Chronique Archéologique en Syrie

Direction Générale
Des Antiquités et des Musées

Volume V 2011

CHRONIQUE ARCHÉOLOGIQUE EN SYRIE

Special issue Documenting the Annual Excavation Reports concerning the Archaeological Activities in Syria

Excavation Reports of 2009

Al-Bassel Centre for archaeological research and training
The Directorate General of Antiquities and Museums
Ministry of Culture
Syrian Arab Republic

Design and production: Mary Ozon
Cover design: Mary Ozon

Printed in the Press of the Ministry of Culture
Damascus-Syria

CHRONIQUE ARCHÉOLOGIQUE EN SYRIE

«Chronique archéologique en Syrie» is an archaeological and historical revue, published by Al-Bassel Centre for archaeological, and training and research- The Directorate General of Antiquities and Museums- Ministry of Culture in the Syrian Arab Republic. It aims to publish the excavations and investigations reports of the national, foreign and joint missions working in the archaeological sites in Syria, in order to contribute in publishing the latest discoveries and making the scientific subjects in the hands of the researchers.

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Preface

The publishing of the third edition of the magazine (Chronique Archeologique en Syrie) has encouraged many scholars, who couldn't contribute before, to present their work in this edition. The edition which we present to you is enriched with scientific material and research work. The archaeological discoveries for the year 2008 from different national, joint and foreign expeditions were of great importance. These expeditions discovered eras that date from prehistoric ages through to the Islamic age, which added new glory to the historical image of Syria.

Research work expanded in the countryside of Damascus, new sites were assigned which date back to the paleolithic period, especially in the area of Mushkuna Valley, which confirmed the ancient occupation of the site. The site at Dederiyeh added much information about the old stone age period, especially the Musterian culture. Furthermore other results from a later age going back to the Natufian period where a group of circular houses and special artifacts were found. Adding to the image of this period, (The Neolithic) an important site was stated at Qaramel, close to Aleppo city, which is famous for its huge monument which is similar to a tower in Jericho. The same can be said of Ja'dat Al Maghara located on the Euphrates river, distinguished by the colored geometric wall paintings, which are thought to be some of the oldest wall paintings to a house in the world.

The results of these archaeological discoveries tell us about kingdoms that date back to the dawn of history. New discoveries in the eastern areas of the Syrian Djazerah also occurred, such as Tell Arbid, Tell Chuera, Tell Mozan,Tell Feres al Sharqi, and Tell Mohammd Diyab. In the middle, where the desert separates the coastal area from the inner area, close to Hama city the trace of the huge wall which extends to 220 kilometers. It is considered to be a fence or a barrier from Bedouin invasions for the secure areas that practiced agriculture and raised herds. We continue with the last discoveries on the Syrian coast, where Tell Twini is located and promises hidden treasures of the coastal cities that practiced sea trading with other countries, especially the Aegean world.

Large cities from the classical period like Palmyra, Nabi Huri, Zénobia-Halabiye, with their spectacular architecture are revealing new details. As well as the Islamic Sites that are scattered all around, like the palaces in the desert (Qasr Al-Hayr), Qinserin, and the citadel of Saladin on the coastal mountains.

We probably won't have enough space to talk in more detail, but we leave it to our dear readers to go deeper into the details and the results, on the pages of the fourth edition of the magazine (Chronique Archeologique en Syrie).

Editor-in-Chief

Dr. Ammar Abdulrahman

DEDUCING LANDUSE PATTERNS FROM ARCHAEOLOGICAL SURVEY DATA

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Introduction

For more than a decade, the Tübingen Damaskus Ausgrabungs- und Survey Project (TDASP) has conducted archaeological fieldwork in the Damascus Province of Syria. Along with identifying and excavating stratified archaeological deposits, a second and complementary goal of the project is to study human behavior across large areas. Studies concerning Paleolithic landuse and settlement dynamics have always been an integral part of TDASP's research program (Conard 2006, Conard et al. 2010a). The project activities focus on the region north of Damascus stretching between the villages of Jaba'deen and Yabroud. Several key characteristics make this region suitable for studying the relationship between human landuse and the natural environment. The study area (Fig. 1) straddles the transition from a more humid mountainous region in the northwest to a relatively flat and dry landscape in the southeast. The landscape exhibits a diverse geomorphology with scattered perennial springs representing important focal points within the landscape. The geomorphological features tend to enhance the sharp ecological gradient across the survey region (Dodonov et al. 2007).

Besides the advantageous environmental setting, the region also bears a rich record of stratified Paleolithic deposits. The research history began in 1930 with Alfred Rust's excavation of the Yabroud shelters (Rust 1950) and continued with the investigations of Solecki and Solecki (1966). Since 1999 the TDASP team has strived to further expand this record. New localities with stratified deposits include Baaz Rockshelter (Conard et al. 2006c), Kaus Kozah Cave (Conard et al. 2006a), Ain Dabbour Cave (Conard et al. 2007) and Wadi Mushkuna Rockshelter (Conard et al. 2010b). These localities have made important contributions both to understanding the local cultural stratigraphy and creating a framework for more general research questions within the broader regional context.

Despite the importance of these localities in TDASP's research program, the focus of this paper moves beyond the site level in order to gain information about past human behavior within

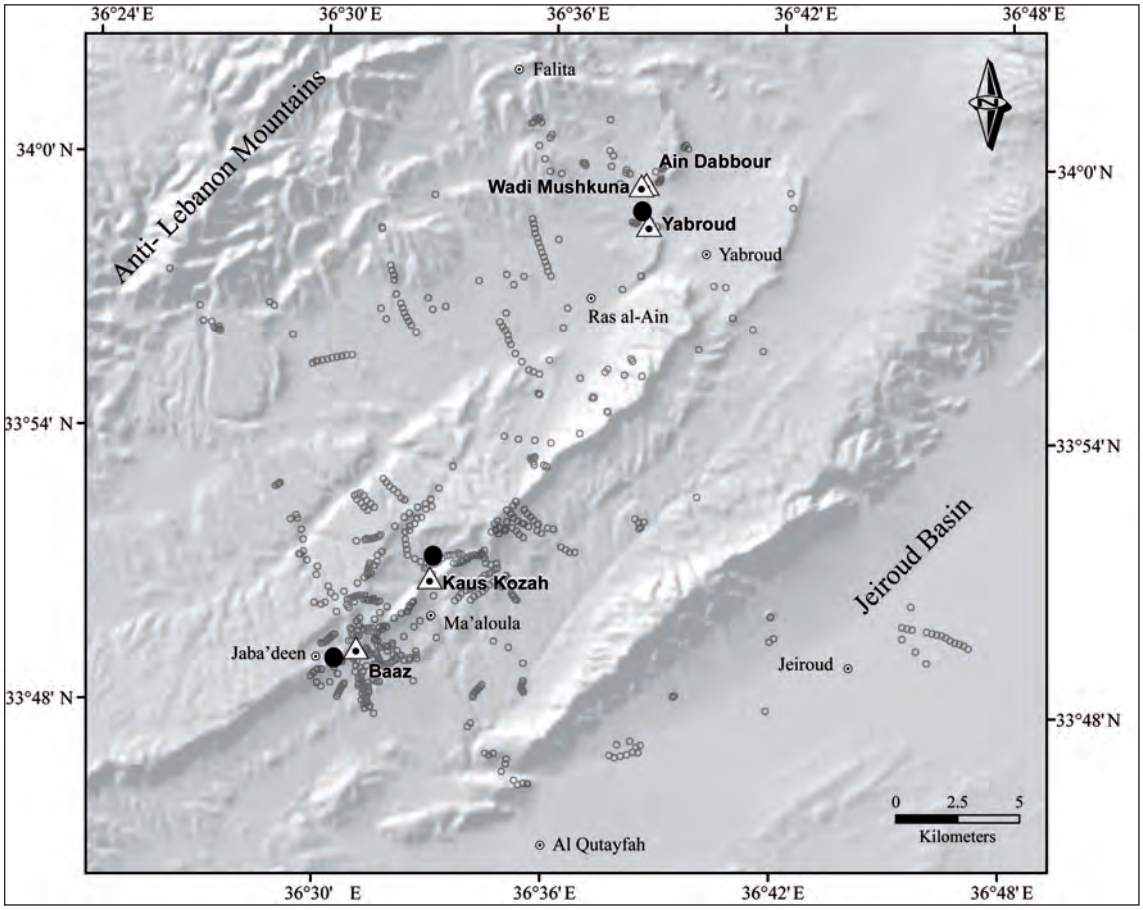

Fig. 1

a larger settled space. Here, we consider new ways of conducting Paleolithic settlement analysis. Traditionally, human landuse has been characterized using two different approaches. The first examines the question from two opposing endpoints, for example, radiating versus circulating strategies (Mortensen 1972),while the second looks along a continuum, for example, the range from foraging to collecting strategies (Binford 1980). Both approaches necessitate the classification of sites into predefined types in order to deduce the strategy of landuse. One of the problems that occurs when we define an archaeological site (Conard 2001) is that by using a site concept in the analysis of spatial behavior, we tend to exclude an important part of the subsistence behavior that occurred away from the main living area. To overcome this weakness, several researchers have proposed a so-called "off-site approach" (Isaac 1981, Foley 1981).

The aim of this paper is to demonstrate the value of these off-site approaches which take into account human activities within their spatial context. We present data from ten years of survey in the Damascus Province and the methods we employed to deduce landuse patterns from it. Since we concentrate mainly on methodological aspects here, we have chosen to limit the amount of information presented to two periods, the Levallois Middle Paleolithic and the Upper Paleolithic.

Material and Methods

To develop hypotheses about prehistoric human landuse, we first need to gain insight into the spatial distribution of the activities that a population of hunters and gatherers conducted beyond its main living sites. Here we assume that such information can be gained from the spatial distribution of the material remains of the cultural entity being studied and follow an off-site approach

as introduced by Isaac (1981) and Foley (1981). Our underlying assumption is that the accumulation of cultural remains in the landscape is a function of the intensity of its use. In other words, an accumulation of artifacts at a specific place in the landscape indicates either a long duration of occupation, a repeated visit to a site, or possibly a single event of high intensity, for example, a knapping site. These possibilities hint at the importance of a place within the settled space. We conclude that the analysis of the spatial distribution of artifact densities leads to hypotheses about points that served as magnets within the area of settlement and enables the development of landuse models for prehistoric landuse.

The results presented here are based on the cooperative effort between the Department of Early Prehistory and Quaternary Ecology of the University of Tübingen and the Directorate General of Antiquities and Museums of Syria. Since 1999 the TDASP team has identified 598 new open-air and stratified archaeological localities within its 500 km² study area (Conard et al. 2010c). Each year the TDASP survey team walked new transects to document all archaeological materials within different parts of the study area.

As the research strategy evolved, the survey method was tailored to suit the specific goals of the project. From 1999-2003, the survey team focused its efforts within the central survey area. To gain a representative sample of artifacts, the survey team collected from areas that varied in size. The team assessed their presence using a heuristic scale from 0 to 3, ranging from not present to high density (see Conard et al. 2006b). The artifacts collected document the relative frequencies of the different cultural entities present. While the null spaces in between were not individually recorded, they are nonetheless represented by places along the transects lacking low, medium and high density sites.

In addition to the standard method described above, we began to employ a complementary collection strategy. Beginning in 2004, the team gathered artifacts from equally sized areas at regular distances along predefined routes. With this alternative method, a circle of 10 m diameter was circumscribed every 100 or 200 meters, and all artifacts were collected from this known area. Thus, we could precisely calculate the artifact density. This procedure served to standardize our collection approach and also provided a framework to document systematically where no artifacts were present on the land surface. The team employed both methods, depending on the landscape and their specific goals.

The significance of negative evidence arises from our assumptions about the relationship between artifact density and landuse. It is clearly useful to know where people have been, but it is also important to know where they have not been. While both collection methodologies allow us to quantify this parameter, the alternative method simplified our approach.

Based on the excellent visibility of artifacts on the ground, we make the reasonable assumption that we recovered all relevant artifacts. Furthermore, because there are no indications of processes that cover or erode artifacts in significant amounts within the study area (Dodonov et al. 2007), we assume that finding “nothing” indicates an absence of activity in those parts of the landscape. We conclude that the present distribution of artifacts reflects the location of past human activities.

Regardless of the survey method, we classified the artifacts using two methods, the “assemblage approach” and the “single artifact approach”. This paper presents their respective advantages. The first method consisted of analyzing the entire assemblage from each locality and identifying the entities present using the following chrono-cultural classes: Lower Paleolithic, Non Levallois Middle Paleolithic, Levallois Middle Paleolithic, Upper Paleolithic, Epipaleolithic and Neolithic. With the assemblage approach, we followed the procedure described in Conard et al. (2006b) to estimate the density of every chrono-cultural entity using four classes (not present, low, middle, high density) and applied this classification to all 598 localities.

Since some of the chrono-cultural entities have a great time depth and may represent different phases, we searched for a better way to subdivide each unit. This led to the second approach in which each single artifact from a locality was individually analyzed. Thus far, 6756 artifacts from 423 localities have been studied in detail and are included in the single artifact approach. The advantage of such an approach lies in the greater number of attributes that can be analyzed in a given spatial domain. In contrast to the assemblage approach, the single artifact approach allowed us to estimate density by counting every artifact that we classified chronologically. Therefore, a locality only has a zero density when no artifacts are present for a given chrono-culture. Due to uncertainties in the proper chronological classification of surface materials, we considered only those artifacts that we could classify with a high degree of certainty.

Once we determined the chrono-cultural and technological classes, we conducted the spatial analysis. Because we documented the area of collection and the number of artifacts for every locality, the artifact density at each surveyed point in the landscape is known. Since our goal is to create density maps, we converted the point density information into a spatially continuous one using an interpolation algorithm. The application of such methods is justified by the assumption that the spatial occurrence of artifacts is a function of the usage of space (Foley 1981). Therefore, at areas in the landscape that were occupied, we expect a pattern characterized by a core area with a higher artifact density surrounded by margins with a lower density. Such a pattern occurs due to both the repeated use of a place, as well as minor changes in the exact spatial position of every stay. Of course, our methods are only sensitive to activities that led to the discard of lithic artifacts.

Different interpolation algorithms are available, but due to its wide applicability on heterogeneous datasets, we selected the Inverse Distance Weighted (IDW) algorithm. This calculation assigns values to unknown points based on the assumption that values of points that are closer to the point to be interpolated exert a greater influence than points further away. Because the output resembles the expected artifact distribution, the IDW seems to work very well. We used both positive and negative evidence for the localities in the study area to create the density maps. All computational analysis was done using a Geographical Information System (GIS) with the implemented IDW algorithm. After running the IDW algorithm on the density data, the GIS generates a map showing the distribution of artifact density in a spatially continuous way.

Results

This paper presented two possibilities for the transformation of point data from survey into distribution maps of artifact densities. Using the assemblage approach, the results for the Upper Paleolithic and the Levallois Middle Paleolithic show distinct artifact density patterns (Fig. 2). While the Upper Paleolithic is characterized by a concentration of lithic artifacts around the springs of Ma'aloula and Jaba'deen, the opposite is visible for the Levallois Middle Paleolithic. Here, the assemblage approach results in areas of higher artifact density covering large parts of the landscape. Hence the pattern from the Middle Paleolithic can be described as being spatially more generalized, while the pattern that Upper Paleolithic populations left behind is more punctuated in space.

With the data processed, we can transfer this information into a landuse model. The distribution of the artifact density for the Upper Paleolithic suggests a concentration of activities within a defined area, and the relationship to permanent springs is clear. Bretzke (2008) estimated that all activities took place within an area ascribed by a three-hour walking radius around the springs of Ma'aloula and Jaba'deen. Based on this assumption, we would expect that highly mobile groups of relatively small size accounted for this distribution of artifacts. In contrast to results from landuse studies where the site is the focus of activity (Coinman et al. 1986, Henry 1994), we have

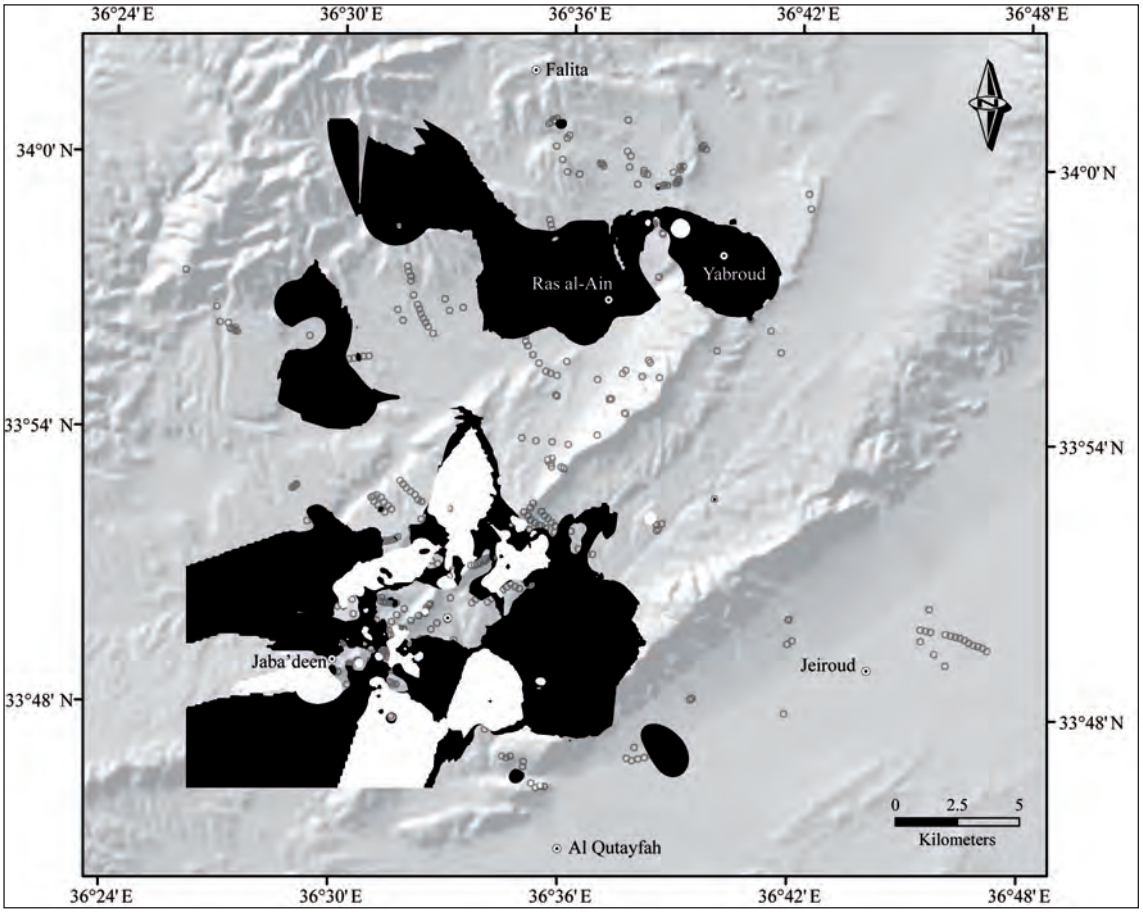

Fig. 2

succeeded in identifying areas of activity that are not tied to a specific site. This result also makes further studies possible.

