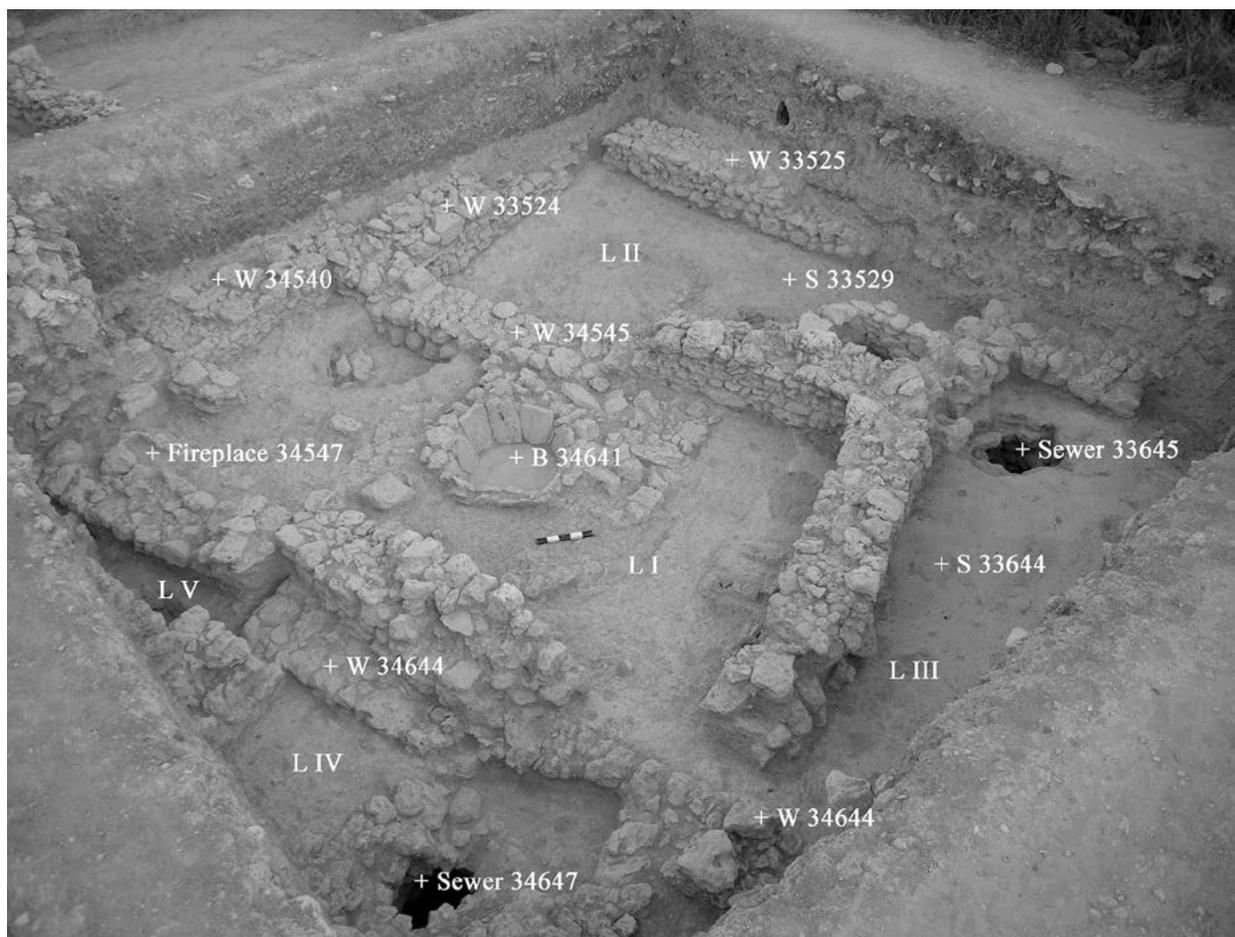


Figure 2: Architecture, Late Bronze Age (Photo M. Badawi).

Mishirfeh (Du Mesnil du Buisson 1927: pl. XIII: 1:82), and Ugarit (Bagh 2003: Fig. 4: K: 228).⁶

A Late Bronze Age level dated to the middle of the 2nd millennium BC (1600-1200 BC) was excavated in the western and southwestern parts of Field B. This level included some simple residential units consisting of an inner yard linked to some rooms and a passage. The floors of some of these rooms were well preserved and were made of ground limestone or soft pebbles with ground limestone and shell powder or packed earth. They were also fitted with a covered water drainage network similar to the one found under many floors of some buildings in Ugarit, especially in the 'Royal Palace' and the southwestern building adjacent to the city's rampart (Al-Bahloul 2015: note 4: 56).

In the southwestern parts of Field B, a weaving workshop was uncovered, which included some stone basins, a water drainage network and a fireplace (Figure 2). It contained numerous weaving tools made of bone and stone, such as loom weights, fibulae and spindle heads. In this level, local and imported Cypriot

pottery was unearthed, most notably vases belonging to the White Slip, Base Ring, and Monochrome wares, in addition to imports from Mycenae and many parts of the Aegean world (Figure 3), as well as some cylinder and biconvex seals, some of which were made of ferrite and steatite (Figure 4). There were also some bronze and hematite weights, as well as some human and animal terracotta figurines. Textual documents from Ugarit refer to Tell Tweini as being under the rule of the kingdom of Ugarit.⁷

The Iron Ages

By the end of the Late Bronze Age, during the 12th century BC, a radical change took place in the area as the 'Sea Peoples' attacked and destroyed the kingdom-city of Ugarit. This attack culminated in the collapse of the kingdom's political and economic systems, which had repercussions on the kingdom's cities and villages. However, the archaeological remains dated to the end of the Late Bronze Age settlement at Tell Tweini are yet to be determined. Therefore, the following question arises:

⁶ For more information on this subject, see: Bagh 2003, Fig. 4: a-g, i, j.

⁷ Astour and Illinois 1981: 5-6, Plan 12. For more information, see: Al-Maqdissi *et al.* 2007: 8-9.

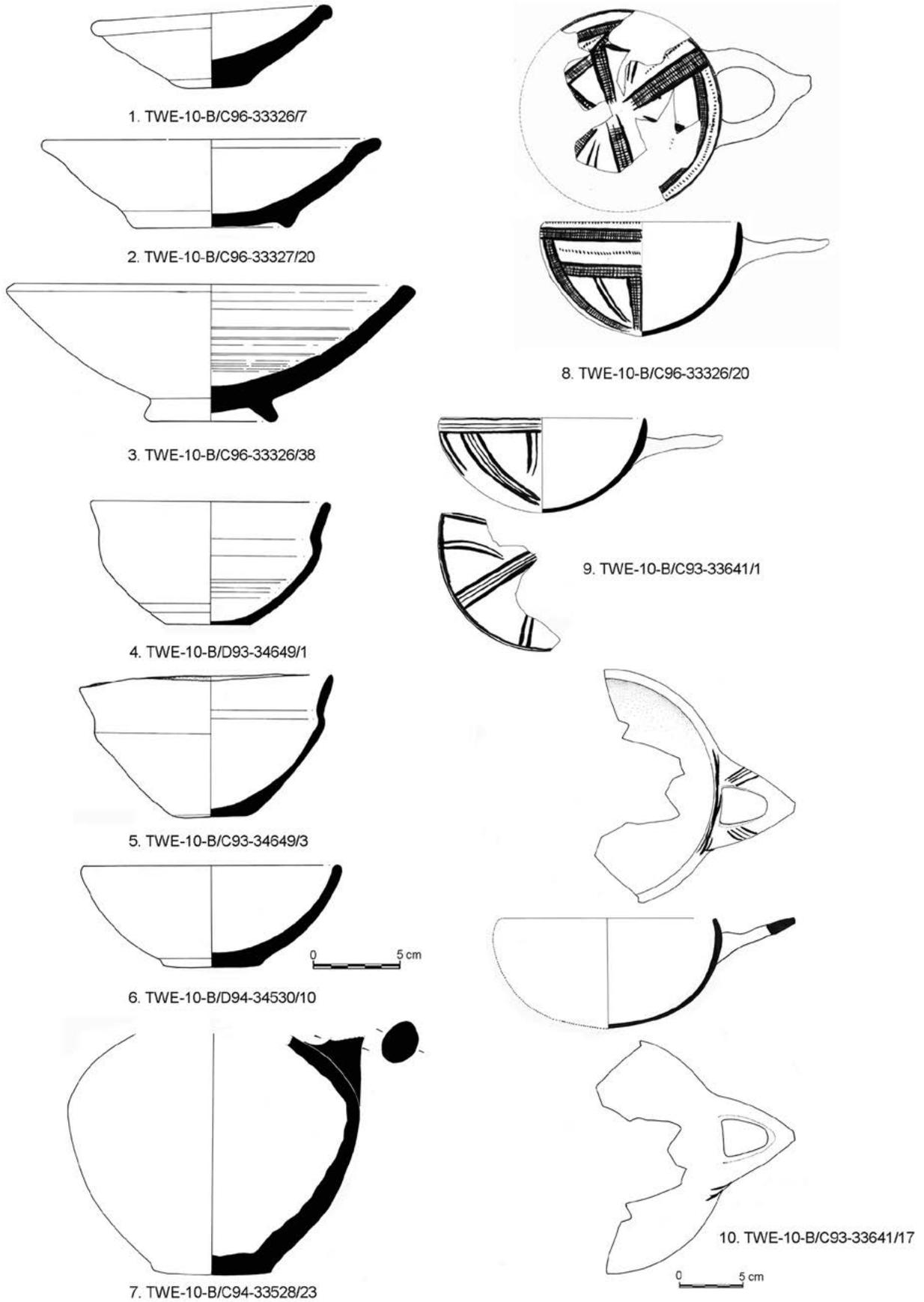


Figure 3: Ceramics, Late Bronze Age (Drawing S. Zalaf and S. Kobesh).

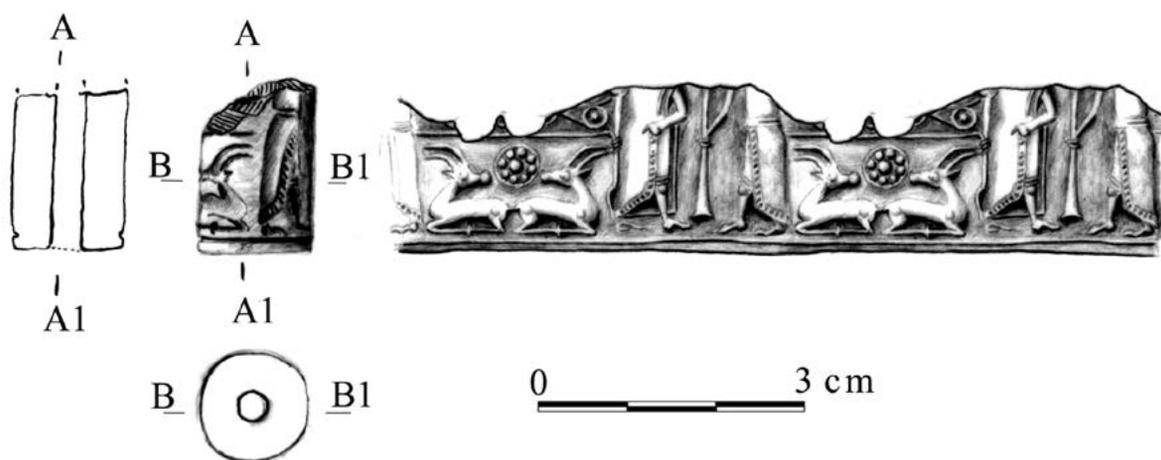


Figure 4: Ferrite cylinder seal (Drawing F. Ayache).

Was the end of settlement at Tell Tweini connected to the events that took place due to the arrival of the 'Sea Peoples' in the area?

Excavations in the northwestern part of Field B uncovered some architectural features dating to the Early Iron Age,⁸ such as a building of a religious function built following the familiar plan of a Syrian temple belonging to customary traditions of Syrian religious architecture known since the middle of the 3rd millennium BC. This temple consists of a rectangular structure, the holiest chamber or cella, which included a simple limestone altar in the centre. To the west there is a rectangular religious service area similar to what was found in the temples of Emar during the Late Bronze Age III.⁹ Around the altar, there was a set of baked clay and mud pots, such as cups of different sizes (Figure 5). There were also small jars with an imprint of a biconvex seal on one of their handles, in addition to a spout belonging to a jug having the shape of a human face.

During the second half of Iron Age I (10th century BC), a transformation occurred in the architectural concept on this side of the tell. Domestic architecture included some simple adjacent habitations which consisted of an internal yard linked to some domestic and service rooms where oil presses, tannours, stone silos and storage jars were found.

Archaeological excavations of the levels dating to the end of the 1st millennium BC uncovered many architectural structures consisting of domestic

buildings and quarters that could be dated to the end of the Iron Age I and to the beginning of Iron Age II. These structures formed parts of the urban context uncovered during excavations and geophysical surveys conducted in 2004 (Al-Maqdissi *et al.* 2007: 4-6)¹⁰ that enabled clear identification of the city's urban plan. This plan consisted of many streets and transversal roads, the most important of which was a central axial street running east-west and ending in Field B. Many secondary roads extended from the main central street,¹¹ linking residential quarters, workshops, monumental public buildings, and sanctuaries.

Many potsherds, showing signs of water erosion and frequent circulation, were piled on the streets.¹² Moreover, animal bones, biconvex seals, scarabs, basalt pestles, sherds of terracotta figurines, and biconvex seal impressions were also recovered.

A number of houses dating to Iron Age II were uncovered. They consisted of a central yard, occasionally paved with river pebbles, where household activities took place – as evidenced by tannours, basalt tripod mortars, pestles, and jars. A number of rooms opening to the yard were used as storage places. Hence, houses from the Iron Age II were distinguished by their similarity with those found in the Iron Age I level. These types of houses continued up until the end of the Iron Age.

A number of olive oil presses were also uncovered, with pressing basins, rubbing tools, basalt pestles, and storage jars (Figure 6).

⁸ It is interesting that the settlement during the 12th and 11th centuries BC did not cover the entire site, but was limited to some separate religious and civil residential units. It was not until the 10th century BC that settlement spread all over the tell once again.

⁹ For more information on this topic, see: Margueron 1991.

¹⁰ Regarding the plan of the survey, see: Bretschneider and Hameeuw 2008: 71: III. 2.

¹¹ One of the side roads was uncovered in Field E during the 2013 and 2015 seasons.

¹² See Fig. 7 in this article (L IV).

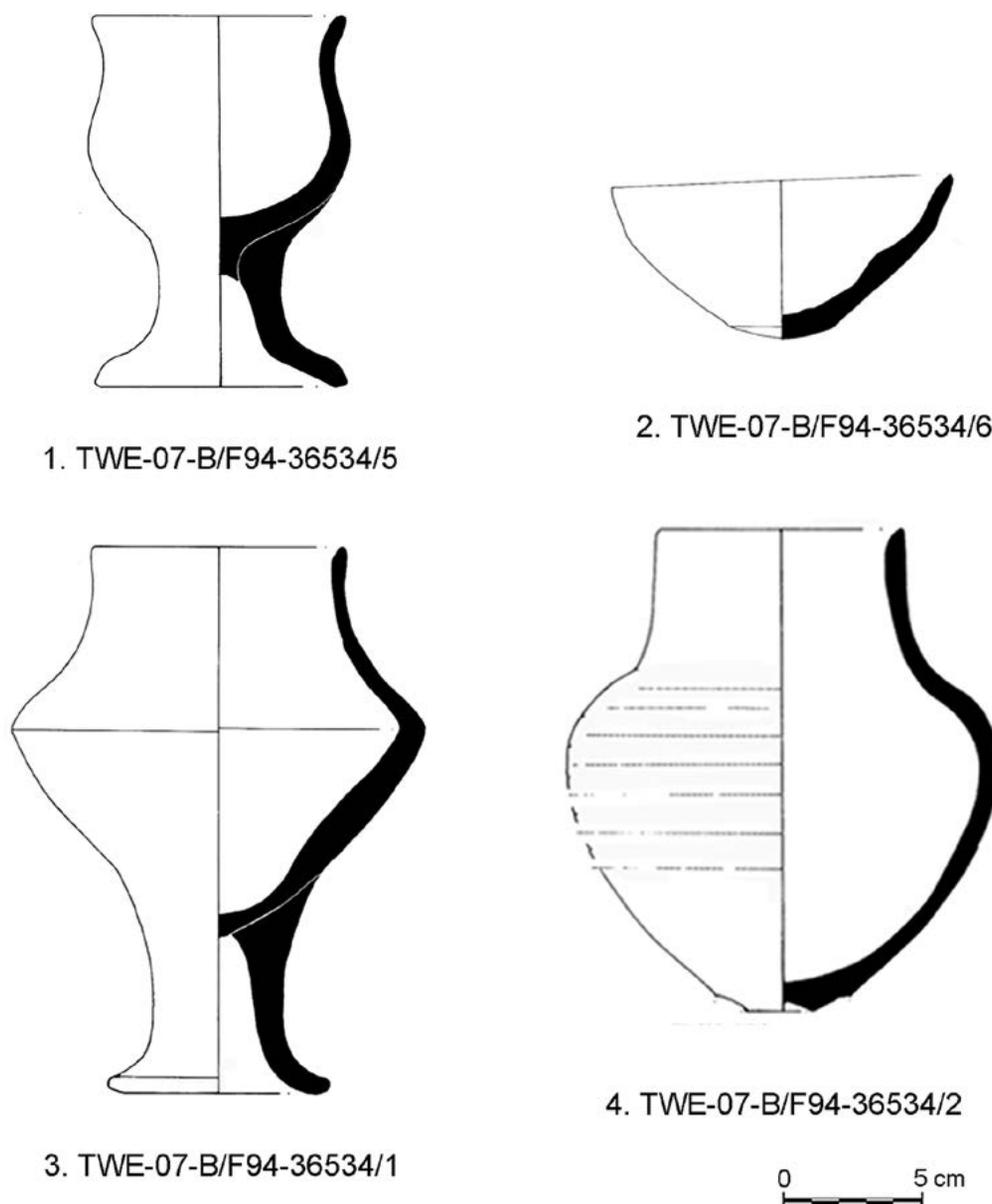


Figure 5: Ceramics, Iron Age I (Drawing S. Zalaf and S. Kobesh).

A weaving workshop was uncovered in the middle of Field B. It contained dyeing basins, deposition canals, floors separated by small low barriers, and many baked clay and mud loomweights, some of which were jar handles reused as loomweights. Similar workshops can be found in Mishirfeh (Badawi 2015: 469-470).¹³ Elsewhere on the site a small weaving workshop was uncovered in Field E. It contained many loomweights, bone fibulae, and a hearth. Apparently, dyeing was done using warm water, as at Mishirfeh (Badawi 2015: 469).

In the northeastern parts of Field B, a pottery kiln was uncovered containing an oval kiln, a basin, and places for gathering the soil used for making the clay paste.

At the beginning of Iron Age III, a development in the urban pattern of the eastern and southeastern parts of the tell is noticeable. A temple was built on the southern side of the main road; it was accessed from the road through a large gate (Figure 7). This gate led to an open inner yard paved with small stones, then to the cella, which had a rectangular plan and a carefully laid out floor. The western part of the cella was destroyed by a Byzantine tomb, inside of which there were a basin and the remains of an altar that was directly connected to the floor. The external yard had also a floor and included a well and a red-slip ceramic basin.¹⁴ A number of terracotta figurines (Figure 8), some biconvex seals,

¹³ See: Morandi Bonacossi 2009: 121-125.

¹⁴ For more information about this temple, see: Al-Maqdissi *et al.* 2004: 60; Al-Maqdissi *et al.* 2007: 9-10.

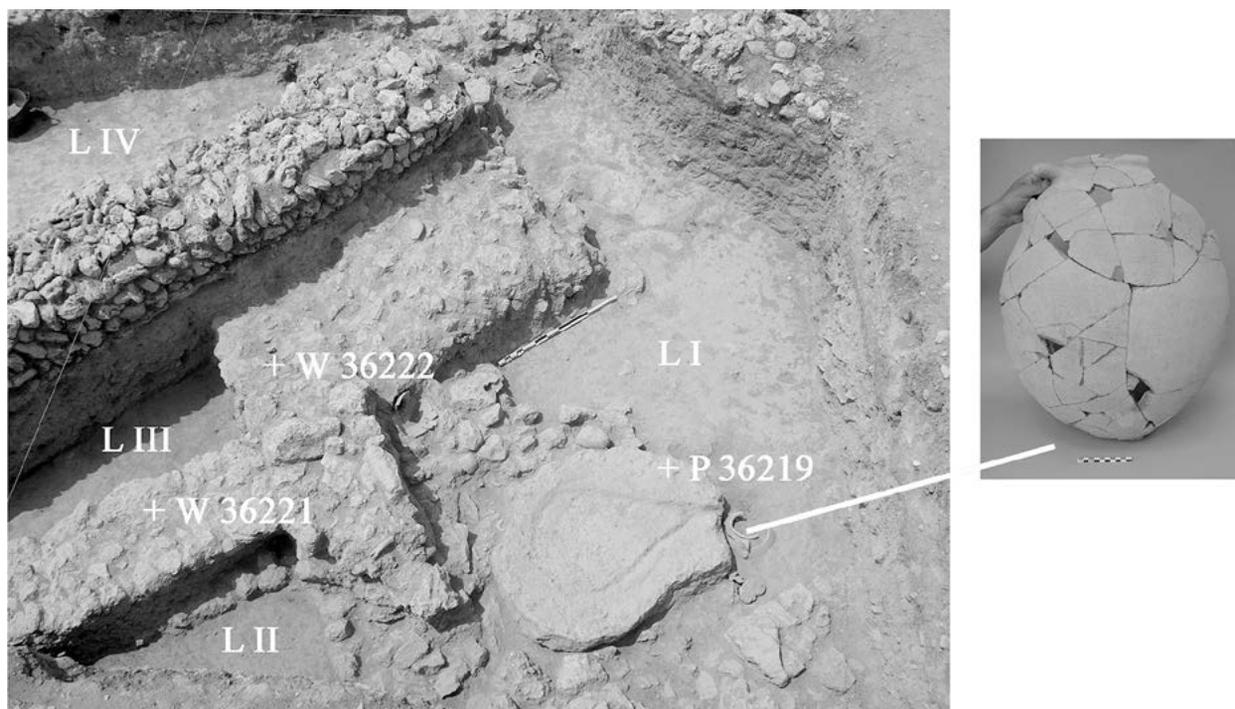


Figure 6: Olive oil press, Iron Age II (Photo M. Badawi).

a number of jars, and some imported Cypriot and Attic pottery were found on the floors of this cultic complex. The northern side of this complex consisted of a simple domestic structure that included some craft activities, in particular olive oil presses and some tannours.

The Classical period

At the end of the Iron Age, Tell Tweini witnessed a certain recession when settlement shifted mainly towards the town of Jableh/*Gabala*, which flourished during the Hellenistic¹⁵ and Roman¹⁶ periods. However, excavations in the southwestern side of Field B yielded some architectural elements that date back to the Hellenistic and Roman periods consisting of agricultural features, in addition to a well and simple platforms.

The Byzantine period

A small farm dating to the Byzantine period was uncovered. It consisted of a house with preserved foundations and three rooms of various sizes, and a wine press in its southern part. The wine press consisted of two basins of different sizes, paved with mosaics and leaning towards the centre of the basin, forming a small

basin to collect the pressed juice. Next to them, in the northeastern part, there was a well built with stones and preserved to a depth of 9.5 m.

A collective tomb was uncovered some 6.5 m from the wine press. It had a rectangular shape and was built with stones. Inside this tomb, the remains of 18 skeletons were found, along with some baked clay lamps and bronze and bone fibulae.¹⁷

At the end of the Byzantine period, the tell was completely abandoned and turned into farming land, with some individual tombs dating to the 19th century AD placed randomly over it.

Conclusion

Based on these archaeological data, the significance of the site of Tell Tweini, located on the southern limits of the kingdom of Ugarit, is ascertained. The archives of Ugarit mentioned many names of important cities and villages on the southern borders of the kingdom, such as Atallig and the kingdom of Sianu (Astour and Illinois, 1981: 5-6). The archaeological results found at Tell Tweini stand as a witness to the significance of this site, having a direct connection with the sea, through the Al-Rumaileh River to the north of the site, which can be considered as the border between the kingdom of Ugarit and the kingdom of Sianu.

¹⁵ During the Hellenistic period, Jableh was an important mint city on the Syrian coast. For more information on the city's coins, see: Duyrat 2002.

¹⁶ Modern discoveries dating to the Roman period confirm the flourishing state of the city, especially with regard to the theatre, baths, and cemeteries.

¹⁷ For this level, see: Badawi, in press.

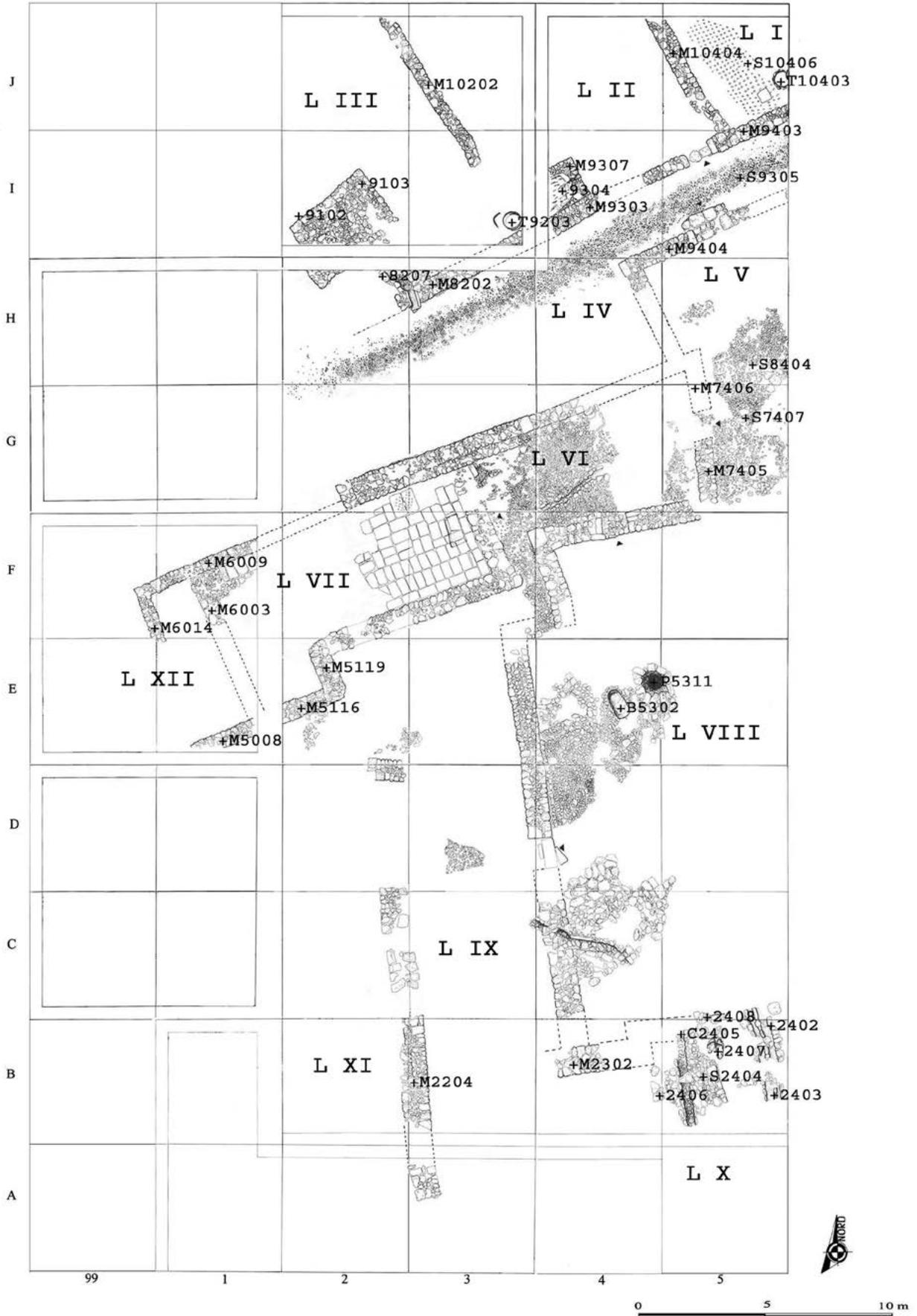
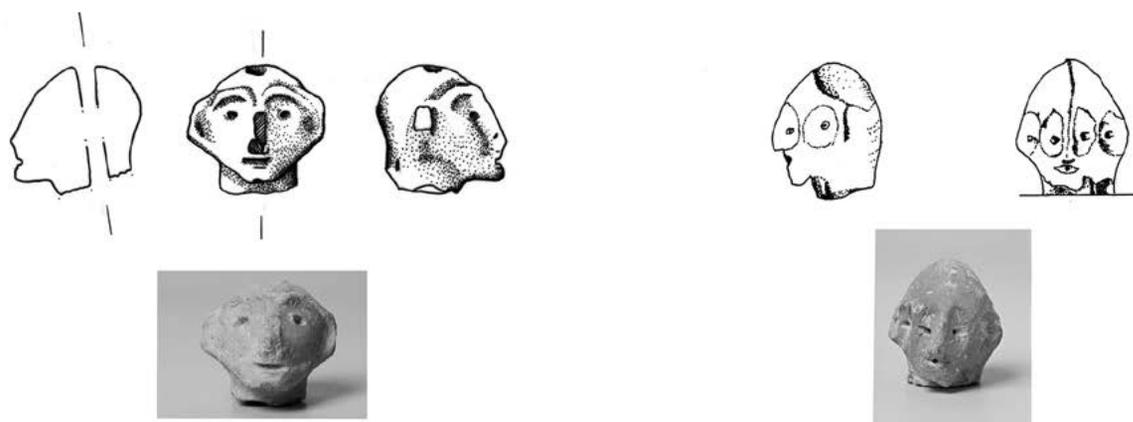
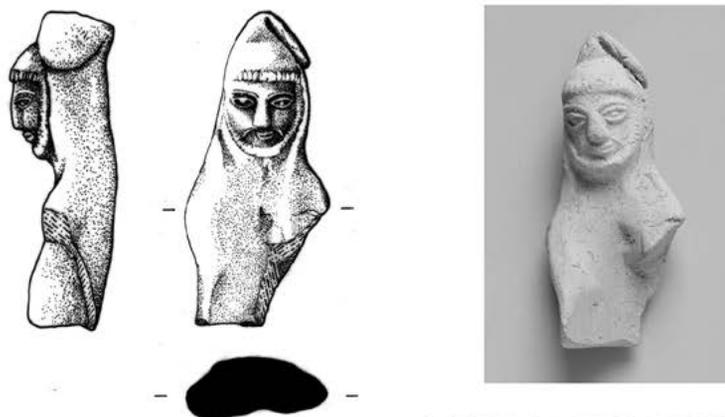


Figure 7: Plan of the temple (Tweini VB) (Drawing F. Ayache, S. Ismail, and S. Saleh).

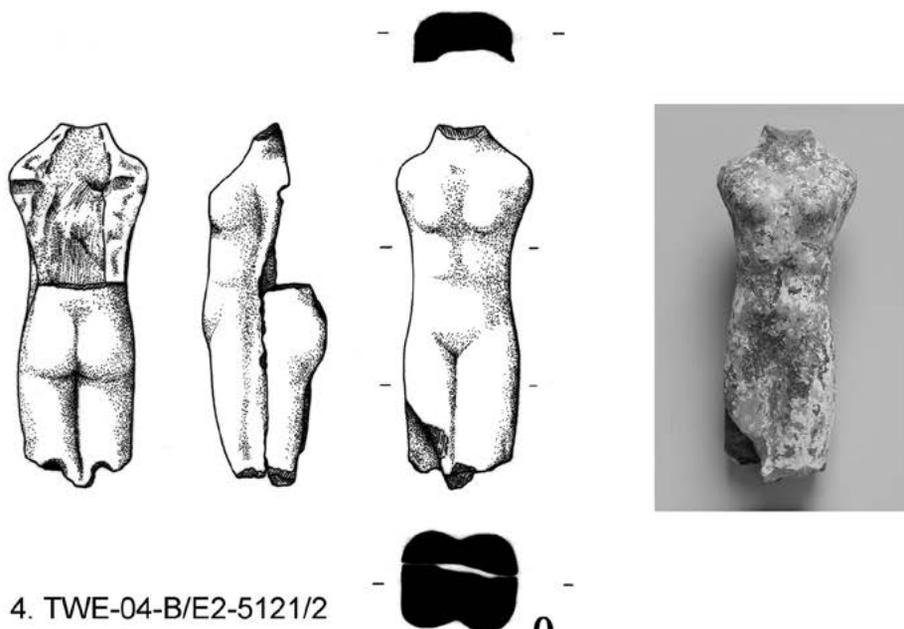


1. TWE-04-B/I4-9314/1

2. TWE-02-B/E99-36007/M1



3. TWE-04-B/E2-5121/3



4. TWE-04-B/E2-5121/2

Figure 8: Terracotta figurines (Photos M. Badawi; Drawings F. Ayache).

Bibliography

- AL-BAHLOUL, KH.
2015 Preliminary report on the works of the Syrian mission in Ras Shamra-Ugarit, season 2012, *Syria* VII: 41-57.
- AL-MAQDISSI, M.
2008 Notes d'archéologie levantine XIV. Les premiers niveaux de la séquence stratigraphique du chantier B de Tell Sianu (plaine de Jablé), *Syria* 85: 223-228.
2004 Tell Sianu. In: G. Galliano and Y. Calvet (eds), *Le royaume d'Ougarit aux origines de l'alphabet*: 110-112. Paris/Lyon, Musée des beaux-arts.
- AL-MAQDISSI, M., LERBERGHE, K. V., BRETSCHEIDER, J. and BADAWI, M.
2004 Tell Tweini. In: G. Galliano and Y. Calvet (eds), *Le royaume d'Ougarit aux origines de l'alphabet*: 60-61. Paris/Lyon, Musée des beaux-arts.
2007 *Tell Tweini. Onze campagnes de fouilles syro-belges (1999-2010)*. Paris, Document d'Archéologie Syrienne X.
- AL-MAQDISSI, M., BRETSCHEIDER, J., DEGRYSE, P., HAMEEUW, H., KANIEWSKI, D., PAULISSEN, E., VAN SIMAEYS, S. and VAN LERBERGHE, K.
2007 Environmental Changes in the Jebleh Plain (Syria), Geophysical, Geomorphological, Palynological, Archaeological and Historical Research, *Res Antiquae*: 3-10.
- AL-MAQDISSI, M. and MORANDI BONACOSSO, D.
2005 *The Metropolis of the Orontes Art and Archaeology form the Ancient Kingdom of Qatna, Seven Years of Syrian-Italian Collaboration at Mishréfeh/Qatna*. Damascus, Ministry of Culture.
- AL-MAQDISSI, M. and SOULEIMAN, A.
2004 Tell Iris. In: G. Galliano and Y. Calvet (eds), *Le royaume d'Ougarit aux origines de l'alphabet*: 64. Paris/Lyon, Musée des beaux-arts.
- ASTOUR, M. and ILLINOIS, E.
1981 Les frontières et les districts du Royaume d'Ugarit. *Éléments de topographie historique régionale, Ugarit-Forschungen* 13: 1-12.
- BADAWI, M.
2015 Le quartier artisanal nord-est de l'âge du Fer II à Mishréfeh (chantier O). In: Peter Pfälzner and Michel Al-Maqdissi (eds), *Qatna and the Networks of Bronze Age Globalism*: 467-475. Wiesbaden, Harrassowitz.
- BAGH, T.
2003 The Relationship between Levantine Painted Ware, Syro/Cilician Ware and Khabur Ware and the Chronological Implications. In: Manfred Bietak (ed.), *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium B.C.*, II: 219-237. Wien, Verlag der Österreichischen Akademie der Wissenschaften.
- BOUNNI, A.
1993 Syrian Excavation Works at Tell Sianu, *Reviews of Historical Studies* 45-46: 151-164 (in Arabic).
- BOUNNI, A. and AL-MAQDISSI, M.
1994 La céramique peignée à la lumière des fouilles syriennes à Tell Sianu. In: P. Calmeyer, K. Hecker, L. Jakob-Rost, and C. B. F. Walker (eds), *Beiträge zur Altorientalischen Archäologie und Altertumskunde, Festschrift für Barthel Hrouda zum 65. Geburtstag*: 19-29. Wiesbaden, Harrassowitz.
- BRETSCHEIDER, J. and HAMEEUW, H.
2008 Urban Development at Tell Tweini. In: J. Bretschneider and K. Van Lerberghe (eds), *In Search of Gibala*: 69-73. AuOr, Suppl. 24. Barcelona, Sabadell.
- DOUMET-SERHAL, C.
2006 *The Early Bronze Age in Sidon: Colledge Site Excavations (1998-2000-2001)*. Bibliothèque archéologique et historique 178. Beyrouth, IFAPO.
- DU MESNIL DU BUISSON, R.
1927 *Les Ruines d'El-Mishrifé au nord-est de Homs (Émèse). Première campagne de fouilles à Qatna (1924)*. Paris, Publications de la société française des fouilles archéologiques.
- DUYRAT, F.
2002 Les ateliers monétaires de Phénicie du Nord à l'époque hellénistique. In: C. Augé and F. Duyrat (eds), *Les Monnayages Syriens: Quel apport pour l'histoire du Proche-Orient hellénistique et romain ? Actes de la table ronde de Damas, 10-12 novembre 1999*: 21-69. Bibliothèque archéologique et historique 162. Beyrouth, IFAPO.
- MARGUERON, J.-C.
1991 Sanctuaires sémitiques, *Supplément au dictionnaire de la Bible* 11: 1104-1258.
- MORANDI BONACOSSO, D.
2009 Continuity and change in the town planning and material culture of Iron Age II and III Mishréfeh, Central Syria, *Syria* 86: 119-132.
- SALIBY, N.
1989 'Amrit. In: J.-M. Dentzer and W. Orthmann (eds), *Archéologie et Histoire de la Syrie II. La Syrie de l'époque achéménide à l'avènement de l'Islam*: 19-30. Saarbrücken, Saarbrücker Druckerei und Verlag.
- SCHAEFFER, C. F.-A.
1962 *Ugaritica IV. Découvertes des XVIII^{ème} et XIX^{ème} campagnes, 1954-1955, fondements préhistoriques d'Ugarit et nouveaux sondages, études anthropologiques, poteries grecques et monnaies islamiques de Ras Shamra et environs*. Bibliothèque archéologique et historique LXXIV. Paris, Geuthner.
- THALMANN, J.-P.
2006 *Tell Arqa-I. Les niveaux de l'âge du Bronze*. Bibliothèque archéologique et historique 177. Beyrouth, IFPO.