The interpretation of the Levallois Middle Paleolithic is less straightforward because the time depth of this entity is great. Thus, the generalized pattern we see is probably influenced by a combination of factors including landuse. Still, we see that during the Levallois Middle Paleolithic people expanded into areas that were not used during the Upper Paleolithic.

The strength of the single artifact approach becomes visible with the results for the Levallois Middle Paleolithic. While the assemblage approach suggests a generalized landuse, the single artifact approach allows a further refinement of this analysis. One of the more striking points of the results is the visualization of the spatial distribution of three different methods of Levallois reduction: preferential, convergent and unidirectional recurrent (Boëda 1994, 1995). Figure 3 illustrates that preferential and convergent Levallois variants are restricted in their spatial distribution. Whether this is a chronological or functional phenomenon remains an open question that needs further investigation. What is clear is that unidirectional recurrent variants of Levallois reduction show a broad distribution in the landscape and can be found in areas away from permanent water sources.

Discussion

Since the aim of this paper is methodological and not to develop a full-fledged model of Middle or Upper Paleolithic landuse, we save detailed discussion of the outcome for later publications. Instead, we focus on the influence that the two different approaches have on the results and demonstrate the intrinsic possibilities for developing landuse models from survey data.

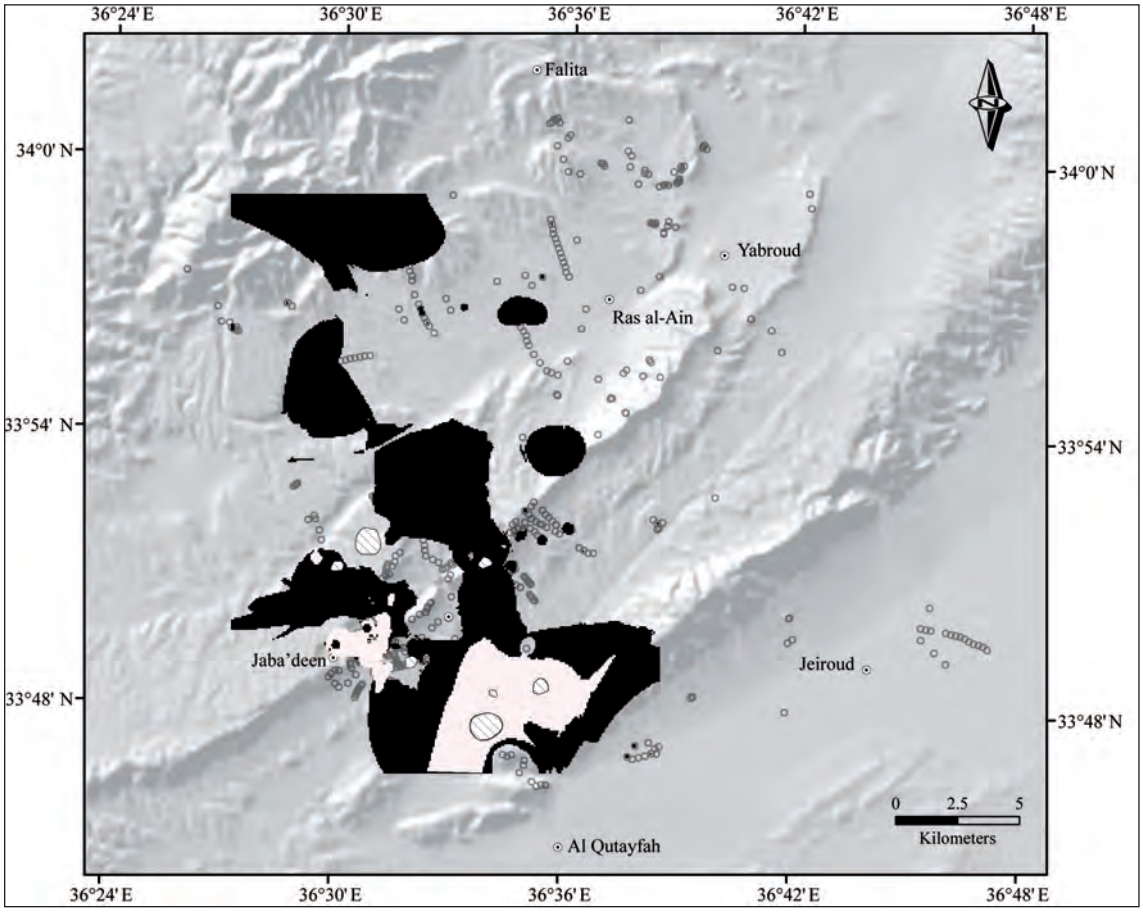

Fig. 3

An important issue to discuss is the application of the interpolation method on survey data. The interpolation enables a transformation of punctuated data into spatially continuous information. This process is essential for studying landuse because we consider human activities as a spatial phenomenon. By sampling the landscape we must remain aware that only the finds from a given sector of the overall region are recorded. Usually it is not known whether sampling takes place within a distinct concentration or along a continuous distribution. Thus, surveys conducted in the way described above cannot record the borders of concentrations. Since it can be assumed that two nearby survey points belong to the same distribution, the density in between these points can be modeled using an interpolation method, based on the current scale of analysis.

Another positive effect of the interpolation is the unexpected readability of the density distributions in the resulting maps (Figs. 2 & 3). As illustrated in the simple density maps presented in previous TDASP papers (e.g., Conard et al. 2006b, 2006d), density values shown merely as circles of differing size cannot be readily interpreted. This is because the map symbols overlap significantly and information about the relationship among the points is lacking. In contrast, interpolation creates maps in which the extent of areas with higher artifact density and their borders are clearly visible. Additionally, points with a very low density and many zero density points nearby disappear. This can be viewed as the reduction of background noise and the clarification of the activity signal.

Since interpolation represents the addition of artificial values to the map, the modeled high density regions should not be over-interpreted. Here, it is the general appearance, and not the exact shape, that are important. The results should be seen as they are: models. They become valuable in the context of formulating research questions and considering the raw data and modeling approaches.

In the density pattern we see the possibility of deducing landuse models. Based on the assumption that the density is a function of activity, the areas of highest density can be seen as core activity areas. In combination with paleoecological and paleoclimatological data, these core areas may in the future allow more insight into the organization of off-site activities of past human populations. In the future we plan to incorporate further details, such as the integration of reduction sequence and techno-economic information into our research.

Conclusion

This paper demonstrates the value of archaeological survey data in the study of prehistoric landuse. Based on the extensive amount of data collected during TDASP's research program in the Damascus Province, we developed landuse models for all Paleolithic periods. Our approach is founded in the assumption that past activities are visible in the material remains left behind by Paleolithic populations. In order to gain more insight into spatial behavior, we use analytical perspectives from both the assemblage level and the artifact level. We also discuss the many advantages of using the single artifact approach. In doing so, we assume that areas with high artifact density were more intensively occupied. Thus, areas of high density signify zones of increased importance to past populations. The appearance and spatial relationships of these areas enable us to develop spatially explicit landuse models. The case studies we present here clearly demonstrate the possibilities of the chosen approach for both synchronic and diachronic analysis of landuse and settlement dynamics.

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PRELIMINARY REPORT ON THE ELEVENTH SEASON OF EXCAVATIONS AT TELL QARAMEL (SPRING 2009)

RYSZARD F. MAZUROWSKI, Youssef KANJOU

Center of Mediterranean Archaeology Warsaw University-Warsaw, DGAM-Syria

The eleventh season of excavations at Tell Qaramel took place from March 29 to May 12-2009. It was continuation of the join project of the Polish Center of Mediterranean Archaeology of the Warsaw University and the Directorate General of Antiquities and Museums of Syria with partly financial support by the Institute of Archaeology of Warsaw University. We would like kindly express our many words of thanks to Dr. Bassam Jamaus Director General of Antiquities and Museums of Syria, and Dr. Michael Al-Maqdissi, Director of Excavations Department in DGAM, for their kindness and permanent help. We also send many worm words of thanks to the staff of the Regional Directorate of Antiquities and Museums in Aleppo and its Director, Dr. Nadim Fakesh.

The Mission was co-directed by Prof. Dr. hab. Ryszard F. Mazurowski and Dr. Youssef Kanyou. On the Polish side the staff included 9 persons: Mr. Marcin Bialowarczuk, Mrs. Ewa Cygan, Mrs. Aneta Czubinska, Mrs. Joanna Gawronska, Mr. Artur Grabarek, Mrs. Bartlomiej Paprocki, Mr. Piotr Piwowarski and Julita Rekawek. Mr. M. Bialowarczuk supervised archaeological works at squares J-7, K-7 and temporary L-5. He was also responsible for preparation of register of the important 26 objects which have been deposited in the Department of Prehistory in Aleppo Museum. Mrs. J. Gawronska supervised archaeological works in the square L-4/M-4 and she also provided the general register of all finds. Mr. A. Grabarek supervised exploration at square L-5 and also coordinated all activities connected with preparation of finds to registration and further classification by specialists. In the last activity he has had a substantial support from Ms. E. Cygan, Ms. J. Rekawek and Mr. B. Paprocki. The last three persons also made drawings of several plans, cross-sections and profiles on the site. Mr. B. Paprocki additionally made primary selection of animal bones discovered in the Protoneolithic and Pre-pottery Neolithic A layers for their examination by professional archaeozoologist n the next season. Ms. A. Czubinska has been responsible for

processing of all relics belonging to the chipped stone industry and also was drawing important objects. Beside co-director's duty Prof. R. F. Mazurowski classified and described all objects belonging to the ground and pecked stone industry as well as tools and ornaments made of animal bones and sun dried mud. Together with professional photographer – Mr. P. Piwowarski - he also made photos on the site as well as a part of discovered objects.

The Syrian part of the Mission included three persons. Dr. Youssef Kanyou as co-director and anthropologist was also processing of all human bones. Mr. Qaies Abbout George participated in co-managing of field works in square L-4/M-4 and reconstructed pottery discovered in the Early Bronze Age grave. The student of Aleppo University, Mr. Hamza Salim Ibrahim Mohammad, during a several days participated in exploration of all squares.

The main goal for this year season was continuation of exploration of deepest levels of occupations from Protoneolithic at squares J-7b, d and K-7. In this area during last two seasons the oldest (fifth) tower/shrine has been explored. A special attention was paid for the exploration of the internal part of the above mentioned tower and its walls for the examination of building/technique. Analogically to the situation observed in all until now finished squares we also expect to find here remanents of an oldest occupation on the site, which seems to be belonging to a very difficult until now defined Middle Epipaleolithic culture.This year program also contained further exploration in squares L-5 and L-4/M-4 which have been opened two years ago. During the campaign 2008 we detained there a Late and Middle Pre-Pottery Neolithic A layers heavy destroyed by occupation from Iron Age, as well as from the Middle and Early Bronze Ages.

SQUARES J-7 B,D / K-7 A,C

This year exploration was concentrated on area of squares J-7 b,d and K-7 a,c. Parts b,d of square K-7 were not excavated this year. But on the earlier mentioned squares only two structures belong to two occupational levels have been explored. Finally, square J-7 b,d was finished. In K-7 a,c virgin soil also has been reached.

STRATUM V, LEVEL 15

Research of this level restrained to completion of exploration western part of locus 65. This season we finally finished exploration of the fill of locus 65. All identified levels were sifted. The most significant is that in none of sifted levels was not found any artifacts suggested any connection of the oldest Qaramelian occupation with the Natufian culture. Obtained flint materials from described levels characterized luck of microliths.

As it has been mentioned last year, locus 65 was partly sunk into the level of red mud with total absence of any artifacts and virgin soil. On the top of this layer of confluence mud only two other structures have been identified. The first one was a post hole, ca. 0,3 m in diameter and about 0,6 m deep. The second was circular hearth, ca. 0,6 in diameter and about 10 cm deep, contained thin layer of charcoals covered by small pebbles on the top. Both described structures were located in the northern end of square J-7 b,d and they were connected with the older stadium of level 15 (Face B).

STRATUM VI, LEVEL 16

This level is connected with the oldest, most probably a Middle Epipaleolithic occupation in Qaramel. It contained only one structure (locus 71), which was under about 0,7 m thick layer of confluence red mud mentioned above. Locus 71 (Fig. 1) was a kind of oval hut, ca. 4,6 x 3 m,

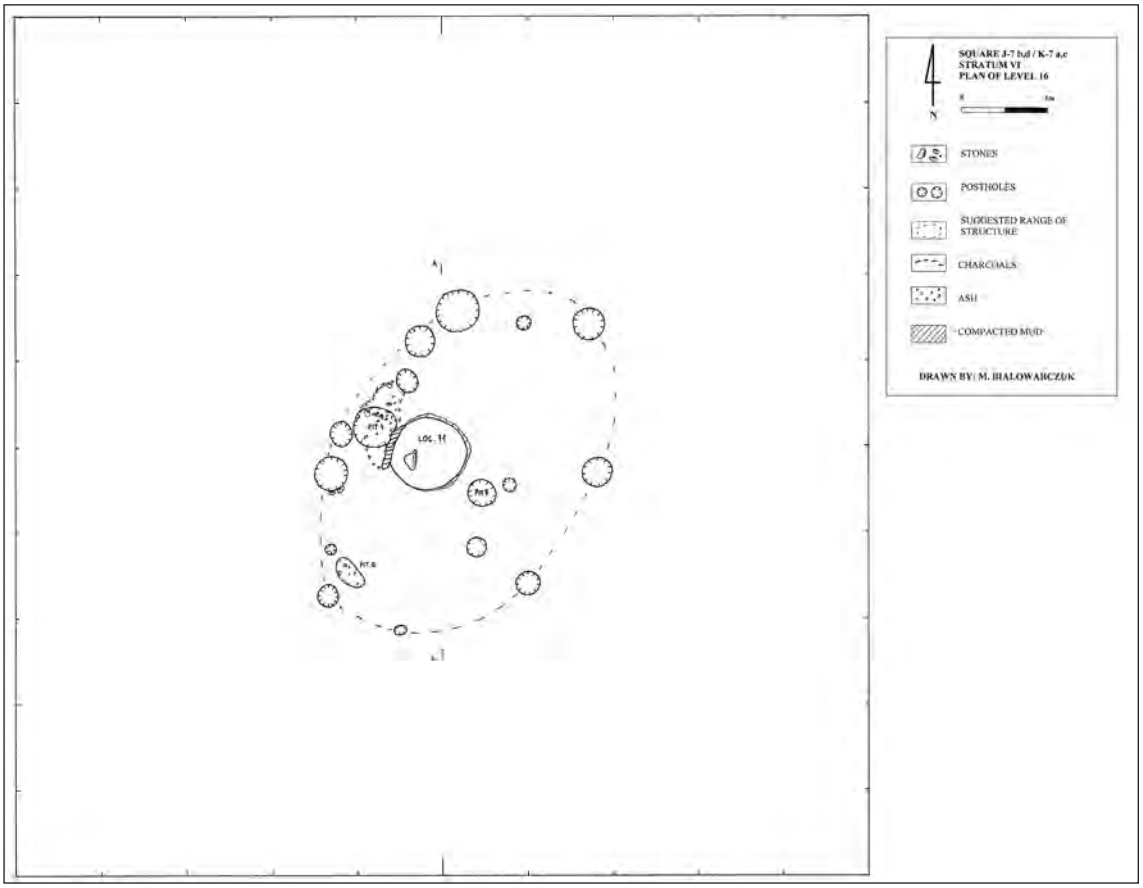

Fig. 1: Square J-7 / K-7. General plan of the oldest structure Locus 71.

built exactly on the virgin soil. It consists of circular, central hearth, ca. 0,9 m in diameter, additionally surrounded by small mud wall. Around the hearth ten post holes were symmetrically located. All of them are circular, ca. 0,3 – 0,5 m in diameter and about 0,25 – 0,3 m deep. In the fill of one from described post hole nucleus with 6 short tubular (XVIA2a) beads made of chlorite has been discovered. It is possible that it wasa kind of found gift. No traces of clay lumps or any other building materials suggest that walls and roof of described structure were made of wooden posts and animal skins or other organic materials. In the center of hut, just beside the hearth, was another post hole, probably for roof supporting. Apart from that, six small post holes were found inside. They were circular as well, ca. 0,15 – 0,2 m in diameter and not deeper than 5 – 10 cm. They create bow inside the structure, which may suggest some kind of internal division similar to those known from modern "Beduin" tents.

The most significant is location of locus 71. It was situated exactly under the center of the oldest tower - locus 65 (Fig. 2). The most probably explanation of this situation is, that the locus 71 was a kind of special house or proto – shrine located on virgin soil at the beginning of village occupation. During the occupational hiatus between Middle Epipaleolithic and early Protoneolithic remains of this structure were covered by confluence mud. But location of prime "special" building survived in deep memory of inhabitants and it could be the main cause of location the other structures (shrines, towers) on the same place. It is also possibility that observed hiatus (gap) between Middle Epipaleolithic and early Protoneolithic occupation could be connected with further to the west located in this time range of settlement. Until now we still do not have any enough significant flint materials for cultural identification above mentioned oldest level of Qaramelian settlement. According to four C 14 dates it is only possible carefully to say that it can be dated to the period 15000 – 12000 BP conv.

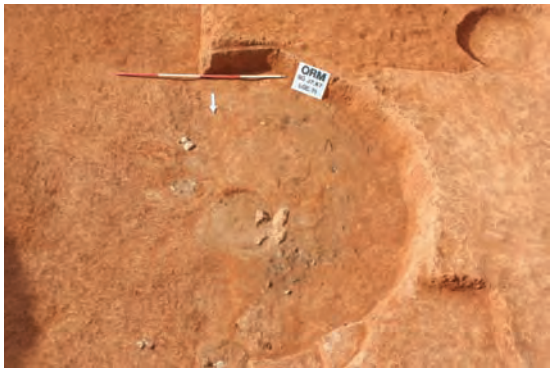

Fig. 2: Location of loc. 71 under the pit of loc. 65. Phot. by R. F. Mazurowski.

Fig. 3: General view for the structures of square L-5. Phot. by R. F. Mazurowski.

Fig. 4: Square L-5. Top of the locus 25. Phot. by R. F. Mazurowski.

Fig. 4a: Square L-5. Locus 25. Phot. by R. F. Mazurowski.

Excavations at square J-7 b,d were finished and on large part of square K-7 (quarters a,c) virgin soil has been reached. Described locus 71 was the last and the oldest structure discovered in this area of excavation. Two levels of exploration and deeper soundings of virgin soil in square J-7 b,d clearly confirmed total absence of any structures or artifacts below. Exploration of square K-7 b,d will be continue next season.

SQUARE L-5

During present season two levels of occupation were excavated in square L-5 (Fig. 3). Both of them belonged to PPNA stratum III and were marked as a level 2 and 3. The best preserved remains of PPNA survived in eastern and southern part of the trench. The other parts of the square (about 70 %) were destroyed by pits and stony debris connected with Early Bronze Age 4. Among them was fragment of stone structure (locus 25) located in western part of the square, about 3,5 from southern profile (Fig. 4). After removed stones from the top of the locus we have started exploitation of the fill which consisted remains of human skeletons and pottery (Fig. 4a). It was grave contained 10 skeletons which 4 of them were female and 6 male, all belonged to adults age. Moreover all skulls were located in the northern part of the grave. Some of them were put inside storage jar and some were outside. Beside skeletons we have found earthenware among them bowls, vessels and mugs. Also three pins made of bronze have been found. After documentation the exploitation of the pit's fill has been continued. After removing stones and archaeological remains we noticed that under skeletons appeared loose brown soil mixed with pebbles and fragments of pottery. Surely before location of the grave it was founded, cylindrical in cross-section, construction used as a storage pit which was filling up and than in later period of the EB4 became a grave. Finally the grave was co-

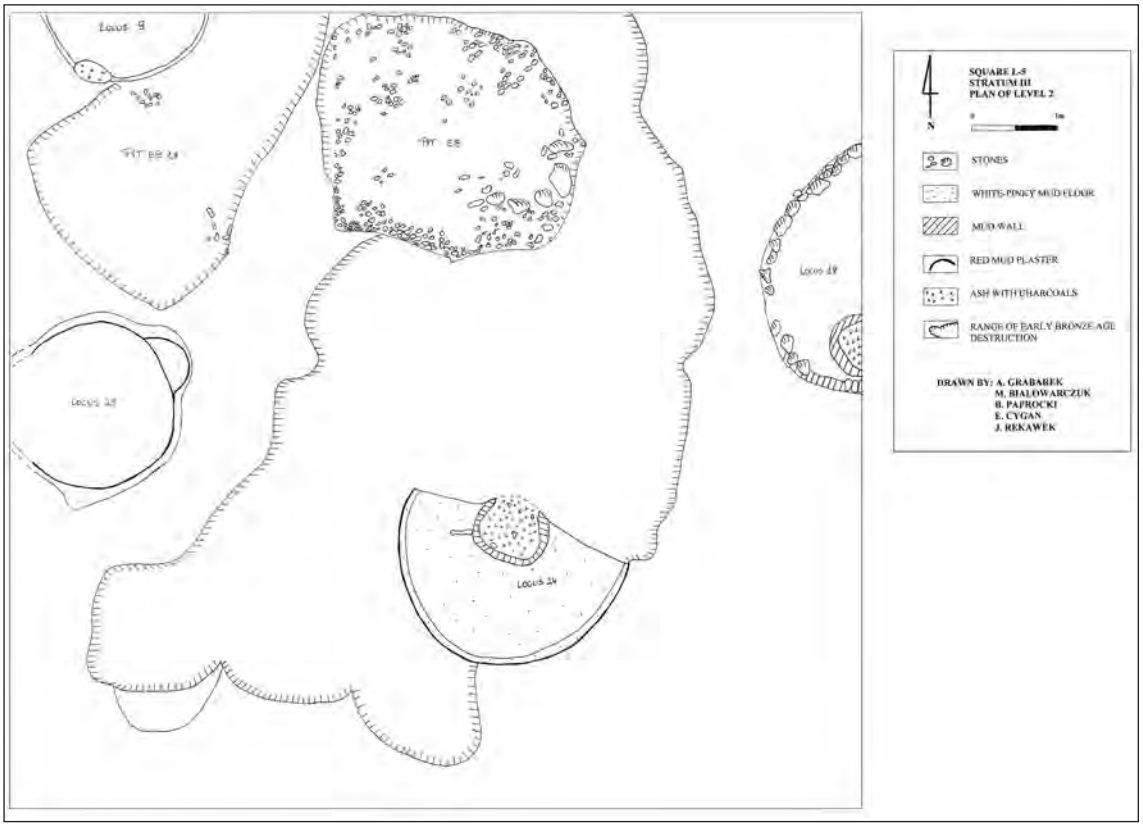

Fig. 5. Square L-5. General plan of stratum III, level 2.

vered by stones and red mud shaping some kind of cupola which collapsed inside and partly destroyed skeletons and pottery.

STRATUM III, LEVEL 2

To this level representing the Early PPNA occupation belong loci 18 and 24 (Fig. 5).

Locus 18 (Fig. 6) was located in north-east corner of the square and its small part entered into eastern profile. Only western part has been explored. It was round structure, ca. 4 m in diameter with wall, ca. 0,3 – 0,4 wide and made of framework of pebbles and covered by beige mud. The floor was made of layer of mud with limestone admixture. It was formed on sleeper made of pebbles. Moreover near eastern section fireplace which walls were made of red mud has been unearthed. The fill of the hearth contained gray ash and charcoals mixed with animal bones, very similar to fill of the structure in which we have found animal bones belonged to different species and flint artifacts connected with soil, pebbles and mentioned gray ash with charcoals. Besides during removing western wall of locus 18 two querns have been founded.

Locus 24 was located near southern and eastern profile of square L-5. Its southern part was destroyed by pit from Early Bronze Age. It was partly semi subterranean approximately wonder construction, with ca. 2,5 – 2,6 m in diameter and 0,4 m height. The fill of the house contained pebbles, animal bones from different species without anatomical position and soil mixed with gray ash and charcoals. The wall of the house was covered by layer of mud, ca. 2 cm thick and next painted by some kind of paint made of flan limestone, as well as floor, ca. 0,5 cm thick. During exploration of the fill of the house we have unearthed fireplace on the level of the floor which was situated in the central part of the structure. Unfortunately, its northern part was destroyed by pit from Early Bronze Age 4. Moreover locus 24 damaged northern wall of locus 22 from level 3 and its courtyard.

Fig. 6. Square L-5. Locus 18. Phot. by R. F. Mazurowski.

Taking into the consideration degree of destruction in this level, it is a unique situation, first time at the site when the walls which were painted have preserved.

STRATUM III, LEVEL 3

To this level (Fig. 7) belonged two houses – locus 22 and 23. Both were dated on very early stage of PPNA.

Locus 22 was located in south-eastern part of square, directly under locus 21. It was strongly damaged house with only small part of wall and internal bench preserved. Its wall, ca. 30 cm thick was made of beige mud with lime admixture. Internal bench was shaped of red mud with pebbles. After removing the fill of the house, which contained animal bones and flint artifacts, small part of the floor has been unearthed. It was made of layer of mud lime plaster covering small pebbles. Total dimensions and shape of described house are impossible to define because its larger part is hidden under unexcavated area. Only after removing the floor we have discovered another one. It let us to observe two phases of occupation of the house.

Locus 23 (Fig. 8) was situated in north-eastern part of the square. It was partly semi subterranean house approximately rounded with ca. 2,8 m in diameter and wall ca. 0,3 m wide. Its E wall entered into profile, however its W wall was destroyed by pit from Early Bronze 4 period. Only northern wall was preserved to about 1 m in the highest point. During exploitation two floors have been discovered. First one was located in the top of the house and contained rectangular fireplace. Mentioned floor was made of layer of mud lime plaster. Between first floor and second one was fill contained animal bones mixed with gray ash with charcoals. In described fill a fragment of human vertex was found as well.

The second floor, ca. 5 cm thick, was covered by paint made of lime.

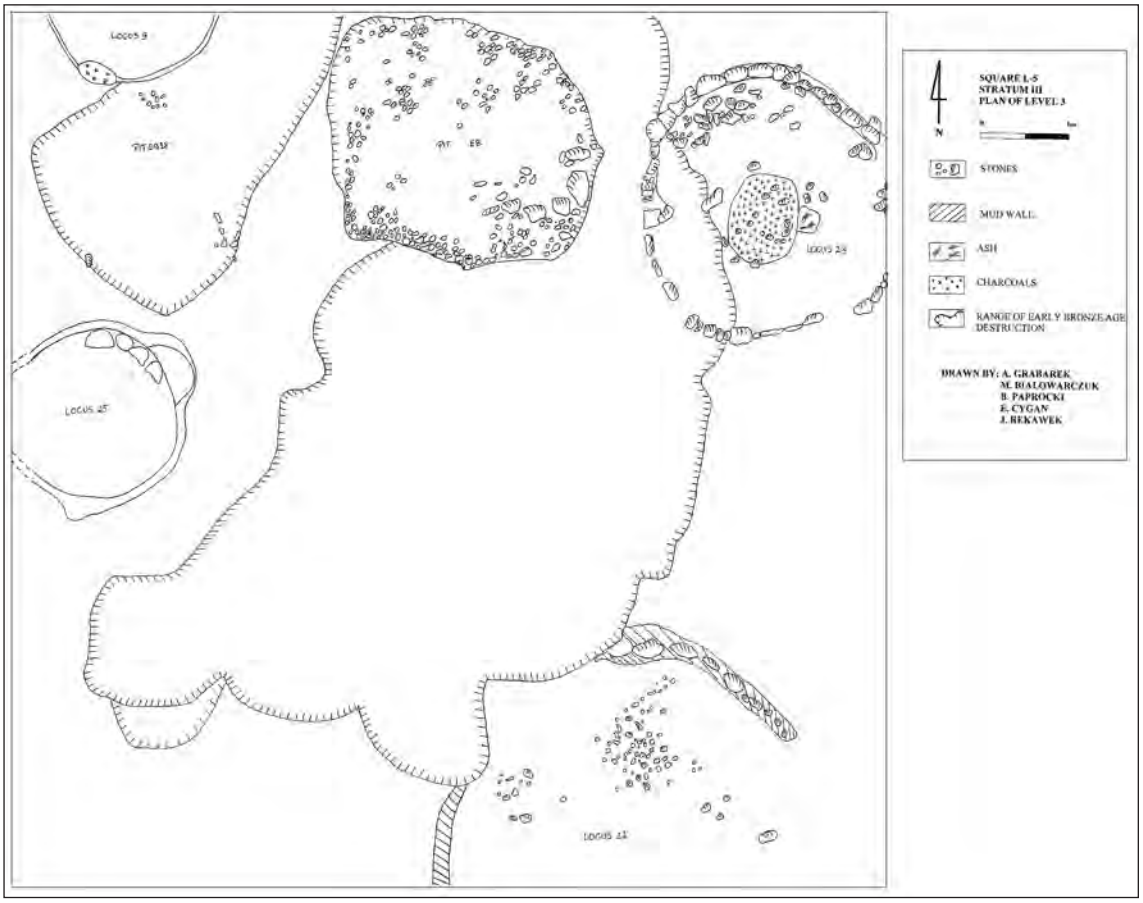

Fig. 7. Square L-5. General plan of stratum III, level 3.

Present season of excavation in square L-5 presumed unique structures as loci 23 and 24 which contained floors, as well as, white paint made of lime. After removing constructions from mentioned levels new rounded houses have been discovered. They will be excavating next season.

SQUARE L-4B,D/M-4A,C

Square L-4/M-4 is situated in the lowest part of the southern slope of the tell.

During the previous seasons four occupational stratums (I-IV) have been explored. The last one (IV, levels 1-2) seems to belong to the Middle PPNA. This year three next levels (3-5) of stratum IV, representing Middle and early phase of PPNA have been discovered.

STRATUM IV, LEVEL 3, FACE A

Below structures of stratum IV, level 2, fragments of two houses (loci 9a and 9b) together with three pits (14/08, 1/09, 2/09) and a hearth have been unearthed.

In the middle-east part of the square a small southern fragment of house (locus 9a) has been explored. The house was oval (circular?) in shape. Its N and W parts had been destroyed by objects from younger stratums and its E part enters into E profile, so it is impossible to define the size of this locus. Stone and mud-plastered wall of described structure was shaped in pisé technique and had c.a. 0,3 – 0,4m width and was preserved to the 0,2m height. Mostly destroyed floor of the house had been made of pebbles covered by lime and mud-plastered and had about 0,15m in thickness.

Fig. 8: Square L-5. Locus 23. Phot. by R. F. Mazurowski.

Fig. 9: Square L-4/M-4. Grave 10. Phot. by R. F. Mazurowski.

Southern and southeastern fragments of next oval (circular?) house (locus 9b), similar to the first one, has been discovered east to the locus 9a. Western and northern parts of the structure were destroyed by objects from younger stratums and it is very difficult to settle the largeness of the structure. Probably it had c.a. 5m in diameter. Stone and mud-plastered wall of this house was forming in pisé technique and had c.a. 0,5m width and was preserved to the height of 0,2 m. Between the wall made of stones, animal bones and flints have been found. Partly destroyed floor of the object has been made of pebbles covered by lime and mud-plastered and had about 0,15m in thickness.

South to these loci a hearth and three pits have been unearthed. South to the locus 9b a circle hearth c.a. 0,7m in diameter and 0,2m in depth has been discovered. Fill of the object contained light grey ash together with burned stones, animal bones and flints.

In south part of the square three circular pits, each c.a. 0,9m in diameter and 20 – 20cm. in depth have been found. Their south parts entered into south profile. All of them had mud base about 2cm in thickness and c.a. 10 - 15cm mud wall. Fill of those pits contained red mud and small pebbles together with animal bones and flints artifacts. Mentioned above structures belong to the Middle PPNA.

STRATUM IV, LEVEL 4, FACE A

In the east part of the square under the structures of level 3 a grave (No. 10), a stand and two hearths (No. 2/09 and 4/09) have been found.

In northeastern part of the square a human grave (No 10) has been explored (Fig. 9). The deceased lied down in a shallow pit, c.a. 1,30m x 0,8m large and 0,5m depth in embryonic position on left side oriented from north-east to south-west, with head directed into west. His left hand was under head and right hand lied on hip. The grave pit was surrounded by stonesand its fill contained dark soil together with small quantities of flint artifacts, among them arrow points and decorated ball made of sun dry mud.

South-west to the grave an upper part of a human skull has been unearthed – probably a part of a destroyed grave. East to it a quern and two grinders have been found.

In south-eastern part of the square, two hearths (No. 2/09 and 4/09) and a stand have been discovered. In northeastern part of the square, below objects belonging to upper layers, a house (locus 11) has been unearthed. Both objects were nearly circular in shape with about 0,8-0,9m in diameter and 8-20cm in depth. Their fill contained black burned soil together with charcoal, small quantities of animal bones and flint artifacts. East to hearths, between them, a stand with 0,6m in diameter has been found. It was shaped from pebbles.

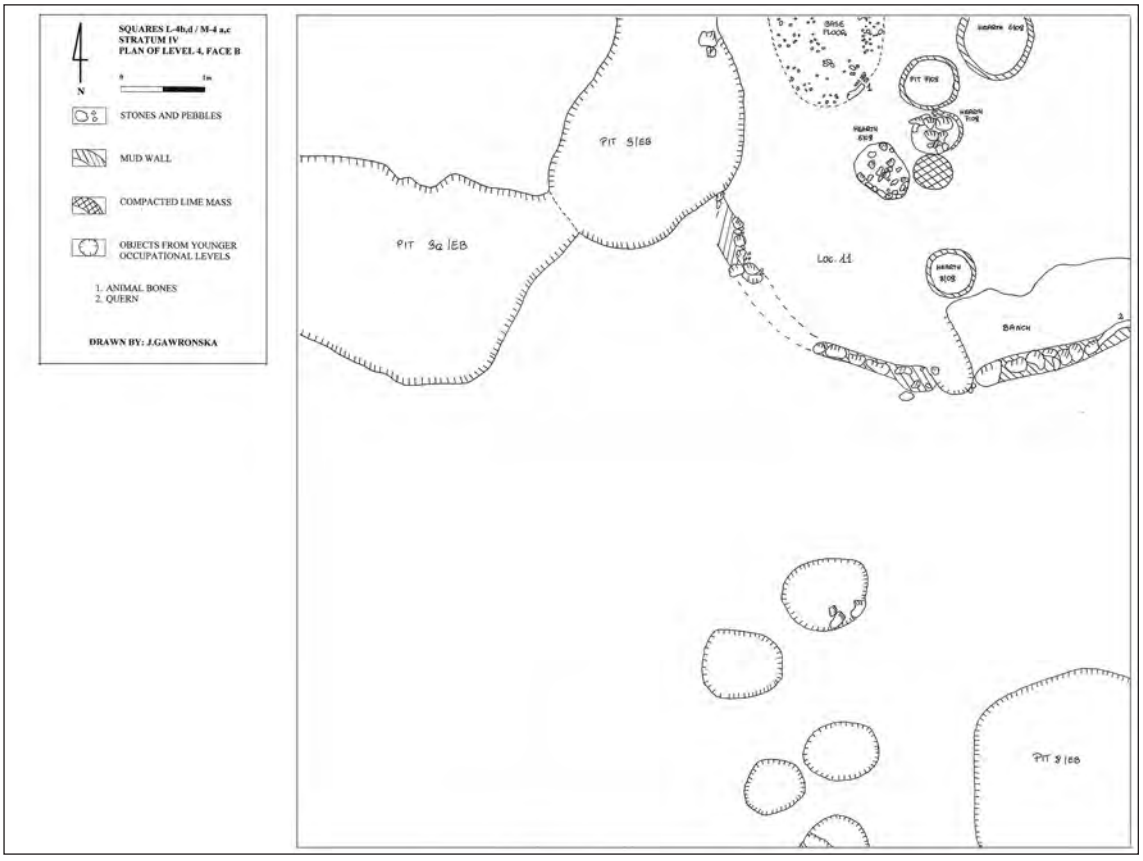

Fig.10: Square L-4/M-4. General plan of stratum IV, level 4, face B.

The above mentioned level belongs to the early stadium of Middle PPNA.

STRATUM IV, LEVEL 4, FACE B (Fig. 10)

In north-eastern part of a square, below objects belonging to upper layers a house (No. 11), pit (No. 7/09) and four hearths (5-9/09) have been discovered (Fig. 11).

Locus 11 was situated in northeastern part of the square. The semi-subterranean house was probably oval (circular?) in shape and has more than 5m (6-7m) in diameter. In the North and West it enters profiles. The western part has been destroyed by the pit from Early Bronze Age and the southern one was destroyed by the grave 10 from younger level. The wall of the structure consisted of big and middle stones covered by mud. The width of the wall was 30cm and it was preserved to the height of 30cm. A basalt quern was incorporated in the southeastern part of the house wall. In the southeastern part of mentioned locus, along its wall a bench made of lime mass mixed with mud was unearthed. A floor of the building was made of small pebbles covered by mud. In the middle of the house the pillar made of lime mass which probably supported the roof was discovered. Inside of described locus a pit (No. 7/09) and four hearths (No. 5-8/09) were unearthed.

The oval pit 7/09 was situated in middle-north part of the house. It was 70cm in diameter and 10cm depth. The floor and wall of the pit were covered by mud of c.a. 10cm layer. The fill of the structure consisted of brown soil together with animal bones and flints artifacts.

The oval hearth 5/09 (70 x 50cms) was located in the centre of locus 11 east to the pillar and consisted of burned soil, charcoals, pebbles and animal bones.

Fig.11: Square L-4/M-4. Pits 7,8/09 and hearth 6/09. Phot. by R. F. Mazurowski.

The circular hearth 6/09 with 1m in diameter was situated east to the pit 7/09. Its wall and floor were covered by about 10cm layer of mud. Fill of the structure contained burned soil and pebbles together with animal bones and flints.

The hearth 7/09 was located south to the pillar and had 60cms in diameter and 5cms depth and consisted of burned soil, charcoals, flints and animal bones.

South to the hearth 7/09 the hearth 8/09 was unearthed. It was circle structure with 0,6m in diameter and 7cm depth with wall and floor covered by thin (10cm) layer of mud. Its fill consisted of burned soil, charcoal and small quantities of flints and animal bones.

The above mentioned structures belong to the early stadium of the Middle PPNA.

STRATUM IV, LEVEL 5 (FIG.12)

Under the construction of level 4 the house (locus 10) with surrounding courtyard with five pits (No. 3-6/09 and 8/09) and two hearths (No. 1/09 and 9/09) have been discovered.