Archaeological Site of Amrit. Excavation Results, Seasons 2003-2011

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Abstract

Amrit is located c. 7 km south of Tartous and nearly 700 m east of the Mediterranean Sea. A small river known as Nahr Amrit or Nahr Marathus crosses the city, which spreads over an archaeological area of about 6 km². The city of Amrit is situated near a tell located to the east of the temple.

Amrit was mentioned in the Egyptian texts of Tell Al-Amarna under the name 'Qarat Amrout' or 'Amraath'. It was one of the 14 cities mentioned by Thutmose III (1504-1450 BC) in his campaigns to the Levant. The name 'Qarat Amrout' is a Semitic name which means 'Date City' or 'Palm City'. The name 'Omorto' in Aramaic means the inhabited land. The historian Arianus, who lived during the time of Alexander the Great, mentioned Amrit under the name of 'Marathos'.

Amrit belonged to the kingdom of Arwad. Archaeological excavations established that the city was founded towards the end of the 3rd millennium BC. It gained a prominent strategic status after the collapse of Ugarit. At the same time, the island of Arwad became the new leader of the northern Syrian coast, dominating all the ports and the maritime trade. Amrit benefited from the new leadership of Arwad and became one of the elite main cities on the eastern coast of the Mediterranean. Amrit flourished in the period between the 12th and 13th centuries BC, during what is known as the golden era of the Phoenician city, as described by classical authors such as Homer and in the Assyrian texts. The city controlled international commercial exchanges all over the Mediterranean and maintained relations with the emerging Greek kingdoms and other cities located east of it.

Amrit played a significant role during the conquest of Alexander of Macedonia (the Great), especially during the battle of Issus in 333 BC opposing the Macedonian king with the army of the Persian king, Darius. The importance of this battle was documented by the historians of Alexander, and Amrit was mentioned as follows: 'It is an extremely flourishing city; probably one of the biggest cities of the East. Alexander the Great spent considerable time in it as he found it to be large and prosperous and it was in it that he received the envoys of the Persian King Darius.'

In 219 BC, Amrit gained independence from Arwad, which led to its destruction at the hands of the

Arwadians in 148 BC, as narrated by Diodorus of Sicily. Strabo described Amrit as a ruined city whose land was levelled by the Arwadians. The 1992 excavations revealed that Amrit lost its status towards the beginning of the first Roman Period, but restored its glory towards the end of this era and throughout the Byzantine period. The city was afterwards abandoned and the Crusaders started to use the stones of its monuments for building the defences of many cities, such as Tartous and Arwad.

Amrit was visited by many travellers, for instance H. Maundrell in 1697 and E. Pococke in 1745. The French archaeologist E. Renan undertook some excavation works in 1860. M. van Berchem and E. Fatio documented the site with photographs and sketches. In 1926, M. Dunand excavated the 'warehouse of sanctities'. Excavations of the site continued by the Directorate General of Antiquities and Museums (DGAMS) from 1954 until today (Figure 1).

Archaeological landmarks in Amrit

The Temple

Amrit's temple is considered today to be the main landmark of the site. It is located in the western side of the tell, 2 km from the coast. To the north of the temple runs Nahr Marathus or Nahr Amrit, and to the east a spring pours into the sacred lake, dated to the end of the 5th century BC. The temple is built of squared rocks and is composed of a sacred spring, a cella, and a courtyard. The spring can be accessed through a large entrance fitted with a staircase, where the water gushes out. Springs are vitally important features in ancient religious traditions. The water pours out of the sacred spring through the eastern wall of the courtyard and is used for domestic and drinking purposes. The water surrounds the cella, located in the centre of the courtyard, which contains a statue of the god Melqart, the god of healing. The cella is decorated with Egyptian-styled crenellations and eaves. The sacred spring and the cella are surrounded by a rock-covered courtyard,



Figure 2: The Temple of Amrit (© Youssef).

thanks to a coin found during excavations by E. Renan, recent studies suggest that its construction may have occurred earlier (Figures 3-4).

The Sacred Spring - The Water Channel - The Harbour

The sacred spring is located c. 550 m to the southwest of the temple. It is called 'the Spring of Life' or 'Al-Hayyat', a name given to it by the locals on account of the Egyptian-influenced ornamentation of Uraei in the cella, featuring also a hawk and a winged sun and dating possibly to the Persian era. The water of the sacred spring pours into a giant water channel built with medium- and large-sized rocks and covered with slabs. The majority of these slabs have disappeared today (Figure 5). The water flows north, then west, until it reaches the Amrit harbour. The harbour, located south of Nahr Marathus, is nowadays filled with sand and reeds. The 1992 and 1993 excavations revealed many of its rock structures, confirming thus its location. Archaeological evidence showed that the harbour was particularly active during the 5th and 4th centuries BC.

Rock-carved (Religious) House

This feature is a religious and funerary building containing decorations that date to the 6th and 5th centuries BC. The house is cut into the rock and has a façade fitted with two entrances opened in the rock, located 2 m above ground level (Figure 6). The interior of the façade is decorated with a number of niches. Two large niches on the exterior of the eastern façade

are decorated with symbolic ornamentation similar to what is commonly found on Phoenician headstones dating to the 1st millennium BC.

Necropolis ('The Spindles' or Maghazel)

The *Maghazel* are tombs for the kings and wealthy inhabitants of Amrit or Arwad. They date to the 6th and 5th centuries BC and feature two types. The first type has a pyramidal shape, built on a cube-shaped base topped with a cylindrical tower rising as a pyramid. The entrance is fitted with steps and cut into the rock. Individual graves (*loculi*) are located on the two sides of the entrance. Facing the entrance are two openings leading to two consecutive chambers. The first contains *loculi*, while the second is a platform prepared to receive the tomb of the head of the family. The second type is built on a circular pillar and is decorated on the outside with four circularly-curved lions, and capped with a dome. The entrance of this tomb is composed of steps and a medium-sized platform that lead to the front of the first chamber containing six sarcophagi. The first chamber leads directly to a second funerary chamber, probably reserved for the owner of the tower (Figure 7).

Azar cemeteries

The Azar cemeteries are located 2 km north of Amrit, stretching over an area of c. 12 ha. Their position facing Arwad Island suggests that these cemeteries must have belonged to the Arwadians. The occupation of this necropolis extends over several periods, from the



Figure 3: The stadium of Amrit (© Youssef).



Figure 4: View of the bleachers of the Stadium (© Youssef).



Figure 5: Water channel built with medium and large sized rocks (© Youssef).



Figure 6: House cut into the bedrock (© Youssef).



Figure 7: Funeral towers of Amrit (© Youssef).



Figure 8: Burial in the Azar cemetery (© Youssef).

Phoenician to the Roman eras. Only a very small area of it was excavated, revealing patterns of collective (family) and individual burials. One of the burials is a family tomb built directly on the bedrock using carefully cut stones. It is closed with a stone door pierced at the top to lift it up at burial events. Inside, four steps lead to a square space surrounded by three levels of *loculi*, each containing three sarcophagi made of wood, lead, or terracotta. This burial dates to the 5th century BC (Figure 8). In addition, a number of exquisite and elaborately executed terracotta or marble, human-shaped sarcophagi were found, indicating a clear Egyptian and Palmyrenian influence.

Tell Amrit

The tell, c. 17 m high, that overlooks the temple is considered the residential area of the ancient city. Several excavation seasons were conducted there,

resulting in the identification of the chronological occupation sequence. Installations dated to the 5th and 4th centuries BC were recorded, as well as older levels dating to the Early (2150-2000 BC) and Middle Bronze Ages (c. 1750-1350 BC) (Figure 9).

2003 Excavation Results

Abou Houfssah Cemetery

The 2003 excavations revealed a wine press, five individual tombs, and a small cemetery. The most important discovery was the rock-carved cemetery called the 'Abou Houfssah Cemetery', after the nearby modern village of Abou Houfssah located 200 m east of the Amrit Stadium. Excavations took place on the right side of the modern road going from Tartous to Tripoli. The site was discovered after wine press installations, covering an area of c. 150 m², were identified in rock



Figure 9: Excavations in Sector A in 2011-2012 (© Youssef).

outcrops. Upon the removal of debris on the east side of the rocky area a cavity in the shape of a small niche was unearthed. Usually designed to store grave headstones, the niche appeared to be painted, as attested by a limestone layer covered with a red-brick colour. The clearing of the entire area uncovered an oval cavity closing a huge space leading via a staircase to the cemetery.

Ten steps cut into the rock form the entrance, leading to a stone door closing a rectangular tomb. Behind the door, three steps lead to a rectangular-shaped room composed of multi-storey *loculi* covering all sides of the room. Some of the *loculi* were prepared for burials without coffins, while others included coffins made of terracotta or lead. The room has a platform leading to the coffin chamber, which has a stone façade with a white limestone arch carried by four columns. The two central columns are cylindrical, while the other two, placed on each side of the central columns, are square-shaped. Two smaller cylindrical columns feature the bust sculptures of a man and a woman.

The coffin chamber lies behind the stone façade and includes three limestone sarcophagi with their lids. The U-shape disposition of the sarcophagi, each placed along one side of the hall, creates an open space that allows free movement and probably facilitates visiting the tombs and performing rituals. The sarcophagus facing the entrance is decorated with three sculpted ox heads: two in the corners and one in the centre. The heads are connected with wreaths of bay leaves. The first wreath connects one ear of one ox at the corner to the ear of the ox in the centre. The second wreath starts from the other ear of the ox in the centre to the ear of the ox at the other corner. The wreath has a central knot in the shape of a flower and another in the shape of an eagle. Within the wreath, there is a sculpture of men and women wearing clothes resembling to a great extent Palmyrenian clothes of the Late Roman period. On top of the tomb there are candle holders, most probably lighted during rituals, made of sea shells and fixed with metal to the stone.

The walls, the *loculi* covers, and the columns are painted in fresco using green, red-brick, black, and pale-yellow colours. The frescoes covered all the walls. However, what is left of them are only some geometric figures and vegetal and animal shapes, such as circles, flowers, fish, birds, etc. Many findings were discovered in the cemetery, such as ceramic oil lamps, gem stones, and gold objects. But the most important ones were the two above-mentioned sculpted busts of a man and a woman. These sculptures were placed on two marble columns, the man on the right and the woman on the left, in front of the façade overlooking the rectangular-shaped room. Each bust had a cylindrical-shaped base allowing it to be placed easily on the column. The woman seems

to wear a Roman costume and her facial features and hairstyle indicate a Roman style. The man, who might be a local ruler, is bare-chested and has local, oriental features, with a beard and slight moustache.

The archaeological finds, the bulk of them belonging to the 3rd century AD, confirm the chronology of occupation of the tomb. The cemetery was built during the Phoenician era, around the 5th century BC. It was then reused during the Late Roman period, i.e. towards the end of the 3rd century AD.

2011-2012 Results

The Fifth Zone

The Syrian team excavated for two consecutive seasons the fifth zone, located c. 500 m to the west of the Amrit Temple. The zone was divided into a number of sectors. Work was carried out for a brief period in Sector A. A second sector was then excavated, although two seasons were not enough to determine the nature of the unearthed remains and their relation to the already discovered structures. However, the obtained results offer us a good vision of the importance of the installation if we take into consideration the unearthed architecture and the finds. The most important discoveries are summarized below:

- Architectural features corresponding to the foundation of interconnected walls revealed a building of a yet unidentified function (Squares A4, A5, and A6). Remains date to several periods, however the most important are the walls, built on a thick (40 cm) layer of sand and dating to the 7th and 6th centuries BC.
- A collection of finds, including bronze and clay figurines and a remarkable eye-shaped gem, belonging probably to a statue offered to a god. The gem had cuneiform signs, two of them representing the starting and ending signs of the word 'god.' The other signs are still under study. Once completely deciphered, this gem will offer a significant glimpse of Amrit during ancient times.

The Second Zone

Excavations in this zone gave important results on the nature and chronology of the settlement, starting from the Mameluke period until the end of Iron Age III (Late Phoenician period). Work was carried out by dividing the zone into two eastern and western fields. The most important results in the eastern field were found in squares O22, O23, O24, P22, and P23. Excavations revealed two archaeological strata. The first includes three layers: 1) a layer of soft marine sand; 2) a layer of rocky sand; 3) a layer of tombs (cemetery).

Within the cemetery, 28 tombs were discovered. They belonged to two types: a rectangular-shaped structure made of sandy rocks, and a type corresponding to a hole dug into the natural, rocky sand, with no cover or any prominent features. These tombs were covered with sand.

Several internment styles were distinguished within the tombs, including: lying on the stomach; lying on the back, head towards the north; lying on the back, head towards the south; and lying on shoulders, head towards the south.

This cemetery dates to the classical period. It was used during Hellenistic and (mostly) in Roman times. Comparing and contrasting the burial styles, it seems that the burial styles relate to Phoenicians traditions that persisted until the Roman period.

The second stratum (wine press)

Revealed within this stratum is the wine press which is a unique structure to be discovered so far on the Syrian coast. The wine press consists of two parts: 1) a rectangular-shaped chamber built with compact soil mixed with small rocks. The walls are covered with a limestone plaster connected to a limestone floor forming a continuous layer covering the walls and the floor; and 2) a semi-circular basin, 15 cm deep, made of

limestone and fine gravel mortar. At the centre of the basin a second basin, 1 m deep, is directly connected to a channel coming from the chamber and directly pouring the grape juice obtained by crushing the grapes using a stone roller.

The study of the pottery discovered in the wine press was studied by K. Al-Bahloul, who dated this installation to the Phoenician period/Iron Age III, or to the 6th and 5th centuries BC.

Selective Bibliography

- DUNAND, M. and SALIBY, N.
1957 Preliminary report on Amrit excavations in 1955, *Annales Archéologiques Arabes Syriennes* 6: 90-93.
- DUNAND, M., SALIBY, N. and KIRSHAN, A.
1956 Amrit Excavation in 1954: A preliminary report, *Annales Archéologiques Arabes Syriennes* 4/5: 171-179.
- HAYKAL, M. R.
1996 *Amrit and Settlement Nature in the Akkar Plain*. Damascus, Ministry of Culture.
- SALIBY, N.
1989 Amrit. *Archéologie et Histoire de la Syrie II*. In: J.-M. Dentzer and W. Orthmann (eds), *La Syrie de l'époque achéménide à l'avènement de l'Islam*: 19-30. Saarbrücken, Saarbrücker Druckerei und Verlag.
- 1984 *Amrit: Southern Tartus*. Damascus, Ministry of Culture.

Raqqa/Deir Ez-Zor

Resafa-Sergiupolis/Rusafat Hisham. Pilgrim City and Caliphal Residence.

A Multidisciplinary Approach for Reconstructing the Development of the City

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Abstract

Based on previous research of the 1980s a comprehensive project on Resafa-Sergiupolis was launched in 2006. The results of a multidisciplinary approach with five sub-projects provided us with a basis to reconstruct the development of the pilgrimage city of Saint Sergius and the caliphal residence of the Umayyad caliph Hisham bin 'Abd Al-Malik, to the last reoccupation of the site in the Ayyubid period and the foundation of a small village.

Resafa lies about 25 km south of the Euphrates at the edge of the Syrian Desert steppe. After having initially been a Roman *limes castrum* (Konrad 2008; 2001), it developed into a pilgrimage place of great importance in the 4th century AD. It was devoted to Saint Sergius, who was said to have suffered martyrdom there around 312 AD (Fowden 1999: 8-17, 60-100, 130-173). In the 5th and 6th centuries AD, the town grew into a fortified city surrounded by massive walls, with several large churches and infrastructure facilities, including water supply and storage that served the needs of the residents and pilgrims. The outlines and remains of the city are still recognizable today (see Brands 2002; Sack *et al.* 2013; Ulbert 2008). The Marwanid Caliph Hisham bin 'Abd Al-Malik (reg. 105 H./724-125 H./743 AD) established his main residence, consisting of several palaces and ancillary buildings, in the environs to the south of the city. The residence was presumably abandoned in the middle of the 2nd H./8th century AD century after the Umayyad reign had ended (Kellner-Heinkele 1996: 134; Sack 1996: 38; Sack *et al.* 2004: 207-232, esp.: 210, note 18) although parts of the residence, however, were later reused or built over (Gussone and Müller-Wiener 2012: 569-584). In addition to that, Hisham erected his Great Mosque on the site of the destroyed northern part of the northern courtyard directly adjoining Basilica A (Sack 1996). The reliquary chapel in the pilgrimage church – located in the northern side room of the apse of Basilica A (Ulbert 1986) – could still be reached from the Great Mosque via a connecting door. This was an indication that Saint Sergius was venerated by Christians and Muslims alike (Fowden 1999: 174-183; Sack 1996: 8, 155-156). The city, as well as parts of its surroundings, remained in use until the 7th H./13th century AD, when it was finally

abandoned as a consequence of the Mameluke rollback after the Mongol invasion (Ilisch 1996: 111-132). Since the 1950s, the modern village of Resafa, the last level of settlement, has arisen on the south side of the city; the descendants of the first guard of the excavation site live there today (Figure 1).

The city has been the subject of archaeological research for over 100 years. Following the first publication of findings, the monuments of Resafa became the object of art historical discussion (Guyer 1920; Musil 1928; Sarre 1909; Spanner and Guyer 1926). Systematic archaeological excavations of Resafa have been carried out since the 1950s under the patronage of the German Archaeological Institute (DAI).

When the responsibility for the Resafa project was given to us in 2006, the primary considerations were given to consolidating the research results obtained over more than 50 years of on-site work under the leadership of German scientists, and to supplementing our studies with further specific research work (Sack 2008: 31-44). This meant we had 5½ years to conduct ten field campaigns until the events of 2011 ended our work on the site. The overriding objective of the ongoing research work, in cooperation with the Direction Générale des Antiquités et des Musées de la Syrie (DGAMS) since 2006, has been to show and explain the development of the city of Resafa in its various stages, starting with the construction of the Roman *castrum* in the 1st century AD, until the abandonment of the city at the end of the 13th century AD (first results: Sack *et al.* 2014: 257-274; see also the regular reports on the Resafa project in the *Chronique Archéologique en Syrie* since 2008).



Figure 1: Resafa, aerial view from the south (1936) (after Dunand 1953).

Research questions

The first question was whether the developments of the fortified city and its surroundings were interrelated, and, consequently, whether they should be dealt with together. These developments had been regarded until then as having been largely separate, with the main focus on Late Antiquity (city) and the period of early Islam (surroundings). For this purpose, an archaeological and architectural-historical map was to be drawn up, including chronostratigraphic plans for all the relevant development phases of the city and its surroundings.

On compiling a list of the planned tasks, one had to take into consideration, however, that there were still crucial areas without sufficient research results at that time. Consequently, a particular focus was placed on examining the residence of the Caliph Hisham bin 'Abd Al-Malik in the environs of Resafa; this work followed on from the extensive preliminary work that had been carried out since 1977 (Survey 1: Mackensen 1984, esp. 37, note 114, 45-47) and respectively since 1983 (Survey II: Sack *et al.* 2014: 257-274). The objective was to clarify the settlement structures and ascertain how the buildings in the residence had been constructed. By using archaeological soundings and evaluating the finds from selected sites, the results from geophysical prospection carried out in the period 1997-2001

(Sack *et al.* 2004: 207-232) should be verified, and the basis created for authoritative dating. Further surveys on the settlement's history and examinations of the historical water supply and its distribution should also be aimed at enhancing and deepening the knowledge gained so far regarding the connection between the city and its surroundings (Sack *et al.* 2010: 102-129).

Furthermore, the city walls should be examined using methods employed in historical building research. The walls delineate the boundaries of the city, as well as the connection between the city and its surroundings. The aim in this case was to precisely determine the underlying construction processes involved and the modification and restoration history of the walls, the largest structure in the city. Although W. Karnapp had provided a fundamental monograph on the city walls (Karnapp 1976), the specific points mentioned above were not, however, dealt with in any great depth.

Apart from our own research approaches, the requests of our collaboration partner, the Syrian Directorate of Antiquities (DGAMS), had to be also taken into consideration. These were basically aimed at preserving the ruins by implementing consolidation and restoration measures and at developing the infrastructure needed so that tourists could experience the cultural heritage of the site. Since consolidation measures had already been carried out in the nave of Basilica A by T. Ulbert

in the final phase of his work (Ulbert 2008: 23) – he had led the excavation work for thirty years until 2005 – top priority was first given to the urgently needed site management. However, in 2007, further consolidation measures were already planned in parallel in the Basilica A in order to secure three sections that were particularly in danger of collapsing. The first measures were carried out in 2008 (I. Frase and T. Horn, in: Sack and Gussone 2015: 124).

Project conceptual design

It was clear right from the beginning that such a large-scale research program could only be implemented if the work to be done were based on a systematic structure. That structure had to not only set the framework, but also remain flexible at the same time. In that way, networking individual work areas within the sub-projects would be guaranteed, and in addition, specific in-depth work and enhancement to the work program would be possible at any time. In order to structure the whole project, a division into sub-projects (SP) seemed to be the best approach to maintain a clear overview. This also provided the framework for the reports to be sent to DGAMS and DAI and also enabled the research structure to be more easily understood within the project as well as externally. There were five sub-projects (SP) each consisting of several work groups focusing on different topics: SP 1) the archaeological map of the city and its surroundings; SP 2) archaeology and surveys in the surroundings; SP 3) the city walls; SP 4) the consolidation and restoration measures; and SP 5) site management.

In summary, the initial project design as well as further research questions, which developed during the course of the project itself, and their results, are presented and dealt with below (cf. Sack and Gussone 2015).

SP 1: Archaeological map of the city and its surroundings

Individual examinations had already been previously carried out on most of the large buildings that are ruins. These results are available as monographs or lengthy articles (see Sack *et al.* 2013 with further literature). Consequently, it is now possible to see the individual building complexes in relation to each other and show the sequence of their construction, destruction, and/or restoration, on an archaeological map together with construction-phase plans. This way, the history of the city and its environs can be depicted as one contiguous area of settlement.

To begin with, an initial concept of the city's construction phases was developed. Based on that, the starting point of the examinations of the buildings (D. Kurapkat) was the Basilica A/Great Mosque complex, with the longest continuous use starting from

the end of the 5th century AD until the second half of the 13th century AD. This was followed by work on the remaining large-scale buildings (Basilica B, C and D, the Tetraconch Church (Zentralbau), and the Al-Mundhir building; see D. Kurapkat in: Sack and Gussone 2015: 38-39; also in: Ulbert 2016: 142-144) (Figure 2).

The construction research on architectural decoration was added to the work program as a supplement (I. Oberhollenzer). It was shown that by analysing traces of work, further insights could be gained into the interior decorations and their chronological sequence (see I. Oberhollenzer, in: Sack and Gussone 2015: 43-45). In the course of the project, the chronology of the development of the city, deduced from the separate building phases of the city, was modified and enhanced by using results from the other sub-projects, in particular from Survey III (SP 2, M. Gussone and M. Müller-Wiener) and from the city walls (SP 3, C. Hof). The inclusion of the modern settlement, and the family of the excavation site's guard, living there since the 1950s and their genealogy in the investigations (M. Gussone and A. Mollenhauer), enabled the further divisions in the building phases of the city up to the most recent past (M. Gussone, A. Mollenhauer and D. Sack, in: Sack and Gussone 2015: 48-53).

SP 2: Archaeology and surveys

Parallel to the work in the city, an extensive research program was started in the surroundings. The starting point for this work was based on the first two surveys (M. Mackensen and H. Tremel 1977, see Mackensen 1984; and D. Sack 1983-1986, see Sack *et al.* 2004: 207-213) as well as on other surveys carried out from 1997 to 2001 (geophysics: H. Becker and F. Chouker; geodesy and aerial photos: M. Stephani, see Sack *et al.* 2004: 214-232). Based on these results, initial theories on the conception of the Caliph's residence were then developed. These theories stated that the Caliph's residence consisted of six palace complexes – each complex comprised a main palace-like building as well as ancillary buildings (Sack *et al.* 2004).

Archaeological investigations were carried out in the years 2006-2010 at particularly significant sites in order to better clarify interrelationships, derive concrete reference points for evaluating the results of the geophysical surveys, and obtain material for dating and determining the functions of the buildings in the complexes (Ch. Konrad *et al.*, in Sack *et al.* 2010; Ch. Konrad, in: Sack and Gussone 2015: 87-95). For this purpose, buildings were examined that were either particularly noticeable because of their external structure (FP 143) or because of their size (FP 106/220), and, as such, assumed to possibly be the main buildings of the residence, or which stood out particularly well in the magnetograms (as in FP 102/105) (see



1 al-Mundir-Building; 2 Necropolis; 3 Quarries; 4a Dyke Dam; 4b Rampart; 5 City Wall; 5a North Gate; 5b East Gate; 5c South Gate; 5d West Gate; 6 Water Culvert; 7 Supply Canal; 8 Distributor; 9 Large Cistern; 10 Small Cistern; 11 Cupola Cistern; 12 Northwest Cistern; 13 Basilica A; 14 North Court; 15 Four-Pillar-Building; 16 Double-Storey-Building; 17 Great Mosque; 18 West Court/Shops; 19 Domed Structure; 20 Basilica B; 21 Basilica C; 22 Basilica D/Residential Structures/Shops; 23 Street Monument I; 24 Street Monument II; 25 Residential Structure; 26 Khan; 27 Tetraconch Church/Residential Structures; 28 North Gate Street/Shops; 29 Residential Structure; 30 Street Monument III; 31 Vaulted Structure; 32 Apsed Building; 33 Street Monument IV.

Figure 2: Resafa, city plan (M. Gussone and G. Hell with N. Erbe and I. Salman 2010, City Wall: C. Hof).

Otto-Dorn 1957; Sack 2008; Sack *et al.* 2004). A total of 16 sites were archaeologically examined (Figure 3).

Apart from the archaeological research, studies of the water supply and distribution, as well as the paleoenvironment of Resafa, because of its situation in a semi-arid desert steppe, are of special significance. Since the Resafa project had been included in TOPOI, Excellence Cluster of the German universities, both of these thematic complexes could be investigated interdisciplinarily as tandem dissertations. Numerous new findings could be gained by the archaeological soundings in the Marwanid palaces (FP 106 and FP 220) and in the garden areas (FP 151 and FP 223/224)

(Ch. Konrad), as well as by the investigations of the physical geography of the water supply and distribution (B. Beckers). The construction of the palace buildings and the garden areas could be clarified (Konrad 2016; Konrad *et al.* 2012), and, additionally, we now know where the water that was conducted to the city came from and how it was then conveyed to the cisterns there (see Beckers and Schütt 2013; Beckers *et al.* 2013) (Figure 4).

The application of the procedure developed in 2001 for recording the surface-level findings (D. Sack and U. Siegel) was considerably extended. From 2007 to 2010, a total of 49 building complexes in the surroundings

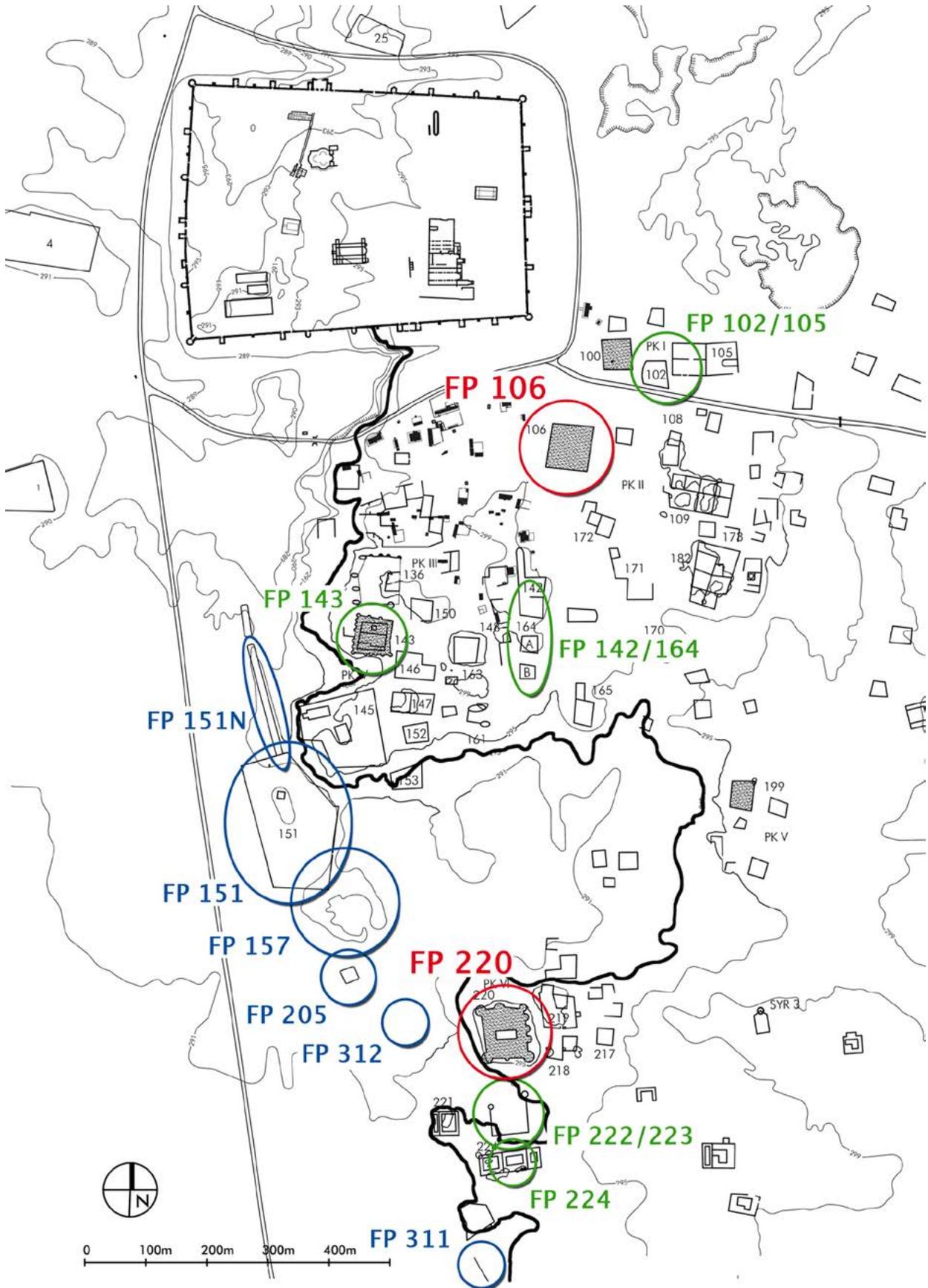


Figure 3: Resafa, overview of excavations 2006-2010 (Ch. Konrad 2014, based on: D. Sack and M. Gussone 2007).

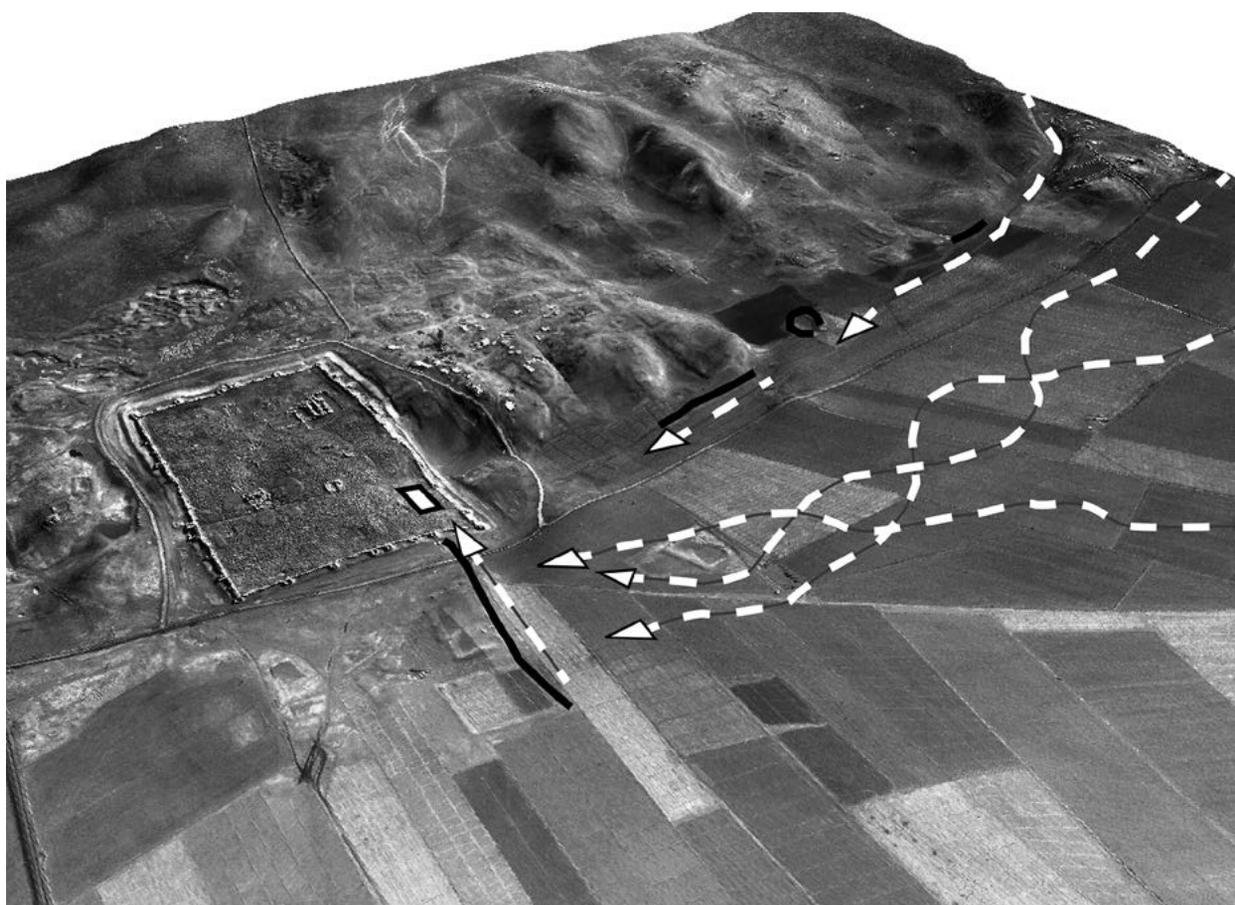


Figure 4: Resafa, digital terrain model (superelevated) combined with satellite image (IKONOS 2009) shows the rainfall-runoff (dashed arrows). The water is directed to the Great Cisterns (white rectangle with black contour) by ramparts (black lines: archaeological testified structures) (after B. Beckers 2009).

to the south were documented (U. Siegel). In most of the cases, the floor plans could be clarified, which extended significantly our knowledge of the Umayyad architecture (Siegel 2015).

In order to understand in greater detail how the settlement in the surroundings developed during the Islamic period, a third survey was conducted from 2008 to 2010 (Survey III, M. Gussone and M. Müller-Wiener). Here as well, a development can be seen similar to that of the walled city, with its beginnings in Late Antiquity, a large-scale expansion as caliphal residence in the second quarter of the 8th century AD, and finally, once again, a clearly discernible usage phase before the city was abandoned in the last third of the 13th century AD (see Gussone and Müller-Wiener 2012).

A digital terrain model for the complete area under examination was created by pooling all the measurement data (G. Hell); using the model, the height layers for a new site plan were derived. During the course of processing the results from the survey campaigns, oblique aerial photos taken in 1999 (M. Stephani) were

combined to form an orthophoto mosaic (G. Hell; see G. Hell *et al.*, in: Sack and Gussone 2015: 29-34).

The consolidation and combined evaluation of the surveys carried out from 1997 to 2001, including the results of the ground-level findings, the digital terrain models, and the current orthophoto mosaic, as well as earlier aerial photos, is the topic of a dissertation (M. Gussone). The objective is to gain further knowledge of the historical settlement's development. As a result, additional sites unknown until then could be identified. Above all, the relative sequence of the settlement phases could be determined at various sites, the post-Umayyad settlement phases known from Survey III could be assigned to the structural findings, and further insights could be gained into the structure of the Caliphal residence in the surroundings (Gussone 2014; 2016a; 2016b).

The examination of small finds (M. Müller-Wiener) and coins (St. Heidemann) provided important leads for dating the building structures. Additionally, further questions concerning regional transfer processes

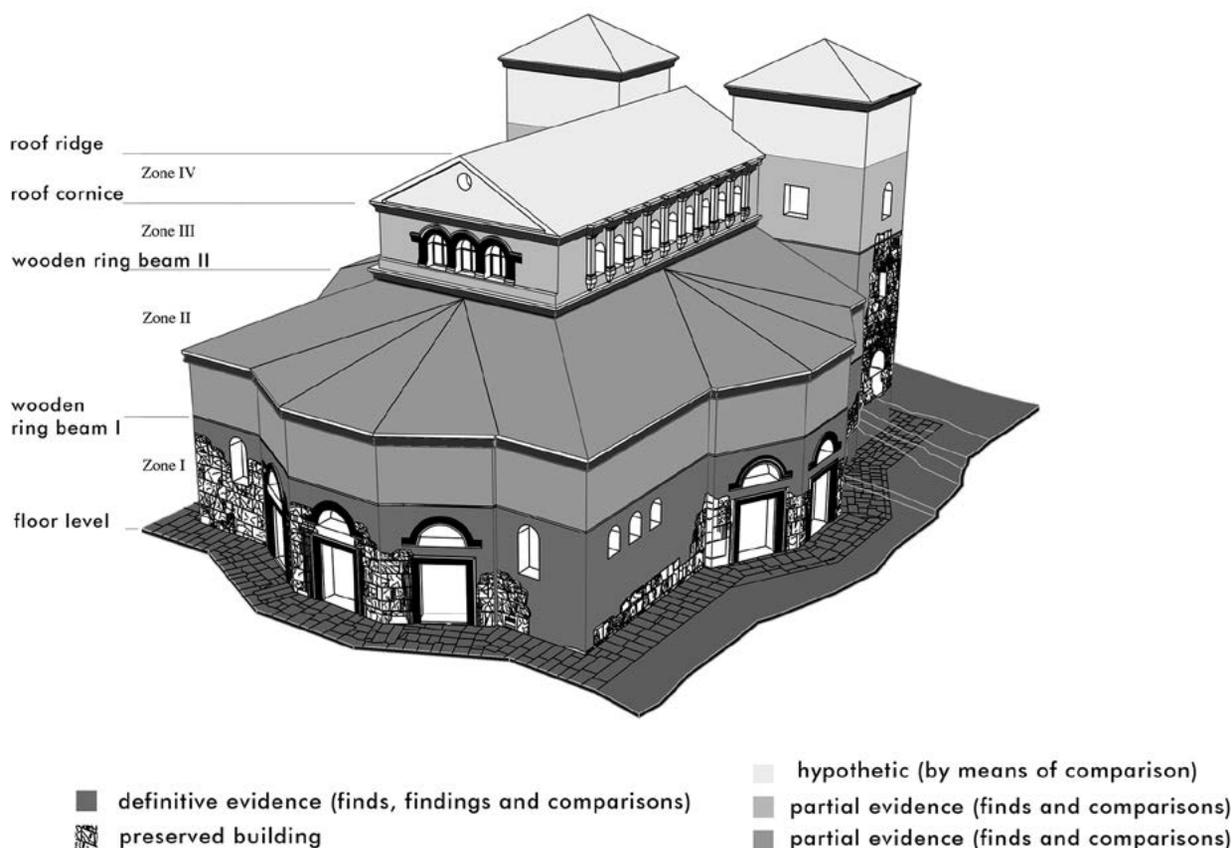


Figure 6: Resafa, Basilica A, temporary supports (I. Frase and T. Horn 2008).

direction of T. Ulbert (2002-2005). Precise measurement work for the detection of deformations was continued, terrestrial laser scans generated (directed by H. Heister, Geodaetisches Labor, University BW Munich; see articles of H. Heister, D. Kowoll, W. Liebl and A. Sternberg, in: Sack and Gussone 2015, 33, 114, 122-123, 134), as well as survey reports on the structural stability worked out (K. Dierks and W. Wolff, in: Dierks 2010). These led to the erection of trestle scaffolding as immediate measures at three particularly endangered places (T. Horn and I. Frase). As preliminary work, an action plan was drawn up with three categories of measures to be implemented: urgently needed stabilizing measures to be carried out as quickly as possible; medium-term consolidation measures; and long-term restoration work to be done (M. Klessing/F. Berger/T. Horn). The stabilization of the masonry in the reliquary chapel was the first measure carried out, together with commencing the stabilization work in the clerestory zone. Since this work was also interrupted due to the war in Syria, a comprehensive report on measures already carried out or planned in the Basilica A was presented to the DAI in 2013 in order to document the work and prepare its continuation at a later stage (T. Horn and D. Sack; see T. Horn *et al.*, in: Sack and Gussone 2015: 121-130) (Figure 6).

The consolidation of the ruins also included the examination work carried out on the Tetraconch Church. It had already been examined by J. Kollwitz and W. Wirth, as well as W. Karnapp in the 1950s and the 1960s, but their work, however, could not be fully completed. From 2007 on, priority was once again placed on this building. The reason for this was the request by DGAMS to have the exedra-columns surrounding the middle nave re-erected; these columns had collapsed due to earthquakes. Since such a measure would make any further archaeological and architectural examinations impossible, it was decided to first examine the Tetraconch Church under building-archaeology criteria. For this purpose, another dissertation tandem was formed (archaeology: A. Schuhmann; architecture: I. Salman). Together, they documented the Tetraconch Church and worked on the history of its construction. A. Schuhmann focused then on the archaeological examination in the southeast part of the building in order to determine and record how access to it was provided by the network of pathways surrounding it. During this research, he also came across the remains of a previous building besides the church. This was presumed to be an indication of the possible site where Saint Sergius had been executed and a shrine erected

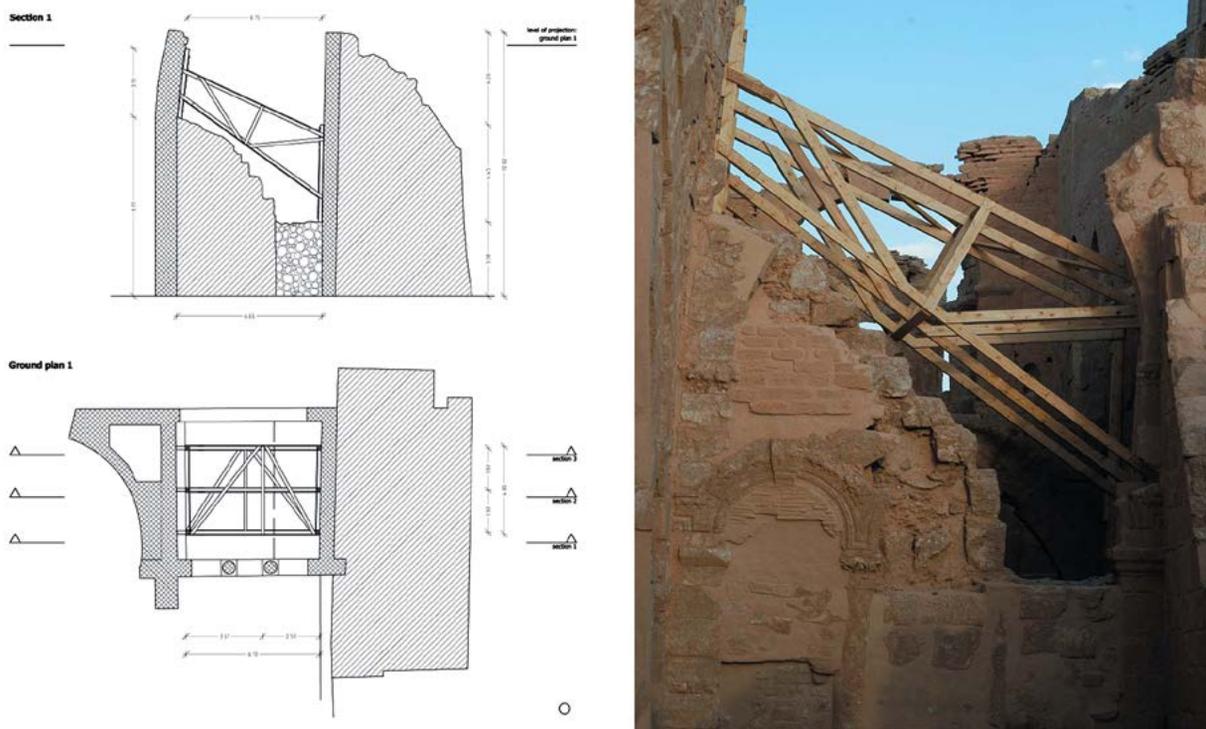


Figure 7: Resafa, Tetraconch Church, scientific reconstruction (I. Salman 2013).

and dedicated to him (see Schuhmann, in press; see also discussion concerning different possibilities for this site in: Gussone and Sack, in print). The objective of all of these investigations was to clarify the role of the Tetraconch Church in the context of liturgical ceremonies that had been performed in this church and the city of Resafa-Sergiupolis. Parallel to this research, I. Salman worked on the scientific reconstruction of the Tetraconch Church. This work was based on systematically recording all the structurally significant building elements kept in the *lapidaria* belonging to the Tetraconch Church; the *lapidaria* were laid out under Kollwitz's direction and are situated in the north, west, and south of the building. Earthquake simulation also played a decisive role when developing and checking the scientific reconstruction of the building. During the reconstruction work, it could be determined that the church had had a four-zone structure, and the construction of the three large exedras could also be authoritatively clarified (for both projects see I. Salman and A. Schuhmann, in: Sack and Gussone 2015: 133-143) (Figure 7).

SP 5: Site management

When considering the site management, the scope of work was first set and the individual tasks involved successively prepared. First measures carried out were in accordance with the given options (A. Mollenhauer, Y. Houry, I. Frase, and H. Saleh). The schedule of work included the following tasks:

- *Deciding on an archaeological path as a guide through the ruins*

The path leads from the North Gate to the most important monuments and ends at the southeastern tower (Tower 1) of the city walls; the southern and eastern surroundings can be seen from the tower and, thus, the main part of the residence of Caliph Hisham.

- *Designing and producing a flyer*

A flyer was created to explain the archaeological path and give an overview of the most important monuments in the city and its surroundings. It consists of two A4 pages in a concertinaed landscape format. It provides a general description of Resafa and its historical development and shows the most important monuments, with their names and dates and their positions on the map. Since 2010, the flyer, available in German, Arabic, English, and French, was handed to visitors when they purchased their entrance tickets.

- *Designing and making information panels*

In accordance with the archaeological path, 12 information panels were designed and made in order to provide information on the most important monuments. The information covered the city layout, the city walls and the northern gate, the Tetraconch Church, the khan, the cisterns, the Basilica B, the Basilica A and the Great Mosque, the Basilica A-Great



Figure 8: Resafa, site management, information boards (A. Mollenhauer 2010).

Mosque complex, the Basilica C, and the Basilica D. Five of the information panels have already been erected. A further two panels should be set up in the window openings on the upper floor in Tower 1 providing explanatory information about the buildings in the surroundings and the residence of Caliph Hisham.

- Creating an archaeological guidebook

All the work carried out involving management of the site will be summarized in an archaeological guidebook. It will explain the various buildings and building ensembles that were already investigated, as well as a short summary of the city's history. The archaeological guidebook is still being prepared (Mollenhauer and Khoury 2009; A. Mollenhauer *et al.*, in: Sack and Gussone 2015:147-152) (Figure 8).

Outlook

Due to the war, the last on-site campaign was carried out in spring 2011. Since then, research results from the ten campaigns that have been conducted since 2006 are being reviewed and consolidated, and will be presented in three volumes in the Resafa series by the German Archaeological Institute. These publications are based on the seven dissertations (B. Beckers, M. Gussone, T. Horn, Ch. Konrad, I. Oberhollenzer, I. Salman, and A. Schuhmann) and three further ongoing research projects (C. Hof, D. Kurapkat and M. Müller-Wiener). Results will be also included in an 'archaeological map'. The interrelated developments of the city and

the settlement in its environs from the 1st century AD onwards, to the origin and expansion of the village, will be shown in chronostratigraphic form in a further and final volume being developed and written in collaboration with the work group led by M. Konrad, specialist for the Roman period of Resafa. This volume will include information on the key protagonists in Resafa, and questions about transcultural urbanization developed between the 1st and 13th centuries AD in the Syrian Desert steppe, will be dealt with in a regional and a cross-regional context.

Notes

The conception of the project has been presented in several articles (Sack 2008; Sack 2010; Sack *et al.* 2010); further developments can be followed in the annual reports of the DAI (supplements to the *Archäologischer Anzeiger*) and the DGAMS (*Chronique Archéologique en Syrie*) published since 2007. Detailed short reports on the results of the various sub-projects and workgroups have been published in the yearbook of the Master's program 'Heritage Conservation' of the Berlin Institute of Technology (*Jahrbuch MSD*, 2007 to 2014, summarized in: Sack and Gussone 2015). The final publication within the framework of the Resafa series of the DAI is in preparation.

The large-scale research program was financed by the German Archaeological Institute Berlin and Damascus (DAI), the Fritz Thyssen Foundation, the Excellence Cluster TOPOI, and the 'Deutsche

Forschungsgemeinschaft' (DFG-German Research Foundation). The work was carried out by numerous university project partners and scholars from various specialised fields. In conclusion, it should be emphasized that the excellent collaboration with the colleagues of the Direction Générale des Antiquités et des Musées de la Syrie (Damascus and Raqqa) and the family of the excavation site's guard was a major factor that proved highly beneficial for the work undertaken on site.

Bibliography

- BECKERS, B., BERKING, J. and SCHÜTT, B.
2013 Ancient water harvesting methods in the drylands of the Mediterranean and Western Asia, *eTopoi. Journal for Ancient Studies* 2: 145-164.
- BECKERS, B. and SCHÜTT, B.
2013 The elaborate floodwater harvesting system of ancient Resafa in Syria-construction and reliability, *Journal of Arid Environments* 96: 31-47.
- BRANDS, G.
2002 *Die Bauornamentik von Resafa-Sergiupolis: Studien zur spätantiken Architektur und Bauausstattung in Syrien und Nordmesopotamien, Resafa VI*. Mainz, P. Von Zabern.
- DIERKS, K.
2010 Notsicherungen in der Basilika A in Resafa; Syrien. In: R. Barthel (ed.), *Erhalten historisch bedeutsamer Bauwerke, Fritz Wenzel zum 80. Geburtstag. Festschrift: 183-187*. Schriftenreihe des Lehrstuhls für Tragwerkslehre [TU Muenchen] 30. Munich, Technische Uni München Fachbereich Architektur.
- FOWDEN, E. K.
1999 *The Barbarian Plain: Saint Sergius between Rome and Iran*. Transformation of the Classical Heritage 28. Berkeley, University of California Press.
- GUSSONE, M.
2016a Resafa-Ruṣāfat Hišām, Siedlung und Residenz. Ergebnisse zur relativen Chronologie der Siedlungsreste und ihre Auswirkung auf die Interpretation der Kalifenresidenz. In: D. Sack, D. Spiegel, and M. Gussone (eds), *Wohnen - Reisen - Residieren. Herrschaftliche Repräsentation zwischen temporärer Hofhaltung und dauerhafter Residenz in Orient und Okzident*: 125-138. Berliner Beiträge zur Bauforschung und Denkmalpflege 15. Petersberg, Imhof Verlag.
- 2016b Zur Methodik der Interpretation, multidisziplinärer Prospektionsergebnisse in Resafa, Syrien. In: U. Lieberwirth and I. Herzog (eds), *Computeranwendungen und Quantitative Methoden in der Archäologie - 4. Workshop der AG CAA 2013*: 127-156. *Berlin Studies of the Ancient World* 34. Berlin, Edition Topoi.
- 2014 Resafa-Rusafat Hisham. Von der Kalifenresidenz zum Standort handwerklicher Produktion-Kontinuität und Wandel einer islamischen Siedlung vom 8. bis 13. Jh. In: Koldewey-Gesellschaft (ed.), *Bericht über die 47. Tagung für Ausgrabungswissenschaft und Bauforschung vom 16. bis 20. Mai 2012 in Trier*: 175-186. Dresden, Thelem.
- GUSSONE, M. and MÜLLER-WIENER, M.
2012 Resafa-Rusafat Hisham, Syria. „Long-term survival of an Umayyad residence. First results of the extended surface survey. In: R. Matthews and J. Curtis (eds), *Proceedings of the 7th International Congress of the Archaeology of the Ancient Near East, 12-16. April 2010, British Museum and UCL, London*. Vol. 2. *Ancient and Modern Issues in Cultural Heritage. Colour and Light in Architecture, Art and Material Culture. Islamic Archaeology*: 569-584. Wiesbaden, Harrassowitz.
- GUSSONE, M. and SACK, D.
In print Resafa/Syrien. Städtebauliche Entwicklung zwischen Kultort und Herrschaftssitz. In: E. Rizos and A. Ricci (eds), *New Cities in Late Antiquity (late 3rd-7th c. AD): Documents and Archaeology. International workshop, 9-10 November 2013 in Istanbul*.
- GUYER, S.
1920 Ruṣāfah. In: F. Sarre and E. Herzfeld, *Archäologische Reise im Euphrat- und Tigris-Gebiet II*: 1-45. Berlin, D. Reimer.
- HOF, C.
2016 The Late Roman City Wall of Resafa/Sergiupolis (Syria). Its Evolution and Functional Transition from Representative over Protective to Concealing. In: R. Frederiksen et al. (eds), *Focus on Fortification. New Research on Fortification in the Ancient Mediterranean and the Near East. Conference 9. December 2012 at the Danish Institute at Athens*: 397-412. Monographs of the Danish Institute at Athens 18. Oxford, Oxbow Books.
- 2010 Die Stadtmauer von Resafa- Spuren früher Planänderung und deren Datierungsrelevanz. In: Koldewey-Gesellschaft (ed.), *Bericht über die 45. Tagung für Ausgrabungswissenschaft und Bauforschung vom 30. April bis 4. Mai 2008 in Regensburg*: 235-248. Dresden, Thelem.
- 2009 Masonry Techniques of the Early Sixth Century City Wall of Resafa, Syria. In: K.-E. Kurrer, W. Lorenz, and V. Wetzka (eds), *Proceedings of the Third International Congress on Construction History, Cottbus, May 2009*: 813-820. Cottbus, Brandenburg University of Technology.
- ILISCH, L.
1996 Die islamischen Fundmünzen. In: D. Sack, *Die Große Moschee von Resafa-Ruṣāfat Hišām*: 111-132. Resafa IV. Mainz, P. Von Zabern.
- KARNAPP, W.
1976 *Die Stadtmauer von Resafa in Syrien*. Denkmäler Antiker Architektur 11. Berlin, de Gruyter.
- KELLNER-HEINKELE, B.
1996 Ruṣāfa in den arabischen Quellen. In: D. Sack, *Die Große Moschee von Resafa-Ruṣāfat Hišām*: 133-154. Resafa IV. Mainz, P. Von Zabern.

- KONRAD, Ch.
 2016 Resafa-Sergiupolis/Ruṣāfat Hišām. Die Paläste von ar-Ruṣāfa. Ergebnisse der Untersuchung von zwei frühislamischen Großbauten der Siedlung extra muros. In: D. Sack, D. Spiegel, and M. Gussone (eds), *Wohnen - Reisen - Residieren. Herrschaftliche Repräsentation zwischen temporärer Hofhaltung und dauerhafter Residenz in Orient und Okzident*: 139-151. Berliner Beiträge zur Bauforschung und Denkmalpflege 15. Petersberg, Imhof Verlag.
- KONRAD, Ch., OBERHOLLENZER, I. and SACK, D.
 2012 The Stucco Decoration of the Palaces (qūṣūr) in the Umayyad Residence Ruṣāfat Hisham, Syria. Style and Techniques. In: *I. Congreso Internacional Red Europea de Museos de Arte Islámico (25-27. abril [2012], Granada)*, Actas: 527-546. Granada, Europa Press.
- KONRAD, M.
 2001 *Der spätrömische Limes in Syrien: Archäologische Untersuchungen an den Grenzkastellen von Sura, Tetrapyrgium, Cholle und in Resafa*. Resafa V. Mainz, P. Von Zabern.
 2008 Roman military fortifications along the eastern desert frontier: Settlement continuities and change in North Syria, 4th-8th centuries. In: K. Bartl and A. Moaz (eds), *Residences, Castles, Settlements. Transformation Processes from Late Antiquity to Early Islam in Bilad al-Sham. Proceedings of the International Conference held at Damascus, 5-9 November 2006*: 433-453. Orient Archäologie 24. Rahden/Westfalen, Leidorf.
- MACKENSEN, M.
 1984 *Eine befestigte spätantike Anlage vor den Stadtmauern von Resafa. Ausgrabungen und spätantike Kleinfunde eines Surveys im Umland von Resafa-Sergiupolis*. Resafa I. Mainz, P. Von Zabern.
- MOLLENHAUER, A. and KHOURY, Y.
 2009 Resafa-Sergiupolis/Rusafat Hisham. Pilgrimage City and Caliphal Residence – The Process of Developing a Visitor's Concept. In: *Conference Proceedings: Traditions and Transformations: Tourism, Heritage and Cultural Change in the Middle East and North Africa Region. Amman, Jordan, 4-7 April 2009* (CD-ROM): 1-16. Leeds, Leeds Metropolitan University.
- MÜLLER-WIENER, M.
 2016a Zeremoniell und gebauter Raum in der frühislamischen Palastarchitektur. In: D. Sack, D. Spiegel, and M. Gussone (eds), *Wohnen - Reisen - Residieren. Herrschaftliche Repräsentation zwischen temporärer Hofhaltung und dauerhafter Residenz in Orient und Okzident*: 51-63. Berliner Beiträge zur Bauforschung und Denkmalpflege 15. Petersberg, Imhof Verlag.
 2016b Material evidence for the transformation of Late-Umayyad economies: the case of pottery with applied and 'honeycomb' decoration from Resafa (North Syria). In: *Proceedings of the 9. International Congress of the Archaeology of the Ancient Near East, 9-13 June 2014 in Basel*: 965-975. Wiesbaden, Harrassowitz.
- MUSIL A.
 1928 *Palmyrena. A Topographical Itinerary*. Oriental Explorations and Studies 4. New York, AMS Press.
- OTTO-DORN, K.
 1957 Grabung im umayyadischen Rusafa, *Ars Orientalis* 2: 199-234.
- SACK, D.
 2010 Resafa/Syrien. Pilgerstadt und Kalifenresidenz. Die Stadt intra und extra muros. In: Koldewey-Gesellschaft. Vereinigung für baugeschichtliche Forschungen e. V. (ed.), *Bericht über die 45. Tagung für Ausgrabungswissenschaft und Bauforschung vom 30. April bis 4. Mai 2008*, 227-234.
 2008 Resafa-Sergiupolis/Rusafat Hisham- neue Forschungsansätze. In: K. Bartl and A. Moaz (eds), *Residences, Castles, Settlements. Transformation Processes from Late Antiquity to Early Islam in Bilad al-Sham. Proceedings of the International Conference held at Damascus, 5-9 November 2006*: 31-44. Orient Archäologie 24. Rahden/Westfalen, Leidorf.
 1996 *Die Große Moschee von Resafa-Ruṣāfat Hišām*. Resafa IV. Mainz, P. Von Zabern.
- SACK, D., BECKER, H., STEPHANI, M. and CHOUKER, F.
 2004 Resafa-Umland, Archäologische Geländebegehungen, geophysikalische Untersuchungen und digitale Geländemodelle zur Prospektion in Resafa-Rusafat Hisham. Bericht über die Kampagnen 1997-2001, *Damaszener Mitteilungen* 14: 207-232.
- SACK, D. and GUSSONE, M. (eds)
 2015 *Resafa-Sergiupolis/Rusafat Hisham, Syrien-Pilgerstadt und Kalifenresidenz. Die Kurzberichte des Resafa-Projekts aus den Jahrbüchern des MSD 2004-2014. Sonderdruck in thematischer Anordnung*. Berlin, Sċripvaz-Verlag.
- SACK, D., GUSSONE, M. and KURAPKAT, D.
 2014 A Vivid City in the 'Syrian Desert' - The case of Resafa-Sergiupolis/Rusafat Hisham. In: D. Morandi Bonacossi (ed.), *Settlement Dynamics and Human-Landscape Interaction in the Steppes and Deserts of Syria*: 257-274. Studia Chaburensia 4. Wiesbaden, Harrassowitz.
- SACK, D., GUSSONE, M. and MOLLENHAUER, A. (eds)
 2013 *Resafa-Sergiupolis/Rusafat Hisham. Forschungen 1975-2007. Reader*. With Arabic Translation by I. Salman: *Resafa-Sergiupolis/Ruṣāfat Hišām. Dalīl ad-dīrāsāt wa'l-abḥāt almunğaza ḥilāl al-fitra 1975-2007*. Berlin, Sċripvaz-Verlag.
- SACK, D., SARHAN, M. and GUSSONE, M.
 2010 Resafa-Sergiupolis/Rusafat Hisham, Syrien. Pilgerstadt und Kalifenresidenz. Neue Ansätze, Ergebnisse und Perspektiven, *Zeitschrift für Orientarchäologie* 3: 102-129.
- SARRE, F.
 1909 Rusafa-Sergiupolis, *Monatshefte für Kunstwissenschaft* 2: 95-107.
- SCHUHMANN, A.
 In press Die Sakrallandschaft von Resafa (Sergiupolis) - Liturgie einer Pilgerstadt an der östlichen Peripherie. In: *XVI. Internationaler Kongress für Christliche*

- Archäologie: 'Konstantin und die Konstantiniden-konstantinische Innovation, ihre Wurzeln und ihre Entwicklungen' vom 22. bis 28. September 2013 in Rom.*
- SIEGEL, U.
 2015 Resafa-Rusafat Hisham. Vom Zeltspieß zum Grundriss. Aufnahme und Interpretation von Oberflächenbefunden. In: Koldewey-Gesellschaft (ed.), *Bericht über die 48. Tagung für Ausgrabungswissenschaft und Bauforschung vom 28. Mai bis 1. Juni 2014 in Erfurt*: 212-221. Dresden, Thelem Universitätsverlag u. Buchhandel Eckhard Richter and Co.
- SPANNER, H. and GUYER, S.
 1926 *Rusafa. Die Wallfahrtsstadt des Heiligen Sergios*. Forschungen zur islamischen Kunst 4. Berlin, D. Reimer.
- ULBERT, Th.
 2016 *Forschungen in Resafa-Sergiupolis*. Resafa 7. Berlin, De Gruyter.
 2008 50 Jahre Forschungen in Resafa/Sergiupolis: Struktur und Kontinuität. In: K. Bartl and A. Moaz (eds), *Residences, Castles, Settlements. Transformation Processes from Late Antiquity to Early Islam in Bilad al-Sham. Proceedings of the International Conference held at Damascus, 5-9 November 2006*: 19-30. *Orient Archäologie* 24. Rahden/Westfalen, Leidorf.
 1986 *Die Basilika des Heiligen Kreuzes in Resafa-Sergiupolis*. Resafa II. Mainz, P. Von Zabern.

Emergency Excavations of Hwejet Al-Halaweh, Raqqa Governorate (2011-2012)

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Directorate General of Antiquities and Museums

Abstract

Located on the left bank of Lake Assad, near a village named after it, Tell Hwejet Al-Halaweh is c. 15 km from the town of Al-Jurniyeh and adjacent to Tell Mumbaqa. The tell is composed of two sections separated by a body of water. It dates to the Bronze and Iron Ages and to the Roman and Byzantine eras. Results of the excavations in 2011 revealed a 58 m² mosaic beneath the wall of Hwejet Al-Halaweh School. It is an extension of a previous mosaic found by the Belgian mission in the mid-1970s and part of a group of mosaics displayed in the Raqqa Museum. The new mosaic is part of a niche located on the eastern side of a previously excavated church. The mosaic has various geometric shapes, including red and black squares surrounded by red and black triangles, and was laid on white stone foundations brought from the lake banks. It dates to the 6th century BC and is considered, together with many similar ones discovered in the Euphrates Valley, from Tell Abu Saeed in the south to Tell Abyad, the best representative of Byzantine art in this region.

The region of Halaweh located on the left bank of the Euphrates River, c. 120 km to the northeast of the governorate of Raqqa (Figure 1), is considered one of the most important archaeological areas in Syria, with numerous archaeological sites and tells, such as

Tell Al-Halaweh (Figure 2). This latter site dates to the Bronze and Iron Ages and is located near the site of Mureybet and the city of Menbij, on a major crossroads linking Anatolia to the Levant, and the ancient kingdom of Yamhad to the city of Harran.

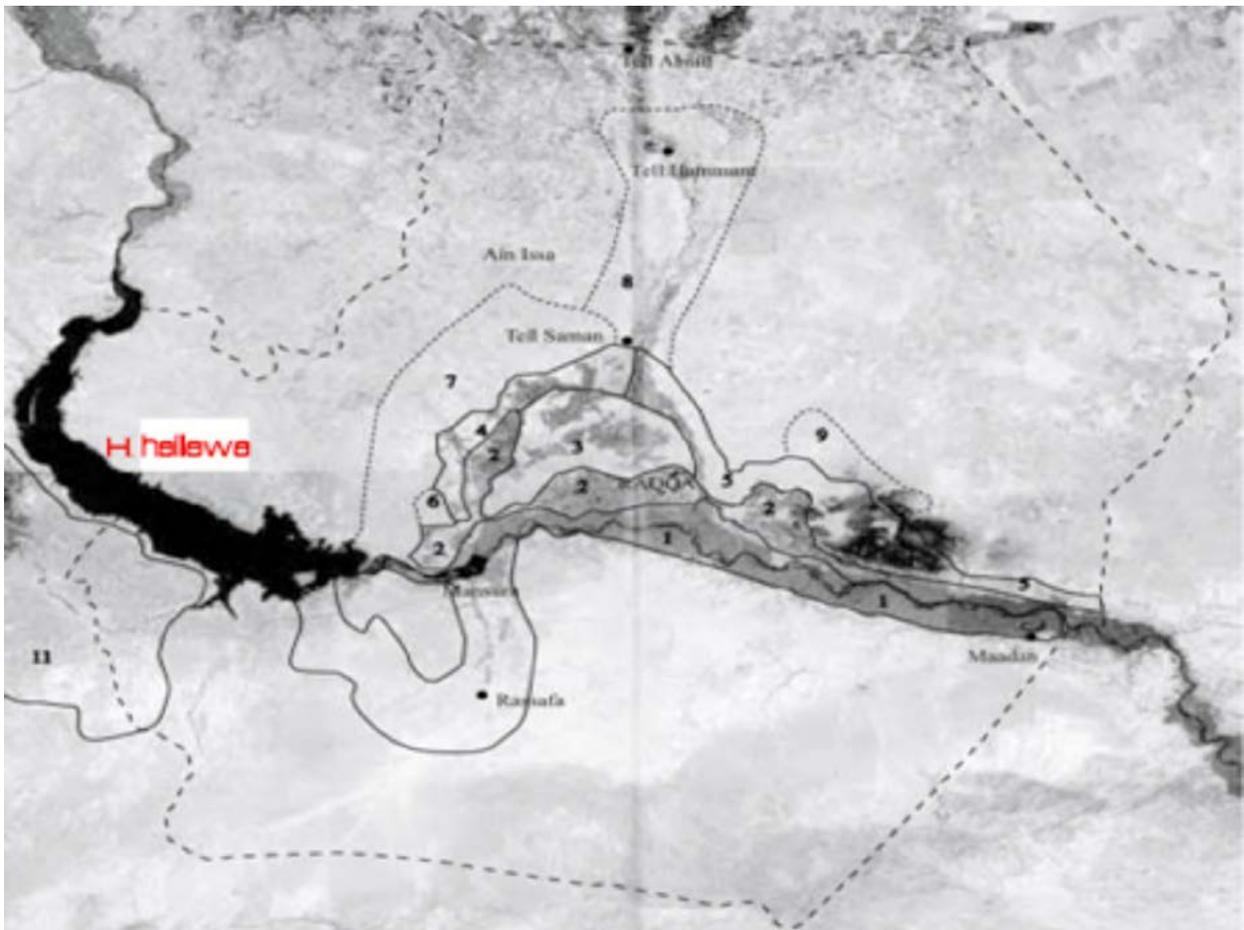


Figure 1: Map of Raqqa Governorate (© Al-Fakhri)



Figure 2: Hwejet Al-Halaweh
(© Al-Fakhri)

Figure 3: The discovery of a mosaic panel (© Al-Fakhri)



The discovery of the mosaic happened when a farmer was installing a water pipe between his land and Lake Assad through the fence of the school of Hwejet Al-Halaweh, built after the construction of the Euphrates Dam (Figure 3). A coloured floor made of small tesserae was discovered and reported to the authorities of the town of Al-Jurniyeh, who immediately informed the governor of Raqqa. The Directorate of Antiquities of Raqqa inspected the site and a very small section of the discovered floor was excavated, revealing a mosaic located near the northern wall of the school enclosure. A report was written and sent to the Directorate General of Antiquities and Museums in Damascus. Based on this report, an emergency national mission to unearth the entire mosaic was formed, with the head of the excavation office of the Directorate of Antiquities of Raqqa, A. Al-Fakhri, and the head of the excavation office in Deir Ez-Zor, Y. Al-Abdallah.