Locus 10 was circle semi-subterranean structure of 5m in diameter. The wall of the house preserved to the height of 0,7m had up to 0,3m of width and consisted of large and middle stones covered by mud. Inside of the building, along its wall a bench c.a. 15-20cm of height made of pebbles and soil covered by mud was unearthed. Fill of the house contained a large quantities of animal bones and medium flint artifacts, among them Qaramelian, Jordan Valley and El-Khiam points and single long point with retouched base and niches. At the other hand there were absent of Helwan points. The building had at least two (or more) floors of different stadiums of rebuilt. First one was made of thin (c.a. 1cm) layer of white lime-mud mass. Below it, on the middle of the second floor a circular hearth with 1,2m in diameter has been found. Its wall and base were covered by red mud. Around it, along the bench a few yokes together with postholes for posts sup-

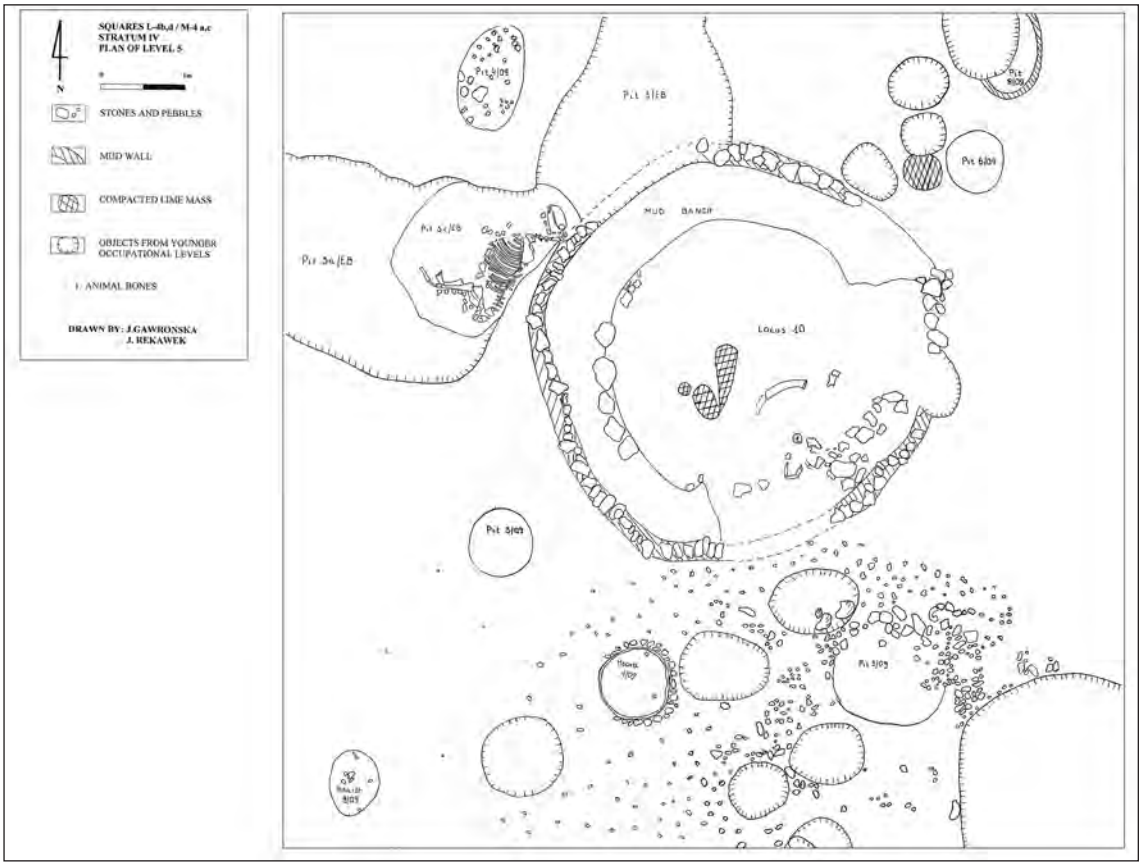

Fig.12: Square L-4/M-4. General plan of stratum IV, level 5.

porting the roof have been located. The roof of the house supporting by posts running along the bench was made by wickerwork covered by mud. Under the first floor a unique human figurine and fragment of vessel made of sun dry mud have been found.

South to the above characterized locus a courtyard with two hearths (No. 1/09 and 9/09) and two pits (No. 3 and 5/09) has been located. The courtyard was built by stones and pebbles covered by mud.

Hearth 1/09 was located south to the locus 10. This circular structure had c.a. 1m in diameter, 20cm in deep and was surrounding by stones. Fill of the hearth contained light gray ash with small quantities of animal bones.

Southwest to the above described hearth another hearth 9/09 was situated. It was oval in shape with about 0,8m length, 0,6m width and 15cm depth. Its fill consisted of black burned soil with pebbles and animal bones.

Northwest to the hearth 1/09 and south-west to the locus 10, a circle pit 3/09 has been found. It had about 1m in diameter and 10cm depth. Its fill contained dark soil together with small quantities of animal bones and flint artifacts.

Southeast to the house next circle pit (No. 5/09) about 1,2m in diameter and was surrounding by stones has been unearthed. Within the pit a human grave nr 11 was located. The grave pit had about 0,9 length and 0,6m width and was surrounding by middle size stones. The skeleton was in contracting praying position, lying on his knees, in northeast-southwest direction with hands basing on the ground and elbows directed up with the skull between his legs oriented to northwest. Fill of the grave contained small number of flint artifacts.

Fig.13. Square L-4/M-4. Grave of Onager. Phot. by R. F. Mazurowski.

Fig.14. Squares L-5 and L-4/M-4during exploration. Phot. by R. F. Mazurowski.

Next three pits (4/09, 6/09 and 8/09) connected with locus 10 were located northeast and northwest of the house.

Southeast to locus 10 an oval pit 4/09 was situated. It had 1,30m length, 0,7m width and 15cms depth. Fill of the pit consisted of dark soil, pebbles and small quantities of animal bones and flint artifacts.

Northwest to the house a fragment of circle pit 8/08 with c.a. 1m in diameter has been unearthed. Northern part of the structure entered the profile and its West fragment was destroyed by hearth 6/09 from younger (4B) level. Its wall and base were covered by 10cm layer of mud. Fill of the pit with 10cm in depth, contained small quantities of animal bones and flint artifacts.

South to the previous pit 8/09 a next one – no. 6/09 has been explored. It was circular structure with 0,7m in diameter. Fill of the pit consisted of dark soil and small quantities of animal bones and flint artifacts. Base of it, because of its considerable depth was not reached.

Taking to consideration the lack of Helwan points and presence of medium flint artifacts, among them El-Khiam, Jordan Valley and Qaramelian points described above structures belong to the early stadium of PPNA.

But it also necessary to add that this above mentioned structures were partly destroyed by the grave pit of onager belonging to Eearly Bronze Age 4 (Fig. 13)

CONCLUSIONS

Results of this season are very important for general reconstruction of evolution of occupation in Qaramel settlement during Epipaleolithic, Protoneolithic and Pre-pottery Neolithic A periods. Obtained pieces of information from all excavated squares confirm our earlier hypothesis that Qaramel settlement belongs to the new primary center of neolithisation with many important differences according to other regions of the Near East. The center which growth up from a local Epipaleolithic tradition with a many basic differences to Natufian culture. On our site it is confirmed by the remnants of stratum VI, level 16 in square J-7b,d as well as similar discovering in former seasons in finished squares situated south of describe trench.

QARASSA (MOHAFAZAT DE SUWEIDA) : CAMPAGNE 2009

Frank BRAEMER, Juan José IBANEZ, Wasim SHAARANI

Université de Nice Sophia Antipolis CNRS Valbonne, CSIC Barcelone, DGAM-Syria

La mission conjointe franco-syrienne de Qarassa (Mohafazat de Suweida) instituée par l'accord de coopération signé au mois de juin 2007 et renouvelé en mars 2009 pour une durée de trois ans, co- dirigée par Frank Braemer (CNRS Valbonne), Wasim Shaarani (DGAM Suweida) et Juan José Ibanez (CSIC Barcelone) travaille sur le site depuis le printemps 2007 (voir le rapport précédent dans la chronique archéologique 2008).

Le site de Qarassa (coordonnées 32°49'54'' N ; 36°24'51''E _Fig 1)

Le site est un ensemble constitué de deux tells et d'une occupation dispersée mêlant tombes et habitats de diverses périodes au nord, autour d'un lac temporaire alimenté jusqu'au début du 20ème siècle par une source pérenne (Fig.2). Le tell nord a été occupé du Néolithique précéramique B (PPNB) ancien au Chalcolithique. Le tell sud à 500 mètres au sud du premier a été construit au Bronze ancien Ia et occupé jusqu'à l'âge du fer. Au Nord de ces tells, une nécropole mégalithique du Bronze ancien s'étend sur un rayon de 1,5 km, et le site Qarassa 3 est daté de la période natoufienne (11è millénaire).

Après une série de sondages exploratoires en 2007, les travaux ont porté en 2008 et 2009 sur :

l'installation natoufienne (dir X. Terradas CSIC Barcelone) en 2009

les niveaux du PPNB ancien sur le tell Nord (dir. J.J. Ibanez, CSIC Barcelone) en 2009

les niveaux du Néolithique céramique et chalcolithique au sommet du tell Nord (dir. M. Godon, IFEA) 2009

la nécropole mégalithique au nord (dir. T. Steimer-Herbet, IFPO) en 2007 et 2008

les niveaux du Bronze ancien et moyen sur le tell sud (dir. F. Braemer, Ch. Nicolle, CNRS) en 2008 et 2009

un édifice de l'âge du fer sur le tell sud (dir. J. Rohmer, Univ. Paris1) en 2009

Parallèlement, une étude du paléoenvironnement du site et à l'échelle régionale est conduite depuis 2009 par E. Iriarte et L.A. Balbo (CSIC Barcelone).

1- Le paléoenvironnement (dir. F. Braemer CNRS, E. Iriarte et L.A. Balbo CSIC Barcelone)

L'objectif de l'étude est de définir les processus géomorphologiques et sédimentaires qui sont à l'origine des paysages actuels de cette région. On s'intéresse particulièrement à la transition Pléistocène-Holocène qui coïncide avec l'émergence de la domestication animale et de l'agriculture aux périodes natoufienne et PPN.

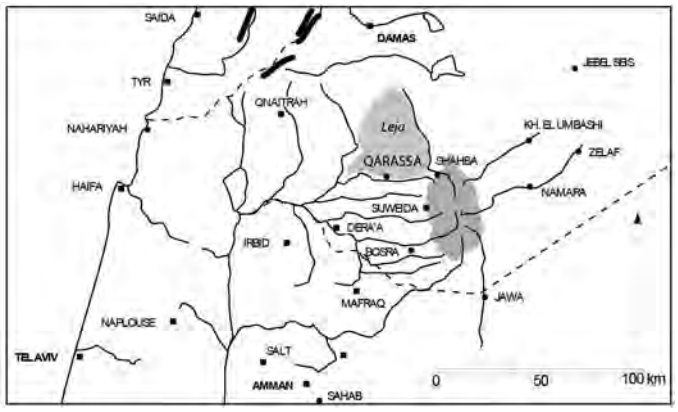

Fig. 1 Carte de situation de Qarassa

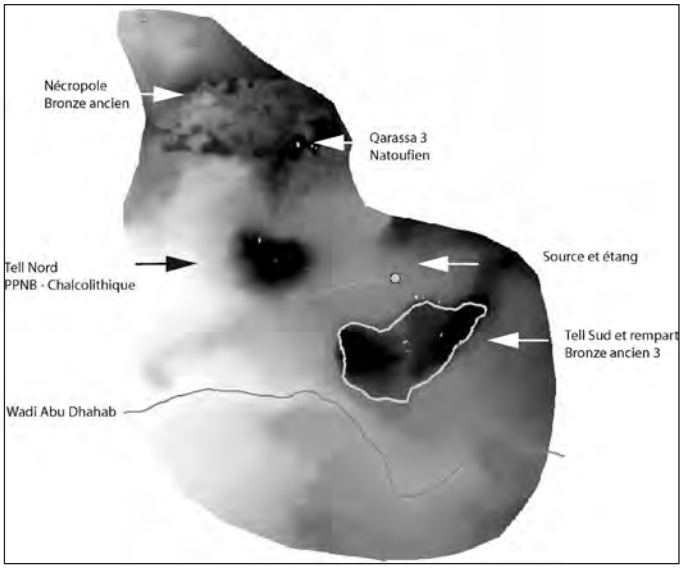

Fig. 2 Le site de Qarassa et ses secteurs

Une zone de 100 km2 autour de Qarassa a été explorée, cartographiée. Des prélèvements systématiques en vue de datation et analyse préliminaires ont été faits.

Dans ce plateau basaltique récent on a des dépressions de dimensions hectométrique à kilométrique remplies par des sédiments d'érosion éolienne et pluviale d'une part et, d'autre part de lacunes dans les coulées récentes laissant à découvert les matériaux basaltique et les sols anciens. Les tunnels sous basaltique jouent le rôle d'aquifères à différentes profondeur. Ces aquifères peuvent se rejoindre parfois en raison des nombreuses fractures et effondrements. L'activité hydraulique saisonnière le long du Leja permet l'existence de sources et d'étangs souvent alignés sur les tracés de paléo wadis tel le Wadi Abu Jarba qui organise un drainage est ouest.

Les enregistrements sédimentaires sont rares : les principaux dépôts sont ceux qui correspondent aux lacs et étangs temporaires, et ils sont de faible puissance. Les terrasses des wadis entourant le Leja doivent cependant être mieux explorées. Une terrasse le long du Wadi Abu Dhahab, à la hauteur de Nejran a été étudiée.

Une première étude des sédiments du paléolac de Qarassa montre une alternance d'unités sédimentaires lacustres et de dépôt non hydrauliques correspondant aux variations d'extension du lac et aux aménagements par l'homme. La cartographie et une série de transects d'exploration géophysique ont permis de donner une première représentation en 3D de ce lac.

Une première série de modèles, hypothèses sur le fonctionnement hydrologique général de la zone selon les divers modes de contrainte climatique a été réalisée.

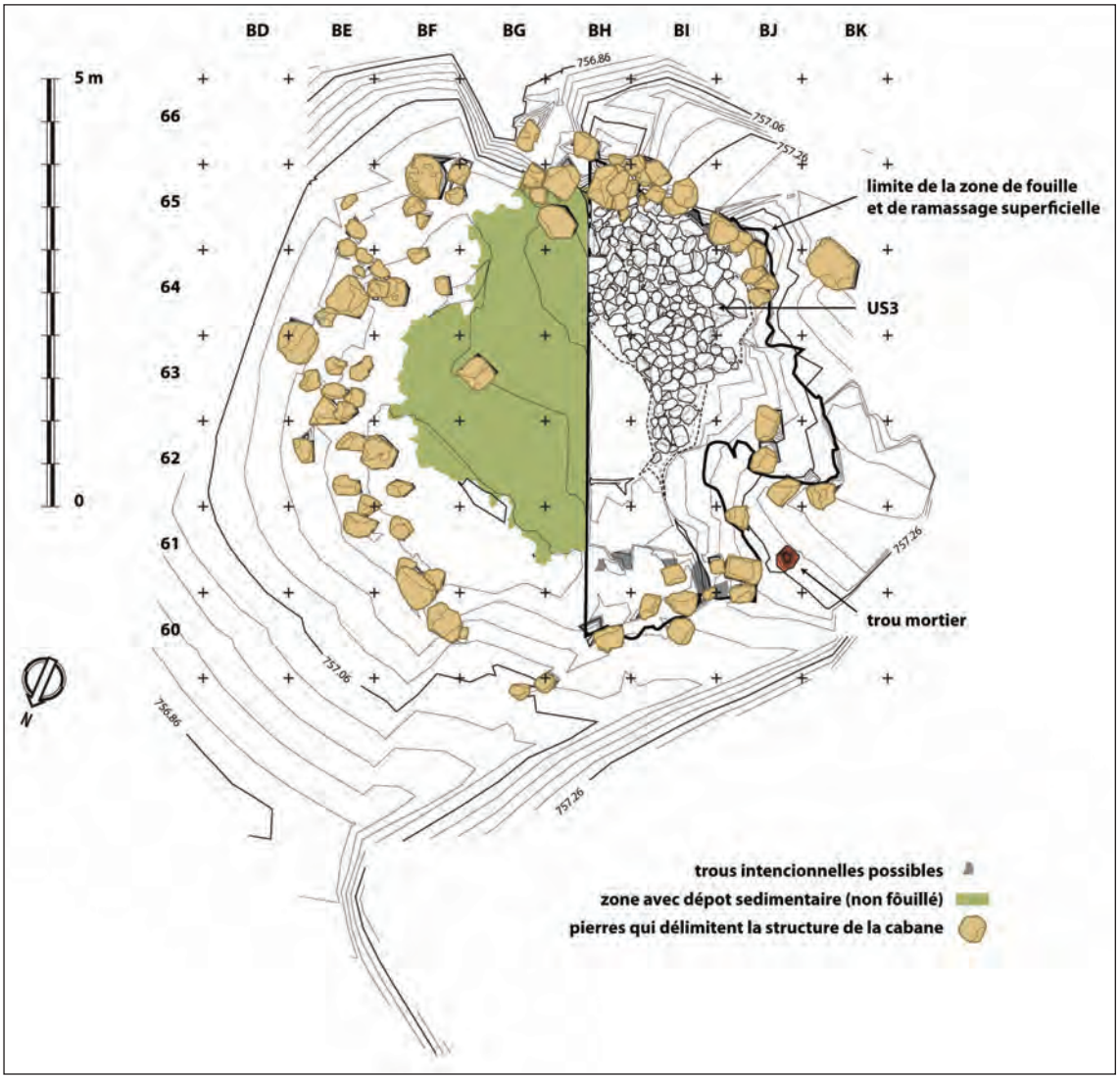

Fig. 3: Qarassa 3. Site natoufien, plan d'une cabane circulaire.

2- L'installation natoufienne : Qarassa 3 (dir X. Terradas CSIC Barcelone) (fig.3)

Le site comprend une accumulation de sédiments anthropiques devant un petit abri sous roche, et une série de maisons rondes sur une crête basaltique où la roche est à nu. Notre hypothèse de travail est qu'on est face à un ensemble archéologique cohérent

La fouille, l'étude et l'interprétation pourront apporter beaucoup de données sur les stratégies d'occupation et exploitation du territoire au Natoufien, ainsi que sur le mode d'organisation pour mener à bien ces activités.

Le programme de topographie de détail pour l'ensemble de Qarassa 3 a pour objet de documenter et intégrer les structures circulaires avec un nombre suffisant de données de microtopographie (microrelief, roches, fractures dans la coulée basaltique, plateformes avec de sédiment préservé, etc.). En même temps, on a intégré d'autres éléments anthropiques déjà connus (tombes, trous de mortiers, etc.) afin de développer un Système d'Information Géographique spécifique pour l'étude micro spatiale de cet ensemble archéologique.