Archaeological excavations

Excavations started on September 13, 2011. The surface layer consisted of dumps accumulated in Hwejet Al-Halaweh elementary school. A 12 m x 12 m square was opened and at a depth of 75 cm the mosaic was discovered extending beneath the northern wall of the school enclosure (Figures 4-5). Several brick tiles from the roof were collected. Remains of the wall foundations bordering the mosaic were uncovered and helped identify the building as a church or a basilica paved with mosaics. The walls, as well as the entrance of the church, appeared at the northern, western, and southern sides of the building (Figures 6-7). On the eastern side, the extension of the mosaic appeared, but, unfortunately, the panel was missing and only the remains of the frame were conserved (Figure 8).



Figure 4: The extension of the wall outside the wall of the school (© Al-Fakhri)

Figure 5: The wall from inside and outside the wall of the school (© Al-Fakhri)



Figure 6: The western wall (© Al-Fakhri)

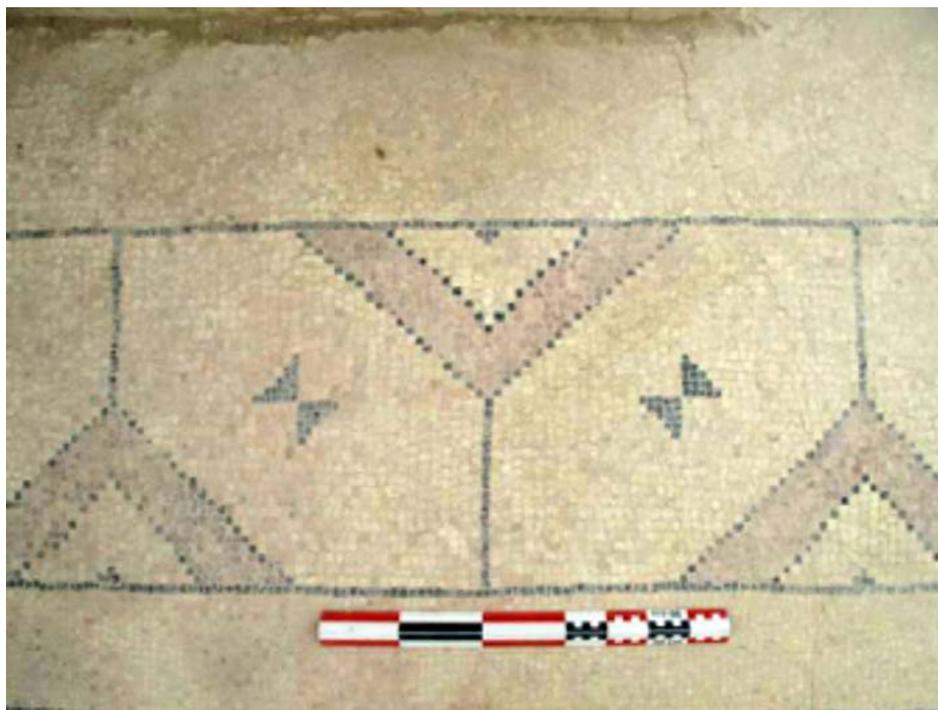


Figure 7: Part of the main border from the western side (© Al-Fakhri)

Figure 8: View from the east of the mosaic panel (© Al-Fakhri)



Mosaic description

The walls of the church were built of limestone extracted from the quarries located on the banks of Lake Assad (Figure 9). The thickness of the walls varied between 90 cm and 196 cm, with the latter thickness observed on the southern side at the entrance of the basilica (Figure 10). The mosaic, located in the nave of the basilica, is 10.1 m long and 8.7 m wide, with red, white, and black coloured tesserae of 1 cm x 1 cm in dimension. It is bordered by three adjacent frames connected to the walls (Figure 11). The first is a 27 cm thick frame of white tesserae connected to the limestone walls. A second frame, 46 cm wide, encompasses the main

scene and consists of geometric patterns of alternating isosceles triangles of red tesserae, and shapes that look like black coloured butterflies. The triangles have 30 cm long sides and 43 cm long bases. The adjacent frame, 20 cm wide, is made of white tesserae and separates the rest of the composition from the main scene.

The main scene

The main scene consists of geometric diamond shapes interwoven with black lines, one tessera wide, set on a white background (Figure 12). Each corner of the diamond ends with black or red squares (4.65 cm x 7.25 cm) with a white square in its centre. The diamond



Figure 9: The Quarries on Assad Lake banks (© Al-Fakhri)



Figure 10: The southern paved entrance to the Basilica (© Al-Fakhri)



Figure 11: General view of the mosaic panel and its extension outside the school wall limit (© Al-Fakhri)



Figure 12: The center of the mosaic (© Al-Fakhri)

Figure 13: Part of the border frame with a braided motif (© Al-Fakhri)



covers an area that has 33 tesserae on the long side and 20 tesserae on the shorter side. On the eastern side of the main scene, a frame 32 cm wide and oriented S-N consists of braids bordering geometric shapes (squares of 11 cm sides) (Figure 13). The eastern part is missing (Figure 14). After consulting documentation of previous excavations, we learnt that important mosaics with animal and vegetal motifs were discovered in 1971 and were removed and exhibited in the Raqqa museum.

Condition of the mosaic

The mosaic is overall in a good shape (Figure 12). However on the western side there are traces of the passage of a heavy bulldozer that destroyed around 1.30 m of the outer frame. On the southern and northern sides, traces of burning over a large area changed the colours of the tesserae. Furthermore, the roots of the surrounding trees caused some of the tesserae on the eastern side to become loose.

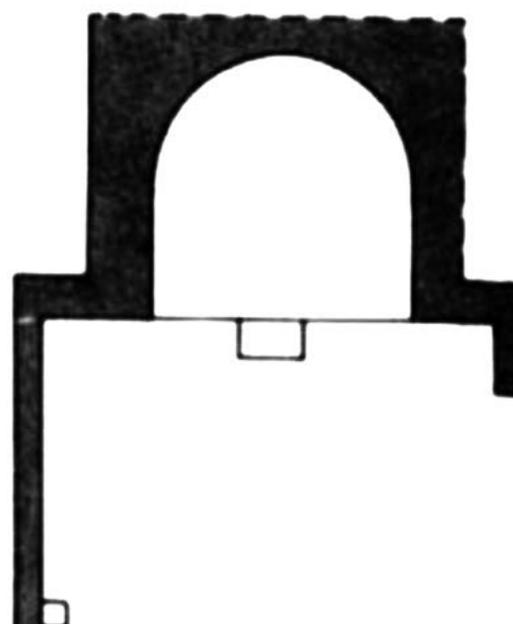


Figure 14: Plan of the eastern part of the Basilica (© Al-Fakhri)



Figure 15: A panel of the mosaic of Hwejet Al-Halaweh in Raqqa Museum (© Al-Fakhri)

Figure 16: A panel of the mosaic of Hwejet Al-Halaweh in Raqqa Museum (© Al-Fakhri)



History and construction of the mosaic

The site of Hwejet Al-Halaweh was discovered in the summer of 1971. Emergency excavations took place on the majority of the mounds along the Euphrates River before being submerged under the water of Lake Assad (Bahnassi 1978: 66). Several mosaics were lifted in 1971 under the supervision of M. R. Al-Hafez from Aleppo. J. Balty from the Belgian mission did investigative research, during which a basilica was discovered with its floor made of several mosaics (Balty 1977: 126-127).

These were restored in Damascus and returned to the Raqqa museum. They were displayed during the opening of the museum at an international seminar in 1982 (Figures 15-16). The basilica dates to the Byzantine period, towards the end of the 5th century AD. The Belgian mission discovered within the church's apse a mosaic that covered the entire floor. It had inscriptions in Greek and Syriac relating to Bishop Nonnus, enthroned in AD 471 as a replacement of Bishop Ibas, who became a bishop in AD 435 and died in AD 457. The plan of the basilica is composed of a rectangular nave,

oriented east-west, with the apse located at the eastern side. The mosaic (6.22 m x 7.18 m) taken from the nave in 1971 displays rural sceneries filled with animals (birds and tigers).

Selective Bibliography

ABOU-ASSAF, A.

1972 Nouvelles inscriptions, *Annales Archéologiques Arabes Syriennes* XXII: 201-210.

BAHNASSI, A.

1978 Le sauvetage des vestiges de la zone de submersion du barrage de Tabqa sur l'Euphrate, *Monumentum* XVII: 66.

BALTY, J.

1984 Mosaïques de Syrie au V^e s., *Byzantium* LIV: 437-468.

1977 *Mosaïques antiques de Syrie*. Bruxelles, Centre belge de recherches archéologiques à Apamée de Syrie.

DONCEEL-VOÛTE, P.

1988 *Les pavements des églises byzantines de Syrie et du Liban*. Louvain, Publications d'histoire de l'art et d'archéologie de l'Université Catholique de Louvain.

GATIER, P.-L.

1995 Un moine sur la frontière, Alexandre l'Acémète en Syrie. In: A. Rousselle (ed.), *Frontières terrestres, frontières célestes dans l'Antiquité: 435-457*. Paris, de Boccard.

The Necropolises of Halabiya-Zenobia

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Abstract

The necropolises of Halabiya-Zenobia have been studied by J. Lauffray in the 1940s and were again surveyed by a Syrian-French mission in 2009-2010. This study re-examined the typology and henceforth allowed us to propose a new dating for the different types of tombs.

The proto-Byzantine town or fortress of Zenobia, mentioned by Procopius in his *De Aedificiis*,¹ is located in the modern town of Halabiya, some 50 km north of Deir Ez-Zor on the right bank of the Middle Euphrates Valley, in front of its twin site of Annoukas-Basileia (modern Zalabiya). The site of Halabiya has been studied in the 1940s by J. Lauffray² and more recently by a Syrian-French mission between 2006 and 2010,³ whose work was interrupted by the events that occurred in Syria in 2011. The results of the surveys in the Halabiya region will be summarized below (Blétry 2015: 373-471).

According to Procopius, both sites of Zenobia and Zalabiya were allegedly founded by the famous queen of Palmyra, Zenobia. But this fact was never confirmed by Lauffray's excavations nor by our own. As a matter of fact, it is generally accepted that the southern curtain of the city walls was built under Anasthasios,⁴ and that most of the remains of the urban site belong to a period spanning Justinian's reign to the beginning of the Islamic period.

Although the main objective of the Syrian-French mission was the exploration of the urban site, we undertook in 2009 and 2010 a survey in the north and south necropolises, which spread respectively 1 km and 1.3 km from the city walls (Figure 1). The purpose of these surveys was to update and complete the study done by Lauffray (1991: 191-224), who recorded only 59 tombs in the two necropolises (56 in the north and four in the south), and included in his publication the descriptions of 13 tower tombs or hypogea. After our own survey, we reach a number of 164 newly identified tombs.

The north necropolis is the one in which the tombs are more numerous. We added 145 tombs to Lauffray's

catalogue. This necropolis was divided into three sectors (Figure 1). We kept Lauffray's numbers for the tombs he had already recorded (Tomb 4 to Tomb 63).⁵ In the south necropolis, we identified 15 new tombs and one additional tower tomb⁶ (Figure 2), aside from the four tower tombs that Lauffray saw (n°102 S, 115 S, 120 S, 122 S). We added an 'S' after the tomb numbers of the south necropolis for better identification.

58 descriptive forms containing plans and pictures and as many details and measurements as possible were completed for most of the well-known tombs (Figure 3). Additionally, 120 architectural plates for 29 tombs (13 tower tombs and 16 tombs another types) were produced.

Tomb typology

One of the purposes of our survey was to improve Lauffray's typology. As a matter of fact, Lauffray distinguished only two types: towers tombs and hypogea. We first distinguished, among the latter, between those dug into the bedrock and those carved inside the cliffs surrounding the site, which we called troglodyte tombs. But we also added a new type that in fact Lauffray had more or less noticed when he described some of the tombs (Tombs 25, 35, 36). These tombs, which were topped by an upper building, were more numerous than Lauffray had thought, with a total of 25 tombs. They can be indistinctly dug into the bedrock or troglodyte. From this survey, we drew some statistics based on the 128 tombs we could enter and whose observations were satisfying enough to clearly define what type they belonged to. The statistics reveal a high proportion of collective tombs (89%) versus only 11% of individual ones. The tombs are generally oriented towards the east, with the exception of those

¹ *De Aedificiis*, II, 8, 1-25. Translation in French by D. Roques (Roques 2011: 165-167).

² Exploration published in Lauffray 1983 and Lauffray 1991.

³ Université Paul-Valéry Montpellier 3, DGAMS, French Ministry of Foreign Affairs, with the help of the O. Aïdi Foundation and the French Institute of the Near East (IFPO). Results of the excavations have been published in Blétry (dir.) 2015.

⁴ See J.-C. Bessac's conclusions in Blétry 2015: 311-344, chapter 11.

⁵ Some of the topographical points recorded in Lauffray's survey were not tombs. His first three numbers were, according to him, tumuli, of which, unfortunately, he does not give any description and which have disappeared since then.

⁶ N° 233 S, which Lauffray sometimes confused with n° 115 S. It is from this n° 233 S, and not from n°115 S, that a wall, protecting the southern suburb, comes down from the cliff to the bank of the river (Lauffray 1991: 203).

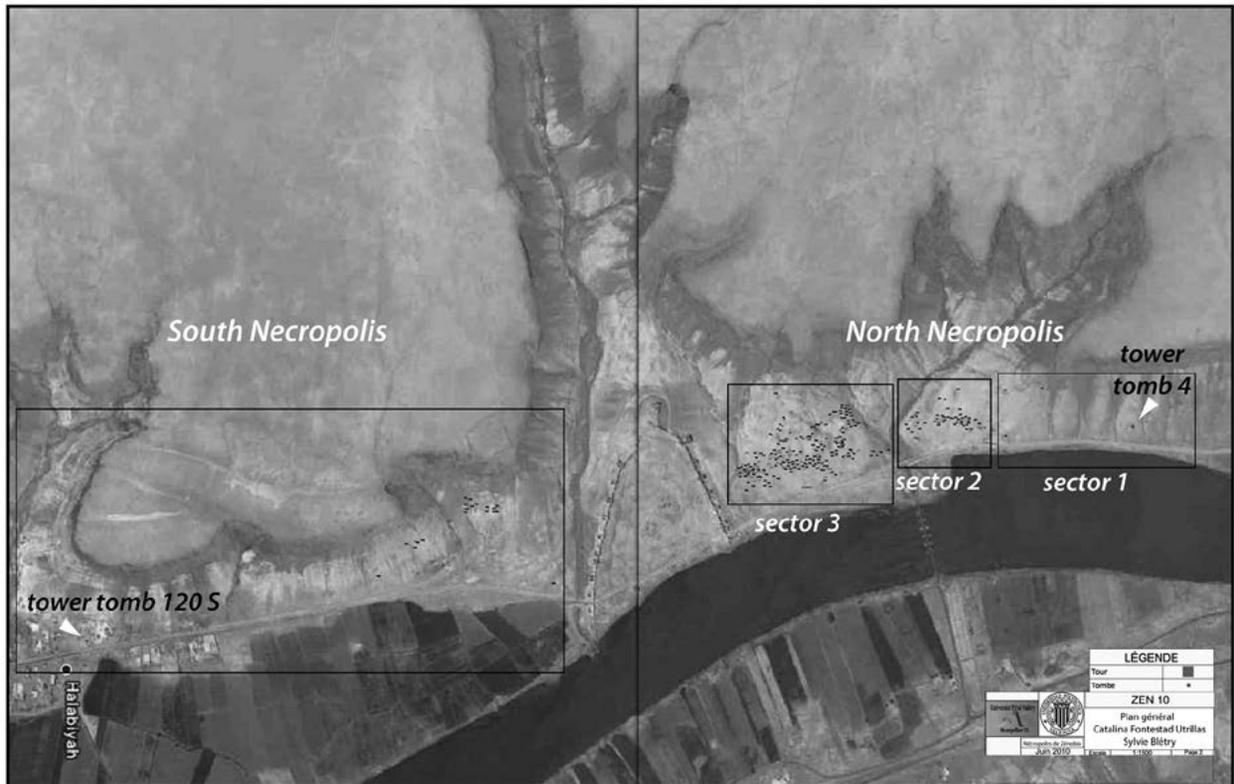


Figure 1: General map of the necropolises (© Mission archéologique syro-française à Halabiya).



Figure 2: Map of the south necropolis (© Mission archéologique syro-française à Halabiya).

tour	17	ref	Laufray II, p.199
nécro N/S	N	type	tombeau-tour
état de conservation	partiel; élévation max. d'environ 3 m, la chambre s'est effondrée sur elle-même.		
coordon x	574754	coordon y	3950491
coordon z	238	GPS	Magellan ED 50 +315/HUSSO37/COORD.UTM
mat.	maçonnerie en basalte et gypse		
dimensions		décor extérieur	
hauteur	3m env.	Podium d'1 gradin. Pilastre d'angle ?	
N/S	5.60		
E/W	6.20		
vestibule		Colonnade engagée façade N comportant 3 colonnes engagées de 50 cm de large avec une saillie de 0.30 m sur 1 m environ d'élévation, avec un entrecroisement (4 niches ou fausses fenêtres) de 0.80m.	
E/W	1.40		
N/S	1.20		
fermeture	porte		
chambre		couverture	
forme de la chambre	cruciforme 3 arcosolia		
dim N-S	2.57	éléments de décor	
dim E-W	2.58	Enduit sur les parois intérieures.	
hauteur			
loculi		forme	
7		Voûtées et rectangulaires	
côté1	2 face S	côté2	2 face N
côté3	2 face O	côté4	1 ou 2 face E, de part et d'autre de la porte
h1	0.56	h2	0.60
h3	0.46	h4	
l1	0.47	l2	0.42
l3	0.46	l4	0.50
prof	1.67/1.41	prof2	1.87/1.59
prof3	1.51/1.38	prof4	
ext/int1		ext/int2	ext
ext/int3		ext/int4	ext
arcosolia		banquettes ou cuves	
4		Cuves (?)	
1position	O	2position	N
3position	S	4position	E
1hauteur		2hauteur	
3hauteur		4hauteur	
1largeur	2.30	2largeur	
3largeur	2.20	4largeur	
1prof	1.17	2prof	1.17
3prof	0.90	4prof	

17		
photo	plan	
escalier	non <input type="checkbox"/>	oui <input type="checkbox"/> escalier tournant; la volée conservée est parallèle à la façade ouest
largeur	0.68	
volées	1	largeur marches
0.26		
inscription		
position inscription		
décor intérieur	<p>Dans la paroi de l'<i>arcosolium</i> N, on distingue une petite ouverture de 20x50cm, enduite avec le même matériau que la paroi.</p> <p>Les <i>loculi</i> et la voûte d'entrée présentent des traces de coffrage treissé dans l'enduit qui orne la voûte.</p> 	
mobilier		
travaux effectués		
observations	<p>On note que comme on peut le constater dans la T4, la symétrie des voûtes des <i>arcosolia</i> est reproduite dans l'arc E (notée comme étant un <i>arcosolium</i> ici).</p> <p>Il existait sans doute un vestibule comme pour la tour 4, d'où part l'escalier tournant</p>	

Figure 3: Example of a descriptive form (© Mission archéologique syro-française à Halabiya).

tombs dug or carved into cliffs and oriented in another direction. Our survey allowed us to reach a total of 29 tower tombs (type 1), nine hypogea topped with an upper building (type 2-1), 15 troglodyte tombs having similar construction (type 2-2), 53 hypogea (type 3), and 19 troglodyte tombs (type 4) (Figure 4).

Tower Tombs (type 1)

Halabiya's tower tombs (type 1) differ much from other tower tombs found in Palmyra or in the Euphrates Valley, for example at Baghuz. First of all, their ground level room has a different plan: Seven of them present a central cruciform room (except for one tower tomb)⁷ with three arcosolia, one on each of the three sides (and without tiers of superimposed *loculi*, as at Palmyra). The fourth side (east) has a door, above which a fourth arcosolium is carved. The characteristics of the Halabiya tower tombs are very different from those of Baghuz, which comprise only *loculi*, and/or small rooms

⁷ The composition of tower tomb n°120 S is unique. This tomb is isolated inside the modern village; it is the most distant one from the southern city wall. These are the reasons why it seems to us and other scholars (Clauss-Balty 2002: 167, whose dating, attributed to the 1st century BC, is far too early for us) that this tower is probably the most ancient one.

containing only one sarcophagus (Clauss-Balty 2002: 167).

But most of the tower tombs of Halabiya present several other original features:

- The central ground level room has a large surface area with an average size of 8.18 m², which is much bigger than on other sites in the Middle Euphrates Valley, such as Dura Europos (later tower tomb, 'D': 2.34 m²), Baghuz (the later ones), Ezri, and Shaq El-Hamâm (5.5 m² to 6.6 m²).
- The average height of the room is 5.73 m in Halabiya. It is only 1.5 m for tower tombs in Dura Europos, 2.75 m at Ezri, and 4 m at Shaq El-Hamâm. The ceiling in Halabiya has a pyramidal shape, which is unique among these other examples (Figure 5).
- Concerning the exterior aspect of the tower tombs in Halabiya, the architectural decoration consists of thin (of Parthian inspiration) or wide columns (more or less similar to the Baghuz tower tombs) with blind vaulted or rectangular windows.

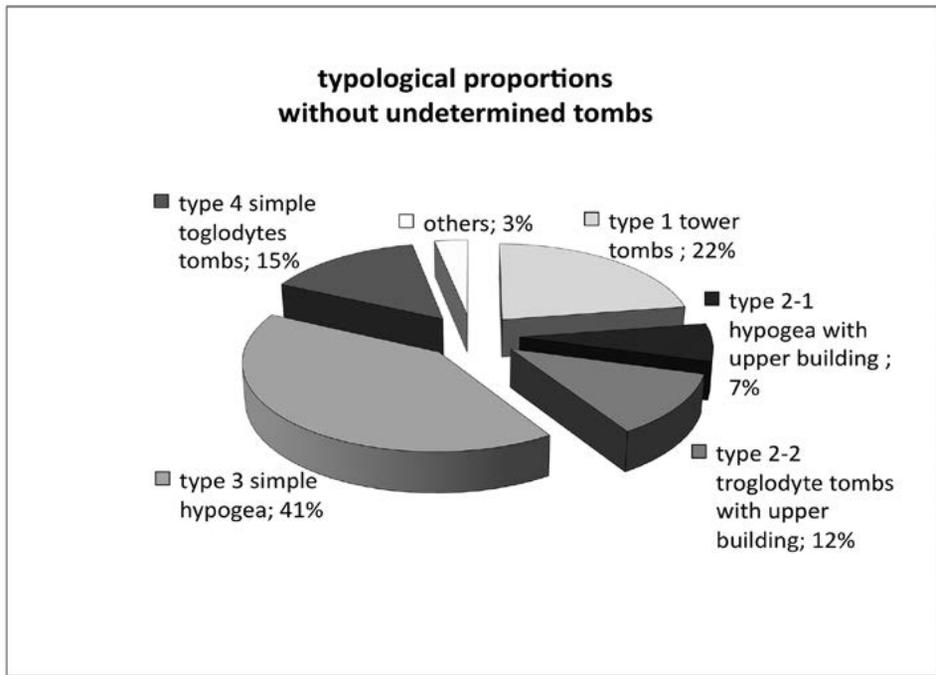


Figure 1: Typological proportions
(© Mission archéologique syro-française à Halabiya).

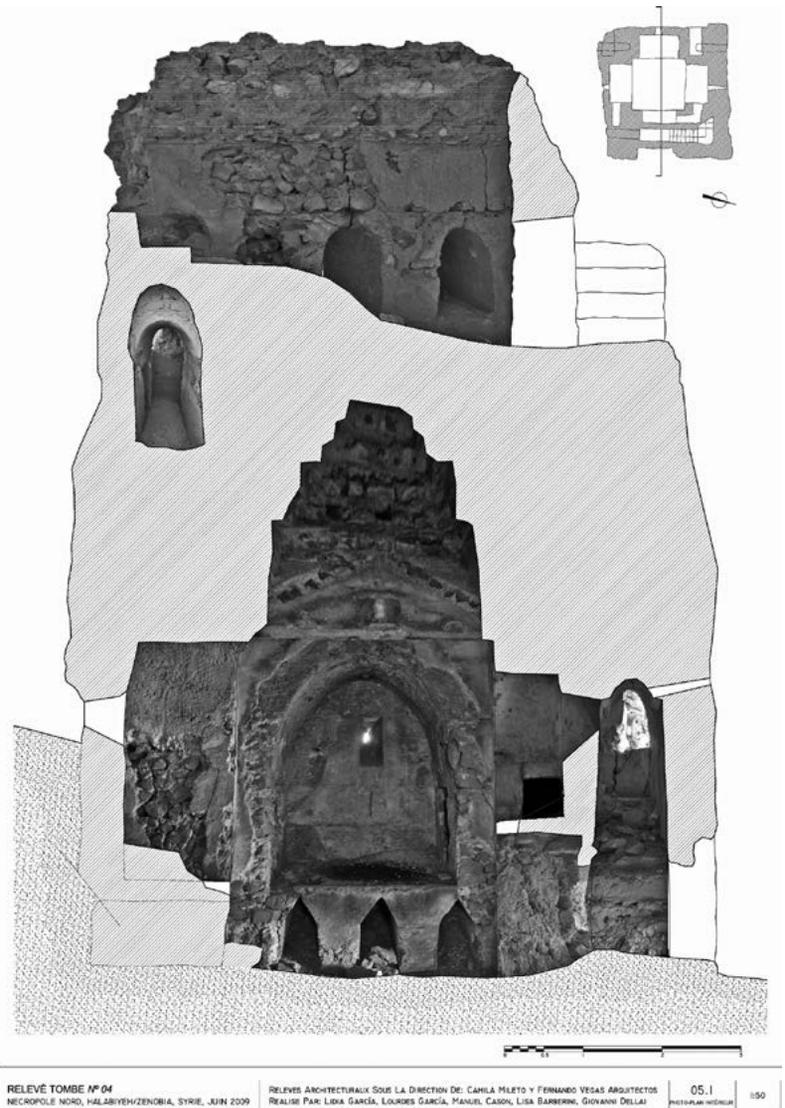


Figure 5: Interior section of Tower tomb 4
(© Departamento de Composición Arquitectónica de l'Universitat Politècnica de Valencia).



Figure 6: Tower tomb no. 45
(© Mission archéologique syro-française à Halabiya).

- In Halabiya, the entrance is in the middle of one of the façades (always the eastern one), and some of the tower tombs were also fitted with two large external *loculi* on each side of the door.

- There are numerous external *loculi* on the façades of Halabiya's tower tombs. For example, tower tomb n° 45 had at least nine external *loculi* (Figure 6) and tower tomb n° 4 had five of them.

The tower tombs, in which the second level is more or less preserved (n° 4, 13, 120 S), present different plans, a fact that makes it difficult to reach a general conclusion about this particularity. Tower tomb n° 120 S lacked a central room, as in the first level, but had a small room along the stairs leading to a totally destroyed second floor; this room is only occupied by

a large hollow and was completely enclosed inside the masonry. Tower tomb n° 4 still has the major part of a room with two large *arcosolia* on the north side, and probably two benches under two other *arcosolia* on the west and south sides. The eastern side was occupied by stairs leading to an upper floor. Tower tomb n° 13 is the only one where a second level cruciform-shaped room is still preserved. Its door opens on the west side and hollows are placed on the east, south and north sides. Above the east and south hollows, traces of *arcosolia* are still visible.

Tombs with upper buildings (type 2)

Our second type corresponds to the tombs above which an upper building has been erected. This latter is different from the tower plan, and, as far as we

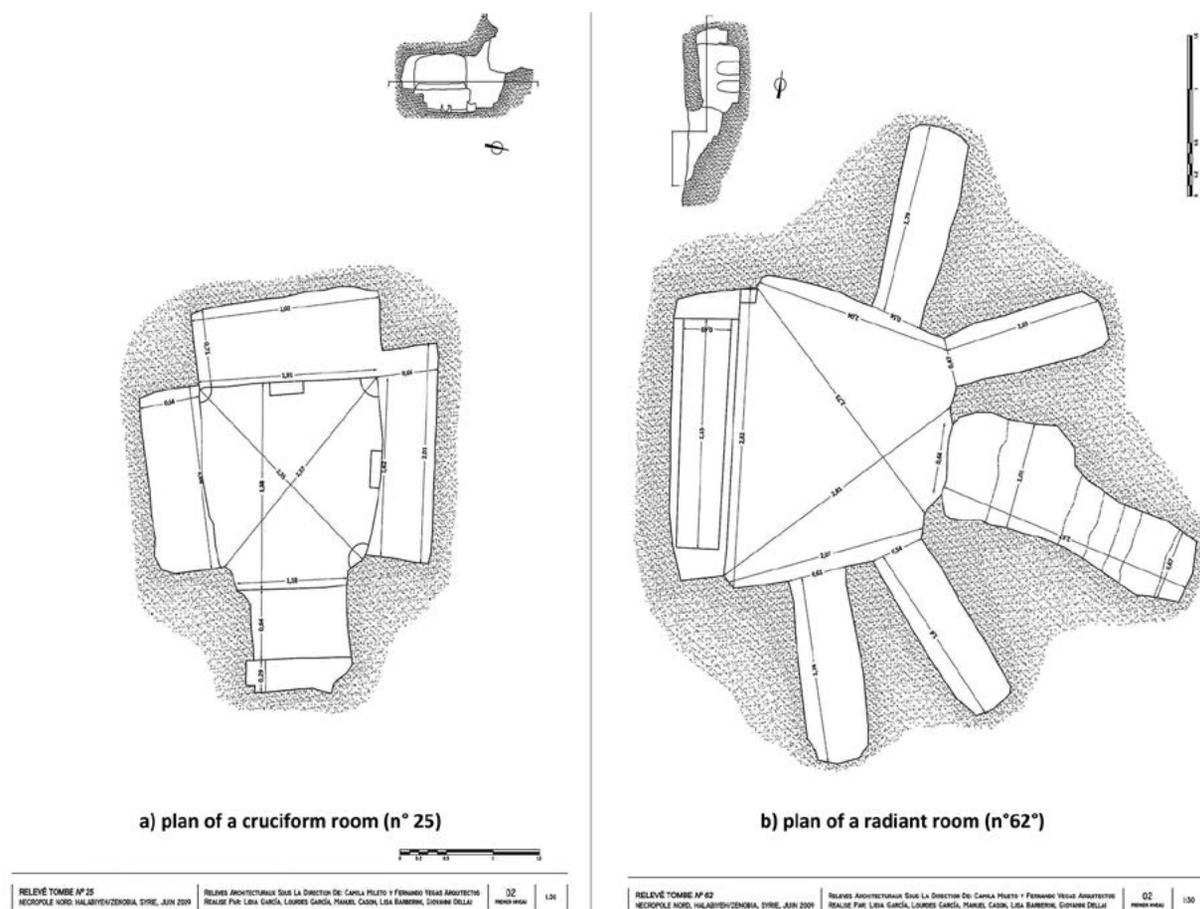


Figure 7: Plans of cruciform and radiant rooms
(© Departamento de Composición Arquitectónica de l'Universitat Politècnica de Valencia).

know, has a lower elevation. It is generally solid, but we noticed at least two examples that revealed either a *loculus* (n° 36), or a small chamber where a hollow was cut (n° 230 S).

Hypogea (type 3) and troglodyte (type 4)

The third type is a simple hypogeum, whose access is possible by a few steps (dromos), and the fourth design is the troglodyte tomb, with no upper building. Tomb types 2, 3 and 4 share common features. Most of them have a cruciform plan (72%), except for the individual tombs (16%), and a few other examples (12%: n° 34, 61, 62, 260, 262, 345 S) (Figure 7a). The average size of their room space is 6.46 m² and 5.32 m², if we exclude natural caves. None of these have any tiers of superimposed *loculi* similar to our findings at Palmyra or Dura Europos. Rooms have generally three *arcosolia* on the north, west and south walls, either fitted with benches on which sarcophagi were probably placed, or with hollows, as in the tower tombs (Blétry 2015: 442). The widths of the *arcosolia* vary between 1.64 m and 2.68 m. The room plan of these collective tombs is the same except for five of them, where, for instance, the tomb

was cut into a natural cave (n° 34). Another example is tomb n° 62, where there is a bench on the western side and four radiant *loculi* around the room (Figure 7b).

In some cruciform hypogea, a few *loculi* are dug from the ground level or from the top level of the benches (Blétry 2015: 443). *Loculi* under the benches are found in three troglodyte tombs (n° 31, 35, 36). Lastly, there are two troglodyte tombs (n° 35, 36) comprising two rooms.

The best comparison for these tombs would be with the necropolis of Tell Al-Sin, a site located only 60 km north of Halabiya, along the Euphrates Valley (Montero Fenollós 2008). If we exclude a few (minor) differences,⁸ the common points are significant. At Tell Al-Sin, all the tombs have a cruciform plan, even if some of them contain five *arcosolia* (two on the north and south sides and one on the western side). The entrance to the tomb is always on the east side.

⁸ The average size of the room, for instance, at Tell Al-Sin is smaller: only 3.43 m². This may be due to the better quality of the gypsum at Halabiya.

Other tomb types

A few tombs of other types (3%) were also identified. For instance, Lauffray reports a few individual graves (Lauffray 1991: 194-195), but we were unable to locate these as their positions were not precisely documented. We found three more but we did not excavate them (n° 155, 156, 243). We also discovered three contiguous tombs dug into a slope, and then built and covered with baked bricks (n° 254, 256). The central one still contained the bones of an individual and the skull of another one. This is almost the only grave in which we found human remains, and, generally speaking, ceramic, textile, glass or metal material was scarce. The necropolises were clearly looted since Lauffray's excavations. However, he does not mention any finds, except for very few ceramics (lamps) and some textiles and bones from tower tombs n° 13 and 15, found by himself and Toll (Lauffray 1991: 213; Toll 1937: 18-20). A grave carved inside the ground at the bottom of the northern hollow in tomb 230 S contained the bones of 25 individuals (secondary inhumation). Lauffray identified only three other similar cases in tower tombs n° 4, 13 and 15 (Lauffray 1991: 208, 214, 216). Nevertheless, neither Lauffray nor we had time to make thorough osteological analyses of these human remains.⁹

Lauffray reported numerous *graffiti* in the tombs (Lauffray 1991: 227-230) and traces of wall paintings, mainly red painted crosses¹⁰ and a few red painted inscriptions that we were able to identify again, in tower tombs n° 8 and n° 13 (Lauffray 1991: 211, 214). The inscriptions consist of the mention of apparently the same individual, 'IOANNIS THOMAS'. In tomb n° 230 S, the inscription reads 'tomb of IOANNIS' (Blétry 2015: 448-449).¹¹ In every inscription, the text is preceded by a cross. The date, according to P.-L. Gatier, is either the 5th or 6th century AD.

The necropolises of Halabiya, with their different types of tombs, of which the cruciform plan is the most frequent (72% of all types), and with their large central room (where no vertical tiers of *loculi* have been found), appear to be very rare, if not unique. Nevertheless, this, and also the fact that the necropolises were entirely looted, make it difficult to propose a precise date for them. Some scholars (Clauss Balty 2002: 171), based solely on stylistic criteria, suggest that Halabiya's tower tombs date to the 1st century BC (n° 120) or to

the 1st century AD. But, on one hand, neither Lauffray, nor the Syrian-French mission, ever made any find from this early period on the whole site. Should we admit, as Lauffray did, that an earlier city than the one preserved is to be found elsewhere (Lauffray 1991: 276)? This hypothesis is very tempting, and, for a while, it was ours, too. But, then, one should ask why the actual urban site is localized in the very centre of the extension area of the necropolises? On the other hand, the three Christian inscriptions we found, the numerous Christian crosses, painted or carved on the walls, and the very few finds we have (oil lamps, textiles), all belong to the Byzantine period. Of course, one must consider that they may correspond to a re-occupation phase of the tombs. Nevertheless, they are the only indications we have of a precise dating. More pertinent and fruitful comparisons are the ones that can be made between Halabiya's hypogea and the Tell Al-Sin necropolis, dating to the 6th or 7th century AD (Marquez Rowe 2008: 275-286).

What conclusions can we then propose on the chronology of Halabiya's necropolises?

Lauffray (1991: 193-194), Toll (1937: 14) and Will (1994: 264) assumed that the necropolises are no earlier than the 3rd/4th century AD, which corresponds more or less to the indication given by Procopius, who pretends that the site was founded by Queen Zenobia. Procopius's testimony about the city of 'Zenobia' is rather credible as a description of the Proto-Byzantine reality (Blétry 2008). Nevertheless, the precise information about its foundation may be doubtful, revealing more a will to ascribe a prestigious past to the city than a positive historical fact. However, Procopius gives us a *terminus post quem*, even if many scholars showed that a precaution is indispensable when considering his assertions (Carrié *et al.* 2000). Once more, one should keep in mind Lauffray's regret '*not to have reached the levels from the Palmyrenian period nor (...) the city founded by queen Zenobia*' (Lauffray 1991: 276). A. Sartre-Fauriat considers that a later date, around the 4th/5th century AD, is more reasonable (Sartre-Fauriat 2001: 92). We agree with her dating.

According to what we know about the other monuments of this type found elsewhere, in Palmyra or in the Euphrates Valley, where they had already become obsolete, the first monuments built in the necropolises were probably the tower tombs. It seems that this tradition was renewed at Halabiya, with a different architectural vocabulary: a large cruciform central room, with three benches or hollows placed under three *arcosolia*, very few internal *loculi*, but several examples of rather numerous external *loculi*. In all, this represents a rather small number of funeral berths in each tower tomb.

⁹ We can only indicate that there were 15 adults (7 male, 5 female, and 3 undetermined) and 5 juvenile individuals. Together with the bones, we found fragments of rough textile (linen), wood, and leather.

¹⁰ Blétry 2015: 447-448. A few rooms have traces of a gypsum layer painted in white, ochre, or red; we have one example of a geometric painted ceiling (n° 34) (Blétry 2015: Fig. 523) and one example of a painted floral decoration, together with a painted wrought cross in tomb n° 35 (Blétry 2015: Fig. 523C. 599). The most elaborated decoration is in tomb n° 29 (Blétry 2015: 412 and Fig. 520).

¹¹ I warmly thank P.-L. Gatier who deciphered it.

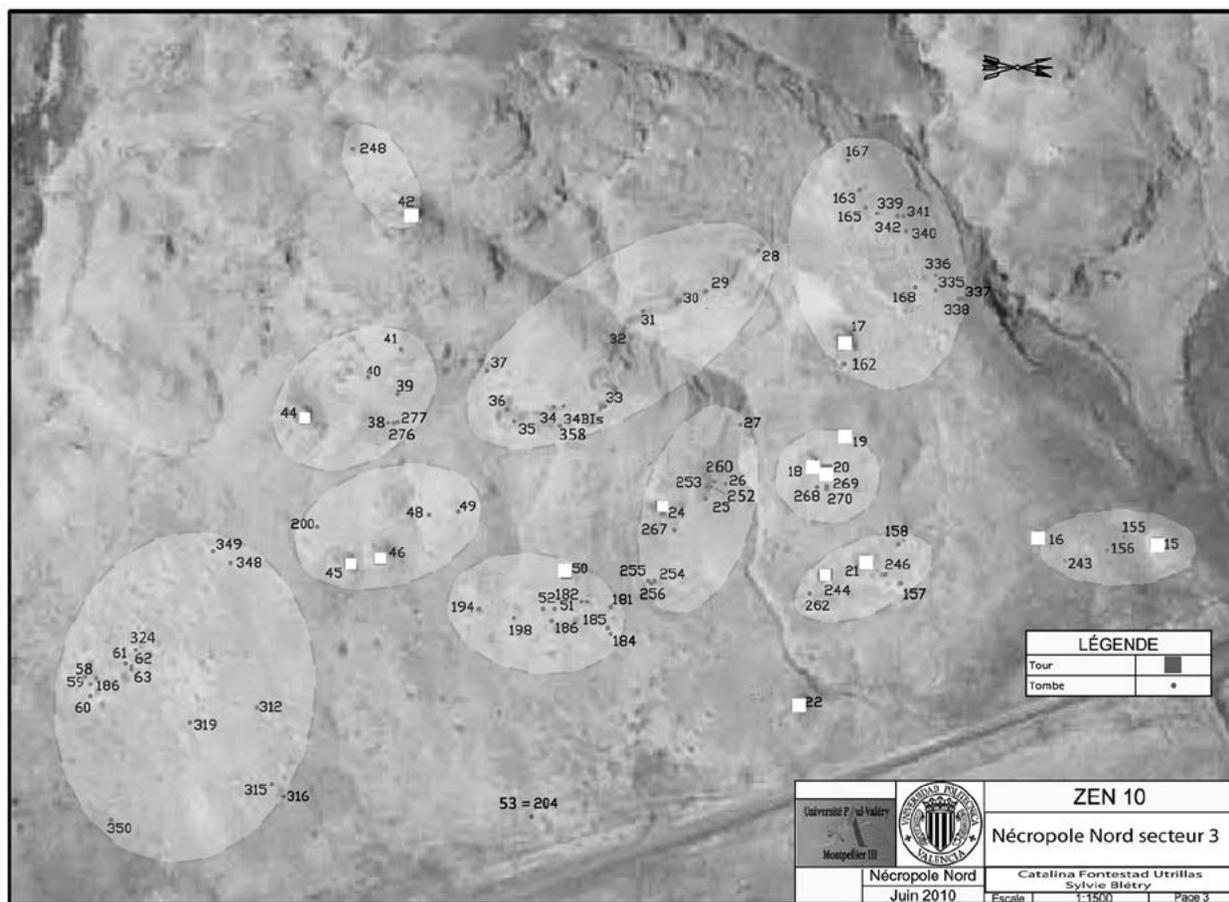


Figure 8: Sector 3 of the north necropolis. Groups of tombs (© Mission archéologique syro-française à Halabiya).

Concerning the stylistic argument consisting in the similarity of their external decoration with the ‘Parthian’ tradition, one should not neglect the fact that it was still in use during the 6th century AD, in Ctesiphon for instance.¹² However, a comparison with the Baghuz tower tombs, which are not dated (but which obviously seem earlier, when considering their quite different internal disposition), does seem adventurous. Among Halabiya’s tower tombs, n° 120 S seems to be the most ancient, on account of its specific organization (door on the south side, no central room, but only one large *loculus* and one berth in one enclosed small, vaulted room inside the masonry). We already noticed that this monument is also the most isolated from the rest of the necropolis. But this does not necessarily mean it was older by one century compared to the others. The next one is probably tower tomb n° 4, located at the north end of the north necropolis, with its benches placed above the *loculi* and whose decoration is not so different.

¹² Kurz 1941. The palace has been attributed to Parthian Shapur I or Shapur II, but the author argues for a dating under Kosrhô I in the mid 6th century AD. This latter conclusion is the one generally preferred.

We then suggest that type 1 (tower tombs) must be associated with the first inhabitants to settle in Halabiya. The following generations, loyal towards their ancestors, probably felt it necessary to be buried close to them. They chose other types of funeral monuments, which are still indicated by an outside sign, but not as tall as the original tower. These built tombs were fitted with a smaller upper building (type 2). They chose also a simpler monument, such as a simple hypogeum or a simple troglodyte tomb (types 3 and 4).

Some of the topographical links existing between the tower tombs, and some of the other types, become more obvious when observing some groups of hypogea or rock-cut tombs that seem to have been intentionally placed around the tower tombs; the example of sector 3 in the north necropolis is particularly obvious (Figure 8). But this could even be the case of the surroundings of tower tomb n° 120 (the isolated one in the south necropolis, and probably the most ancient). Indeed, Lauffray noticed close to the tower tomb a small church (today destroyed by the modern road) and two sarcophagi. In our opinion, this association reveals strong links remaining over several decades between the

very first settlers and their late (Christian) descendants. On the other hand, the choice of simpler funeral monuments, such as hypogea or troglodyte tombs, may also have been made by inhabitants who had no family links with the generation of the first settlers. One can notice, especially in sector 3 (Figure 8), the closest from the north city wall, groups of tombs having no link with any tower tomb. These types of tombs may also have belonged to a social class of more modest means. One may consider, indeed, that a tower tomb probably also shows that its owners lived in relative prosperity and were from 'aristocratic' families.

There are still, as we see, many unsolved questions about Halabiya's necropolises. For instance we still do not know what kind of relationship existed between the individuals buried under the arcosolia and those who were placed inside the *loculi*, inside and outside the tombs, and on the first or second levels. We also have no idea how many graves were just tombs dug inside the bedrock, which are without doubt the more numerous. In a more general sense, our knowledge about the town's inhabitants (soldiers in garrison, *comitatenses* or *limitanei*, peasants, or aristocrats in the large *domus*?) remains poor. As Lauffray says (1991: 276), we must hope that, one day, 'a new team, having better means' and more time than we had, 'will be able to re-undertake researches and excavations' on the site.

Bibliography

BLETRY, S.

- 2015 *Zénobia-Zénobia, habitat urbain et nécropoles, Cinq années de recherches de la mission syro-française (2006-2010)*. Cuadernos Mesopotámicos 6. Coruña, Ferrol.
- 2008 Le De Ædificiis de Procope, La propagande à l'aune de la réalité. L'exemple de Zénobia-Halabiyé, Colloque 'La fabrique de l'événement', Montpellier, Université Paul Valéry, 18-20 septembre 2008 [accessed 9/4/2018: [http://crises.upv.univ-montp3.fr/equipe/chercheurs-et-enseignants-chercheurs-rattaches-a-titreprincipal/archeologie/bletry/and HAL: https://hal.archives-ouvertes.fr/hal-01166823](http://crises.upv.univ-montp3.fr/equipe/chercheurs-et-enseignants-chercheurs-rattaches-a-titreprincipal/archeologie/bletry/and-HAL:https://hal.archives-ouvertes.fr/hal-01166823)].

CARRIE, J.-M., DUVAL, N. and ROUECHE, CH.

2000 *Le texte de Procope et les réalités*, *AntTard* 8.

CLAUSS-BALTY, P.

2002 Les tours funéraires du Djebel Baghoûz dans l'histoire de la tour funéraire syrienne, *Syria* 79: 155-194.

KURZ, O.

1941, The Date of the Ṭāq i Kisrā, *The Journal of the Royal Asiatic Society of Great Britain and Ireland* 1: 37-41.

LAUFFRAY, J.

1991 *Halabiyya-Zénobia, Place forte du limes oriental et la haute Mésopotamie au VI^e siècle, T.II, L'architecture publique, privée et funéraire*. Bibliothèque historique et archéologique 138. Paris, Geuthner.

1983 *Halabiyya-Zénobia, Place forte du limes oriental et la haute Mésopotamie au VI^e siècle, T. I, Les duchés frontaliers de Mésopotamie et les fortifications de Zénobia*. Bibliothèque historique et archéologique 19. Paris, Geuthner.

MONTERO FENOLLOS, J.-L.

2008 *La necropolis bizantina de Tall as-Sin*. Memorias del proyecyo Arqueologico Medio Eufartes sirio I, Madrid, Consejo superior de Investigaciones científicas, Bibliotheca del Proximo Oriente, 4. Madrid, Consejo superior de Investigaciones científicas.

ROQUES, D.

2011 *Procope de Césarée, Constructions de Justinien Ier*. Collection Hellenica 39. Alessandria, Edizioni dell'Orso.

SARTRE-FAURIAT, A.

2001 *Des tombeaux et des morts, Monuments funéraires, société et culture en Syrie du Sud du I^{er} s. av. J.-C. au VII^e s. ap. J.-C.* Bibliothèque historique et archéologique 158. Beyrouth, IFPO.

TOLL, N. P.

1937 The necropolis of Halabie-Zenobia. In: *Seminarium Kondakovianum: recueil d'études, histoire de l'art, études byzantines*, *Annales de l'Institut Kondakov*, IX: 11-22.

WILL, E.

1994 La tour funéraire de la Syrie et les monuments apparentés, *Syria* 26: 258-312.

Syrian Excavations in the Byzantine City of Tell Al-Kasra, 2006-2010

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Abstract

The Euphrates played a vital role in the defence system of the eastern borders of the Roman Empire and later during the Byzantine period. Scientists have named the Euphrates the *Limes*, i.e. the borderline between the Roman and Persian empires. A number of defensive and fortified installations were implemented along this line to protect the empires from repetitive attacks made by the Persians and Sassanids. Tell Al-Kasra, also called 'Allan' by A. Poidebard, is considered one of the important forts located on the left bank of the Euphrates to the northwest of the city of Deir Ez-Zor. In 2006, the Directorate General of Antiquities and Museums (DGAM) in Syria, represented by the Deir Ez-Zor Directorate of Antiquities, approved the creation of an excavation mission to lead archaeological work in Tell Al-Kasra.¹

Tell Al-Kasra is located on the left bank of the Euphrates about 40 km northwest of Deir Ez-Zor (Figure 1). It has a strategic location, offering a fast and easy east-southeast passage in the desert through flat lands with no tangible obstacles. This passage was the route taken by the Bedouins and their herds in their pursuit of grass and water. Actual settling in this area was very rare, as is testified in the historical records (Figure 2). The site covers an area of c. 27 ha.¹

The ancient name of this site is still unknown, even though A. Poidebard refers to it as 'Allan'. One of the aims of this mission was to confirm the identification of this archaeological site. The walls and the residential buildings identified on the site suggest that it might have been an ancient city (*polis*). Tell Al-Kasra most probably played an important role due to its location and the policy of the emperor Justinian, who was responsible for the military organization of the entire region, aiming at fortifying the suburban cities of Mesopotamia. The historical records of the site reflect several changes that started in the 5th century AD and continued until the beginning of the Islamic period.

History of the research

The site was discovered in 1849 by the British mission headed by F. R. Chesney. In the *Expedition for the Survey*

of the Rivers Euphrates and Tigris the site first appeared under the name of 'Sour Al-Homr' ('Red Walls').² E. Sachau also surveyed the site and studied it in 1879 (Shachau 1883: 260). G. Bell photographed the site and mentioned it by the name of 'Um El-Rukoba' (Bell 2004: 70). The site was also surveyed by A. Poidebard during the French mandate (Poidebard 1934: Pl. XXXV:1, al-kasra). Results of the excavations of our four seasons of work confirmed the existence of a Byzantine settlement, and, more specifically, the presence of a city dating to the 5th century AD. In the 6th century AD, the city flourished architecturally and became increasingly important, as attested by two tombs discovered in the northwestern side of the site.

Site description

The tell is surrounded by a mudbrick wall preserved on all sides except the northwestern part, where it is destroyed. The western part, covering one third of the wall, has been exposed to rainwater flows, resulting in a grid of deep cracks which run down to the surrounding plain, 20 m below the top of the tell (Figure 3). The western part of the surface of the tell is covered today with a new cemetery. The mudbrick fortification of Tell Al-Kasra follows clearly the topography of the tell. It has a pentagon plan. The front defence line is the rock-carved ditch that lies in front and runs along the walls. The ditch can be distinguished from the wall, especially in old aerial photographs. The west wall is missing, with no clear indication of the reason. However, the southern, southeastern, and eastern walls are well preserved and the topographic study allowed us to assume the presence of three gates, one on each side.

¹ I am indebted to M. Al-Maqdissi, Director of Excavation and Archaeological Studies Department, DGAMS, B. Jamous, General Director, DGAMS, and A. Alhaj Saleh, head of Deir Ez-Zor Antiquities Directorate, for their support in making this project a success. I would like to offer special thanks to S. Al-Shbib, J. Gaborit, C. Benech, and J. Abdul Massih for their valuable support. I would also like to thank the Al-Jazeera Private University in Deir Ez-Zor, represented by A. Al-Atia, Head of the Department of Architecture, E. Bakarji, Director of the Archaeological Laboratory in the Syrian Atomic Energy Commission, and the members of the team, Mr Kaddour, Idlib Archaeological Directorate, and the architects N. Al-Kaddour and N. Al-Khalaf.

² Chesney 1850: IV, records: 'extensive mounds apparently the walls of an ancient city'.

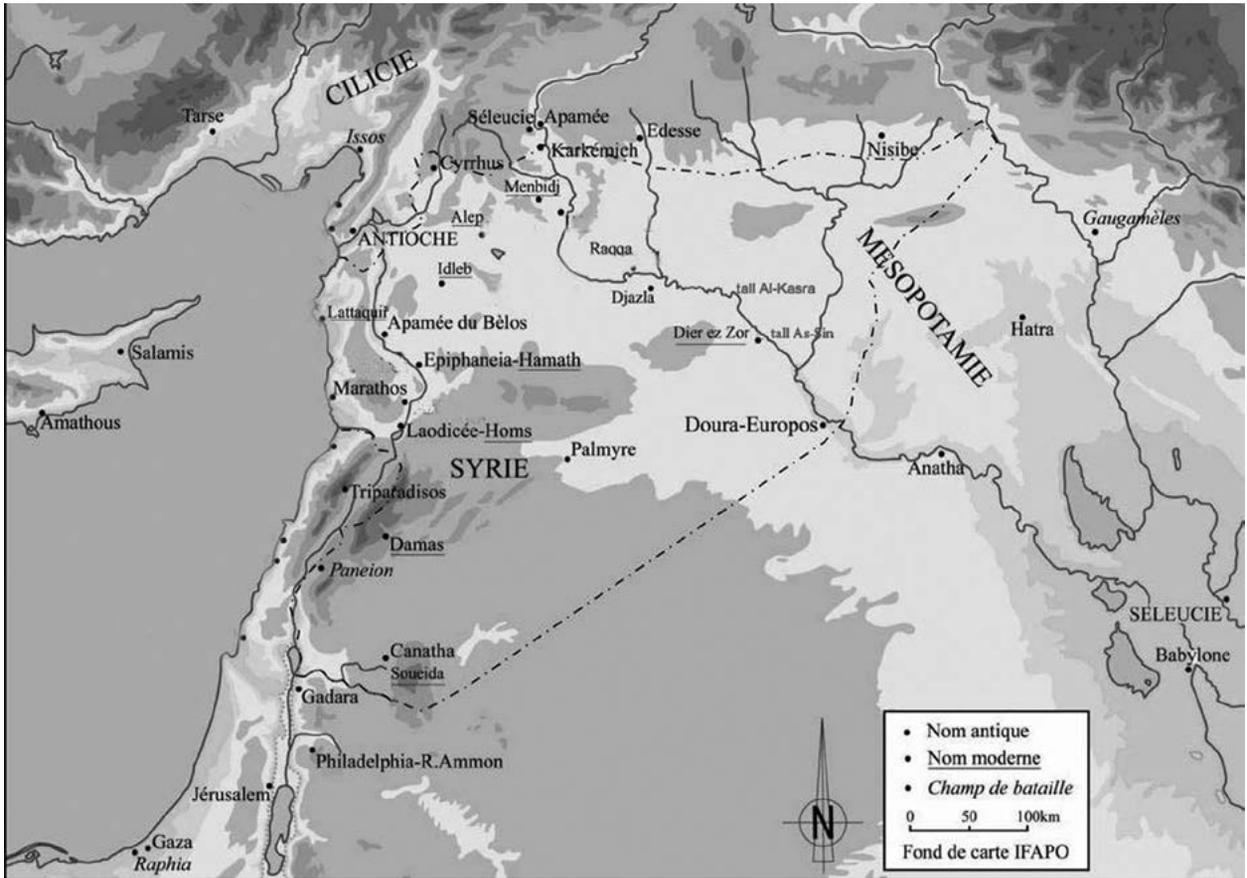


Figure 1: Map of Syria showing Tell Al-Kasra on the Euphrates (© Y. Al-Abdallah).



Figure 2: Satellite image of Tell Al-Kasra (© Y. Al-Abdallah).



Site de Um Rejeba (G. Bell)

1 - Al-Kasra. (A. Poidebard 1934)

Aéro Levant

Figure 3: Aerial view of Tell Al-Kasra (Poidebard 1934)

The northern wall

This part of the fortification is c. 500 m long and 1.5 m high at its most preserved part. It is composed of two walls (A and B) on the northwestern corner of the rampart, as evidenced clearly in a picture taken in 1930.

The Eastern Wall (A) is a straight feature, c. 350 m long. It has been destroyed near the northwestern corner by the new asphalt road running along the base of the tell, although this destruction helped clarify the construction phases of the tell. There are few openings in this wall, most likely the gates of the city, which were used possibly as passage points for ordinary visitors.

The Western Wall (B) is complete and 160 m long. It consists of one or two courses of mudbricks placed directly on the natural soil of the site. The wall is slightly curved, 70 m at the northeast end of the tell; it is likely a tower.

The eastern wall

This wall of 250 m long is composed a numerous small mounds identified as towers.

The southern wall

This feature also includes two walls. The southwest one is c. 250 m long and extends until the corner where the wall changes direction. Despite the erosion of the area, because of the proximity of the river, this corner is well protected by a rectangular tower.

The western wall

This wall is totally destroyed (Gaborit 2007).

It is worth noting here that Tell Al-Kasra cannot be discussed without mentioning the site of Tell Al-Sin (Montero Fenollós and Al Shbib 2006: 6) because of the pentagon plan observed on both sites and the similar historical periods of their occupation. The Spanish-Syrian excavation mission working at Tell Al-Sin³ confirmed the existence of a square-shaped mudbrick wall that surrounded the tell, in addition to houses built with rectangular mudbricks that greatly resemble the bricks discovered to the south of the northern gate at Tell Al-Kasra. This is the reason why it

³ Tell Al-Sin is located to the northwest of Deir Ez-Zor. S. Al-Shbib was the director of the Syrian side of the joint mission between 2005 and 2007.

is thought that these two sites were built by the same architect using one plan and the same construction method in both cities.

Important Discoveries at Tell Al-Kasra

The fortress gate

This gate was discovered in the northern wall in 2006 in Sounding C. The stones of the foundation of the gate

were uncovered, as well as some iron fragments that could be part of two iron doors (Figure 4).

Sector E tomb

In 2008, Tomb E was discovered and identified as one of the important tombs based on its architectural style and the findings it contained (Figure 5). The tomb is almost square with a total area of 20.75 m². Its perimeter is 18.23 m. The central room of the tomb is 6.53 m² with



Figure 4: Northern gate of Tell Al-Kasra, northern wall (© Photo by Y. Al-Abdallah).



Figure 5: Tomb E2 (© Photo by Y. Al-Abdallah).

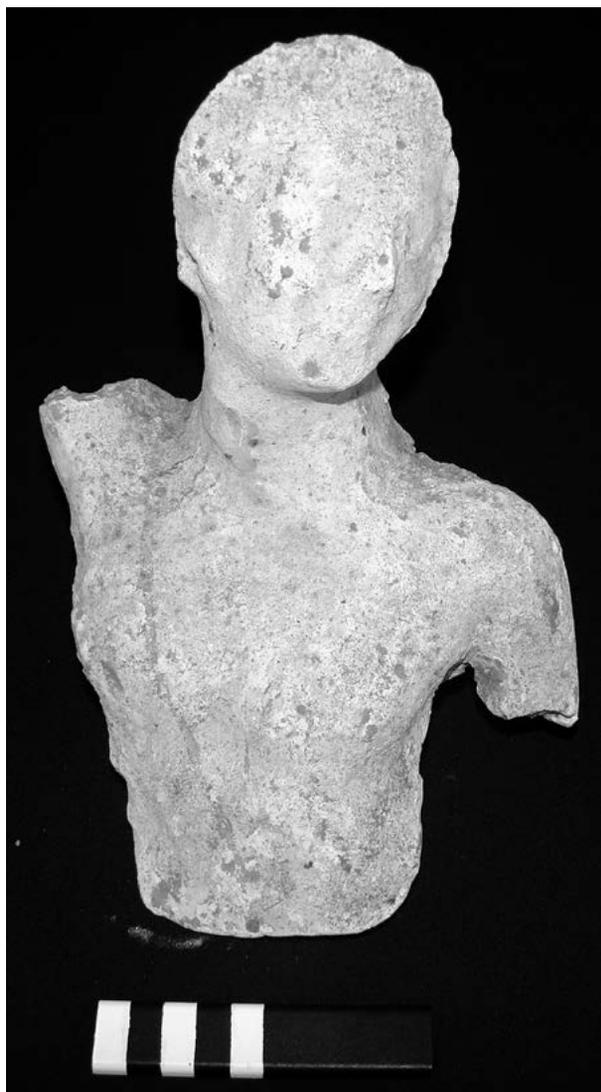


Figure 6: A small plaster sculpture discovered in tomb E2 (© Photo by Y. Al-Abdallah).

a perimeter of 9.83 m. The width of the gate of the tomb is 55 cm and it is a little higher than the floor of the central room. The entrance is immediately followed by a threshold that leads to a wider threshold. There are two niches on the sides. Three constructed tombs occupy each of the three walls facing the entrance. The western and northern tombs are the extension of the constructed walls, with an arch-shaped opening covered with a thin layer of plaster on the inside and outside. In terms of its construction, the third tomb (E2) facing the entrance is unique among the tombs in the area and those found at Tell Al-Sin. The walls of Tomb E2 are made of coated stone (basalt and brown plaster), covered with a layer of white plaster. The tomb has no stairs leading to its gate. A mudbrick wall surrounds the tomb and is joined to the stone with which the gate is closed. In addition, there are two bust sculptures of the deceased, made of plaster and placed on bases (Figure 6).

The bath complex (hammam) and the mosaic

During the fourth season in 2009, the excavation team discovered an architectural structure in the northwestern side of the tell. It turned out to be a public bath or hammam. Different rooms of the bath complex were discovered, such as the cooling room (frigidarium), with its beautiful mosaic flooring covering an area of 44.82 m². Unfortunately, some of the mosaic (around 11.88 m²) was missing. The main scene is surrounded by a braided frame representing the currents of the Euphrates, along with animal scenes, including fish and duck and geometric designs (Balty 1977: 137). The mosaic has several animal designs representing horses and elephants. Some of these animals were never before depicted in Byzantine art, underlining the importance of this mosaic (Figure 7).

The mosaic is in two parts. The first depicts a horse facing a predator (a hyena) that is attacking it. There is a large bird (stork) beneath them. Behind the horse there is part of an elephant's head, with its trunk and tusks (the rest of the elephant is destroyed). The horse comes from the Al-Jazeera area and the Euphrates, where purebred Arabian horses lived. The second part is above the first and on the southwestern side of the mosaic. It depicts a mythical animal, invented by the Byzantine artist, representing the winged body of a predator. Its mouth has the shape of the beak of a bird of prey, attacking some type of pet animal with a bleeding neck (Balty 1977: 180). Next to the pet, there is a type of plant in front of a donkey's head and front legs. The rest of the representation is destroyed. This mosaic is the first figurative flooring known from the Syrian central Euphrates region.

In the fifth season, in 2010, the mission worked on Sector X, focusing on squares X1, X2, and X3 (Figure 8). Baulks were removed and the squares were cleaned to reveal the entire architectural structures. Three rooms were exposed: the cooling room (frigidarium), the hot room (caldarium), and the warm room (apodyterium), together with the rectangular-shaped (north-south) hypocaust (334.40 m) (Broussac *et al.* 2009: 113-137), which was built out of bricks of different sizes and resembled in its design the bath discovered at Halabiyah (Zenobia) (Fournet, forthcoming).

The plan of the bath is composed of several rooms (Figure 9):⁴

The cooling room (outer section)

This is to be seen in the southern part of the bath. The walls are made of mudbricks. Bathers sit on benches

⁴ The plan of the bath was prepared by the Al-Jazeera Private University in Deir Ez-Zor, Department of Architecture, represented by A. Atia, A. Suleiman, and the architect B. Heneidi.



Figure 7: The mosaic discovered in the bath (© Photo by Y. Al-Abdallah).



Figure 8: The bath discovered in 2010 (© Photo by Y. Al-Abdallah).

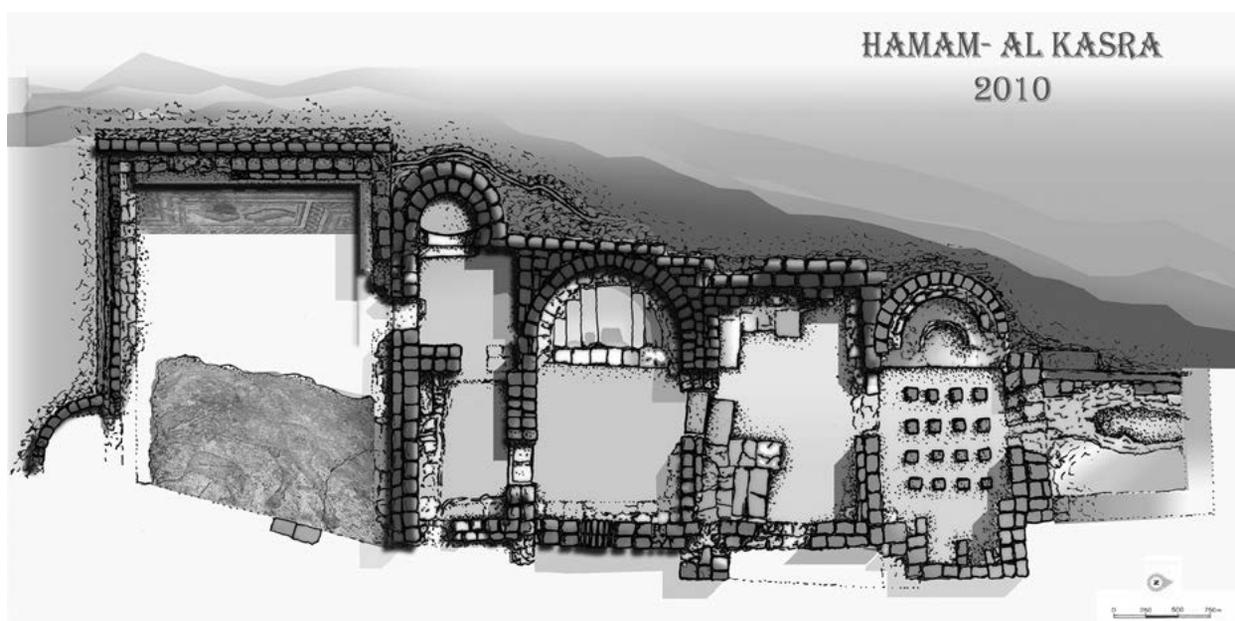


Figure 9: Plan of Al-Kasra bath (© Al-Furat Private University 2011).

attached to the interior walls and covered with white plaster and white marble. There is a door in the middle of the northern wall leading to the middle section.

The warm room (middle section)

The warm room (apodyterium) is accessed from the door in the middle of the northern wall of the cooling room. It is a square-shaped room, brick-laid and plaster-covered. A half-circular water tank occupies the western side. It has a brick channel circulating the water to the other rooms. In the eastern side of the room, there is a door that leads to a small rectangular room (3.20 x 2.20 m) with a brick-tiled floor (dimensions of the bricks: 40 x 40 x 5 cm) and covered with a thick layer of plaster. Benches used for sitting are attached to the southern wall. In the eastern wall, there is a small sluice, 16 cm wide, cut from the middle section to the outside. In the northeastern side of the room, there is a rectangular-shaped basalt threshold leading to a large room that has a brick arch on its eastern side. This part of the room is above the floor of the main room; it is tiled with bricks and covered with large pieces of pink marble. To the side of the inner arch there are seating benches. The entire floor is supported by brick columns. This hollow under the floor is designed for the circulation of hot air to warm the room. There are also seating benches along the eastern and northern sides of the room. In the southeastern corner a sluice leads to the one mentioned above; it takes the water out of the bath. The eastern wall is occupied by an arch, under which there is a small door that leads to the hollow space below the floor of the warm room. The purpose

of the door opening leading to the hollow space is still unknown. This has been compared with the Andarin baths discovered in Hama, where the arch in the eastern side was also used as a sluice.

The hot room (inner section)

In the middle of the northern wall of the warm room, a door represented by a basalt threshold covered with plaster leads to the hot room. A drain was found under the threshold. This threshold leads to a square-shaped room fitted with seating benches covered with white plaster. After cleaning up the room, the badly damaged floors appeared to be supported on brick columns. All the brick columns are made with 40 x 40 x 5 cm bricks. The slightly larger bricks of the last row (60 x 60 x 7 cm) formed the base on which the rectangular rose marble slabs were placed.

The boiler room

To the north of the hot room the boiler room was discovered. A water basin in the shape of an arch was built on top of its western side. This room is equipped with an inner bench in the form of a basin and covered with a coating of plaster. Its floor is placed on top of 20 columns built with square bricks (40 x 40 x 5 cm). The floor of the basin on the eastern side is missing, while the western side is intact, revealing large bricks (60 x 60 x 7 cm). All the columns are built on the floor which is tiled with smaller bricks (40 x 40 x 5 cm). Beneath this floor, the heating system with the hypocausts (fire apertures) distributed the hot air through the entire

bath complex. The hypocausts are triangle-shaped and built on top of each other, each one consisting of two columns made of three brick hypocausts.

To the north of the boiler room, there are small storage rooms in which large quantities of the coal used to fire the boiler were discovered. The coal comes from wood and animal deposits.

The water system

A 'U'-shaped channel was discovered to the east of the bath; it was used for carrying the water and situated outside the eastern wall of the bath (heading south-north). It is made of plaster and covered with brick pieces. It provides water to the water tank found in the small eastern room in the middle section. The water also flows into the cooling room.

Results and chronology of the occupation

The mosaic and the imported marble found in the warm room makes it clear that the bath changed and developed after the earthquake of the 5th century AD, and that many other additions can be attributed to this same phase, i.e. the courtyards and bathrooms (Blanke, forthcoming). During the 2010 season, thermoluminescence analysis of the pottery collected inside the bath confirmed this phasing. Dr E. Bakarji, head of the Archaeology Laboratory in the Atomic Energy Commission of Syria, dated the pottery to the 6th century AD. Other pieces of pottery were dated to the Ayyubid period, indicating that the bath was reused during this period.

In September 2011, the French archaeologist C. Benech (Maison de l'Orient et de la Méditerranée, Lyon) undertook a magnetic survey of parts of the site to determine and study the town planning of the city. The magnetic map revealed some encouraging results, despite the presence of basalt, which can cause anomalies in the magnetic reading. However, the architectural structure of the buildings appeared clearly; most of the walls were readable on the magnetic map, with few negative cases (presented in white). This meant that the majority of the walls were built with limestone and not basalt. The street mapping revealed an orthogonal plan with irregular intersections at right angles. The internal plan of the buildings is more or less clear, but can only fully be determined through excavations.

The archaeological work of the National Syrian Expedition on the Byzantine levels of Tell Al-Kasra between the years 2006 and 2010, confirmed the existence of a Byzantine fortified city. The settlement expanded until it became a real city, whose name remains unknown to this day.

Conclusion

The site is situated between the Euphrates to the south and a navigation channel to the north, called *Semiramis* (a name given to it by Isidoro de Charax), connecting the Euphrates to the Khabur, near the site of Halabiyia. The Euphrates has played an important part in the defence system of the eastern border of the Roman Empire and again later during the Byzantine period. Scientists identified its path as the line of the *Limes*, i.e. the eastern borderline of these two empires, which included a number of fortified installations erected there to defend the empire against repetitive attacks by the Persians and Sassanids. Diocletian (284-305 AD) spared no effort to build a chain of forts along the borders, which later was enhanced and reinforced by Justinian in the face of fierce attacks from the Persians. In fact, the history of border cities in the Euphrates area in the 6th century AD was continuously marked with a series of battles between the Byzantines and the Persians until the beginning of the Islamic Arab conquest of the region. Persian forces made their way in AD 531 to *Circesium* (modern Al-Basireh) and up to the Middle Euphrates Valley. In AD 532 a Byzantine-Persian peace treaty was signed known as the 'eternal peace'. This treaty was breached in AD 540 by Khosrau, urging Justinian to exert more effort to bolster the military and reinforce the defence system on the eastern frontiers of his empire. Ancient historians, such as Procopius in his second book *De Aedificiis*, give accounts of Justinian's labours in this region. Additionally, archaeological discoveries at Halabiya, Zalabiya, Tabus, and Al-Kasra offer important insights on these border forts. All these sites were the results of Justinian policies to do with the military reorganization of the states of the frontier provinces in the Middle Euphrates Valley (*Osrhoena and Eufraatesia*). Therefore, the historical development of the Byzantine city of Tell Al-Kasra should be perceived within the wider historical context of the area of the eastern borders of the Byzantine Empire from the 6th century AD until the Islamic conquest. The nature of the site makes it an ideal candidate for studying defence systems, as well as researching the lifestyle, socio-economic structure, and the religious beliefs of the Christian community who lived there (Montero Fenollós and Al-Shbib 2008: XIV, 329).