La fouille de l'abri

Les couches étudiées sont en fait les déblais de creusements réalisés à époque historique le long de la crête rocheuse, pour extraire des blocs, et plus récemment pour des recherches clandestines de tombes. Ces travaux ont remanié les niveaux natoufiens et partiellement détruit le petit abri sous roche de cette période. De plus les terriers animaux ont beaucoup perturbé les couches. Il s'agit probablement d'un abri sous roche ou d'une petite falaise dont la paroi a été utilisée par des groupes humains comme élément de protection ou d'habitat. Quelques unes de ces occupations se sont développées au cours du Natoufien et peut-être aussi au Kébarien.

On espère que la suite de la fouille nous permettra d'arriver à des unités stratigraphiques plus profondes et non perturbées de chronologie natoufienne

Les structures circulaires

Au premier coup d'œil sur les photos aériennes, on peut percevoir clairement un groupement en ligne de 11 structures, définissant une sorte de segment de cercle autour d'une dépression naturelle formée au sein de la coulée basaltique. La dernière structure est isolée par rapport aux autres. Les travaux de prospection n'ont pas fourni jusqu'à présent de structures similaires ailleurs sur le site et même dans le Leja.

Au sein de ce groupement, on peut voir deux ensembles :

Ensemble Est, formé par les structures (numéro 1 à 8), avec un diamètre intérieur de presque 5 m.

Ensemble Ouest, constitué par les structures (numéro 9 à 11), dont le diamètre intérieur s'approche de 4 m et donc, est sensiblement inférieur par rapport aux précédentes.

La morphologie de ces structures est presque circulaire. En fait, les axes E-O sont un peu plus allongés que les axes N-S.

Deux maisons ont été fouillées. Malheureusement on n'a pas trouvé à la fouille de fragments de charbon en bois en place donnant une date pour ces maisons : il y a des matériaux plus récents dans le remplissage.

3- Les niveaux du PPNB ancien sur le tell Nord (dir. J.J. Ibanez, CSIC Barcelone)

Cette période est cruciale dans les processus de formation des premières communautés agricoles au moment de la domestication des plantes et des animaux. Elle est très peu connue dans le centre et le sud du Levant. Le site de Qarassa, comme celui précédemment fouillé de Tell Aswad à côté de Damas, pourrait permettre de revoir les hypothèses anciennes sur l'origine de cette civilisation au nord de la Syrie.

La zone de fouille nommée XYZ-66/67 a été établie pour étudier une maison totalement préservée (Fig. 4).

Un mur délimite un espace rectangulaire aux angles arrondis avec un mur transversal et une porte qui divise l'espace. Seuls les niveaux de destruction (datés du milieu du 9è millénaire) et de réutilisation de l'espace ont été fouillés en 2009. La maison paraît avoir été partiellement creusée dans le sol.

La zone a été réutilisée comme espace funéraire et à certains moments comme espace de stockage attesté par des « caches » d'outils et de meules.

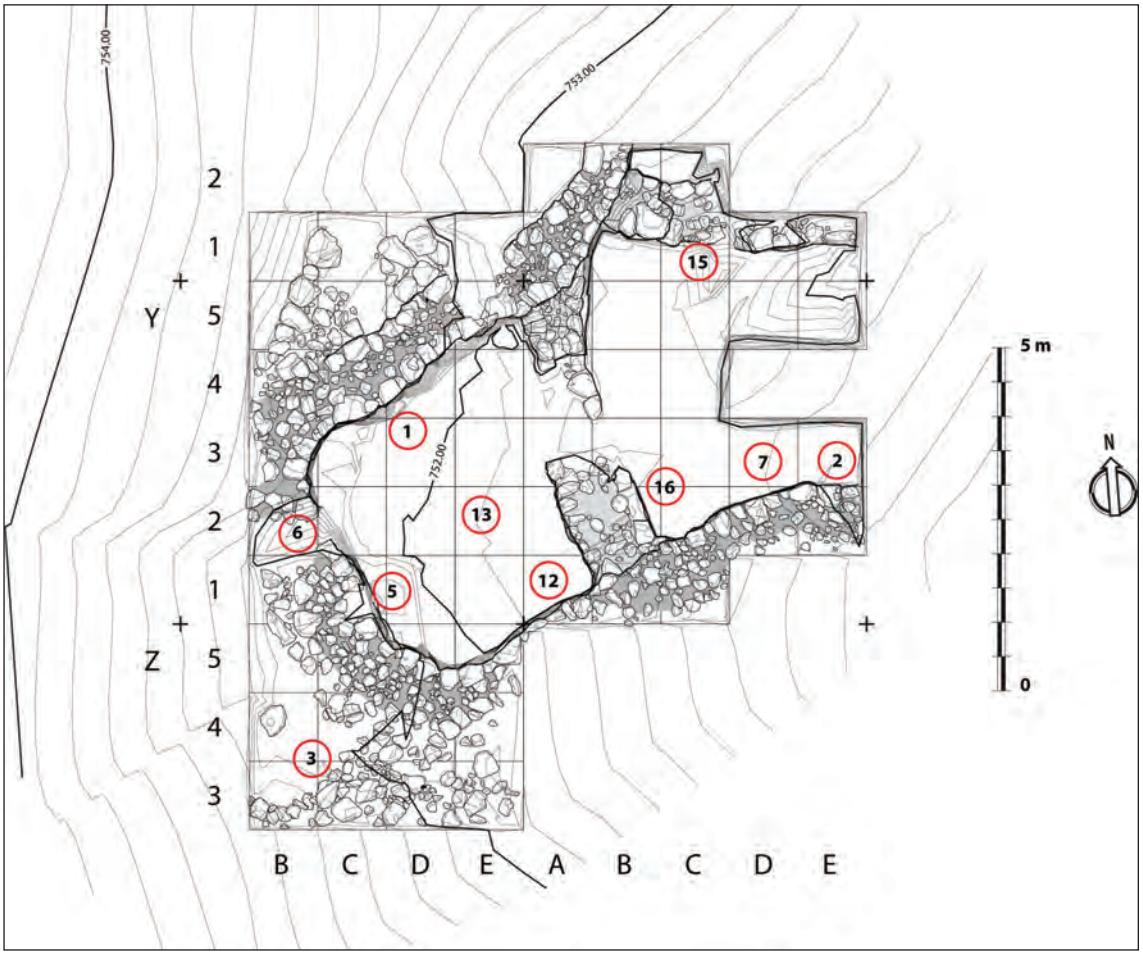

Fig. 4: Qarassa Tell Nord, secteur Est. Maison PPNB, plan.

Une autre aire fouille en V67/T67 (12 m2) au nord permet de connaître la stratigraphie du tell dans une zone qui va être détruite. 18 ensembles funéraires (24 individus au moins) ont été identifiés (Fig. 5). Les rituels funéraires sont très complexes : sépulture primaires et secondaires, individuelles ou collectives, pratiques de séparation des crânes du corps après une première période d'enterrement, dépôts de crânes.

La préservation des restes architecturaux et des matériaux lithique et osseux à Qarassa est remarquable

Les premiers résultats des analyses archéobotaniques et faunistiques montrent l'énorme potentiel du site pour éclairer les débuts de la domestication animale de la chèvre et végétale. Par rapport à l'outillage, l'étude de la grande variété des matières premières peut apporter des renseignements sur les sources d'approvisionnement et sur les réseaux d'échanges.

La trouvaille de plusieurs figurines et représentations humaines et animales est très importante pour connaître l'imaginaire et le monde symbolique pendant le PPNB Ancien.

4- Les niveaux du Néolithique céramique final et du Chalcolithique au sommet du tell Nord (dir. M. Godon, IFEA)

Cette période est pratiquement inconnue en Syrie du sud.

Des cinq horizons stratigraphiques identifiés dans la coupe sur la pente nord du tell (fig. 6), seuls deux concernent des occupations humaines, les trois autres étant des faits géologiques dont

Fig. 5: Qarassa Tell Nord, secteur Est. Tombe PPNB.

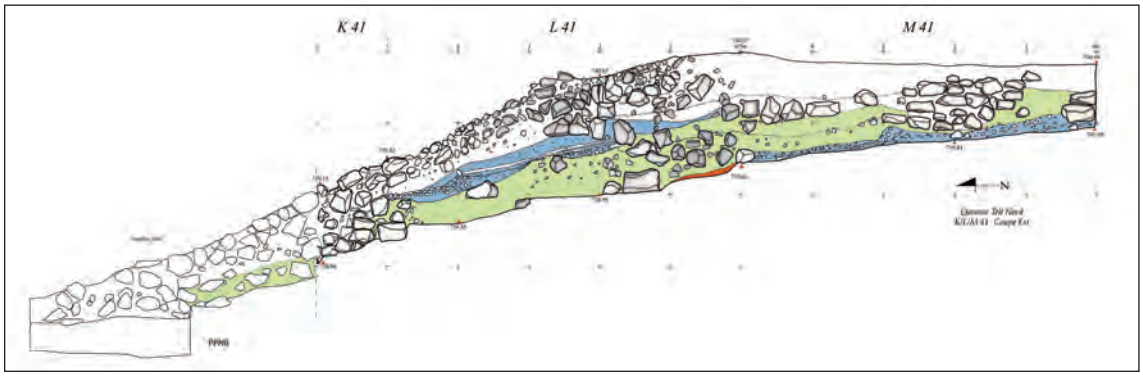

Fig. 6: Qarassa Tell Nord, secteur Nord. Coupe stratigraphique.

la mise en place est dépendante d'événements climatiques pouvant correspondre aux changements climatiques jalonnant l'holocène entre 12.000 BC cal. et 4000 BC cal, particulièrement la montée de l'humidité entre 8000 et 7000 BC, relativement bien documentée en Haute Mésopotamie et en Anatolie Centrale.

La mise en évidence de ces événements climatiques au sud Levant est importante car elle coïncide avec une rupture dans les modes d'implantation des sites entre le PPNB et le Néolithique Céramique, ainsi qu'à des ruptures dans les développements culturels régionaux.

La question d'une phase d'occupation contemporaine qui pourrait correspondre au Néolithique Céramique, se pose.

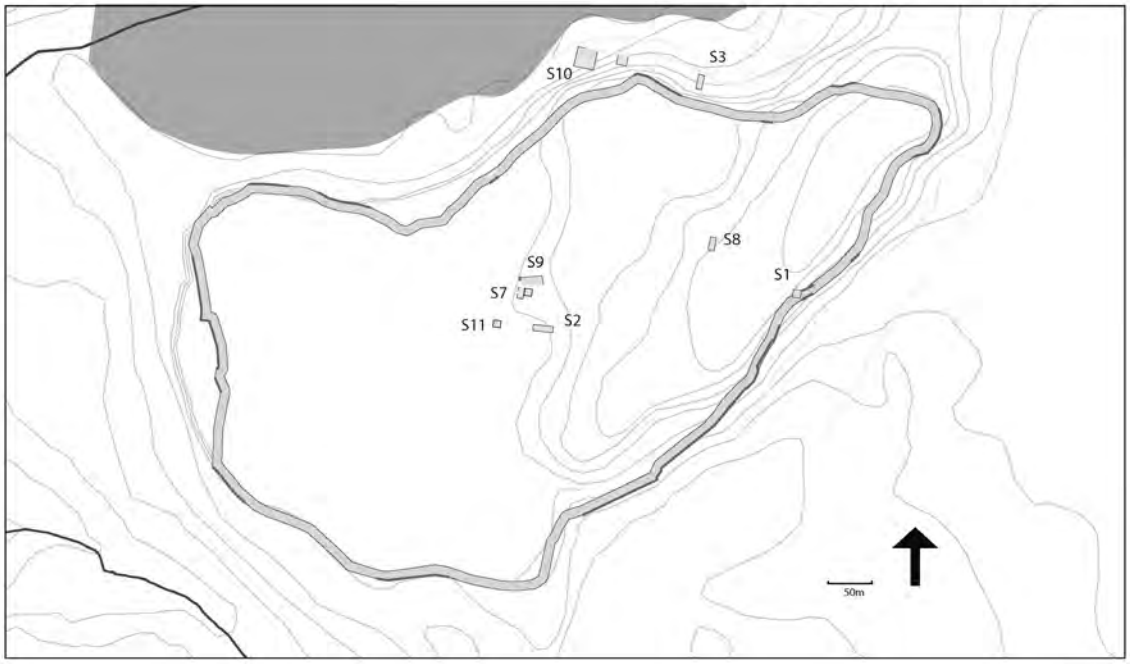

Fig. 7: Qarassa Tell Sud. Plan général.

En effet, la fouille de 2007 et l'analyse du matériel céramique remanié dans l'horizon I mirent en évidence la présence, certes en pourcentage très limité, de tessons pouvant correspondre au Yarmukian Late Neolithic et à Jericho (Husking Tray sur face convexe, un élément de décors en épis incisé sur l'épaulement d'une jarre, un élément de décors à cloisonnement triangulaire incisé, impresso, absence, cependant, de poteries peintes).

Il est donc possible qu'une occupation néolithique, comprise entre 6400 et 5800 (date C14) ait été présente sur le tell Nord de Qarassa. Non identifiés dans la pente nord du tell, les quelques témoignages remaniés de cette présence suggèrent un remaniement, voire un arasement de l'occupation néolithique.

Les niveaux de sub surface caractérisés par une implantation d'habitats sur la terrasse nord du tell, et dont les fondations s'appuient, voire recoupent les niveaux précédents, nous semble refléter une occupation datant du Chalcolithique Ancien ou Moyen du tell.

5- Les niveaux du Bronze ancien et moyen sur le tell sud (dir. F. Braemer, Ch. Nicolle, CNRS) (fig. 7)

Le site a été occupé du Bronze ancien I, au milieu du 4ème millénaire jusqu'à la fin du Bronze moyen I au premier quart du 2ème millénaire au cours de plusieurs épisodes dont la continuité n'est pas encore assurée, puis brièvement à l'âge du Fer II après un hiatus de près d'un millénaire.

L'histoire de ce tell est marquée par une opération majeure d'urbanisme dans la première moitié du 3ème millénaire avec la construction d'un rempart et de quartiers d'habitation.

L'objectif de la fouille est d'affiner la datation des niveaux d'occupation du tell qui constituent actuellement le seul référentiel stratigraphique de la période entre Hama et Tell Nebi Mend en Syrie centrale et les sites de la vallée du Jourdain et du nord de la Jordanie, et de préciser les séquences de construction du mur d'enceinte du Bronze ancien III.

Fig. 8: Qarassa Tell Sud. Rempart du Bronze ancien III à l'ouest du tell.

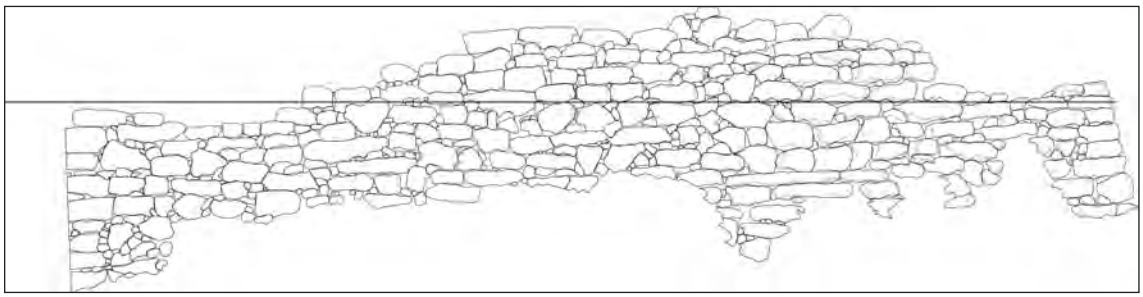

Fig. 9: Qarassa Tell Sud. Rempart du Bronze ancien III à l'ouest du tell.

Les niveaux les plus anciens en place datent du Bronze ancien Ia (5 dates C14 concordantes au milieu du 4ème millénaire). On identifie d'une part dans le sondage 2 (2008) au centre de la dépression un remblai sur le fond rocheux hydromorphe, surmonté par un horizon qui a pu être identifié comme un sol de terre battue en S11. Les niveaux avec grains brûlés observés un peu plus au nord dans les parois d'une fosse récente datent également de cette période. Donc le remblaiement de la dépression centrale qui contenait sans doute à l'origine une extension de l'étang de la source nord a commencé dès le milieu du 4ème millénaire. Les sondages réalisés plus à l'est sur les terrasses hors les murs au nord du tell, en bordure de l'étang n'ont pas apporté d'indication d'une occupation de cette période. Donc l'emprise du village (?) du Bronze ancien Ia est extrêmement limitée.

Le niveau suivant est identifié dans la dépression centrale avec les sols et leurs recharges en S2 et S11, et les structures de S7 : ce sont encore des sols de terre battue parfois indurée avec une plateforme de pierre en S7 et des déchets et quelques vases en place en S2. Aucun mur de maison n'a été identifié. Une date en S7 indique le premier quart du 3ème millénaire, donc le Bronze ancien II, ce qui est cohérent avec la céramique identifiée. A cette même période on devait avoir une occupation sur la crête rocheuse au nord du mur de rempart du secteur S1, puisque nous avons retrouvé les déblais et déchets de pente de cet établissement, avec un matériel et une date C14 cohérente. La continuité spatiale des deux habitats n'est pas assurée. En l'absence de murs, il est difficile de parler de village.

C'est sur ce niveau en S1 que le rempart (fig. 8-9) a été construit sans doute à la limite entre le premier et le deuxième quart du 3ème millénaire, donc le début du Bronze ancien III, puis que dans une seconde phase, une ligne de maison a été édifiée parallèlement au rempart, formant ainsi une rue périphérique. De cette période de construction rien ne subsiste, ou bien rien n'a existé au centre du tell : on pourrait donc avoir une structure d'agglomération en couronne appuyée sur le rempart, avec un grand espace central vide de construction au centre. Les maisons longeant le

rempart en S1 subissent un effondrement qui ne paraît pas affecter le rempart lui-même : on écarterait donc plutôt l'hypothèse d'un tremblement de terre, au profit de celle d'un abandon temporaire. A l'extérieur du rempart au nord, le sondage S3 a montré que des couches du Bronze ancien III étaient en place, témoignant peut être de la construction d'une ligne de terrasses périphériques dans ce secteur.

Une réoccupation le long du rempart reprend la même disposition générale, ligne de maisons séparées du rempart par une rue. Le matériel céramique est datable du Bronze ancien IV, période dont le détail de l'histoire est encore très mal identifié en Syrie du sud. Un niveau de cette période (mais peut être un peu plus récent qu'en S1) a été atteint dans les sondages S8 où il est composé par des édifices et des sols de maisons. Cette période n'est pas attestée dans la dépression centrale, où les niveaux du Bronze ancien II sont recouverts par ceux du Bronze moyen. Il faut donc vraisemblablement imaginer un établissement construit du Bronze ancien IV concentré sur la partie orientale du tell.

Sur cet établissement, au moins deux niveaux architecturaux (dont un très arasé) sont attribuables au Bronze moyen en S8, et le village pourrait avoir alors une extension vers l'ouest jusqu'à S7 et S11 avec des structures monumentales (mur long avec sol bétonné et base de colonne en S11 sur un seul niveau, mur très épais, et angle de maison en S7, au moins deux niveau architecturaux). En SI, les niveaux supérieurs du rempart et d'habitat pouvant dater de cette période ont vraisemblablement disparu à l'occasion de nivellements récents au bulldozer. Le ramassage de la céramique de surface indique encore une extension de l'occupation intense intra muros jusqu'à la limite ouest de l'agglomération marquée par le rempart. Au nord du rempart, hors les murs en S3 un important amas de pierres et de terre jaune très dure pourraient appartenir à un glacis établi à cette période contre le rempart. Une terrasse plus basse le long de l'étang semble avoir été aménagée également à cette période.