Bibliography

- BALTY, J.
1977 *Mosaïques antiques de Syrie*. Bruxelles, Centre Belge de recherches archéologiques à Apamée de Syrie.
- BELL, G.
2004 *Amurath to Amurath: A Journey along the Banks of the Euphrates*. Piscataway, Gorgias Press.
- BLANKE, L.
Forthcoming The Central Baths in Gerasa in Context.
In: M. F. Bousac and J. F. Salles (eds), *Bains d'outré*

- Journal. *Actes du colloque Balnéorient de Amman, mai 2008*. IFPO.
- BROUSSAC, M.-F., FOURNET, T. and REDON, B. (eds)
2009 *Le Bain collectif en Égypte: origine, évolution et actualité*. Actes du Colloque Balnéorient, Alexandrie, 1-4 Déc. 2006. EtUrb 7. Le Caire, IFAO.
- CHESNEY, F. R. S.
1850 *Expedition for the Survey of the Rivers Euphrates and Tigris*. New York, Longman, Brown, Green, and Longmans.
- FOURNET, T.
Forthcoming The ancient Baths of Southern Syria in their Near Eastern Context. In: *Proceedings of the International Frontinus-Symposium on Technical and Cultural History of Ancient Thermal Springs*. Aachen.
- GABORIT, J.
2007 *Géographie historique du Moyen-Euphrate de la conquête d'Alexandre à l'Islam*. Unpublished PhD dissertation, Université Paris I.
- MONTERO-FENOLLÒS, J. L. and AL SHBIB, S.
2006 La mission archéologique syro-espagnole au Moyen Euphrate. Première campagne à Tall as-Sin (Deir er-Zor, Syrie), *Orient Express* 1: 3-6.
2008 La Necropolis Bizantina de Tall As-Sin (Deir ez-Zor, Siria). *Biblioteca del Próximo Oriente Antiguo*. BPOA 4. Madrid, CSIC.
- POIDEBARD, A.
1934 *La trace de Rome dans le désert de Syrie. Le limes de Trajan à la conquête arabe*. *Recherches aériennes (1925-1932)*. Paris, Geuthner.
- PROCOPIUS
De Aedificiis, Ed. Jeffrey Enderson, 1954. Loeb Classical Library. Cambridge MS, Harvard University Press.
- SACHAU, E.
1883 *Reise in Syrien und Mesopotamien*. Leipzig, F. A. Brockhaus.

Tell Halula (Euphrates Valley, Syria). New Research Conducted between 2011 and 2015

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Abstract

Although in recent times there has been no activity in the fieldwork in Syria, research continued with the development of analysis and specific studies at Tell Halula (Euphrates Valley). In this article, we review major scientific discoveries made in the last five years (2011-2015). Areas where research has been most ongoing are: architectural analysis, pottery analysis, grinding stones or bone industry, and taphonomic analysis of burial practices. All these topics were studied in conjunction with a publication program. Architectural analysis addressed, in complementarity, stratigraphy and stratigraphic revision. In that sense, three main domestic buildings have been revised throughout a diachronic sequence: Multicellular house and high technology and architectural investment dated to PPNB period, or circular constructions called tholoi in Pre-Halaf and especially in the Halaf period. Among these analyses associated archaeological finds are highlighted. Other researches also continued, such as paleobotanical remains studied both in terms of identification and spatial distribution. Taphonomic analyses related to PPNB graves were also researched and will be presented below.

Tell Halula

This site is located in the middle valley of the Euphrates River, 150 km from Aleppo in northern Syria and covers an area of 8 ha. Archaeological excavations from 1991 to 2011 have provided new understanding of the main periods of occupation and have documented village organization, architectural practices, the economic system, technological change, and social organization. Tell Halula is a site with more than 11 m of stratigraphical sequence in excellent preservation conditions (Molist (ed.) 2013).

The site has approximately 40 phases of occupation from its founding over 8700 years ago to its abandonment around 6500 years ago. Thus, the occupation of the village covers the prehistoric periods of the Middle and Late PPNB, Late Neolithic or Pre-Halaf, Proto Halaf, and Early to Late Halaf.

Material studies have been developed since field work began. New studies focused on lithics (Borrell 2013; 2011a; 2011b; Borrell and Molist 2014), pre-Halaf pottery (Faura and Molist, in press), bone industry (Taha 2015), and grooved stones (Molist, Bofill *et al.* 2013; 2012). Field reports and other studies have also been published in Molist 2012; Molist, Anfruns *et al.* 2015; 2013; 2012a; 2012b; Molist and Gómez 2014). Some of these studies are related to the Neolithisation process of the site (Molist 2014), as well as DNA studies (Fernandez *et al.* 2014), architecture (Molist, Gómez Bach *et al.* 2014), and theoretical topics (Borrell *et al.* 2012; Molist 2014) (Figure 1).

Analysis of architectural documents: houses recovered

Architectonic review is focused on two main research lines (Molist 2013). The first, more analytical, is raw

material characterization used in PPNB buildings. This is an archaeometric approach with aimed at contrasting the composition of the earth plots as raw material, according to the various buildings or different parts of the construction. Thus, a set of samples of building bricks, Phase 9 and 10, was analysed with chemical analysis, DXR, for porosity and strength. These sets came from walls, floors, grill plan, oven, and a rectangular light structure outside the house. In the same direction, the second line of work was targeted first at determining and revising 'typical' households in each historical horizon, before proposing a volumetric reconstruction based on technical and archaeological data (Marchiori 2015) (Figure 2).

Burial practices

The set of 117 MPPNB and LPPNB burials (phases 7 to 14) from Tell Halula initially seemed to respond to this apparent variability of the *gestes funéraires*, from those with skeletons completely articulated to the very disarticulated and disorganized ones, initially linked to variability of funerary practices (Ortiz 2014; Ortiz *et al.* 2013). The development of a detailed taphonomical analysis enabled us to contrast this variability in the archaeological record and determine that it is not related to funerary practices, but to post-depositional factors introduced by the manner of deposition, which is characterized by: vertical position of the different anatomical parts, presence of containers, and empty spaces of decomposition.

This analysis has established a taphonomical interpretative model for burials with seated bodies and funerary bundles, which has been corroborated with results from complementary analysis – such as micro-morphology of the tomb, phytoliths and morphology

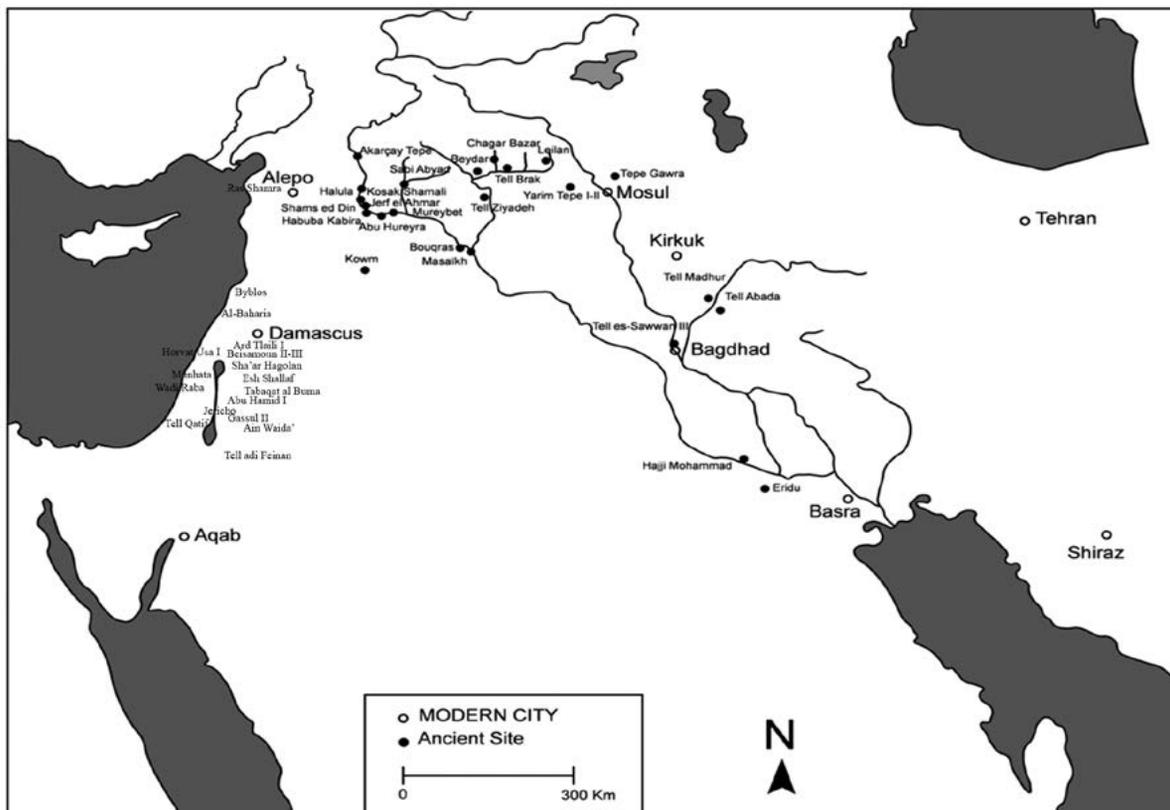


Figure 1: Map with Tell Halula location (Middle Euphrates Valley) (© The Archaeological mission at Tell Halula).

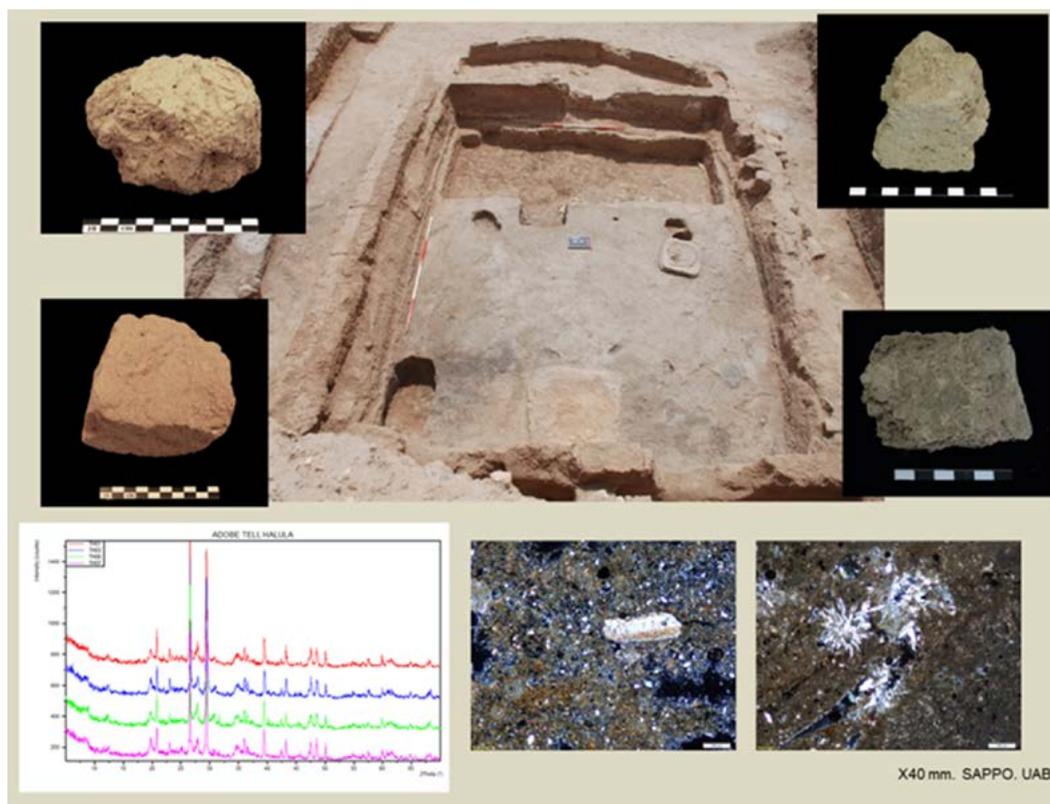


Figure 2: Example of mudbrick analytics related to PPNB household (© The Archaeological mission at Tell Halula).

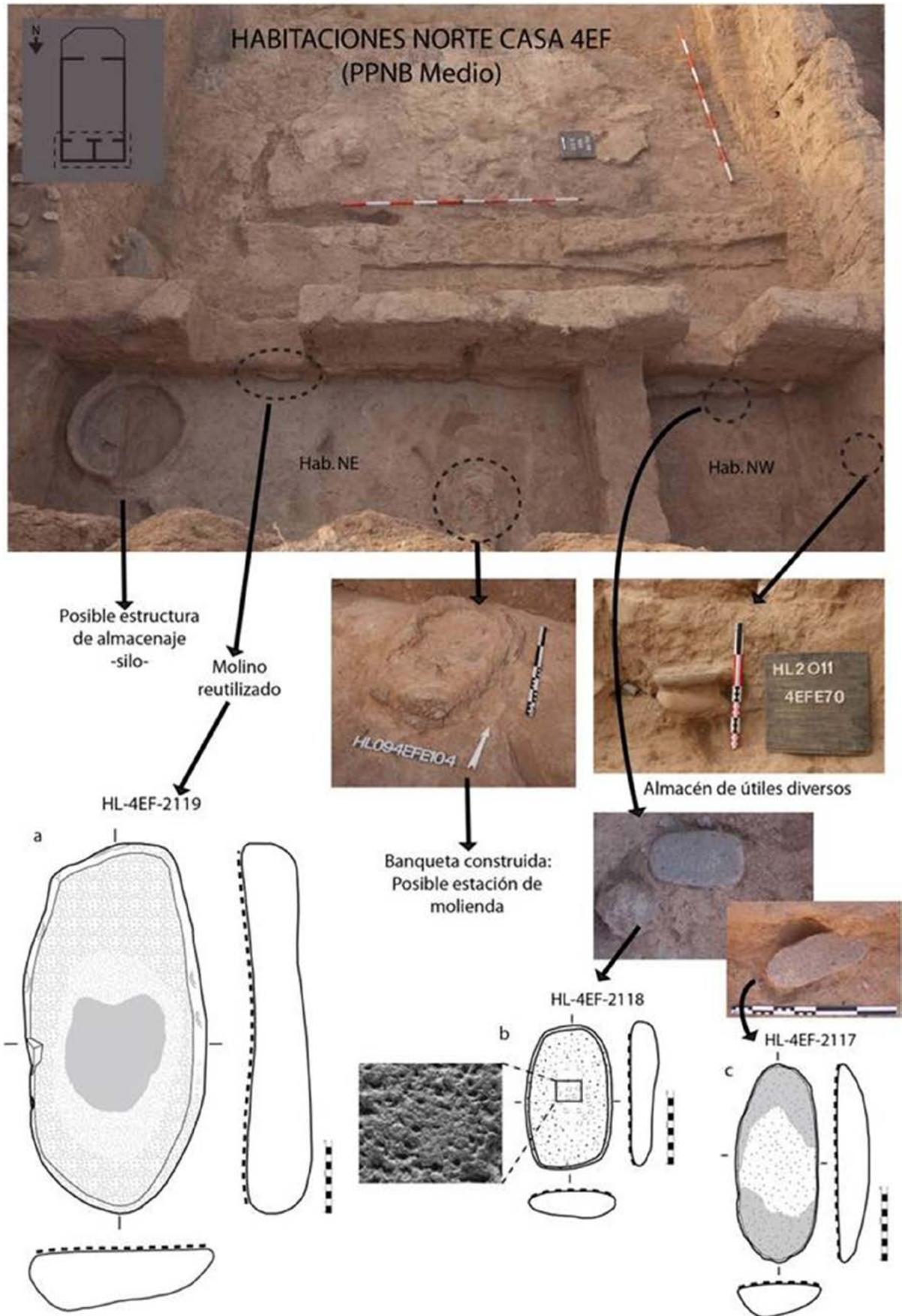


Figure 3: Grinding stones from House 4EF (PPNB levels) (© The Archaeological mission at Tell Halula).

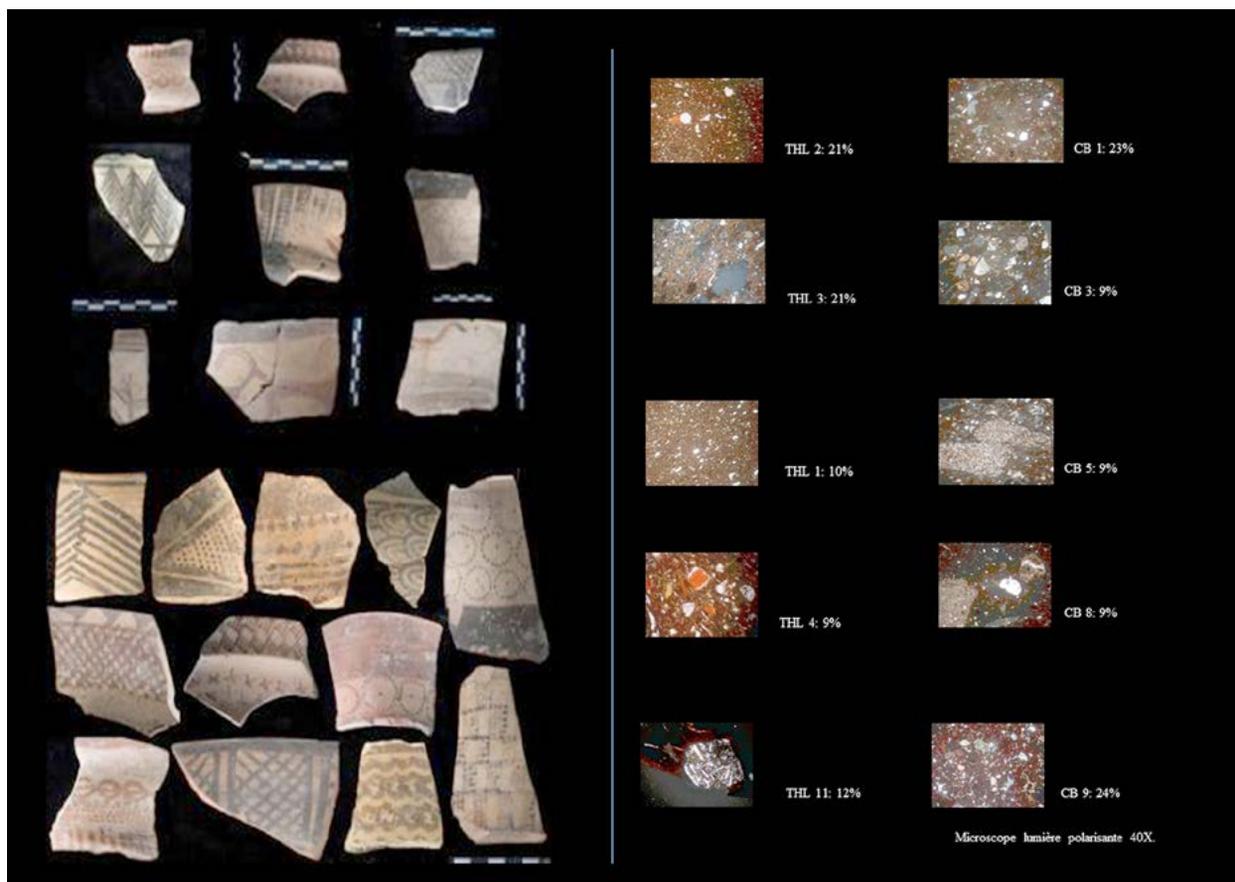


Figure 4: Main petrographic groups from Halaf pottery recovered at Tel Halula (© The Archaeological mission at Tell Halula).

of the fabric fibers, histology of bones, and gas chromatography for bitumen remains.

Grinding stones

The study of the grinding stone toolkit has revealed the use of this technology not only in the cereal production process, but also in other craft activities (Bofill 2015). The assemblage is composed of 239 tools (querns, handstones, mortars, pestles) and shows various degrees of labour investment in this equipment across the occupation sequence. In terms of raw material procurement, during the PPNB the manufacture of basalt grinding tools, which is a foreign material and one of the most effective stones for grinding purposes, contrasts with the higher use of local soft limestone from the Pre-Halaf to the Halaf occupation of Tell Halula (Bofill 2015; Bofill *et al.* 2014; Bofill and Taha 2014; Portillo *et al.* 2013).

In terms of the function of this toolkit, the use-wear analysis and the phytolith remains indicate that querns and handstones were primarily used for dehusking and grinding cereals (*triticum*, *hordium*), species well documented since the earliest phases of occupation. Despite this, these tools were frequently reused for a

wide range of activities related to craftworks and food preparation: hide working, mineral processing, fruit processing, etc. (Figure 3).

Pottery production

The analysis of 17,000 potsherds using archaeometric techniques (chemical, petrographic, PIXE analyses), as well as morphometric and basic techno-functional characterization analysis, set new guidelines on the 6th millennium sets (Gómez Bach 2011). The *chaîne opératoire* reconstruction has allowed us to study and isolate two assemblages and to outline the existence of different socio-economic practices, some of which had clear regional links and strong substrate, but above all with basic subsistence practices which can be addressed from the ceramic production itself (Figure 4).

The results enable us not only to characterise these productions but also to raise new questions to understand the interaction mechanisms between communities, mechanisms that cover basic subsistence practices i.e. the handling and processing of food and products, to mechanisms which regulate and structure the Neolithic group (Gallet *et al.* 2015; Gómez Bach, in press; 2013; Gómez Bach *et al.* 2014; 2012).

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Bibliography

BOFILL, M.

2015 *Inicio y consolidación de las prácticas agrícolas durante el Neolítico en el Levante Mediterráneo (Septentrional y central): el proceso de molienda y trituración a partir del análisis funcional del instrumental macrolítico*. Unpublished PhD dissertation, Universitat Autònoma de Barcelona.

BOFILL, M., PORTILLO, M., MOLIST, M. and ALBERT, R. M.

2014 Integrating phytoliths and use-wear studies of grinding stone tools from the Levant (Neolithic and Early Bronze Age). In: P. Bieliński, M. Gawlikowski, R. Koliński, D. Ławecka, A. Sołtysiak, and Z. Wygnańska (eds), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East, Warsaw 30 April-4 May: 657-666*. Warsaw, Polish Centre of Mediterranean Archaeology, University of Warsaw.

BOFILL, M. and TAHA, B.

2014 Experimental approach to hide-processing tasks combining the use of bone and basalt tools: the Neolithic case of Tell Halula (Middle Euphrates valley, Syria). In: *III Congreso de Arqueología Experimental, Banyoles, 17-19 Octubre 2011*. Barcelona, Monografies del Museu d'Arqueologia de Catalunya.

BORRELL, F.

2013 Opening Pandora's Box: Some reflections on the spatial and temporal distribution of the offset bi-directional blade production strategy and the Neolithisation of the Northern Levant. In: F. Borrell, J. J. Ibáñez, and M. Molist (eds), *Stone Tools in Transition: From Hunter-Gatherers to Farming Societies in the Near East: 247-264*. Bellaterra, Universitat Autònoma de Barcelona, Servei de Publicacions.

2011a Knapping methods and techniques at Tell Halula (middle Euphrates valley), during the mid VIIIth millennium cal. B.C. In: E. Healey, S. Campbell, and O. Maeda (eds), *The State of the Stone Terminologies,*

Continuities and Contexts in Near Eastern Lithics: 291-303. Berlin, Ex Oriente.

2011b Bi-directional Blade Technology in the Northern Levant during the 7-8th Millennia CAL B.C: New Insights from Mamarrul Nasr 2, Syria, *Journal of Field Archaeology* 36/2: 132-150.

BORRELL, F., BOUSO, M., GÓMEZ, A., TONERO, C. and VICENTE, O. (eds)

2012 *Broadening Horizons 3. Conference of Young Researchers working in the Ancient Near East*. Barcelona, Universitat Autònoma de Barcelona.

BORRELL, F. and MOLIST, M.

2014 Social Interaction at the End of the Pre-Pottery Neolithic B: an Inter-site Analysis in the Euphrates Valley, *Cambridge Archaeological Journal* 24 (2): 215-232.

FAURA, J. M. and MOLIST, M.

In press The Appearance and Development of Ceramics with Painted Decoration in the Seventh Millennium Sequence at Tell Halula (Euphrates Valley, Syria). In: W. Cruells, O. Nieuwenhuys, and I. Mateiciucova (eds), *Painting Pots - Painting People. Brno-Rejviz workshop, 27-30 January 2012*. Oxford, Oxbow Books.

FERNÁNDEZ, E., PÉREZ-PÉREZ, A., GAMBA, C., PRATS, E., CUESTA, P., ANFRUNS, J., MOLIST, M., ARROYO, E. and TURBÓN, D.

2014 Ancient DNA Analysis of 8000 BC Near East Farmers Supports an Early Neolithic Pioneer Maritime Colonization of Mainland Europe through Cyprus and the Aegean Islands, *PlosGenetics*, 10(6): 1-16.

GALLET, Y., MOLIST, M., GENEVEVY, A., CLOP, X., THÉBAULT, E., GÓMEZ, A., LE GOFF, M. and ROBERT, B.

2015 New Late Neolithic (c. 7000-5000 BC) archeointensity data from Syria. Reconstructing 9000 years of archeomagnetic field intensity variations in the Middle East, *Physics of the Earth and Planetary Interiors* 238: 89-103.

GÓMEZ BACH, A.

In press Decorated pottery: painted incised and impressed pottery production in Late Halaf context. In: W. Cruells, O. Nieuwenhuys, and I. Mateiciucova (eds), *Painting Pots - Painting People. Brno-Rejviz workshop, 27-30 January 2012*, Oxbow Books, Oxford.

2013 Caracterización de las producciones cerámicas del Neolítico Final, Horizonte mediados del VI milenio Cal BC de Tell Halula. In: M. Molist (ed.), *Tell Halula: un poblado de los primeros agricultores en el valle del Éufrates, Siria. Tomo I y II: 212-231*. Madrid, Ministerio de Educación y Ciencia.

2011 *Caracterización del productocerámico en las comunidades neolíticas de mediados del VI milenio cal BC: el valle del Eufrates y el valle del Khabur en el Halaf Final*. Unpublished PhD dissertation, Universitat Autònoma de Barcelona/Université de Liège.

- GÓMEZ BACH, A, CALVO DEL CASTILLO, H., CRUELLES, W., STRIVAY, D. and MOLIST, M.
 2012 Black, red and white: characterizing Neolithic ceramic productions in middle Euphrates Valley. In: R. Matthews and J. Curtis (eds), *7th International Congress on the Archaeology of the Ancient Near East*: 527-536. Wiesbaden, Harrassowitz Verlag.
- GÓMEZ BACH, A., CRUELLES, W. and MOLIST, M.
 2014 Late Neolithic Pottery productions in Syria. Evidence from Tell Halula (Euphrates valley): a technological approach. In: M. Martín-Torres (ed.), *Craft and Science: International perspectives on archaeological ceramics*. Doha, Bloomsbury Qatar Foundation (on-line).
- MARCHIORI, Ch.
 2015 *Arquitectura en tierra de la Prehistoria y Protohistoria en el Próximo Oriente. Estudio arqueométrico del adobe en los yacimientos de Tell Halula, Yümüktepe y Tell Tuqan*. Unpublished PhD dissertation, Universitat Autònoma de Barcelona.
- MOLIST, M.
 2014 Le processus de consolidation de la néolithisation au Proche-Orient: Apports de l'étude du site de Tell Halula (Vallée de l'Euphrate, Syrie). In: C. Manen, T. Perrin, and J. Guilaine (eds), *La transition néolithique en Méditerranée. The Neolithic transition in the Mediterranean*: 109-124. Paris, Errance.
- 2013 Espaces domestiques et d'habitat dans le processus de consolidations des sociétés agricoles: la nouvelle documentation de la vallée de l'Euphrate (MPPNB-Halaf, VII-VII millénaires). In: J. L. Montero (ed.), *Du village néolithique à la Ville Syro-Mésopotamienne*: 55-67. Ferrol, Universidade da Coruña.
- 2012 Neolithic Middle East: notes on the neolithic process in the middle Euphrates valley and the contribution made by the Tell Halula (Syria) project. In: F. Borrell, M. Bouso, A. Gómez, C. Tornero, and O. Vicente (eds), *Broadening Horizons 3. Conference of Young Researchers Working in the Ancient Near East*: 325-343. Barcelona, Universitat Autònoma de Barcelona.
- MOLIST, M. (ed.)
 2013 *Tell Halula (1995-2008). Un poblado de los primeros agricultores en el Valle del Éufrates, Siria*. Madrid, Memoria científica. Ministerio de Educación y Cultura.
- MOLIST, M., ANFRUNS, J., BOFILL, M., BORRELL, F., CLOP, X., FAISAL, H., GÓMEZ, A., ORTIZ, A., TAHA, B. and VICENTE, O.
 2012a Tell Halula (Valle del Éufrates, Siria), preliminary results of the 2010-2011 seasons, *Chroniques archéologiques en Syrie* VI: 25-30.
- 2012b Informe de la campaña de estudios arqueológicos del año 2011 en el yacimiento neolítico de Tell Halula (Valle Éufrates, Siria), *Informes y trabajos*, 9: 628-651. Madrid, Ministerio de Educación, cultura y deporte.
- MOLIST, M., ANFRUNS, J.; BORRELL, F., BUXO. R., CLOP, X., CRUELLES, W., FAURA, J. M., FERRER, A., GÓMEZ, A., GUERRERO, E., SAÑA, M., TORNERO, C. and VICENTE, O.
 2013 Tell Halula: new data on VII and VI millennia cal BC occupation in Upper Mesopotamia. In: O. Nieuwenhuys, R. Bernbeck, and P. Akkermans (eds), *Interpreting the Late Neolithic of Upper Mesopotamia*: 443-453. Leiden, Brepols.
- MOLIST, M., ANFRUNS, J., BORRELL, F., BUXÓ, R., CRUELLES, W., FAISAL, H., FAURA, J. M., GÓMEZ, A., MARCHIORI, CH., ORTIZ, A., TAHA, B. and VICENTE, O.
 2015 Nouveautés dans la Recherche sur le Néolithique de la Syrie: Apports de l'étude de Tell Halula (Vallée de l'Euphrate), *Chronique Archéologique en Syrie* VII: 25-37.
- MOLIST, M., BOFILL, M., ORTIZ, A. and TAHA, B.
 2013 Grooved stones and other macrolithic objects with incised decoration from the PPNB at Tell Halula (Syria, Middle Euphrates Valley). In: F. Borrell, J. J. Ibáñez, and M. Molist (eds), *Stone Tools in Transition: From Hunter-Gatherers to Farming Societies in the Near East. 7th Conference on PPN Chipped and Ground Stone Industries of the Fertile Crescent*: 421-434. Barcelona, Universitat Autònoma de Barcelona.
- 2012 Nota preliminar en torno a las decoraciones incisas sobre elementos macrolíticos del yacimiento neolítico de Tell Halula (valle del Éufrates, Siria). In: J. R. Muñoz (ed), *Ad Orientem Del paleolítico final en el norte de España a las primeras civilizaciones del Oriente Próximo*: 463-478. Oviedo, Universidad de Oviedo.
- MOLIST, M. and GÓMEZ BACH, A.
 2014 El estudio de las primeras sociedades campesinas en el Próximo Oriente: Una aproximación a la dinámica de la investigación en Prehistoria reciente en la zona del Levante Norte, In: Jornadas de Arqueología en el Exterior organizadas por la Asociación de Profesionales Independientes de la Arqueología de Asturias (APIAA), Museo Arqueológico de Asturias, Oviedo, 24-25 mayo de 2013, *Anejo Nailos n.1*: 119-137.
- MOLIST, M., GÓMEZ BACH, A., BOFILL, M., CRUELLES, W., FAURA, J. M., MARCHIORI, C. and MARTÍN, J.
 2014 Maisons et constructions d'habitation dans le néolithique. Une approche à l'évolution des unités d'habitat domestiques à partir des documents de Tell Halula (Vallée de l'Euphrate, Syrie). In: J. L. Montero-Fenollós, *Redonner Vie Aux Mésopotamiens. Mélanges offerts à Jean-Claude Margueron à l'occasion de son 80^e anniversaire*: 107-126. Ferrol, Soc. Luso-Gallega Est. Mesopotamicos.
- ORTIZ, A.
 2014 *Estudio arqueo-antropológico de las sepulturas del PPNB medio y recinto del yacimiento de Tell Halula (Valle Medio del Éufrates, Siria): Aportaciones a la comprensión de las dinámicas socio-económicas y culturales de las primeras comunidades campesinas del Próximo*

- Oriente*. Unpublished PhD dissertation, Universitat Autònoma de Barcelona.
- ORTIZ, A., CHAMBON, Ph. and MOLIST, M.
2013 'Funerary bundles' in the PPNB at the archaeological site of Tell Halula (middle Euphrates valley, Syria): analysis of the taphonomic dynamics of seated bodies, *Journal of Archaeological Science* 40: 4150-4165.
- PORTILLO, M., BOFILL, M., MOLIST, M. and ALBERT, R. M.
2013 Phytolith and use-wear functional evidence for grinding stones from the Near East. In: P. Anderson, C. Cheval and A. Durand (eds), *Regards croisés sur les outils liés au travail des végétaux. An Interdisciplinary Focus on Plant Working Tools. Actes XXXIIIe rencontres internationales d'archéologie et d'histoire d'Antibes, 23-25 Octobre 2012*: 161-174. Antibes, Éditions APDCA.
- TAHA, B.
2015 A complete operational sequence of a bone industry element from the northern Near East: a Neolithic beveled tool. In: G. Affanni, C. Baccarin, L. Cordera, A. Di Michele, and K. Gavagnin (eds), *Broadening Horizons 4: A Conference of young researchers working in the Ancient Near East, Egypt and Central Asia, University of Torino, October 2011*: 229-236.

Published Abstracts

PAPERS

HIERAPOLIS (MENBIJ), NABGHA (ALEPPO)

Justine GABORIT, UMR 8167 Orient and Méditerranée, Lyon (France)

New evidence from Euphratesia: survey and excavation project in Hierapolis area (Menbij) on the right bank of the Middle Euphrates

From 2009 to 2011, the archaeological survey of the Cyrrhestic region (J. Gaborit, Ifpo and H. Saad, DGAMS) highlighted new evidence for the organization of the city of Hierapolis and its surroundings. Emergency excavations were conducted in the modern city of Menbij: 1) on the fortifications: a sounding yielded stratigraphical layers from the Hellenistic to the Medieval periods; 2) in the Mankuba area: the remains of a church were found confirming that the mosaic, previously discovered by DGAMS-Aleppo, belongs to a huge Christian complex; 3) on the presumed location of the sacred pond of Atargatis: excavations revealed features dated to Late Antiquity. All these new data were added to the results of the previous survey in the Middle Euphrates (Gaborit 2015) and to the discovery of the oldest Syriac inscription (Briquel Chatonnet and Desreumaux 2011) on the site of Nabgha (DGAMS 2009), enriching thus the study of human occupation in the northern part of the Proto-Byzantine province of Euphratesia.

Publications since 2010

- BRIQUEL CHATONNET, F. and DESREUMAUX, A.
2011 Oldest Syriac Christian inscription discovered in North-Syria, *Hugoye: Journal of Syriac Studies* 14: 45-61.
- DIRECTION GÉNÉRALE DES ANTIQUITÉS DE SYRIE
2009 Le martyrium Saint-Jean dans la moyenne-vallée de l'Euphrate: Fouilles de la Direction générale des antiquités à Nabgha au nord-est de Jarablus, *Documents d'archéologie syrienne* 13. Damas.
- GABORIT, J.
2015 *La Vallée engloutie: géographie historique du Moyen-Euphrate (du IV^e s. av. J.-C. au VII^e s. apr. J.-C.)*. Bibliothèque archéologique et historique 199. Beyrouth, IFPO.

QINNASRIN (ALEPPO)

Marie-Odile ROUSSET, CNRS-University of Lyon (France) and Youssef KANJOU, Directorate General of Antiquities and Museums (Syria)

Qinnasrin/Chalcis: Main results of the 2008-2010 archaeological excavations

The city of Qinnasrin/Chalcis was founded at the end of the Hellenistic period on the fringes of the Limestone Massif in Northern Syria, a zone of contact between the fertile region and the steppe of the Arid Margins. Archaeological work conducted on the site from 2008 to 2010 revealed the extension of the different human occupations and their chronological succession. After an important development during the Roman period, the agglomeration reached its maximum size during Byzantine times. Capital of the administrative district created as a border zone with the Byzantine Empire, its morphology was modified following the arrival of the Muslims. One of the main discoveries of the archaeological campaigns was a fortress built during the early Islamic period on top of the mountain overlooking the city.

Publications since 2010

- ROUSSET, M.-O.
2014a Deux sites fortifiés au début de l'époque islamique au Bilād al-Šām: Qinnasrīn et Abū al-Ḥanādiq. In: M. Eychenne, S. Pradines, and A. Zouache (eds), *La guerre dans le Proche-Orient médiéval (X^e-XV^e s.)*. *Etat de la question, lieux communs, nouvelles approches*, RAPH 37: 193-229. *Le Caire, IFAO*.
- 2014b De Chalcis à Qinnasrin. In: G. Charpentier and V. Puech (eds), *Villes et campagnes aux rives de la Méditerranée ancienne. Hommages à Georges Tate*, *Topoi* Supplement 12: 311-340.
- 2013 Traces of the Banu Salih in the Syrian steppe? The Fortresses of Qinnasrin and Abu al-Khanadiq, *Levant* 45: 69-95.
- 2012a Chalcis/Qinnasrin: from Hellenistic city to the *jund* capital of North Syria. In: R. Matthews and J. Curtis, with M. Seymour, A. Fletcher, A. Gascoigne, C. Glatz, S. J. Simpson, H. Taylor, J. Tubb and R. Chapman (eds), *7ICAANE. Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East, 12-16 April 2010, the British Museum and UCL, London*. Vol. 2: 551-567. Wiesbaden, Harrassowitz.

- 2012b *Al-Hadir. Étude archéologique d'un hameau de Qinnasrin (Syrie du Nord, VII^e-XII^e siècles). Qinnasrin 1.* Travaux de la Maison de l'Orient 59. Lyon.
- 2011 La céramique abbasside d'al-Hadir, *al-Rafidan* 32: 214-231.
- ROUSSET, M.-O., KANJO, Y., BESSAC, J.-CL., BIÈRE, Y., BOSERT, M.-C., BOVAGNE, M., ELAIGNE, S., ROCHETTE, M. and VEZZOLI, V.
- 2012 Travaux de la mission syro-française de Qinnasrin en 2010, *Chronique archéologique en Syrie* VI: 271-284.
- ROUSSET, M.-O., MOHAMMED, A., BIÈRE, Y., BOSERT, M.-C., BOVAGNE, M., KEPINSKI, C., OTHMAN, A. and ROCHETTE, M.
- 2011 Travaux de la mission syro-française de Qinnasrin en 2009, *Chronique archéologique en Syrie*, V: 207-218. Damas.
- ROUSSET, M.-O. and ROCHETTE, M.
- 2014 Des bains à Qinnasrin /al-'Is (Syrie): premier rapport préliminaire. In: M.-F. Boussac, S. Denoix, Th. Fournet, and B. Redon (eds), *Le bain collectif en Orient, Actes du colloque Balnéorient, Damas 2009*: 519-534. Études urbaines 9., Le Caire/Beyrouth, IFAO/IFPO.
- STUDER, J., GENEQUAND, D. and ROUSSET, M.-O.
- 2013 Environmental influence on animal exploitation and consumption during the Early Islamic Period in Syria. A case study from Qasr al-Hayr al-Sharqi and al-Hadir. In: B. De Cupere, V. Linseele, and Sh. Hamilton-Dyer (eds), *Archaeozoology of the Near East X. Proceedings of the Tenth International Symposium on the Archaeozoology of South-Western Asia and Adjacent Areas*: 265-282. Leuven, Peeters.

TELL SAKKA (DAMASCUS)

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Tell Sakka

Tell Sakka is one of the archaeological tells of the Ghouta region situated 20 km southeast of Damascus. The tell was previously subject to several violations damaging it severely in different locations. Nonetheless, it still retains its archaeological and historical importance. Located in a fertile region, Tell Sakka (*Sakka*, word of Aramaic origin) was named after a nearby small village located 5 km northwest of Damascus International Airport. The village was mentioned by some Arab explorers and historians in the 12th and 13th centuries AD. Nearby, the Jacobites (Syriac Orthodox Church) built a 6th-century AD monastery dedicated to Saint Paul. Excavations at the site were carried out by a Syrian team between 1989 and 2012. So far five archaeological strata were identified. The first stratum contains Islamic graves dating mostly to the Mameluke and Ottoman eras. These graves have no headstones or inscriptions indicating the deceased's name. The

simple tombs are either pit burials or built with sun-dried mudbricks. The second stratum contains graves dated to the classical periods (Seleucid, Roman, and Byzantine), from 300 BC to the 6th century AD. Some graves contained simple jewellery or metal and clay objects. The third stratum dates back to the Late Bronze Age (1600-1300 BC). It yielded a number of simple houses built with sun-dried mudbricks, belonging to farmers. Evidence for animal husbandry, as well as industrial activities such as knitting, weaving, and pottery making were found in these dwellings. Each house consisted of a small room (4 m x 4 m) and either two rooms or a courtyard usually paved with stones. The thickness of the mudbrick walls did not exceed 60 cm, and none of these walls contained ornaments or decorative elements. Egyptian commercial and administrative influence was quite evident at the site during this period. The fourth stratum dated to the Middle Bronze Age II (1800-1600 BC) is the most important stratum of Tell Sakka. It produced a large building, part of a significant palace, consisting of rooms and courtyards with thick walls (140 to 160 cm thick) made of sun-dried mudbricks, floors laid in a highly sophisticated manner, and a sewage system. The rooms have doorways with basalt thresholds, similar to the ones found in the Amorite architecture at Mari, Alalakh, and Qatna. Walls were coated with plaster and decorated with frescoes with colourful motifs depicting the daily life of a ruling class, as well as religious and mythological scenes. In addition, large ceramic jars used to store grains were also found in the building. This palace was destroyed by fire during an invasion or a military attack; remains of frescoes were scattered randomly on its floors and most walls were robbed. The most notable discovery on the site was a small cuneiform tablet (4 cm x 4 cm) found on the floor of one of the rooms of this building. It is a royal message sent to the king of Damascus. Additionally, in the 2010 season, another cuneiform tablet (measuring 4.5 cm x 9.5 cm) preserved in a mud casing was unearthed. It contains a legal text referring to a court ruling against a property owner who failed to pay taxes due to his traveling. This document leaves no doubt that it was written at the site. The fifth stratum dates to the Middle Bronze Age I (2000-1800 BC) and yielded a tomb, discovered underneath one of the rooms, containing the skeletons of two women and a child, in addition to a number of pottery. The importance of Tell Sakka is attributed to its location on a direct trade route linking the Middle Euphrates, Palestine, and the Nile Valley and passing through the Damascus Ghouta and across the Syrian Desert. Indeed, the discovery of cuneiform texts at the site, the first and only cuneiform texts unearthed in Damascus in particular, and in southern Syria in general, is a testimony to the importance of this strategic region. Additionally, other discoveries such as frescoes and mural paintings filled a large gap in the history of Syria during the 2nd millennium BC,

at the time when the area of Damascus was known as *Apum*, as mentioned in the Mari archives. This rich site will inevitably enhance our current knowledge of the history of Damascus in the 2nd millennium BC.

TELL ASWAD (DAMASCUS)

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Tell Aswad

The archaeological site of Tell Aswad, located 30 km east-southeast of Damascus, occupies an area of c. 6 ha and is only 4.5 m high. The stratigraphical layers at the site date between 8200 and 7500 BC, and include the end of the Early PPNB, the middle PPNB, and the beginning of the Late PPNB. Archaeological investigations at Tell Aswad demonstrated an environment rich in natural resources. Plants and animals indicated the proximity of an ancient lake allowing throughout the archaeological sequence cultivation of cereals (emmer and barley) and herding (sheep, pigs, cattle, and probably goat). The conception of buildings found on the site does not seem to follow defined geometric models. Indeed, houses were built with handmade mudbricks mostly round in shape but in general undefined in form. The site has provided rich funerary evidence with more than 119 skeletons found. Results demonstrate a diachronic continuity of funeral practices throughout the human occupation attributed to an ancestral tradition. At the same time, the spatial organization of the burials during the PPNB occupation of Tell Aswad reveals changes in burial localization, from burials in the house inside the family unit, to the establishment in a later period of a specific area dedicated to funerary activities. These new burial areas became a supplementary testimony to the social organization of the site. Multiple burials yielded evidence for skull removal. The variability in the skull treatment, including the modelled skulls, corresponds to ritual and funerary practices of a highly developed culture. These reflect a social order and a group integrity materializing one of the major features of the cultural identity of the Neolithic PPNB society at Tell Aswad. The late adoption of quadrangular structures and the practice of modelled skulls in the PPNB are the most striking features linking Tell Aswad to the Southern Levant. Tell Aswad could thus be one of the most northern sites in the realm of this traditional culture of the Southern Levant and could have played a liaison role between northern and southern Syria during the middle PPNB.

CITADEL OF DAMASCUS (DAMASCUS)

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Citadel of Damascus: A possible earlier dating according to new discoveries

Since the early 1900s, several researches and studies were conducted on the Citadel of Damascus aiming at investigating its history and architectural features, identifying precisely its date of construction, and understanding its relation to the old Damascus in general. We, and most of the researchers, believe that an important city such as Damascus should have had its own defensive system. Such a system could not just have been limited to city walls but must have included a military prestigious building, such as a citadel. The latest use of the citadel as a prison prevented researchers from investigating more deeply its architecture. However, after recently clearing the fortress from all modern structures, it was possible to develop more precise research projects to answer some of the questions and theories raised in previous researches since the early beginning of the last century. Most of these theories agreed on dating the founding of the fortress to the Islamic period, more precisely to the 11th century AD. However, some raised doubts about this date. In order to settle this debate, several archaeological soundings were conducted between 2013 and 2015 on the eastern walls of the inner enclosure (the Seljuk fortress). The results were surprising, as a well-built masonry wall c. 2 m thick covered with plaster was found behind the walls of the Seljuk fortress. On top of this new wall, a layer of mud was added in order to receive mudbrick courses. This wall is an evidence of the existence of a 10th-century fortress (mentioned by M. Al-Maqdissi) which is still preserved on top of Tower 16 (the southeast corner tower of the Seljuk fortress) and in parts of the southern and eastern walls of the fortress. The same plastered masonry was also discovered in the deepest point of a sounding conducted around the inner corner pillar of Tower 18 (on the northeast corner of the Seljuk fortress). Several stones measuring 1.2 m x 0.6 m x 0.5 m could also belong to the fortified wall. The few pottery sherds found do not give a date for the building of the walls, but samples from their inner components were collected for C14 analysis, which will, hopefully, establish their construction date. Results of these analyses should appear around November 2015 and might deliver a new dating for the founding of the Citadel of Damascus.

SOUK AL-SAGHA (DAMASCUS)

Ahmad DALLY, Directorate General of Antiquities and Museums (Syria)

The future of the excavated sites in Damascus: The Site Museum of Souk Al-Sagha

Souk Al-Sagha is the modern name of an archaeological site in Old Damascus, adjacent to the southern wall of

the Umayyad Mosque. Between 1973 and 2013, a Syrian team conducted excavations at the site resulting in a number of discoveries, including several archaeological structures dating to various historical periods. The most notable and oldest of these are the remains of a Roman fountain, called the Temple of Water Nymphs, which was an independent building within the precinct of the Temple of Jupiter. The importance of the Souk Al-Sagha excavation project is to shed light on the discovered structures by establishing a site museum that gives the visitors, tourists, and researchers the opportunity to take a tour of the site and learn about the uncovered ruins that highlight a significant phase in the history of Damascus. The project aims also at safeguarding the archaeological discoveries at the site, removing all foreign elements, and rehabilitating and restoring the walls surrounding the ancient structures, in addition to ensuring the safety of the visitors and developing an adequate site management plan, including signboards and other services required at the site. We hope through this project, the first of its kind in Syria, to establish a model site museum in Damascus City. Such a project will serve as a model to other Damascene archaeological sites, such as the Bab Sreejeh where tombs were discovered, and the vicinity of Al-Mujtahid Hospital where a Roman tomb was found.

TELL AL-HUMIRA (DAMASCUS REGION)

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Excavations at Tell Al-Humira

Tell Al-Humira is located in the Qalamoun region, 100 km north of Damascus and 12 km north of Deir Atiyeh. The tell measures 75 m x 100 m x 8 m and rises 1200 m above sea level. The site has been subject to violations and acts of vandalism by villagers who removed large quantities of its soil to make mudbricks for their dwellings, causing severe damage to the site. An archaeological mission belonging to Rif Damascus directorate excavated the site between 2008 and 2012, completing four seasons during which the tell was topographically mapped. Archaeological soundings were also conducted revealing that the oldest settlement at the site dates back to the end of the 2nd millennium BC and the latest one to the 7th century BC. Excavations at the site uncovered numerous architectural ruins and artefacts, including round stamp seals and stamp seal impressions on necks of jars, in addition to a large number of stone loomweights, indicating that the site witnessed successful industrial growth that lasted until its abandonment. However, the most important discovery was a potsherd bearing an incomplete Aramaic text composed of a few letters probably referring to a temple, clearly indicating the possible existence of a temple at the site. It is possible

that parts of the remains of the thick-walled buildings erected on the mound could belong to the temple referred to in the inscription. The importance of Tell Al-Humira stems from the fact that it was an important commercial hub on the route linking northern, central, and southern Syria, and into Palestine and Egypt. The site was perhaps the most important stop between Damascus and *Nazala* (modern Al-Qaryatayn), on the road leading to Palmyra and the Euphrates. It was certainly a key administrative and religious centre on the fringe of the Syrian Desert, as well as a commercial nexus for trade between the dwellers of the desert and the site inhabitants who used to buy their goods from the caravans crossing the site during the 1st millennium BC. The Qalamoun Mountains were mentioned in a number of the Annals of the Assyrians kings – including Shalmaneser III (859-824 BC), Adad-nirari III (805-782 BC), and Tiglath-Pileser III (745-727 BC) – who passed through the area during their military campaigns in Damascus and southern Syria. Other places in the Qalamoun, including Danabu, Khadara, and Adrin, were also mentioned in these annals. These places were once the summer headquarters of the rulers of Aram-Damascus, including Hazael. Some researchers believe that Adrin is modern Al-Qutayfah and Khadara is modern Adra. Thus it is possible that Tell Humira is Danabu, which is what we will attempt to prove in future excavations at the site.

Publication since 2010

HAMOUD, M. and ABOU KAHLA, G.
2012 Tell Alumira (Deir Ateyeh), *Chronique Archéologique en Syrie* 6: 77-91.

TELL AL-BAHARIYA (DAMASCUS REGION)

Ghada SULEIMAN, Directorate General of Antiquities and Museums (Syria)

Tell al-Bahariya

Tell al-Bahariya is located in the Damascus Basin, c. 45 km from Damascus. It is 617.7 m above sea level. Excavations conducted at the site uncovered three successive archaeological strata: Phase 1: 6000-5000 BC; Phase 2: 5000-4000 BC; Phase 3: 4000-3500 BC.

Archaeological discoveries indicate that human groups settled at the site, starting in the 6th millennium BC. They built their homes with hand-shaped mudbricks, wooden and clay ceilings, and limestone floors. In Phase 1, a circular house was discovered. Phase 2, dating to the 5th millennium BC, revealed that the foundations of old buildings were reused to construct new houses composed of multifunctional rooms and floors paved with hand-shaped mudbricks. Phase 3 was erected on the ruins of the two earlier strata and revealed that

the whole settlement was rebuilt after having been destroyed by fire in the late 5th millennium BC. The archaeological remains at Tell Al-Bahariya testify to the artistic development of the humans who inhabited the site. Indeed, several types of residential dwellings, in addition to development in pottery making, in terms of style and colour, were identified. Bull horns were also found buried in one of the worship houses discovered at the site. Clay balls used for calculations were unearthed too, in addition to flint tools made of imported obsidian. This proves that there were cultural and commercial relations between the north and south and the inner and coastal areas during the Neolithic and Chalcolithic periods.

SAINT SERGIUS AND SAINT BACCHUS, SADAD (DAMASCUS REGION)

Nada SARKIS, Directorate General of Antiquities and Museums (Syria)

The Frescoes of the Church of Saint Sergius and Saint Bacchus, Sadad

Frescoes in Syria have had a remarkable impact since the oldest one in the world dated to the 9th millennium BC was discovered at Jaadat Al-Maghara, in addition to other ones displaying various techniques and themes and dating to different periods. Hence, the frescoes of the Church of Saint Sergius and Saint Bacchus in Sadad have contributed to the richness of the history of frescoes in Syria and the world. They represent the artistic accomplishments of the Syriac Church. The walls of the church were covered with local and rare Syriac frescoes dating to the 18th century AD, which still retain until today their unique charm and vibrancy. Eduard Sachau was the first to mention and describe these frescoes in a paper published in 1883, following his visit to the town of Sadad on 21 September, 1879. Following Sachau, many archaeologists visited the town to learn more about the place. In 2005, the first Syrian mission started to work on restoring these frescoes which were damaged due to climatic conditions and human interventions. Information on their technical, artistic, and archaeological history was collected. The restoration work helped uncover several original artistic elements as well as the iconographic content of the frescoes. The mission also documented all the stages of restoring the southern wall of the church, with the hope of completing the restoration works of the entire church in the near future.

BOSRA (DARAA)

Pierre-Marie BLANC, CNRS Nanterre (France)

The Town of Bosra

The town of Bosra was never completely abandoned thanks to the spring feeding the ancient city. An oval tell in the western part of the town, surrounded by a polygonal stonework rampart (c. 1750 BC) is the first evidence of an urban development following occasional occupations dating to the beginning of the 6th and 3rd millennia BC. The Nabataean major phase (late 1st century BC-106 AD) was under king Rabbel II. The Roman annexation in 106 AD led to a phase of monumentality which transformed the city's landscape around the main public buildings. The theatre, hippodrome, amphitheatre, baths, temples, forum, and market were fed by an aqueduct that brought pressurized water. The military camp (of the Legion III Cyrenaica, c. 120 AD) and the legion's honorific arch are clear signs of the presence of a new power. The Christian period witnessed the building of several churches. During this period the city walls were restored and buildings renovated or rebuilt. The beginning of the Islamic period brought no new major changes except for the building of the Al-Omari mosque and the conversion of the South Baths into a Hammam. The earthquake of 749 AD radically modified the city, causing the collapse of the majority of the roads' colonnades and the destruction of the important ancient buildings. This event caused the emergence of a new urban layout.

Publications since 2010

- AL-MAQDISSI, M. and BRAEMER, F.
2010 Villes (?) du Leja au 3^e millénaire: Organisation et fonctions, *Comptes rendus de l'Académie des Inscriptions et Belles Lettres* (2008): 1809-1843.
- BLANC, P.-M. and PIRAUD-FOURNET, P.
2010 La grande église à plan centré du quartier est de Bosra. In: M. Al-Maqdissi, F. Braemer, and J.-M. Dentzer (eds), *Hauran V. La Syrie du Sud du néolithique à l'Antiquité tardive. Recherches récentes. Actes du colloque de Damas 2007*: 275-287. BAH 191. Beyrouth, IFPO.
- BLANC, P.-M. and GAZAGNE, D.
2010 Les aqueducs de Bosra et 'Adraha. In: M. Al-Maqdissi, F. Braemer, and J.-M. Dentzer (eds), *Hauran V. La Syrie du Sud du néolithique à l'Antiquité tardive. Recherches récentes. Actes du colloque de Damas 2007*: 335-344. BAH 191. Beyrouth, IFPO.
- BRAEMER, F., BLANC, P.-M., DENTZER, J.-M., DUMONT MARIDAT, C., GAZAGNE, D., GENEQUAND, D. and WECH, P.
2009 Long term management of water in the Hawran: the history of a resource in a village-based region of the Fertile Crescent, *World Archaeology* 41-1: 35-56.
- CRIAUD, H. and ROHMER, J.
2010 Schémas d'occupation d'une enclave semi-aride. Le Leja (Syrie du sud), de l'âge du Bronze à la veille

de l'annexion à Rome (3600 av. J.-C.-fin du 1er s. ap. J.-C.). In: H. Alarashi, M.-L. Chambrade, S. Gondet, A. Jouvenel, S. Sauvage, and H. Tronchère (eds), *Regards croisés sur l'étude archéologique des paysages anciens. Nouvelles recherches dans le bassin méditerranéen, en Asie centrale et au Proche et au Moyen-Orient*: 43-63. Travaux de la maison de l'orient méditerranéen 56. Lyon, Maison de l'Orient.

DENTZER, J.-M., BLANC, P.-M., FOURNET, TH., KALOS, M. and RENEL, F.

2010 Formation et développement des villes en Syrie du Sud de l'époque hellénistique à l'époque byzantine: les exemples de Bosra, Suweida et Deraa. In: M. Al-Maqdissi, F. Braemer, and J.-M. Dentzer (eds), *Hauran V, La Syrie du Sud du Néolithique à l'Antiquité tardive, Recherches récentes. Actes du colloque de Damas 2007*: 139-170. BAH 191, Beyrouth, IFPO.

GENEQUAND, D. and BLANC, P.-M.

2013 Un moulin hydraulique omeyyade sur l'aqueduc de Bosra In: M. Al-Maqdissi, F. Braemer, and J.-M. Dentzer (eds), *Hauran V. La Syrie du Sud du néolithique à l'Antiquité tardive. Recherches récentes. Actes du colloque de Damas 2007*: 87-96 (article en arabe traduit du français par Hassan Hatoum). BAH 191. Beyrouth, IFPO.

LEJA/QARASSA (SUWEIDA)

Frank BRAEMER, Juan José IBANEZ, Xavier TERRADAS, Martin GODON, Tara STEIMER, CNRS (France)

Leja/Qarassa

The Qarassa site (Suweida Mohafazat, Syria) was excavated from 2007 to 2010 by a Syrian-French-Spanish team. The site was implanted on the southern fringe of the Leja basaltic plateau at the junction with the Hauran Plain. It presents an exceptional chronology of occupation preserved in stratigraphy divided between three distinct areas, from the Natufian to the Iron Age. The Natufian settlement was established on the rock surface, 400 m to the north of a paleolake. The northern tell yielded Pre Pottery Neolithic B (PPNB) to Final Chalcolithic occupations, and the southern one was occupied from the Early Bronze Age I to the Iron Age. A huge Early Bronze Age megalithic necropolis spread over 14 ha in the rocky area to the north of the Neolithic and Chalcolithic settlements. The Qarassa micro-region located in the wadi Abu Dhahab and with perennial waters from a spring and a lake offers interesting possibilities to tackle the issue of environmental changes throughout the Early Holocene in a region so far lacking such research. Ultimately, the Qarassa excavations, connected to the 2002-2006 Leja archaeological surveys, are shedding light on regional archaeological evidence and cultural developments from the onset of Neolithisation to the rise of complex urbanism in a region so far practically neglected,

merging at last the Jordan Valley with the Northern Levant and Syria. The knowledge gap in Southern Syria may thus be partially, if not completely, filled with the long term Qarassa chronological sequence.

SAFAITIC INSCRIPTIONS (DARAA)

Ghazi ALOLO, Directorate General of Antiquities and Museums (Syria)

A report on surveying the Safaitic inscriptions, east of Al-Namara and Al-Zuluf

The survey and documentation of the Safaitic inscriptions covered Wadi Al-Souh and Wadi Zuriq located 15 km east of Al-Namara and Al-Zuluf regions. The two valleys stretch south beyond the Syrian-Jordanian border, adjacent to a continuous range of medium-height hills covered in surface with a layer of basalt. The Safaitic people used to write their inscriptions on the rocks and boulders of the desert or on the stones of cairns used as tombs. The stones acted as an archive immortalizing and reflecting their current concerns, including memories, ideas, travelling, sadness, and mourning. Safaitic people took always pride in their clans and tribes, and as such gave very detailed accounts of their family lines, mentioning in some cases 17 forefathers of their tribes. In doing this, they attempted to immortalize relationships between the members of the same tribe and other tribes and neighbouring populations. Different aspects of their daily life, extending from the 1st century BC to the 3rd century AD, and across an area stretching from the Syrian Desert and into the Euphrates River, were thus documented. More than 600 Safaitic inscriptions, together with drawings, images, signs, and symbols, in addition to one Greek inscription, were accounted for during the survey. The topics of these inscriptions varied and included personal issues, accounts of the lives of important deceased people, and incidents related to different nations and countries. It is also worth mentioning that the Safaitic people worked in agriculture and used iron ploughs pulled by oxen to cultivate their lands, as seen in the images accompanying the inscriptions. For example, one of the inscriptions shows a drawing of two oxen pulling a plough and mentions that the owner of the inscription was ploughing his land for cultivation. The Safaitic people practiced herding and owned sheep, camels, goats, and cows. The drawings also included their hunting activities, such as ostrich and deer hunting, as well as war themes, chivalry, and dancing women. Religion had also a key role in their lives; they prayed to their gods and deities and asked for their support and assistance in issues related to safety, vengeance, and rain. While this survey uncovered hundreds of inscriptions and drawings, many more are still awaiting to be discovered in this region.

AL-RAWDA (HAMA)

Nazir AWAD, Directorate General of Antiquities and Museums (Syria) and Corinne CASTEL, CNRS-Université Lyon 2 (France)

Al-Rawda: A city dating to the 3rd millennium BC on the fringes of the Syrian Desert

In the spring of 1996, the site of Al-Rawda was discovered by a Syrian-French mission during an archaeological, geographical, and environmental survey of the dry fringes of the desert of Al-Salamiyah city. The site dates back to the Early Bronze Age according to the ceramic material. Al-Rawda is located in central Syria on the northern slopes of the Palmyrene Mountains, 150 km from the Mediterranean Sea. It is a circular hill with a height of 3-4 m and has an area of more than 15 ha including the city walls. The city was founded on a low site, where a number of large and important valleys originating from Al-Bilaas Mountains, such as Al-Amour, Al-Zourib, and Al-Qastal valleys, formed together a vital artery for the city. The city is located in a *fayda*, a landform sunken or depressed below the surrounding area, formed by the Wadi Al-Qastal Valley and surrounded by a number of plateaus. The site can only be seen from those plateaus that provided it with natural fortification and defence. The layout of the city indicates that the original founders had extensive knowledge and experience in city planning and in choosing the right location at the crossroads of ancient routes. Excavations of the site started in 2000 and were carried out by a Syrian-French mission aiming at uncovering the nature of the urban planning of the site, highlighting and analysing the archaeological data, studying the defensive fortifications, ways of using the environment, and the production systems in this dry climate during the 3rd millennium BC. This also meant shedding light on the nature of the urban communities settled in the region and the nature of their relationships. The results of the excavations and archaeological studies revealed that the site was a city defended by a double rampart and two ditches. It was accessible through fortified gates. The necropolis is situated outside the city to the west. The temple, discovered northwest of the city, but within the city walls, was home to rites and offerings of different and various faiths. In addition, excavations revealed parts of residential dwellings and gave a clear idea of the plans of the houses within the residential neighbourhoods. Numerous ceramics and agricultural devices were also unearthed, as well as tools in daily use and cylinder stamp seals. Studies of the agricultural activities at Al-Rawda indicated that barley was the most cultivated crop, along with vegetables, fruit, and wheat. The mission also carried out an archaeological survey around the site, which led to the identification of small settlements forming parts of the city, in

addition to the discovery of several animal traps and ways of organizing and exploiting water resources around the site. All of this has given us a much deeper understanding of the nature of the economic life in the city. In addition, geophysical surveys of the site have revealed a clear picture of the circular street pattern, which finds parallels on other sites located in a similar environment and dated to the same period, such as Tell Al-Shuaerat, Tell Chuera, and Tell Kherbet Al-Qasr, as well as Mari and Qatna during the 3rd millennium BC. The advanced location of Al-Rawda, adjacent to the ancient great wall, stretching on the fringes of the desert from north to south along a distance of about 220 km, poses many questions as regards to the function of this wall on one hand and its association with Al-Rawda city on the other.

MASYAF (HAMA)

Haytham HASSAN, Directorate General of Antiquities and Museums (Syria)

The Masyaf Castle

Masyaf Castle is one of the most important castles in western Syria. It is located 45 km west of Hama and east of the modern city of Masyaf, stretching on the eastern edge of the coastal mountain range (Jabal Bahra of the Medieval period). Excavations and restoration works in the castle, funded by the Aga Khan Trust for Culture Historic Cities Support Programme, in cooperation with the Directorate General of Antiquities and Museums (DGAM), started in 2000. An archaeological team from DGAM carried out systematic archaeological researches on the castle and the unearthed artefacts. The archaeological team, including young Syrian professionals, conducted excavations between 2000 and 2013, leading to significant archaeological findings regarding the history of the city in particular, and of Syria during the Middle Ages in general. Discoveries indicated that the castle was occupied between the 10th and the 20th centuries AD, during which it was converted from a fort where the Emirs of Banu Munqidh spent the summer, into the headquarters of the Nizari Ismailis in Syria, and, finally, into the headquarters of some local leaders under Ottoman rule. These excavations highlighted also the importance of studying a local rural community that lived in isolation in the shadow of the city and its castle.

MISHIRFEH-QATNA (HOMS)

Michel AL-MAQDISSI, Directorate General of Antiquities and Museums (Syria)

Syrian excavations at Mishirfeh-Qatna

Excavations at the site of Mishirfeh-Qatna were conducted from 1994 to 2011 by a Syrian team and led to the discovery of architectural structures dated to the 3rd and 2nd millennia BC, and to the first half of the 1st millennium BC. Focus in the past years has been directed towards exploring a section of a residential neighbourhood dating to the Iron Age II (900-720 BC) and located in a low area southwest of the mound (Area S). The area contained a number of adjacent dwellings, as well as ceramics – including Aramean jars used for storage and clay pots painted in red (Red Slip). The western gate (Area E), previously discovered by R. du Mesnil du Buisson, was also investigated. This area was established in the mid-2nd millennium BC and was used during the Late Bronze Age and Iron Age II. Other surveys carried out in the vicinity of the site indicated that extensive human settlement started at the site in the mid-3rd millennium BC and continued until Iron Age II. However, during Iron Age III and the classical periods, the region witnessed major changes and became very marginal, as political focus and attention shifted towards the city of Aritusa on the Orontes River during the Hellenistic period, and the city of Emesa during the Roman and Byzantine eras.

TELL ARBID (HASSAKE)

Piotr BIELIŃSKI, Polish Centre of Mediterranean Archaeology, the Institute of Archaeology, University of Warsaw (Poland)

The 3rd-millennium BC city of Tell Arbid: structure of a medium-sized urban centre in the Jezireh

There is no evidence suggesting the presence at Tell Arbid of a settlement predating the period of Ninevite 5 Culture. During the Early Jezireh I and II periods, the city achieved a pivotal stage in its history. Remains representing this phase are present in every part of the site over a thickness of 12 m. Regardless of the changes in several forms of the material culture, clear indices of stability in spatial organization of the city were found, with only few exceptions, in most of the investigated sectors. The street layout and localization of shrines are the best examples demonstrating this cultural continuity.

MIDDLE KHABUR (HASSAKE)

Frank HOLE, Yale University (USA)

Ubaid sites on the Middle Khabur River

In the Late Ubaid period, immigrant groups settled several sites along the Middle Khabur River valley. Excavations and small-scale sampling revealed

initial occupation on a virgin landscape, and then abandonment some 500 years later. The principal sites are Mashnaqa, Ziyadeh, Kuran, and Beydar III.

URKESH (HASSAKE)

Giorgio BUCCELLATI and Marilyn KELLY-BUCCELLATI, Cotsen Institute of Archaeology, University of California, Los Angeles and the International Institute for Mesopotamian Area Studies (IIMAS) (USA)

Presented by Samer ABDEL GHAFOR, Directorate General of Antiquities and Museums (Syria)

Urkeshe: Widening the chronological spectrum in the past and safeguarding the site for the future

A stunning new element emerged during our last season of excavations, in 2010. Just below the surface, near the top of the tell, the corner of a niched building appeared, almost certainly the 4th-millennium precursor of the later temple complex. We only have the external corner of the structure, which echoes the architectural template of southern Mesopotamia, such as the temple in Eridu, but the date is certain because of both the glyptic and ceramic evidence, and because of C14 determinations. The stratigraphic seal just above the structure is firm (it was the solid glacis of the later Temple terrace), and it seems most likely that the rest of the building is fully preserved. In 2010 we could not reach the level of the original internal floor, which we had hoped to excavate in 2011, a project unfortunately left in abeyance ever since. But there is also good evidence that this structure rested on top of what was already a very high Temple terrace, about 22 m above the plain level, implying the existence of a large city that could support the presence of such a monumental structure. Before hostilities began, we had set in place an effective system of conservation and site presentation. It continues to date. In spite of our enforced and protracted physical absence from the site, we have been able to sustain without interruption preservation work at the site, through direct supervision of the work done by two guards and four assistants, and by providing the necessary materials. As a result, the site is in excellent shape, documented by means of a thorough photographic and descriptive record.

Publications since 2010

BUCCELLATI, G.
2015 L'archeologia come presenza morale a Tell Mozan in Siria, *Associazione Archeologica Ticinese, Bollettino* 27: 20-25.

2014 Courage among the ruins: a sustainable conservation program in time of war, *BACKDIRT. Annual Review of the Cotsen Institute of Archaeology at UCLA*: 102-112.

2012 The Floodwaters of Urkesh and the Structural Coherence of the Urkesh Temple Complex. In: P. Quenet and M. Al-Maqdissi (eds), *L'Heure Immobile. Entre Ciel Et Terre, Mélanges en l'Honneur d'Antoine Souleiman*, SUBARTU XXXI: 21-33.

BUCCELLATI, G. and KELLY-BUCCELLATI, M.

2014 ... Nor North: The Urkesh Temple Terrace, *Syria*, Supplement 2: 439-461.

KELLY-BUCCELLATI, M.

2015 Power and Identity Construction in Ancient Urkesh. In: P. Ciafardoni and D. Giannessi (eds), *From the Treasures of Syria. Essays on Art and Archaeology in Honour of Stefania Mazzoni*: 112-130. Leiden, NINO.

2013 Landscape and spatial organization. An essay on early urban settlement patterns in Urkeš. In: D. Bonatz and L. Martin (eds), *100 Jahre archäologische Feldforschungen in Nordost-Syrien-eine Bilanz*: 149-311. Wiesbaden, Harrassowitz.