6- L'édifice de l'âge du fer sur le tell sud (dir. J. Rohmer, Univ. Paris1)

Lors de la campagne 2008, un trou de pillage réalisé dans le mur ouest a attiré notre attention sur un secteur de terrasse formant la limite nord-est de la dépression centrale du tell. Un ensemble de vases quasi-complets et de tessons caractéristiques de l'âge du Fer y a été trouvé. On comprenait ainsi que la terrasse ne résultait pas de travaux d'aménagement agricole, mais qu'elle s'était formée sur les vestiges éboulés d'un édifice de l'âge du Fer. Cet édifice a été directement construit sur les niveaux du Bronze moyen qui devaient encore affleurer à cette époque.

Il s'agit d'un grand édifice rectangulaire de plus de plus de 130m2 de surface et préservé sur plus de 2m de haut (fig. 10). Ses limites nord et est, masquées par des structures et maisons récentes et un verger n'ont pas été identifiées. L'étude des niveaux de destruction a permis de prouver l'existence de un et peut être deux étages sur les sols desquels il y avait encore de la céramique destinée à la consommation au moment de la destruction. Le rez-de-chaussée était consacré en grande partie au stockage ainsi que l'ont montré les nombreux vases retrouvés parfois intact (fig. 11).

Ce bâtiment n'a connu qu'une seule phase d'occupation, au VIIe s. av. J.-C., avant d'être définitivement abandonné et de s'écrouler. L'assemblage céramique rassemblé lors des fouilles, qui comprend une vaste gamme de formes ainsi que plusieurs importations, offre ainsi une occasion exceptionnelle d'identifier le répertoire de la céramique locale lors de cette période mal connue.

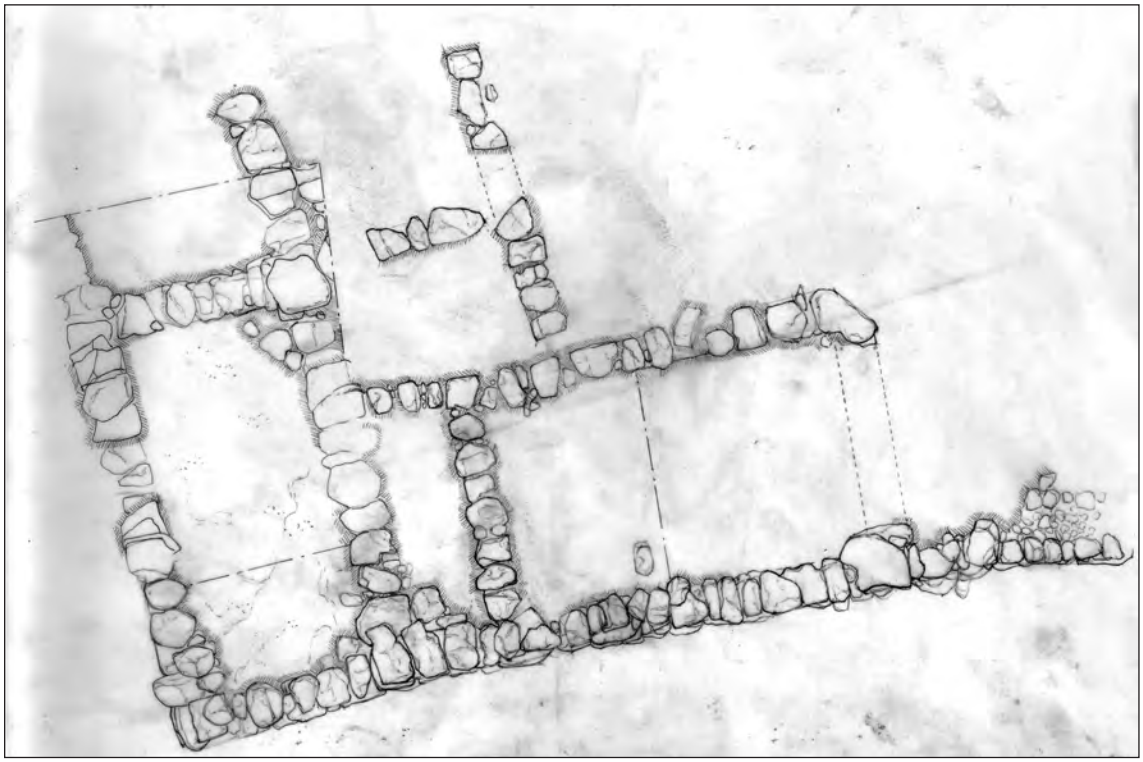

Fig. 10: Qarassa Tell Sud. Maison de l'âge du Fer, plan provisoire.

Fig. 11: Qarassa Tell Sud. Maison de l'âge du Fer, vases de stockage en place.

Dans le secteur de fouille S8, une pièce ou cour dallée d'une maison plus modeste de la même période a été identifiée. On peut donc proposer pour l'âge du Fer, l'existence de quelques maisons dispersées sur la partie orientale du tell, et sans doute pas un village dense.

LA CAMPAGNE DE FOUILLES DE 2009 À TELL HALULA (VALLÉE DE L'EUPHRATE, SYRIE). UN PREMIER BILAN.

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La campagne de fouilles et d'études réalisée à Halula pendant l'automne 2009 a été très positive. Elle est venue confirmer la continuité d'un projet de recherche stable sur les premières sociétés agricoles en Syrie tout en offrant des résultats particulièrement prometteurs.

Les résultats suivent les orientations définies dans le programme de recherche actuel, qui concentre ses activités sur l'élargissement des connaissances des horizons préhistoriques suivants:

Le «PPNB moyen» avec la définition de la structure villageoise et des pratiques funéraires associées à l'habitat.

Le développement des connaissances sur les occupations datées du « PNNB récent» et la fouille des niveaux appartenant a la première moitié du VIII^{e} millénaire, avec une analyse détaillée des transformations culturelles, des processus d'innovations technologiques et économiques liées à l'apparition des premières céramiques.

Le programme a privilégié deux axes de recherche. Le premier a mis l'accent sur le travail de terrain consacré à la fouille de trois grandes zones du tell. Le second s'est focalisé sur l'étude et l'analyse des matériaux collectés lors des investigations de terrain. La majeure partie de ces travaux, regroupant plusieurs spécialités, est effectuée dans le cadre de thèses de doctorat en cours. Contrairement aux autres années, la fouille et l'étude ont cette fois-ci été réalisées de manière concomitante.

Comme les années précédentes, l'équipe était constituée de 21 chercheurs affiliés à huit universités différentes ou à diverses institutions. Au total, la fouille s'est étendue sur une surface de 510m2 elle-même divisés en trois secteurs.

Figure 1: Vue générale du carré 4H, avec la maison HF (FO 09) avec le porche en premier plan. (PPNB moyen).

Travaux de fouille.

Les fouilles réalisées dans le secteur 4 (250 m2) ont permis d'élargir de manière considérable la documentation des phases les plus anciennes (PPNB moyen). Les travaux effectués dans les carrés 4D, 4EF et 4H ont pu compléter la fouille de deux nouvelles unités domestiques : l'une dans le carré 4EF (maison EFD ; FO 10) et l'autre dans le carré 4H (maison HF) (Figura 1). Par ailleurs, la fouille a permis de mieux documenter certains éléments architecturaux comme les espaces d'accès aux maisons ou porches. Tel fût le cas de la maison DE (FO7) du carré 4D et de la maison HE (FO10) du carré 4H.

Les deux nouvelles maisons ou unités de logement ont un plan rectangulaire de type pluricellulaire, avec des murs de brique et des sols enduits de chaux. La fouille des zones situées en partie méridionale de ces maisons, au niveau de l'entrée, a confirmé que la plupart des maisons étaient dotées d'une petite salle construite selon des caractéristiques morphologiques différentes a celles des autres cellules du bâtiment. Ces espaces, qui à l'origine devaient être semi-ouverts (système de porche), abritent une grande variété de structures domestiques (silos, structures «en grill plan » fosses-foyers, fours, etc). L'usage le plus évident de ces structures semble lié à la préparation et à la transformation des aliments. Une variabilité similaire a été constatée dans les pièces situées sur le côté nord de la salle principale où, à nouveau, des structures de séchage type «grill Plan » ont été mises au jour. De plus, la présence d'aires de mouture suggère qu'un travail de transformation des produits alimentaires avait lieu sur place.

Aussi, des canalisations ont été découvertes dans le carré 4EF alors que nous démontions les murs extérieurs des maisons issues des phases récentes (FO12 et 11). Comme nous l'avions remarqué auparavant, il s'agit d'un système d'évacuation installé dans un angle de la pièce principale et élaboré au moyen d'une petite fosse. Les parois qui la constituent sont couvertes de petites dalles et son fond est tapissé d'un matériau organique (Figura 2). D'autre part, des structures de combustion complexes ont été retrouvées. Celles-ci apportent des éléments de réflexion nouveaux

Figure 3: Vue générale du carre 4D (maison DE) correspondant a la phase d'occupation 7 (PPNB moyen).

Figure 2: Vue en détail et en plan de la structure d'écoulement découverte a l'intérieur du mur (4EFE20) (PPNB moyen).

dans notre compréhension des techniques de construction. Elles nous offrent par ailleurs des indications précieuses sur l'utilisation de l'espace, et par conséquent sur son organisation sociale.

Dans le carré 4D (FO7), les vestiges architecturaux de constructions plus anciennes ont été mis au jour. Les maisons conservent une disposition agglutinée avec une juxtaposition latérale des constructions domestiques. A contrario, l'espace frontal des bâtiments est plus large et vient délimiter des zones d'activité ou de passage. La fouille des premières étapes de la Phase 6, en cours, fait montre d'un changement dans la structure et l'agencement de l'habitat domestique durant cette phase. Une telle hypothèse reste toutefois à vérifier lors de prochaines opérations.

Cette tradition architecturale que l'on vient de décrire est très homogène de la FO 7 jusqu'à la FO14. Elle consiste en un système de reconstruction permanente des maisons, bâties les unes sur les autres. Cette disposition générale présente un certain parallélisme avec la zone la plus septentrionale. En outre, parmi les nouveautés de cette campagne, il convient de souligner les particularismes présentés par certains porches, et en particulier celui issu de l'étape la plus archaïque (FO 7). Il s'agit d'un espace construit en annexe, matérialisé par deux parois latérales et ouvert au sud. (figura 3). Ce type de construction n'est pas sans suggérer les architectures de la phase précédente, connues dans les sites de Jerf el Ahmar ou de Djade el Mughara. Ces porches

Figure 4: Vue frontale de la sépulture 4DE251 (PPNB moyen)

constituent donc un élément de continuité technologique entre les deux traditions.

La fouille des espaces extérieurs aux maisons a permis à la fois de documenter les aires de circulation et de récupérer un grand nombre de matériaux archéologiques (débris d'industrie lithique, reste des ossements de faune, etc.). Enfin il faut mentionner la découverte de sépultures dans le sous-sol des maisons. Au total, six tombes ont été fouillées ; trois dans le carré 4D (FO7 / maison DE) et trois autres dans la maison 4EF (FO10/maison EFD). Tenant compte à la fois les résultats de la saison précédente comme ceux de cet année, la maison DE (FO7) a révélé quatre tombes. Ainsi, deux sépultures (E222 et E223) ont été rattachées à la phase architecturale la plus récente, tandis que deux autres sépultures (E251 et E256) sont issues de la phase la plus ancienne. Finalement, dans l'autre maison dégagée en EFD (FO10, Carré 4EF), trois sépultures ont été découvertes.

En général, les sépultures se trouvent dans la partie sud de la maison et présentent les caractéristiques classiquement reconnues dans ce type de structures découvertes à tell Halula. La nouveauté plus significative réside dans la partie inferieure d'une des sépultures, qui recoupe le sol de la phase inferieure. Celle-ci recoupe donc directement une autre tombe de la phase archaïque. Ce fait n'était pas connu auparavant. Dans cette maison, en cours de fouille, deux des trois sépultures fouillées sont celles de personnes adultes de sexe masculin (E106 et E110), la troisième correspond à celle d'une jeune femme (E113). Dans la plupart de ces tombes nous avons pu mettre en évidence des restes de tissus et d'objets d'accompagnement, parmi lesquels une « pierre à rainure » couverte d'incisions géométriques (tombe E110) (Figura 4).

Dans le secteur 2G, une surface de 120 m2 a été fouillée, avec la poursuite du dégagement des derniers niveaux précéramiques (PPNB récent), montrant une occupation de l'espace complètement différente des niveaux inférieurs, du moins dans la partie sud du tell. Ainsi, dans la partie ouest du carré, nous avons pu clore la fouille d'une structure complexe, de plan rectangulaire et pluricellulaire, construite au moyen de matériaux de grandes dimensions. Dans la partie plus à l'est du carré et stratigraphiquement associée à la structure précédente, un vaste espace extérieur a été découvert. Il se caractérise par un sol en terre battue et par un aménagement de 51 trous de poteau alignés, formant probablement les restes d'une clôture(Figura 5). Cette construction faite de grands murs ainsi que l'utilisation de la pierre dans l'architecture, au moins dans une partie des fondations, rappelle la maison contemporaine située dans la plateforme supérieure, soutenue par le grand mur de terrassement E101 (secteur 1). Ici, la construction est associée à de grands espaces en plein air délimités par des structures légères formant une palissade très soignée et assurément haute. Les sols sont argileux et également très élaborés. Cet ensemble architectural, présentant plusieurs phases de reconstruction, indique un type d'habitat et une organisation du village en rupture nette avec la disposition repérée entre les phases FO 7 et FO 14.

Si l'on considère que ces unités de construction ont une distribution irrégulière, avec de larges espaces entre elles, en tenant compte toutefois des structures semi-construites (palissades, clôtu-

Figure 5: Vue générale du carré 2G avec l'aire extérieur ou l'on trouve les 51 trous de poteau qui constituent une palissade.(PPNB récent)

res, ...), nous pouvons établir un parallèle avec les installations décrites dans les phases les plus récentes du village (pré-Halaf et Halaf). Au vu du manque criant de données dans le Levant nord, les études concernant les phases PPNB récent demeurent particulièrement importantes.

Dans la partie haute du Tell, les carrés 2H et 2I (138 m2) ont été fouillés. Nous avons ainsi pu dégager des niveaux archéologiques datés de la période Late Neolithic. Rappelons que cet horizon présente l'originalité de documenter les premières productions céramiques. La campagne a fourni une documentation nouvelle sur les données architecturales des niveaux supérieurs. Cette partie du site fut fouillée au cours des investigations de 2007 et 2008. Elle avait alors livré une maison complète à plan rectangulaire complexe dans la partie centrale du carré et un tholoi dans la partie plus à l'est. D'autre part, elle avait permis d'établir une séquence stratigraphique complète de la transition des occupations précéramiques avec les niveaux appartenant à l'horizon des premières productions céramiques. Afin de compléter cette séquence stratigraphique, une surface de 24 m2 a été fouillée cette année dans la partie la plus orientale du carré 2I. Cela a permis de définir la limite méridionale de cette zone de fouillée soit la coupe avec le carré 2G et pourtant, établir une relation stratigraphique directe entre les carrés 2I et 2G (Figura 6).

La fouille de ce sous-secteur nous a permis de distinguer trois niveaux consécutifs. Le premier niveau, c'est-à-dire le plus récent, est constitué d'un large espace extérieur, où émergent une grande structure de combustion (E7) et le mur de pierres d'un bâtiment (E4), conservé sur une hauteur de 1,10 m. Même si ce mur demeure le seul élément attesté de cette construction, sa position stratigraphique indique une contemporanéité avec la construction de la partie Est du carré (tholoi, maison pluricellulaire fouillée en 2008) ainsi qu'avec la construction de la partie orientale du secteur 30, fouillée en 1997. On propose donc l'existence de trois maisons contemporaines, qui indiqueraient pour cet horizon un modèle de distribution des constructions domestiques caractérisées par une disposition clairsemée et séparées par de grands espaces de plein air.

Le deuxième niveau est formé par un ensemble de couches (B11, B12, B13 et B14), matérialisées par des sols et restes de constructions domestiques, comme un grand mur de pierres (E57) relativement important, qui se poursuit dans le profil est du carré. Nous avons aussi repéré une nouvelle structure de combustion (E61) ainsi que divers sols extérieurs associés a ces structures.

Le troisième niveau se compose de trois autres couches (B16, B17 et B18), localisées au-dessous des structures qui caractérisent le niveau précédent. Ces couches ont livré d'abondants restes de faune et de silex, accompagnés de quelques fragments de poterie et de « Vaisselle Blanche » absents dans les niveaux supérieurs. En contact avec ces couches, nous avons pu mettre au jour

Figure 6: Vue frontale des carrées de fouille 2G, 2H y 2I, ou on peut Observer la superposition des occupations PPNB récent et Prehalaf.

une autre couche formée par un sédiment grisâtre, très fin, et qui a révélé une importante quantité de restes de faune. Celle-ci correspond à l'une des premières couches découvertes et fouillées en 2006 lors du début de la fouille du carré 2G.

De toute cette séquence, il convient d'insister sur les restes de céramique, dont la qualité et la quantité permettront, après étude, une nouvelle approche de l'évolution des premières productions céramiques. Nous devons aussi évoquer l'important nombre de fragments céramiques dont la pâte possède un dégraissant minéral (en particulier un très grand nombre de fragments de la « Black Series tell Halula ») ainsi qu'une série très significative de fragments à dégraissant végétal.

L'analyse préliminaire de la séquence permet de proposer un schéma évolutif allant des premiers moments de l'utilisation des céramiques (niveaux inferieurs) à une étape légèrement postérieure, probablement liée à une phase de généralisation et d'extension de l'usage de la céramique (niveaux supérieurs). On propose donc, grâce à la documentation actuelle, une mise en relation de la partie inferieure de la séquence avec la « Phase céramique 1», tandis que la partie supérieure serait plutôt liée à l'ensemble défini comme « Phase céramique 2 ».

Pour conclure, les travaux archéologiques menés lors de cette campagne 2009 nous ont permis de recueillir des données nouvelles sur les structures architecturales et l'agencement de l'espace lors des premières étapes d'utilisation de la céramique de Tell Halula, c'est à dire dans les premiers siècles du septième millénaire cal BC. Tell Halula est l'un des rares sites où cette phase majeure de transition est documentée.

Travaux et études du mobilier.

Le deuxième objectif de la campagne a été de poursuivre l'étude du mobilier découvert dans les campagnes précédentes en vue de leur analyse scientifique. Ainsi, le Dr R. Buxó à pu réaliser

la flottation des sédiments de ces dernières sessions de terrain, avec la récupération des restes de plantes et une première analyse des macro restes paléobotaniques. Le Dr F. Borrell a pu réaliser l'analyse des industries lithiques de l'horizon PPNB récent et, enfin, le Dr X. Clop a analysé l'ensemble de la céramique, avec une attention particulière portée sur les premières productions céramiques. De même, plusieurs études ont été effectuées dans le cadre de thèses de doctorat (Université Autonome de Barcelone). Maria Bofill a consacré ses recherches sur le mobilier de mouture et broyage, présent dans toute la séquence stratigraphique du site. Anabel Ortiz est en train de réviser l'ensemble des pratiques funéraires. D'autre part, J. Anfruns a poursuivi l'étude anthropologique, fondée sur les restes humains recueillis à Tell Halula. En deuxième lieu nous devons mentionner les travaux d'étudiants de nationalité syrienne et réalisés dans le cadre des études doctorales à la Maison de l'Orient Méditerranéen à Lyon (France). Ainsi, Hala Alarashi travaille sur les objets d'ornement ; Dia Al Boukai a pu documenter et procéder à une fouille systématique des différentes structures de combustion découvertes tout au long de la campagne.

Enfin, les membres de l'équipe ont développé différentes actions complémentaires à notre travail sur le site de Tell Halula dans d'autres sites syriens, capitaux pour l'étude des premières sociétés agraires. Tout d'abord, le Dr F. Borrell a pu faire un séjour d'études au Musée National d'Archéologie de Damas, de fin août à mi-Septembre. Cela lui a permis d'étudier les matériaux lithiques néolithiques du domaine de Mamarrul Nasr (région de Palmyra). Nous avons développé là-bas un projet de prospection archéologique dans le cadre d'une coopération scientifique avec l'équipe de l'Université de Paris-X Nanterre (Prof Eric Boeda) et la DGAM. D'autre part, et dans le cadre de la coopération réalisée depuis des années avec l'équipe de la Mission Archéologique Française de Djade el Mughara (Dr E. Coquegniot), l'équipe de restauration de peinture, formée par M. Gonzalez et I. Hamoud, ont pu procéder à la restauration et à la suppression des fresques situées dans ce site néolithique.

Bilan.

La campagne de fouilles et d'études réalisée à l'automne de 2009 sur le site de Tell Halula a permis d'obtenir des résultats riches. Celle-ci s'inscrit en premier lieu dans la continuité des travaux et des résultats obtenus les dernières années, mais a également mis en évidence des données nouvelles. A titre d'exemple, nous pouvons souligner une meilleure connaissance de l'aménagement de l'espace et des habitats lors de l'horizon moyen du PPNB (deux nouvelles maisons, zone de l'entrée, nouvelles évidences de canalisation, etc.). Les études des phases du PPNB récent sont également très importantes au vu du manque de données pour cette période. La caractérisation de cette construction avec de grands murs, associée à la découverte d'un espace extérieur doté d'une structure légère complexe constitue un élément particulièrement original. D'autre part, il convient d'insister sur la continuité dans l'étude des premières productions céramiques avec les niveaux associés au point de vu stratigraphique.

Enfin, le projet de recherche sur le site de tell Halula, regroupant les travaux de terrain et les études qui en découlent, bénéficie de la précieuse coopération scientifique de la Direction générale des Musées et des Antiquités et du Musée National d'Archéologie d'Alep, ainsi que des universités syriennes, et en particulier l'Université de Damas. C'est pourquoi, en plus des résultats scientifiques présentés, la continuité du projet est considérée comme un élément stimulant, intégré dans un processus de formation et de coopération.

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SHIR/WEST SYRIA RESULTS OF THE SIXTH AND SEVENTH SEASON OF EXCAVATIONS IN 2009

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1. Introduction

The Late Neolithic site of Shir near Hama has been the subject of a Syrian-German cooperative project since the spring of 2006, which is aimed at the large-scale excavation of the 7th millennium B.C. settlement layers (Bartl, Haidar 2008: 54-88; Bartl,, Hijazi, Ramadan 2009, 140-161; Nieuwenhuyse 2009: 310-356).

The sixth and seventh seasons of excavation took place from April 16–June 2, 2009 and September 7–November 6, 2009. The excavation work was directed by J. Ramadan and W. al-Hafian, Direction Générale des Antiquités et des Musées des Homs (DGAMS), and K. Bartl, Deutsches Archäologisches Institut Damaskus (DAI). This year's investigations in the spring were focussed upon the northeastern settlement area L-M-N-O 20-21 and the central part with areas G-K 12-15. Work in the autumn continued in both areas, and investigations were concluded in areas K-L-M 7-8 in the south (Fig. 1).

For the excavation permission as well as for the generous and efficient support during the preparatory work, we would like again to sincerely thank Dr Bassam Jamous, Director General of Antiquities and Museums in Syria, and Dr Michel al-Magdissi, Director of Excavations and Studies of the DGAMS. The interest and assistance of the administrative office of antiquities in Hama contributed greatly to the achievement of our work. The members of both excavation campaigns are expressly thanked for their supportive participation(1).

2. Results

A. Spring 2009

I. Architecture

During the spring season 2009 excavations were carried out in two areas: in the northeast (areas L-O 20-21) and the centre (areas G-K 12-15).

The northeastern excavation area displayed a large building complex consisting of three units – A, B and C, whose structure indicated that it served special functions that had to do with storage and perhaps also the processing of foodstuffs (Fig.2). The investigations that had begun there in 2008 were continued in the spring season in areas N 20-21 and O 20-21. Thereby, work in the first area was aimed at uncovering building A in its entirety, while in the adjacent area to the east the complete stratigraphy was to be determined.

In building A, a complex of 10 x 6 m in length and breadth with a total of six small rooms, the fill in all room units was removed, in order to reach the lowermost floor level. By excavating down to that level, it could be recognised that the walls of this building, comprising unhewn limestone blocks with clay mortar, were preserved to a height between 0.80 and 1.20 m. The floors of the individual rooms were all made of firm clay that was covered by a thin layer of limestone mortal. However, only remnants of this layer were preserved.

At this level small installations in the individual rooms were observed, mostly small circular stone settings, which likely served as stands for vessels (rooms/units 45, 46, 47, 57) (Fig. 3). In several of these rooms (units 46, 19, 45) the lowermost use-layer had been destroyed by local fires, as evidenced by a layer of ashy earth above the floor. Upon this burnt layer lay the second use-layer, in which again small installations were present, likewise mostly circular stone settings as well as stone containers in half- or quarter-circle form.

In both of these phases of use numerous artefacts were found in all of the rooms, which

Fig. 1: Shir - areas of excavations in 2009.

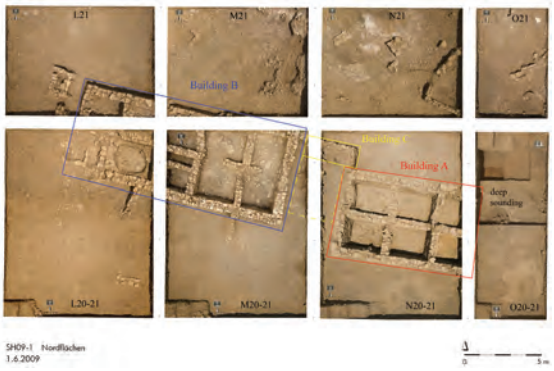

Fig. 2: Northeast area, vertical view of buildings A-B in area L-O 20-21.

Fig. 3: Northeast area, building A, room 47 with pots and potstands.

were associated with food processing, for example, grinding platters, mortars and pestles made of basalt and limestone (Figs. 4-7). Yet, other objects that were frequently found in the excavation areas to the south (K-L-M 7-8), such as bone tools, small stone palettes, sling stones and stone axes, were entirely absent here.

In the area southeast of building A various walls were removed; in view of the differences in the levels of their lowermost edges they could be assigned to later building phases. These later annexes are preserved only fragmentarily. Nevertheless, it could still be determined that they were probably erected during the time of building A, as their axes correlate with the walls of building A.

The stratigraphic excavation in the adjacent area O 20-21 that had started in autumn 2008 was continued and expanded. Thereby, a sequence of 10 layers that were defined by floors could be determined. Of these, layer 5 can be correlated with the context of building A in area N 20-21. In a small test sounding the native rock of the plateau was reached at ca. 1.80 m lower than in the southern settlement area (test sounding in K/L 7-2006). In this area the entire stratigraphy encompasses about 3.50 m of cultural layers.

In the two western excavation areas L 20-21 and M 20-21, in which building B as well as building C (between A and B) are situated, excavations were carried out almost entirely in the areas south and north outside of the houses. The aim was to distinguish the building structures more clearly. Further, in area M 20-21 removal of the fill debris in the rooms began. As with building A, the upper parts of the room fill contained fragments of floors made of lime plaster in various places, mostly in a collapsed state. This find situation is indicative of an original upper storey, from which the floor fragments fell. A burnt spot could be recognised in the centre of room/unit 71.

Fig. 4: Northeast area, building A, grinding plate made of basalt.

Fig. 5: Northeast area, large pestle made of lime stone.

Fig. 6: Northeast area, grinding slab made of lime stone.

Fig. 7: Northeast area, grinding tool made of basalt.

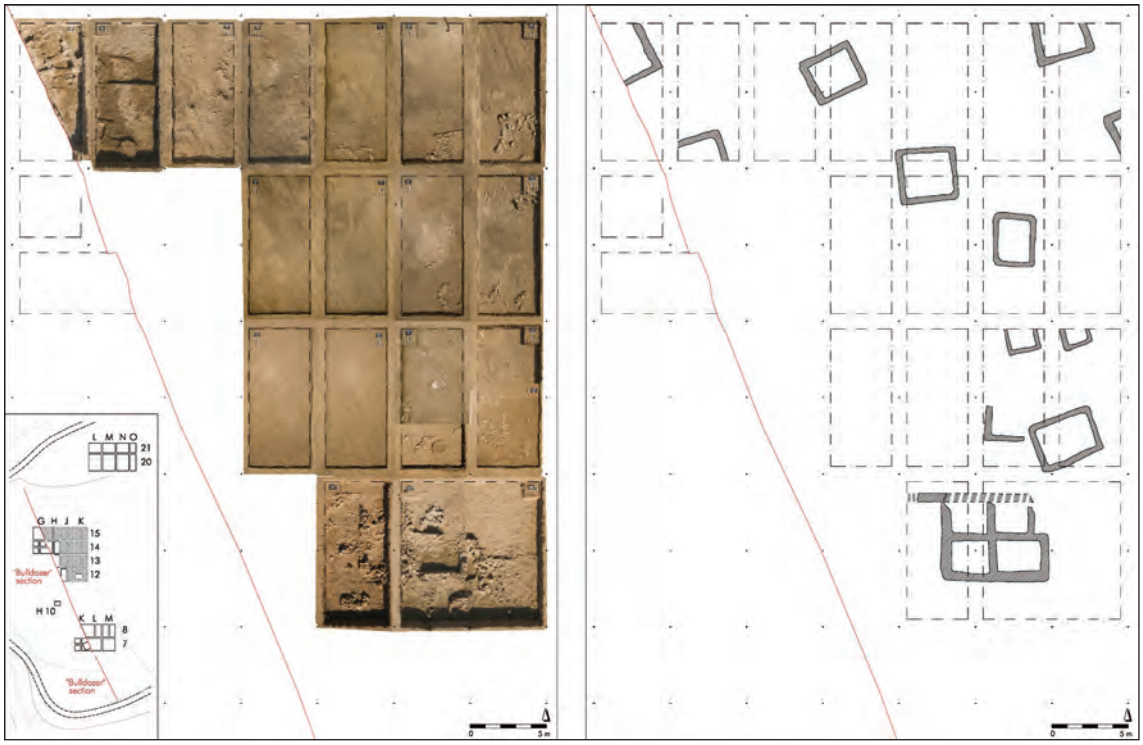

Fig. 8: Central area, building structures.

Work in the central part of the settlement, areas G-K 12-15, was aimed at the large-scale exposure of structures in this area (Fig. 8). Basing upon a test sounding in K 12, areas J-K 12-15 were then opened. Further, the work in G 15, which began in 2008, was continued and the adjacent area H 15 was opened.

Fig. 9: Central area, burial embedded in the stone layer of trench K 12.

In spring 2007 test soundings in area K 12 touched upon the southern room of a multi-room building, which had been discovered in 2006 through geophysical prospection. In this season (2008) the size of the trial trench was enlarged to 10 x 10 m. The results of the new investigations revealed a massive layer of small stones lying to the north and east of the building. Embedded in the stone piles were numerous human burials, often only fragmentarily preserved, some in "hocker" position (Fig. 9). In only one case was the actual grave pit observed. The position of most skeletons appears rather like the outcome of a sudden catastrophe, for example, in unit 38 where the upper part of the skeleton was covered by a large stone.

Excavations in areas J-K 12-15 adjoining to the north and west as well as in H 15 only went down to the upper edge of the latest/uppermost building level of settlement. The aim was to determine the general picture of building construction, in order to then decide whether or not the later larger-scaled excavation of the surface would be promising.

As excavation work has now shown, a settlement layer that lies directly below the recent surface could be attested in almost all of the trenches. The settlement layer consists of larger parts of floors made of clay and/or lime plaster as well as the remains of walls. As is often the case,

this layer is preserved only in fragments: It was disturbed, on one hand, by Neolithic pits and, on the other, by recent ploughing. Nevertheless, in view of the results attained thus far it can be stated that the central area of the settlement is characterised by a dense construction. Some of the noteworthy finds discovered in this area are two foot-shaped objects made of limestone and one limestone palette that was found in situ upon a floor.

Fig. 10: Central area, foot-shaped object made of lime stone.

One notable find context was documented in area G 15. There a complex architecture constituted by room units and floors made of lime plaster was discovered that lay directly below the recent surface. For the first time in Shir walls made of clay bricks and/or stamped clay were clearly attested. This context seems to verify the hypothesis that all buildings had a foundation socle of made lime stones, whereas the standing walls were built of clay bricks or pisé.

Fig. 11: Central area, seal made of lime stone.

II. Finds

As in previous seasons, the finds comprised large amounts of lithics and ceramics as well as some noteworthy small finds, for example, the aforementioned "stone feet" (Fig. 10) and a complete seal (Fig. 11). In general, however, only relatively few small finds were registered. The reasons for this are, on the one hand, the shallow depth of excavation trenches in the central areas J-K 12-15 and G-H 15, where digging only went to ca. 20 cm below the recent surface. On the other, the inventories of buildings A and B in area L-O 20-21 included solely household utensils, such as grinding stones, mortars and pestles, and polishing stones.

Fig. 12: Northeast area, building B, view from the northwest.

B. Autumn 2009

Work in the autumn season concentrated on three areas: the northeast (areas L-N 20-21) the centre (areas G-H 15, J-K 12) and the south (areas K-L 8).

As in spring 2009 the fill debris had been removed from the inner rooms of the eastern building A in N 20-21, work could be undertaken in cleaning out the inner rooms of building B in areas L-M 20-21 (Fig. 12).

House B comprised the following units, which were encompassed in the areas M 20-21 and L 20-21 as well as L 20-21: units 70, 48, 50, 71, 72, 73, 75 (area M 20-21) and 17, 66, 63, 64 (area L 20-21), 23 and 25 (area L 21).

Fig. 13: Northeast area, vertical view of building B, room 73 with large pottery vessel.

Fig. 14: Northeast area, building B, oval-shaped container in room 17.

As with building A, in building B several use-phases were likewise observed in many rooms of building B. Below the uppermost layers of fill, in which numerous pieces of collapsed, light grey floors of lime plaster were found, considerably strong traces of burning appeared, for example, in the southern rooms/unit 71 and 73 in the vicinity of the southern walls. These traces can be interpreted as signs of a locally restricted fire. Numerous pottery fragments and tools lay among the burnt remains in both rooms. Moreover, room 73 displayed several layers of floor consisting of crumbly lime plaster. A large completely preserved vessel with applied decoration around the neck was found in situ in the middle of the room, in the uppermost, only partly preserved layer of the floor (Fig. 13). In the adjacent room to the north, room/unit 75, more layers of floor were exposed as well as various small circular stone settings at the foot of the northern wall, which had served as pot stands. Various objects such as pestles and a limestone palette lay in the western part of the room.

In the southwestern corner of room/unit 72 a small pit containing several larger animal bones was discovered as well as a small pot stand in the form of a circular stone setting. A corresponding installation was situated in room/unit 70. The floors in these rooms consisted mostly of a substruction of small, carefully placed horizontal stones, which were covered with a layer of clay. The clay layer was often mixed with particles of limestone. A corresponding floor was found in room/unit 17 as well, which was entirely filled up by a large oval structure of stones and clay mortar (Fig. 14).

The removal of this structure revealed two phases (unit 28 – the later phase, and unit 68 – the earlier phase). The oval form of the container was already indicated in the lowest floor; thus, this construction was apparently planned at the time of the erection of the building. The function of this installation is not clear. Possibly it was a container for cereals, which was filled from the upper storey.

Fig. 15: Central area, trench G 15, vertical view of a room with small installations.

A further room/unit 66 that adjoined room/unit 17 to the west was excavated; this enabled the clarification of the southwestern end of building B. Building B encompasses a total of ten rooms, some of which are larger than 4 m2 and, therefore, could have served purposes other than solely the storage of goods.

Evidently re-building measures were already undertaken during the use of the building, as shown by both rooms/unit 48 and 50. At some point in time a new wall was built, which runs parallel to the original northern limits of the room, creating a further, very narrow room of only 0.50-m width (= room/unit 48). Due to its small size the room could not be entered; hence, this construction might be interpreted as a supporting wall for the floor of an upper storey. This again would indicate the storage of heavier articles in the upper storey.

Like building A, which was investigated in the spring season, building B likewise displays further later additions to the south. These constitute larger rooms, whose walls follow the axes of house B. Thus, the interval in time between the erection of these annexes and the house is likely not all too great.

In the central settlement area the youngest habitation layer in areas G-H 15 could be largely clarified. In G15 it consists of small-sized installations (small rooms or basins), which are lined with lime mortar and separated from one another by brick walls (Fig. 15). The layer below contained notably fewer finds and is composed of reddish earth. In H 15 parts of the uppermost floor was removed, under which at first an ash-grey zone appeared.

In areas J-K 12 an attempt was made to dig down to the upper edge of the walls in the uppermost building level. Thereby, in K 12 first the apparently intentional fill of small was removed, in which numerous skeletons and skeletal remains had been found in the spring season 2009. Under this fill appeared an almost “sterile” layer of earth, under which in turn followed a layer with larger collapsed stones. The latter, however, were concentrated in the southeast of this area.

West of the area K 12 the upper edge of the walls of a building partly detected already in 2007 and spring 2009 were further traced in a north-south direction. It could be determined that the construction continued into area J 12 bordering to the west. There the upper edges of several walls were excavated, so that three to four further rooms can be assumed (Fig. 16). One of the north-south walls lies in a collapsed position towards the east, which lends the impression that it was destroyed by an earthquake. In the entire upper area of the room fill uncovered thus far lie numerous fragments of lime plaster floors as well as grinding platters and mortar stones. The building remains found until now indicate that it was a structure with several large rooms, whereby

Fig. 16: Central area, multi-roomed building in trenches J-K12.

the structure clearly differs from the houses recovered thus far in the southern areas K-L-M 7-8 and the northeast area.

Excavations conducted since 2006 in the southern areas K-L-M 7-8 concentrated in this season on the northern area K-L 8. They were aimed at reaching the lower edge of the construction in layer 4, which in view of the building structures was better preserved in the western part (K 8), while the eastern part was severely disturbed.

The principal work was in room/unit 218, which had been excavated in autumn 2008 and in which three burials had been found in one corner of the room. While removing the floors of this room a further burial/unit 401 was uncovered in the southwest corner of the room. It was the burial of a child of ca. six years in age, who had been given a bone tool. Further digging revealed that room/unit 218 was situated upon a sloped burnt layer and that the walls of the room, therefore, were marked by differences in the foundation levels.

In the area to the south of room 218, which borders on the deep trench K-L 7, parts of a building complex of massive lime mortar floors and installations were exposed. This context can be connected stratigraphically with the building contexts in sounding A, which had been laid out in autumn 2005.

Upon removal of the construction in layer IV, a complex composed of several small basin-shaped clay containers was exposed underneath room/unit 218 (unit 504) (Fig. 17). Their bottoms were lined with lime mortar; they probably served as storage containers. However, the outer walls of this complex could not be determined. As this complex was aligned in a southwest-northeasterly direction; it diverges from the north-south directed room/unit 218. Thus, it likely represents a building layer between building layers 3 and 4, but which is not present in the stratigraphic trench K-L 7 bordering to the south. This new layer corresponds with the so-called intermediate layer in K-L 7, which consisted exclusively of layers of earth and ash. However, in order to clarify the exact situation there, further stratigraphic excavation is necessary.

Fig. 17: South area, vertical view of building 218.

II. Finds

The amount of finds in all of the excavated areas was relatively small. In the northeast and central areas, besides numerous fragments of large vessels, a larger group of finds included different kinds of heavy-duty utensils such as grinding platters, runners and mortars. In addition, a few bone tools were found in the southern part of the excavated area.

Summary

The excavations conducted in 2009 in the northeastern settlement area of Shir could confirm the presumed special function of building complex A-B, which was probably primarily for the storage of goods (foodstuffs). At the same time, excavations revealed differences in the conceptual use of both buildings, the assessment of which should be achieved on the basis of studies on the rooms' contents.

In the central area of the settlement work could definitely confirm the dense building of the youngest layers, which had already been indicated through geophysical investigations. The data thus far show that here a significant number of sometimes quite large buildings can be anticipated, which will allow more detailed investigations on settlement structure in the future.

The results of the closing investigations in the southern settlement area enabled the modification of the hitherto existing stratigraphic model, which proceeded from a total of six building layers. As new data now show, between the older layers (layers I-III) and younger layers (layers IV-VI) lies a package of layers of at least one more building level. Hence, at present seven building layers must be assumed in this area.

The aim of future research is further investigations on the stratigraphy and chronology, on one hand, and the exposure of larger settlement areas, on the other.

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Note

(1) Participants in the spring season were (in alphabetical order): Alexander Ahrens MA, archaeologist (DAI Damascus); Zdenka Ecimovic, student (Tübingen); Caroline Grutsch MA, archaeologist (Innsbruck); Caroline Must, student (Tübingen); Jana Rogasch, student (Berlin); Rakan Suleiman MA, archaeologist (Hama); Philipp Tollkühn, student (Berlin); Jawad Uqla MA, archaeologist (Homs); Dr Thomas Urban, archaeologist and surveyor (Berlin); Maisam Youssef, archaeologist (Masyaf).

Following persons participated in the autumn season: Dr. Julia Gresky, anthropologist (DAI, Berlin); Dipl.-Eng. Jan Krumnow, excavation technician (Berlin); Denise Resch, student (Berlin); Jana Rogasch B.A., archaeologist (Berlin); Jawad Uqla M.A., archaeologist (Homs); Dr. Thomas Urban, archaeologist and surveyor (Berlin); Daniel Wunderlich, student (München). In addition, the following persons were responsible for assessing the finds: Dr. Olivier Nieuwenhuyse, archaeologist and ceramic specialist (Leiden); Aldona Forys, student (Bochum); Jana Duman, student (Berlin); Felix Geitel, student (Berlin); Andre Gubisch, draughtsman (Berlin); Irmgard Wagner, photographer (Berlin).

EXCAVATIONS AT TELL SEKER AL-AHEIMAR, HASSAKE, TENTH SEASON, 2009

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University of Tokyo

1–INTRODUCTION

Tell Seker al-Aheimar, a large Neolithic mound situated on the Upper Khabur, northeast Syria (Fig. 1), has been the major target of our archaeological investigations. Nine seasons of excavations between 2000 and 2008 yielded numerous important results that have greatly enhanced our understanding of the developments of early farming societies in Upper Mesopotamia. Most significantly, they have established an interrupted cultural stratigraphy from the Pre-Pottery Neolithic B (PPNB) to the Pottery Neolithic, a period about which little was known previously, in this part of Syria. A large-scale PPNB settlement has been revealed for the first time in the Khabur basin, and its development into the Proto-Hassuna phase of the Pottery Neolithic has been documented with solid stratigraphic evidence. In addition, it has been demonstrated that the development occurred through a newly discovered transitional phase, which has been designated as the "Pre" Proto-Hassuna phase on the basis of the researches at Tell Seker al-Aheimar.

Our tenth season's excavations of this unique mound were carried out from July 11 to August 14, 2009, with the aim of further documenting the above cultural sequence and the corresponding changes in human activities. Our successful fieldwork could not have been possible without the active support of various organizations and individuals. First, we would like to express our heartfelt thanks to Dr. Bassam Jamous, Director-General of Directorate General of Antiquities and Museums, for his generous permission to carry out our work. We also wish to thank Dr. Michel al-Maqdassi, Director of Department of Excavation Services and Archaeological Research, who has given his continuous support to our project. Local assistance from Dr. Abdul Mashih Bagdoo, Director of the Department of Antiquities, Hassake, and his staff is also highly appreciated. Collaboration by Dr. Soleiman Ilyas, the Qamishly Section of the Department should be mentioned in particular. The excavations were conducted under the auspices of the University Museum, the University of Tokyo. Financial support was obtained from the Japan Society for Promotion of Sciences.

2–EXCAVATIONS

Tell Seker al-Aheimar is situated on the right bank of the Khabur River, approximately 45 km northwest of Hassake. It comprises an oblong mound measuring approximately 300 × 180 m and has a height of approximately 11 m from the surrounding field (Fig. 2). The excavation areas were established at five sectors (Sectors A to E) along the northern slope of the mound. Sectors B and C were chosen for carrying out further excavations in this season. The specific objectives were as follows: (1) to define the western limit of the distribution of the Neolithic settlement (Sector B) and (2) to elaborate the architectural sequence of the Late PPNB (LPPNB) period (Sector C) at this mound.

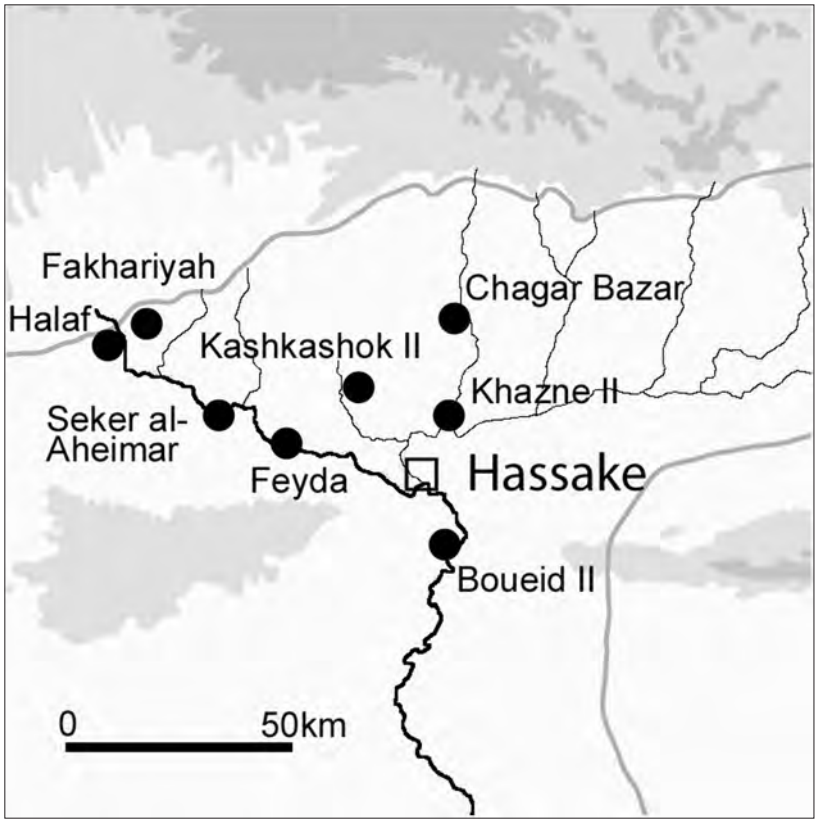

Fig. 1: Tell Seker al-Aheimar and other Neolithic sites in the Khabur basin.

A–SECTOR B

Sector B represents a northwestern area of the mound (Fig. 2). Two 2-m-wide trenches (4- and 6-m long) had been opened in the north-south (NS) direction during the 2000 and 2003 seasons. In the 2009 season, another sounding was conducted in a 2 × 2 m pit (Square F5), which is located 12 m west of these trenches, to investigate the westward extension of the Neolithic deposits. The sounding exposed approximately 3-m-thick Neolithic layers on virgin soil, which comprised at least two distinct stratigraphic units. The upper unit—ca. 2 m thick—was characterized by an alternating series of black, dark brown, orange, and white ashes, occasionally containing some layers of light brown soil, whereas the lower unit was a rather homogeneous and compact loam layer with a light reddish brown color, approximately 1 m thick. The associated artifact assemblages indicate that the upper unit belongs to the "Pre" Proto-Hassuna, and the lower one to the LPPNB.

The only architectural remains were two concentrations of reused gypsum-plastered floor fragments in the lowest part of the "Pre" Proto-Hassuna phase (Fig. 3). The concentrations appeared to indicate nothing more than a temporary structure. Besides these, an overwhelming accumulation of ash deposits containing abundant animal bones and a large variety of Neolithic objects characterized this area; this is identical to the features noted in the previous trenches of this sector. All these findings suggested the existence of a garbage disposal area with a fairly extensive distribution in the "Pre" Proto-Hassuna settlement in the northwestern part of the mound.

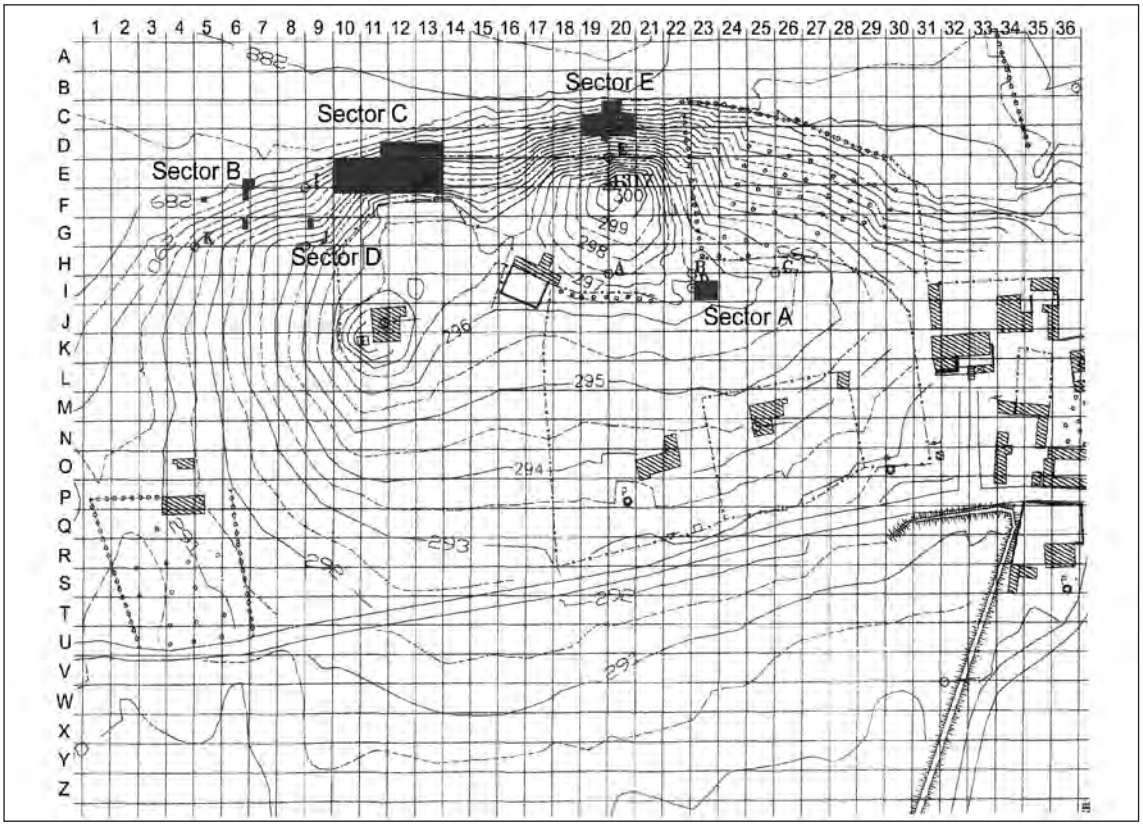

Fig. 2: Excavated areas of Tell Seker al-Aheimar.

B–PPNB LEVELS, SECTOR C

Sector C represents the largest exposure in our excavations at Tell Seker al-Ahiemar. It consists of four 10 m × 10 m squares (Squares E10 to E13) and a sounding trench of 4 m × 12 m (Squares D11 and D12); the sounding in the trench reached virgin soil (Fig. 2). The combinations of the architectural levels at these squares have allowed us to define the following cultural stratigraphy for approximately 7-m-thick Neolithic deposits—Level 1: Chalcolithic; Level 2: Proto-Hassuna of the Pottery Neolithic; Levels 3–8: "Pre" Proto-Hassuna of the Pottery Neolithic; and Levels 9 to 20: LPPNB.

In the present season, i.e., in 2009, the investigations were conducted in Squares E10 to E13. In Squares E11 and E12, the lowest LPPNB deposits remaining on virgin soil were investigated (Levels 17–20). On the other hand, in E10 and E13, which are the squares in which digging had begun in 2003 and 2005, respectively, the upper parts of the LPPNB levels were excavated as follows: Levels 11 and 12 for E13 and Levels 13 and 14 for E10.

Square E13 (excavation code = C9)

Level 11: The general architectural plan of this level had already been determined in the 2008 season—it consisted of two rectangular mud-brick building complexes with a long east–west (EW) axis and an open space situated to the east. In this season, the wall foundations of these building complexes were examined, leading to the recognition of two construction stages (11A and 11B). It is noteworthy that a water drainage attached to the east wall was identified in the southern complex that had been built earlier. The drainage was approximately 10-30 cm wide and at least 4-m long in the northeast direction in the open area. The bottom of the channel that penetrated the east wall was neatly plastered with gypsum. In the case of the northern complex, two sub-floor narrow rooms in the south deserve special mention; they probably served as storage facilities.

Fig. 3: Gypsum-plastered floor fragments from a sounding pit, Sector B.

Fig. 4: Architectural remains, Level 12, Square E13, from the south.

Level 12: The architectural layout of this level is principally the same as that of Level 11, which indicates occupational continuity for these levels. Moreover, this also shows that the two buildings complexes were built sequentially (12A and 12B), with the southern one being built first (Figs. 4 and 5). Architectural features were also similar to those in Level 11. The southern building complex had a long drainage channel at the northeastern end of its north wall. This channel was constructed with a gypsum-lined pipe inside the wall and with flat fragments of reused gypsum-plastered floors in the open space (Fig. 6). The northern building complex comprised at least three architectural units, including two similar, narrow 40-cm-wide sub-floor structures in its southern unit. The walls for the sub-floor structures were built using a series of well-made mud bricks in two rows, approximately 30-cm wide each, which were probably intended to support the heavy floor above.

Square E10 (excavation code = C15)

The excavations carried out in the previous seasons showed that the LPPNB architecture of this square had a consistent layout at all levels. The square always comprised three major complexes made of pise—the first one was situated in the east and toward the building in Square E11, the second in the southwest corner, and the third in the north. This pattern was also recognized in the underlying levels excavated in this season.

Level 13: Most of the buildings were removed in the 2008 season, leaving parts of the east and the southwest building complexes only. The excavations of the latter yielded three oven pits, each approximately 80–90 cm × 40–50 cm × approximately 40-cm deep.

Level 14: This level, which shows an obvious stratigraphic continuity with the upper levels, was found to be divisible into two construction stages, 14A and 14B, each of which could be distinguished by a range of small layout changes. In these stages, the following locations of specific architectural units were consistent. A bench-like structure, delineated by a long wall in the NS direction, was situated at the southwestern corner of the square. The north complex comprised at least two rectangular rooms with gypsum-plastered floors. In the southeastern complex, which was separated from the other two by a narrow open-air space, at least three rectangular rooms were identified. The most impressive was the northern building complex, which contained four similar ovens attached to the NS partitioning wall. They were constructed on river cobbles laid on approximately 10-cm-high benches. The northern complex probably represents a kitchen area of

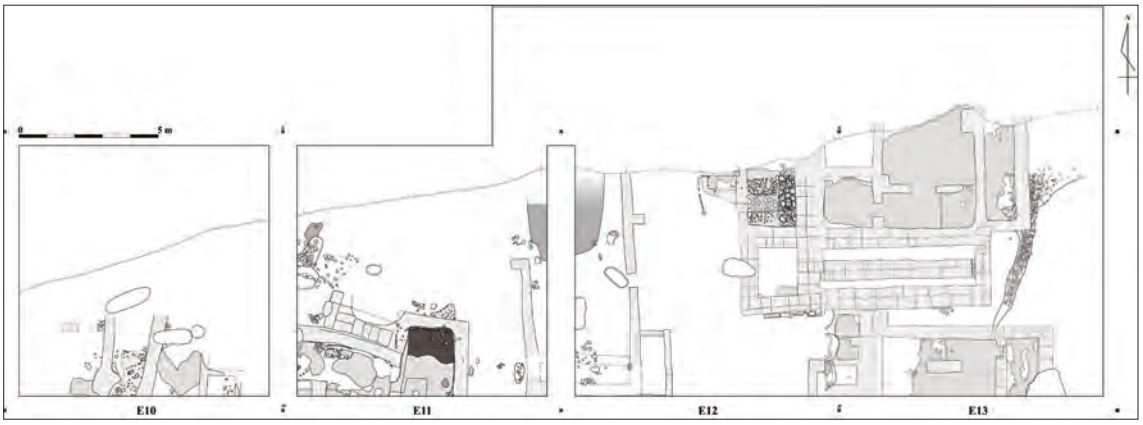

Fig. 5: Architectural plan and features, Level 12, Sector C.

Fig. 6: Water drainage, Level 12, Square E13.

a larger building complex.

Squares E11 and E12 (excavation codes = C12 and C13)

The excavations of these squares had reached virgin soil in some parts during the previous seasons. Furthermore, they revealed a marked change in the LPPNB architectural sequence between Levels 16 and 17. The architectural remains of Level 16 onward contained well-constructed buildings with rectangular rooms and gypsum-plastered floors, whereas the earlier excavations yielded no comparable buildings. The buildings from the lower levels in the previous excavations, i.e., Levels 16 to 20, were cobble-paved ones built with narrow pise walls, and the use of gypsum plastering was virtually absent; moreover, numerous oven pits and fire places were present, indicative of the intensive open-air activities performed in this part of the settlement.

The present season's investigations were intended to remove the remaining deposits in Levels 17 to 20 in order to completely expose virgin soil. We found that, as expected, there were numerous large and small fire-related pits in these levels. Among them, three pits—two from