TELL SHAEER (QAMISHLI)

Suleiman ELIAS, Directorate General of Antiquities and Museums (Syria)

Tell Shaeer

Tell Shaeer is located 23 km east of the city of Al-Qamishli and 2 km north of the road leading from Al-Qamishli to Al-Malikiyah. Excavations started in 2006 under the direction of Dr Suleiman Elias. However, in 2011, those excavations came to a halt due to the prevailing security situation in Syria. Systematic investigations at the site resulted in some important findings indicating that human settlement lasted sporadically from the 6th millennium BC (Hassuna period) to the Ayyubid period. The major layers discovered at the site include: Hassuna period – containing a small settlement west of the tell; Chalcolithic period; Nineveh period; Hurrian period; Mitanni period; 1st millennium BC; Islamic period. The archaeological layers cover an area of about 6 ha and a height of more than 30 m. The tell rises 454 m above sea level. It has an oval shape stretching from north to south. The tell is situated 7 km south of the Taurus Mountains in an area of fertile red soil, with an average annual rainfall of more than 500 mm. In addition, groundwater is close to the earth's surface. The region is also historically well-known for its rain-fed agriculture. Excavations in the first season of 2006 included a topographic survey, dividing the tell into a network of squares (5 m x 5 m). The starting point was located on the top of the tell, and a probe was conducted 20 m east of the first excavation and down the tell. The most important discoveries at Tell Shaeer during six excavation seasons comprised a floor paved neatly with white stones, 5 m wide and 11 m long. A drainage canal paved with red bricks and covered with large white stones was also discovered beneath that floor. Thus, we believe that this could be the entrance

to a huge architectural structure that has not yet been identified. Besides, a huge defensive wall, 4.7 m wide (the discovered part measures 5 m long and 2 m high), was discovered 20 m east of that floor. Moreover, the numerous unearthed artefacts included human and animal shaped figurines made of clay, ceramic vessels, bronze tools such as spearheads and knives, bracelets, arrowheads made of stone, spindles made of clay and stone, impressions of cylinder stamp seals made of clay, a cylinder seal made of black stone dated to the Nineveh period and containing geometric shapes, and a seal made of clay dated to the Mitanni period. Furthermore, a number of tombs dating to the 4th, 3rd, and 2nd millennia BC, as well as a large number of ancient Islamic tombs, were discovered at the site. Hence this enables us to say that Tell Shaeer used to be a large settlement that lasted from the end of the 3rd millennium to the mid-2nd millennium BC.

RAS IBN HANI (LATTAKIEH)

Michel AL-MAQDISSI, Directorate General of Antiquities and Museums (Syria)

Syrian excavations at Ras Ibn Hani (2011)

In 2011, a Syrian mission started excavations at the site of Ras Ibn Hani, in the field located halfway between the Northern Palace and the Southern Palace, as a continuation of the previous excavations of the Syrian-French mission headed by Dr Adnan Al-Bounni and Dr Jacques Lagarce, who worked there in 1978. During the new excavations, successive layers were studied, and a large pit was discovered. This pit, dated to the Hellenistic period, contained various ceramics and clay lamps, in addition to a number of local and imported clay figurines. Other pits dating to the end of Iron Age III were also discovered. They contained potsherds belonging to the Greek traditions and a number of clay figurines bearing Persian features. During Iron Age II, a building was erected on the Late Bronze Age layer. The building, believed to have a religious function, consisted of two connecting rooms with the entrance located in the first room, whereas the second room contained a small altar made of stone. A dwelling dating to the Late Bronze Age had an extension reaching the eastern wall of the site. It is worth mentioning that this house has some Ugaritic features in terms of the architectural techniques. Wooden materials were used in building some walls and doorways connecting the rooms. A number of locally made ceramics were found in situ on the floors.

UGARIT

Khözama AL-BAHLOUL, Directorate General of Antiquities and Museums (Syria)

The results of the excavations in the fortification area (Ugarit), by the Syrian team

The Syrian excavations on the fortification area in Ugarit started in 2005. Investigations focussed on the southwestern side of the site with the aim of verifying the presence of fortifications in this area and to check for domestic installations along the wall. Results enabled us, during the last seasons, to confirm the existence of the city wall on the southwestern slope, which appears to be an extension of the fortification already found on the western side. Additionally, a large, important building (the Great Building) was found built directly on top of the city wall. It was constructed with a complex technique during Late Bronze Age II and continued to be in use during Late Bronze Age III, with some modifications, such as the closing or the change of function of some of the rooms. The importance of this building lies in its strategic location, which opens on the Royal Street directly off the southern palace, its architecture, and the nature of the archaeological finds it contained, such as remains of furniture made from elephant ivory or the stele of the god Baal. It could be that this building belonged to a member of the royal family. All this evidence leads to the division of the building into two sections: a service part and a ritual part.

Publications since 2010

- AL-BAHLOUL, KH.
2015 Preliminary report on the excavations works on Ras Shamra (area D-fortification area) Syrian team. Season 2012, *Chronique archéologique en Syrie*: 41-57 (in Arabic).
- AL-MAQDISSI, M., BAHLOUL, K., CALLOT, O., CALVET, Y., MATOĀN, V. and SAUVAGE, C.
2007 Rapport préliminaire sur les activités de la mission syro-française de Ras Shamra-Ougarit en 2005 et 2006 (65e et 66e campagnes), *Syria* 84: 35-54.
- AL-MAQDISSI, M., CALVET, Y., MATOĀN, V., AL-BAHLOUL, K., BENECH, C., BESSAC, J.-C., COQUEUGNIOT, E., GEYER, B., GOIRAN, J.-P., MARRINER, N., ONNIS, F. and SAUVAGE, C.
2010 Rapport préliminaire sur les activités de la mission syro-française de Ras Shamra-Ougarit en 2007 et 2008 (67e et 68e campagnes), *Syria* 87: 21-51.
- MATOĀN, V., AL-MAQDISSI, M., HAYDAR, J., AL-BAHLOUL, K., BENECH, C., BESSAC, J.-C., BORDREUIL, E., CALLOT, O., CARBILLET, A., DARDAILLON, E., GEYER, B., GOIRAN, J.-P., HAWLEY, R., HERVEUX, L., MARRINER, N., ONNIS, F., PARDEE, P., REJIBA, F., ROCHE-HAWLEY, C., and SAUVAGE, C., avec la collaboration de V. ASENSI-AMOROS, P. CARBONEL, X. HUANG and M. LECOMTE
2013 Rapport préliminaire sur les activités de la mission archéologique syro-française de Ras Shamra-Ougarit en 2009 et 2010 (69e et 70e campagnes), *Syria* 90: 439-478.

AL-MARQAB (LATTAKIEH)

Balázs MAJOR, Pázmány Péter Catholic University (Hungary)

Latest results of the Al-Marqab research project

Since 2007, the Syro-Hungarian archaeological mission has been conducting a joint research project at Al-Marqab Citadel (Tartous Governorate), which has included many fields of research such as archaeology, architectural history, art history, wall painting research, geophysical research, geology, archaeozoology, geoarchaeology, anthropology, and seismology. The results of the combined researches started to reveal the functions of the various areas and spaces of the castle and shed light on the functioning of this important Medieval site and its environs. The discovery of a new, extensive Medieval suburb outside Al-Marqab Citadel, and the unearthing of a hoard of Medieval weapons inside the castle, constitute some of the most important latest discoveries. It is worth mentioning that work on the site has continued unhindered in the past couple of years.

Publications since 2010

- MAJOR, B.
2014a A Medieval burial in Qal'at al-Marqab and its facial reconstruction. *Hungarian Archaeology*, E-Journal, Spring 2014.
http://www.hungarianarchaeology.hu/wp-content/uploads/2014/05/eng_mk_14TA.pdf
- 2014b Medieval 'light construction buildings' on top of the vaulted halls of al-Marqab Citadel (Syria), *Castelos das Ordens Militares. Direção Geral do Património Cultural Portugal Lisboa*: 165-181.
- 2013a Bathing in the Medieval Latin East. A recently discovered 13th-century bathhouse in al-Marqab Citadel (Syria). *Hungarian Archaeology*, E-Journal, Winter 2012.
http://www.hungarianarchaeology.hu/wp-content/uploads/2014/01/eng_Major_13T.pdf
- 2013b Where has the town of Valenia gone? Historical and archaeological research. In: *Peritia Linguarum. The Synod of Vienne and the Teaching of Languages*: 69-84 (in Hungarian). *Studia Philologica II. Piliscsaba*.
- 2013c 'Anklis'. A possible trace of European presence in the Medieval Syrian vocabulary. In: P. Fodor, Gy. Mayer, M. Monostori, K. Szovák, and L. Takács (eds), *More Modoque. Festschrift für Miklós Maróth zum siebzigsten Geburtstag*: 377-384. Budapest, Ungarischen Akademie der Wissenschaften.
- 2013d The Medieval mill of Banyas and some notes on the topography of the town of Valenia. In: K. Ciggaar and V. van Aalst (eds), *East and West in the Medieval Eastern Mediterranean II. Antioch from the Byzantine Reconquest until the End of the Crusader Principality*,

- 367-390. *Orientalia Lovaniensia Analecta* 199. Leuven.
- 2012 Medieval cranes in Qal'at al-Marqab, Syria. *Hungarian Archaeology*, E-Journal, Winter 2012. http://www.hungarianarchaeology.hu/wp-content/uploads/2013/02/eng_MajorB_12W.pdf
- MAJOR, B. and BUZÁS, G.
2014 *Crusader and Mamlūk Hammāms in al-Marqab*. In: T. Fournet (eds), *Balnéorient III*: 40-55. Le Caire, Institut Français d'Archéologie Orientale.
- MAJOR, B. and GALAMBOS, E.
2012 Archaeological and fresco research in the Castle Chapel at al-Marqab: A preliminary report on the results of the first seasons. In: P. Edbury and H. Nicholson (eds), *The Military Orders. V. Politics and Power*: 23-47. Farnham, Ashgate.
- SHILLITO, L.-M., MAJOR, B., ALMOND, M., ANDERSON, E. and PLUSKOWSKI, A.
2014 Micromorphological and geochemical investigation of formation processes in the refectory at the Castle of Margat (Qal'at al-Marqab), Syria, *Journal of Archaeological Science*. Accepted manuscript, doi: 10.1016/j.jas.2014.07.031.

PALMYRA (HOMS)

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Shaping an urban landscape: Church buildings in Palmyra

The paper summarizes research results on Early Byzantine churches in Palmyra, with special focus on the last two seasons of fieldwork in 2008 and 2009. Within the framework of this program, activities were concentrated on excavations in the northern basilica, the largest church building in the city. Large parts of the apse, as well as the nave and both aisles, were cleared. Of particular interest was the so-called 'Syrian' bema occupying the centre of the nave, undoubtedly the most unusual architectural feature of the church. While the bema is quite common in churches in northern Syria, it is the first time that such a structure has been discovered in central Syria. Excavations revealed also evidence of Early Islamic occupation on the site. In the 9th-10th centuries AD, the abandoned and dilapidated church was re-oriented and transformed into a secular building addressing the new needs of the population. This alteration reflected the modified urban landscape of Early Islamic Palmyra.

Publication since 2010

- MAJCHEREK, G.
2013 Excavating Basilicas, *Studia Palmyreńskie* XII: 251-268.
2012 Polish Archaeological Mission to Palmyra, seasons 2008 and 2009, *Polish Archaeology in Mediterranean XXI* (Research 2009): 459-479.

- JASTRZĘBOWSKA, E.
2013 La christianisation de Palmyre: l'exemple du temple de Bel, *Studia Palmyreńskie* XII: 177-192.
JUCHNIEWICZ, K.
2013 Late Roman fortification in Palmyra, *Studia Palmyreńskie* XII: 193-202.
WIELGOSZ, D.
2013 Coepimus et lapide pingere: marble decoration from the so-called Baths of Diocletian at Palmyra, *Studia Palmyreńskie* XII: 319-332.
ŻUCHOWSKA, M.
2013 Palmyra and the Far Eastern trade, *Studia Palmyreńskie* XII: 381-388.

PALMYRA (HOMS)

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Some olive-oil installations from Palmyra

Until very recently, production of olive oil in ancient Palmyra was virtually unattested. The preliminary inventory of the few surviving presses, or dozens of their elements scattered all over the site, suggest however that olive oil was part of the local agriculture, especially during the Late Antique and Early Islamic periods. The preliminary typology of installations known from Palmyra, based on the author's field research, corresponds to similar typologies established already in Palestine or Northern Syria. The catalogued examples belong to the lever-and-weight, lever-and-screw, and screw-press types. The question of their chronology seems to be especially controversial due to lack of archaeological contexts for the majority of the installations or their elements.

POSTERS

QALA'AT HALWANJI (ALEPPO)

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Qala'at Halwanji

The archaeological site of Qala'at Halwanji towers over the Sajour River, perched high on a square limestone cliff c. 15 km west of the Euphrates. It was first identified in 2007, and in 2008-2009, preliminary investigations were carried out by the author in cooperation with Syrian colleagues. A surface survey and test excavations showed that the site was first occupied in Early Bronze Age IV, but its main level, immediately under the modern surface, represents a brief Middle Bronze Age II (early 2nd millennium BC) occupation, destroyed by fire. Excavated rooms in the well-preserved south and southwestern parts of the site contain numerous in situ

ceramic vessels and specimens of remarkable sealings. During this period, Qala'at Halwanji seems likely to have been a fortress constructed by a regional or international power. An identification with ancient *Dūr-Šamši-Adad*, a fortress established in this region by Šamši-Adad I c. 1786 BC, and lost to Yamhad c. 1779 BC, is one textually documented possibility, but others are also possible.

TELL GINDARIS (ALEPPO)

Ammar ABDULRAHMAN, Damascus University (Syria)

Tell Gindaris in the classical period

Tell Gindaris is located in northwestern Syria in the Amuq Plain between the Sam'an Mountains in the east and the Amanus Mountains in the west. The tell covers c. 14 ha and contains several levels dating from at least the Early Bronze Age to the classical period. The excavation of the Syrian mission was carried out in the western part of the tell. An area of 800 m² (Area A) was divided into squares (A1-A8), each 10 m x 10 m. Excavations reached a depth of 2.5 m by the end of the season. The fieldwork of 2009 concentrated on three squares A5, A7, and A8. In square A8, traces of a building with mosaic flooring dating to the Byzantine period (early 6th century AD) were found under the surface level. Unfortunately, due to recent destructions, only three mosaics were recognized: the first is the largest (2 m x 3 m) and has a geometric pattern with black tesserae on a white background. The other two pieces were composed only of white tesserae, organized to depict flowers with eight petals. The second mosaic measures 2 m x 1.75 m, but the third example is badly damaged. This building, to which these mosaics belong, is obviously important. If we relate it to the adjacent canalization system, its most appropriate function would be a bath (*hammam*) and not a villa, as previously assumed. Abundant finds were discovered inside, such as two limestone incense burners, a metal candelabra with four legs, coins, lamps, and some coloured beads. Level 2 dates back to the Roman period and has yielded a temporary residence characterized by poor architecture. Large amounts of stone weights and pottery, such as dishes and jars were found there. Level 3 has no structures but should be dated to the Hellenistic period according to the pottery and coins discovered on the floors.

Publications since 2010

KRAEMER, N.

2006 *Gindaros in the North West of Syria* (Arabic translation, 2007). Damascus.

SÜRENHAGEN, D.

2002 *Preliminary Scientific reports from Tell Djāndaris* (1993-2001).

HAWARTE (HAMA)

Ewa PARANDOWSKA, Polish Centre of Mediterranean Archaeology, University of Warsaw (Poland)

Conservation of Roman wall paintings from the Mithraeum in Hawarte

The Polish-Syrian salvage excavations conducted between 1998 and 2010 at Hawarte near Apamea brought to light a Mithraic sanctuary with high-status Roman wall paintings. Such an important discovery was also a source of many conservation problems. The cave was filled with debris from the collapsed ceiling and deep foundation walls of the later churches. Decoration consisted of five superimposed coats of painted plaster with the latest one relatively well preserved. The key question was: could this unique wall painting be preserved in situ or should it be removed and exhibited in the controlled environment of a museum? The decision was to protect the paintings in their original location, under a temporary roofing. Large parts of the collapsed ceiling's decoration, and thousands of small plaster fragments recovered from the fill layers, were collected for further conservation. The team of Polish and Syrian restorers worked for many seasons simultaneously in the Hawarte cave, in the Hama Museum laboratory, and in the Academy of Fine Art in Warsaw. Today, seven large scenes composed of reassembled painted fragments form part of a permanent exhibition at the Archaeological Museum in Hama. The virtual reconstruction of destroyed fragments helped to identify the stylistic chronology of the sanctuary's decoration.

Publications since 2010

PARANDOWSKA, E.

2012 *Hawarte - Last Masterpieces of Ancient Painters*. Warsaw, Polish Centre of Mediterranean Archaeology.

TULUL EL-FAR, TELL TAOUIL, TELL AL-KHARAZE, AND THE DAMASCENE AREA (DAMASCUS)

Sophie CLUZAN, Musée du Louvre (France) and Ahmad FARZAT-TARAQJI, Directorate General of Antiquities and Museums (Syria)

Tulul El-Far, Tell Taouil, Tell Al-Kharaze, and the Damascene area during the Bronze Age

Three sites of different sizes bear the name of Tulul El-Far. The three mounds are situated south of the Damascene oasis, at the eastern end of the river Al-A'ouaj. The three have been included in a joint project by DGAM and the Louvre Museum, in order to study more fully the human occupation in the oasis during

the Bronze Age period, and particularly during the Early and Middle Bronze Ages. If the importance of the Middle Bronze Age is already well known in the area thanks to the results of the Syrian expedition at Tell Sakka (director: Ahmad Farzat-Taraqji), the earlier periods are not yet documented from excavations, except in very small portions of the old Damascus city (Michel Al-Maqdissi). Important results were obtained from three campaigns conducted on two of the sites, allowing the inclusion of the settlements in the more global network linking Egypt and Palestine to the north and east of Syria, reaching as far as the Euphrates and the Jezireh. Moreover, a regional study showed how the Damascene settlements coalesced into a local network, probably dominated by an important city.

TELL AS-SIN (DEIR EZ-ZOR)

Shaker AL SHBIB, Directorate General of Antiquities and Museums (Syria)

Tall As-Sin on the Eastern Limes

Tell As-Sin is located on the left bank of the Euphrates, 10 km southeast of Deir Ez-Zor. The site corresponds to a Byzantine fortified town, consisting of an acropolis, a lower town, and a necropolis extending beyond the northern wall. Three archaeological excavation campaigns were carried out on the site by a Syrian-Spanish archaeological mission in 2005, 2006, and 2007. This archaeological work helped identify the chronological periods attested on the site. Two major phases were distinguished in the Byzantine occupation of the city and the necropolis of Tell As-Sin. The first dates from the end of the 5th to the beginning of the 6th century AD. A following second phase extended until the middle of the 7th century AD. The ancient city must be interpreted within the historical context of the Near East during the period from the 6th century AD to the arrival of Islam. It is a fortified city on the eastern border (*limes*) of the Roman Empire and an exceptional site in terms of study of the defence system, way of life, socio-economic organization, funerary beliefs, and other aspects of a Byzantine community in the Middle Syrian Euphrates Valley.

Publications since 2010

AL SHBIB, S. and MONTERO FENOLLÓS, J. L.

2017 Tall As-Sin, the results of the Syrian-Spanish mission work 2005-2007. In: Y. Kanjou and A. Tsuneki (eds), *A history of Syria in one hundred sites*: 367-370. Tsukuba, University of Tsukuba.

MONTERO FENOLLÓS, J. L. and AL SHBIB, S.

2010 Tell Qubr Abu al Atiq: From an Early dynastic city to a middle Assyrian fort, *Aula Orientalis* 28: 73-84.

2008 *La Necropolis Bizantina de Tall As-Sin (Deir ez-Zor, Siria)*: *Memorias del Proyecto Arqueológico Medio Éufrates Sirio*

I, Biblioteca del Próximo Oriente Antiguo 4. Madrid, CSIC.

2006 La mission archéologique syro-espagnole au Moyen Euphrate. Première campagne à Tall as-Sin (Deir ez-Zor, Syrie), *Orient-Express* 1: 3-5.

TELL AL NOUHAS (HAMA)

Komait ABDALLAH, Directorate General of Antiquities and Museums (Syria)

The preliminary results of the excavations at Tell Al Nouhas in the Masyaf region

Tell Al Nouhas is situated 3 km to the east of the city of Masyaf in the Hama province. In 2013, the Directorate General of Antiquities and Museums formed a team to survey the tell, already registered as an archaeological site in 2010. The survey helped identify a Roman road passing near the tell that linked Apamea with Homs. In addition, the team located remains of a building near the river that passes near the tell, along with some walls scattered on the surface of the tell. The pottery collected shows that the vestiges belong to the Bronze and Iron Ages and to the Hellenistic period. Archaeological soundings followed the survey to determine the periods of occupation and abandonment of the site. The oldest occupation dates to Bronze Age IV (2200-2400 BC). Remains of a settlement dated to Iron Age II (900-700 BC) were also identified. The last period of occupation belongs to the early Hellenistic period (3rd and early 2nd centuries BC). The two last seasons of excavation in 2014 and 2015 revealed several structures built in stone, as well as tombs dating probably between 900 and 700 BC.

TELL TWEINI (LATTAKIEH)

Michel AL-MAQDISSI, Directorate General of Antiquities and Museums (Syria), Massoud BADAWI, Directorate General of Antiquities and Museums (Syria), Karel VAN LERBERGHE, Katholieke Universiteit Leuven (Belgium), and Joachim BRETSCHNEIDER, Katholieke Universiteit Leuven (Belgium)

Presented by Eva ISHAQ, Directorate General of Antiquities and Museums (Syria)

Terracotta figurines from Tell Tweini (1st millennium BC)

Tell Tweini is located near the modern town of Jableh on the Syrian coast, some 28 km south of Lattakieh and roughly 35 km south of the ancient city of Ras Shamra-Ugarit. Since 1999, a joint Syro-Belgian mission has been excavating the site. In areas A and B, a number of terracotta figurines were discovered in levels dated to the 1st millennium BC. Six main categories were identified: female figurines, male figurines, animal

figurines, human heads, animal heads, and legs. All the analysed terracotta figurines were dated to the Late Iron Age II and Iron Age III, with one exceptional specimen from the Iron Age I tradition. The female terracotta figurine is a traditional model dating back to Iron Age II, already attested at Tell Afis, Neirab, and on sites of the Amuq Plain. The plaque representing a female with arms down against her body was a popular product in the Levant during Iron Age II-III. However, earliest examples are known in the Late Bronze Age from Ras Shamra-*Ugarit*, Tell Mumbaqa-*Ekalte* on the Euphrates, and Tell Beit Mirsim in Palestine. The male figurine with a conical shape and two holes in the bottom for applying legs is a very rare example of the so-called 'Puppet' style. It is shaped in the Cypriot and Greek traditions of the Iron Age. Some analogies to this figurine can be found on Near Eastern sites, such as Babylon and even Susa. The large, moulded terracotta figurine of a naked woman, of a unique and very special shape, can be considered as one of the rare examples that appeared on the Phoenician coast. Its dates back to Iron Age III. The 'Persian Riders' represent a very popular type that is attested on many Near Eastern sites, from the Syro-Lebanese coast to Tell Halaf in the east. M. Rostovtzeff noted that 'similar statuettes of the Achaemenid period are found in hundreds in all the cities which were occupied by the Persian Army'. This type was manufactured in special workshops from very fine clay of light beige colour. The animal terracotta figurines have very limited variations, with a preponderance of ruminants and herbivores; they are generally dated to the late phase of the Iron Age (probably Iron Age III).

DGAMS ACTIVITIES

Tony GEROUGE Documentation of archaeological sites and historical buildings

In cooperation with the department of historical buildings, all related information for archaeological sites and historical buildings registered on the National Heritage List (NHL) has been entered in a dataset. A dedicated interface was constructed to record damages (location and parts, short description, and photographs) through a constant feedback by the department of site management, in order to have real-time reports of inter-related data.

Lina KUTIFAN Syrian World Heritage sites

UNESCO has declared six sites in Syria to be of outstanding universal value and added them to the World Heritage List, including the ancient sites of Damascus (1979), Bosra (1980), Palmyra (1980), Aleppo (1986), Krak des Chevaliers and Qal'at Salah Ed-Din (2006) and the 'Dead Cities' of Northern Syria (2011). The ancient city of Damascus stands out. Founded in the 3rd millennium BC, Damascus vies for – and just might own – the title of the world's oldest continuously inhabited city. Bosra is a major archaeological site with ruins dated to the Roman, Byzantine, and Islamic times. Nabatean and Roman monuments, Christian churches, mosques and madrassas are also present within the city. Palmyra was one of the artistic cities in the Near East. Its ruins constitute a unique achievement in architectural style and town planning. Aleppo is one of the oldest continuously inhabited cities in the world and is dated to the 2nd millennium BC. The Crusader castles Krak des Chevaliers and Qal'at Salah Ed-Din represent a distinct evolution in the defence systems that were prevalent then in Europe. Those two castles contributed to the development of castles in Bilad Al-Sham. The Dead Cities of Northern Syria are some 40 villages grouped in eight parks and located in northwestern Syria. They provide a remarkable testimony to rural life in late Antiquity and during the Byzantine period.

Final Conclusions and Remarks

Jeanine Abdul Massih and Shinichi Nishiyama

The International Syrian Congress on Archaeology and Cultural Heritage (ISCACH) spread over four days in a scientific and friendly atmosphere, brought back together again the large family of Syrian archaeology. The presentations were followed by the final session concerning the 'future' of the Syrian cultural heritage, entitled 'Thinking the Future of Syrian Cultural Heritage'.

This session was highlighted by several interventions from Syrian colleagues, spokespersons of several international organizations dealing with cultural heritage, participating scholars, and members of the Japanese Society for West Asian Archaeology.

The first to speak in this Session was Ahmad Deb (DGAMS, Syria) who presented the work of the General Directorate of Antiquities and Museums of Syria regarding the Protection of Archaeological Artefacts in the Museums of Syria.

Archaeological museums in Syria are widely spread in all the Muhafazat, including Ras El-Bassit, Kassab, Tartous, Lattakieh, Idlib, Maarat Al-Nouman, Apamea, Aleppo, Raqqa, Qalat Jabar, Hassake, Deir Ez-Zor, Palmyra, Homs, Hama, Krak des Chevaliers, Suweida, Bosra, Quneitra, Maaloula, Deir Atiyeh, and Damascus. From the beginning of the crisis in Syria, the attacks on the heritage sites extended to the destruction and looting of sites and museums.

Fighting illicit trafficking was one of the main goals of DGAMS, along with the documentation of the museum collections after rescuing them and placing them in safe locations. In this regard, some interventions were also done on sites to save endangered objects. The collaborative work between DGAMS and neighbouring countries was one of the most efficient ways to return a great number of stolen artefacts.

The urgent safeguarding interventions concerning museums consisted of closing the museums and emptying showcases of all archaeological objects, as well as insuring safe sites to store these artefacts. Major pieces were transferred to safe places located throughout the country and in some extremely dangerous areas entire collections were moved from one region to another. All the museums were fitted with alarm systems, guards, and heavy iron doors to protect the premises and the storage facilities. Aside from these concrete interventions in the field, different

awareness programs were launched aiming at involving all political, religious, social, and media actors for the protection of the Syrian cultural heritage.

At the same time, the program for archiving and digitizing museum artefacts was launched by DGAMS in Damascus and involved a team of archaeologists and specialists. Until now, we have documented more than 250,000 pieces and archived all museum records. All the documented objects were then packed in boxes according to international standards and stored in a safe place. The objects and the storage boxes are all registered in inventories and stored safely under guard until they could be freed one day and presented again to the public as testimony to the revival of Syria's cultural heritage.

Lina Kteifan (DGAMS-Syria) presented the status of Syrian archaeological sites during the crisis.

Syria has hundreds of thousands of archaeological sites. Very many of them have been identified, but only a fraction has been explored. Any of the latter has the potential to change what we know about human history, as past excavations have done. Some have already revealed the world's earliest known villages and cities and the first examples of writing.

Attacks on heritage sites began as soon as the war started in Syria. Actual damages can be broken down into different categories and vary in degrees of degradation. These range from simple graffiti painted on Roman temples in the 'Dead Cities', to the destruction of the ancient cities of Aleppo and Palmyra. Archaeological sites, including entire ancient cities, are being destroyed not directly from tanks and shelling, but also by illicit digging. While some of the plunder is small-scale, large organized gangs are bulldozing sites and selling artefacts on the black market.

A part of the Syrian territory is under the effective control of ISIS, who blew up temples, tombs, and shrines. A country's past is thus disappearing. The ongoing war allows ISIS to excavate ancient sites for any gold coins and precious artefacts that can be trafficked and monetized. In northern Syria, especially in the regions of Idlib and Aleppo, the civil occupation of archaeological areas has led additionally to the progressive destruction of ancient monuments, mostly through vandalism and the reuse of archaeological material for the construction of new houses.

The ongoing war prevents us from gauging the breadth and intensity of the damage to cultural sites. So far, we cannot quantify (in percentage terms) the scale of destruction. Since the beginning of the crisis, DGAMS has been working with international organizations and archaeological missions to monitor and protect its ancient past by exchanging visions, information, and shared experiences. Finally, we still have a long way to go, and only through the support of friends and colleagues, such as those represented at this conference now, will we be able to reach our fundamental goal to save our cultural heritage, which belongs to humanity as a whole.

Kiyohide Saito (Archaeological Institute of Kashihara, Nara, Japan) representing the Japanese Society for West Asian Archaeology, spoke on a suggestion to document, using 3D images, before packing artefacts.

In an effort to protect archaeological material, DGAMS is preserving, archiving, and documenting thousands of artefacts and monumental objects, such as sculptures. These endeavours aim to protect objects from looting and destruction. However, although this initiative is necessary and laudable, it makes accessing the material for study extremely difficult. What the speakers wish to recommend today is the use of 3D imaging documentation, coupled with the appropriate software, to document objects before they are packed so that they could easily be accessible afterwards to everyone.

Aerial photography is essential for identifying and understanding features and structures remaining on site. A new visualization method for 3D data, using laser scanning from aircraft/drones, provides the chance to obtain detailed landscape via 'Red Relief Image Mapping (RRIM)'. RRIM represents effective 3D topographic information with no additional devices, ability for stereopsis in a 2D medium, and shows the real shape of every feature on the site. This method is suitable for understanding structures of any type of site and is extremely helpful in dangerous places, i.e. minefields and war zones. Detailed topographical information by RRIM will open new doors for managing cultural heritage sites in the future. It can be applied for sites such as Aleppo, El-Bara, Palmyra, and Bosra.

For example, the basic structure of the Temple of Bel at Palmyra has been recorded with coordinates in accordance with the 3D scanning system. Although many parts of the monument, such as the basement of the building were not scanned, we were still able to produce a 3D image of those parts with general photographs. To complete our work we still need to collect many images taken from different directions over wide areas, especially those relating to the missing parts. The overlapping of the photographs, and their combination with the original 3D images (experiments

started in 2010), will be the next step. As a result, we can expect to produce a complete 3D image of the Temple of Bel, allowing a full documentation of the interior and exterior of the edifice.

Following the above presentations, four organizations involved in the international program for safeguarding the Syrian cultural heritage presented their activities and views.

Cristina Menegazzi (UNESCO Beirut Office) presented the EU-funded 'Emergency Safeguarding of the Syrian Cultural Heritage Program'. The main objectives of the project are to contribute to restoring social cohesion, stability, and sustainable development in view of the ongoing and growing destruction and loss of Syria's rich and unique cultural heritage. Measures applied included strong awareness-raising campaigns, improving understanding of the current situation, strengthening technical capacities of cultural heritage professionals, customs officers, and knowledge bearers, as well as coordinating international and national efforts. Supported by the Flemish government, this European Union funded project aims to provide an operational response to halt the ongoing loss of cultural heritage and prepare post-conflict priority actions in Syria.¹

Karin Bartl (DAI, Germany) explained the 'Syrian Heritage Archive Project: Implementation of a Digital Cultural Heritage Register for Syria' ('Erstellung digitaler Kulturgüterregister für Syrien').

The Syrian Heritage Archive Project launched by the Oriental Department of the German Archaeological Institute and the Museum of Islamic Art, Berlin, intends to provide a basis for the future creation of a national register of Syrian cultural heritage. Both institutions hold very large databases created from long-term researches in Syria. A comprehensive digitization of the older databases is therefore essential to their prospective utilization, as well as to their operative integration into larger database projects.² The aims of the program are the digitizing of archaeological and architectural research data on Syria, archiving of digital data by using the database i.DAI.objects/Arachne, recording of archaeological and historical place names in a gazetteer, and digitizing and archiving map collections of Bilad Al-Sham.

Lynda Albertson (CEO-ARCA) spoke on 'Cooperating or Competing across Borders: How International and

¹ <http://www.unesco.org/new/en/beirut/areas-of-action/culture/syria/emergency-safeguarding-of-the-syrian-heritage/>. Project launched on 1 March 2014 for a period of three years.

² <https://arachne.dainst.org/project/syher>: This program implemented in 2013 is promoted by the Federal Foreign Office of the German Government.

Organizational Barriers affect the Protection of Cultural Heritage'. The Association for Research into Crimes against Art (ARCA) is a non-governmental organization which promotes the study and research of art crime and cultural heritage protection. The association seeks to identify emerging and under-examined trends related to the study of art crime and to develop strategies to advocate for the responsible stewardship of our collective artistic and archaeological heritage.³

Frank Braemer (CNRS Nanterre, France) presented the activities of Shirin. Shirin is an initiative from the global community of scholars active in the field of archaeology, art, and history of the Ancient Near East. It brings together a significant proportion of those international research groups that were working in Syria prior to 2011, with the purpose of making their expertise available to wider heritage protection efforts. The organization will also collaborate on the creation of a comprehensive database of elements of Syrian heritage. This will provide a basic core of knowledge, to which evidence of damage can be added on a case-by-case basis, and will allow the evaluation of the overall pattern and scale of damage resulting from the conflict, as it presents across different regions of Syria and the various classes of monuments.⁴

Concluding Remarks

In the general discussion following the presentations, several recommendations and perspectives were formulated to safeguard and preserve the future of the cultural heritage of Syria.

The documentation process of the artefacts, and the historical and archaeological sites, is one of the major features of this session. Several documentation projects were presented, along with the intensive working program of DGAMS, to document the Syrian cultural heritage in museums or on sites. The disposable tools for such documentation are available through high-standard systems, using digitizing and archiving software, equipped where possible with new techniques, such as 3D imaging and laser scanning of artefacts and monumental objects. The example shown for the Temple of Bel of Palmyra underlined one major idea, that nothing is possible without shared data (information, images and plans) and a constant dialogue between scholars, in order to guarantee the best results for restitution or mapping to be used in future planning of the rehabilitation of the Syrian cultural heritage.

The documentation in 3D imaging and laser scanning also gives the opportunity for scholars away from the field to complete their studies for publication. It can

also be used to prevent illicit trafficking, as well as to offer Syria a powerful and effective tool for reclaiming and recovering stolen antiquities.

Illicit trafficking is indeed a major issue for the preservation of the cultural heritage in Syria. It concerns not only the known pieces from museums and historical buildings, but also all other objects extracted illicitly from archaeological sites and historical cities. To deal with such a great and wide problem it is necessary to establish dialogues between countries, international institutions, and scholars, not only for identifying the artefacts but also for tracking them and following their acquisitions all over the world.

The key to all these recommendations is based on the importance of human resources and the transmission of knowledge to an active community involved in the cultural heritage of Syria: scholars, national and international institutions and organizations, and public awareness – especially among the local population. The significance of this transmission and the safeguarding of the memory of the cultural heritage of Syria is primarily based on the faith we have in the national teams of DGAMS and the relevant NGOs⁵ working daily on sites or in the field. The involvement of DGAMS scholars in present-day actions, and imperatively in future decisions and endeavours, is a guarantee for the preservation of the memory and rehabilitation of the cultural heritage of Syria. *'Let us not make the same mistake we did in Iraq', a cry raised by Frances Pinnock ('Sapienza' University of Rome).*

The final point raised in this Congress is the better management of knowledge and future planning of the rehabilitation of the cultural heritage of Syria through publications and exchange of scientific researches. In this difficult period, where we are forced to be away from the field, we must use the time to publish⁶ and share our documentation – both with scientific communities and the safeguarding actors working directly in the field.

Akira Tsuneki (Vice-President, Japanese Society of West Asia Archaeology, University of Tsukuba), Shinichi Nishiyama (Organizing Committee, Chubu University), Ahmad Deb (DGAMS-Syria) and Jeanine Abdul Massih (Organizing Committee, Lebanese University) closed the session and the Congress, announcing this publication and the revival of the dialogue between all those actors involved in the preservation of the cultural heritage of Syria.

⁵ Suggested by the architect Kheireddine El Rifai (Aleppo, Syria).

⁶ Intervention on the importance of publishing the available data was made by Piotr Bieliński (Polish Centre of Mediterranean Archaeology/Institute of Archaeology, University of Warsaw, Poland).

³ <http://www.artcrimeresearch.org/our-work/>

⁴ http://shirin-international.org/?page_id=195

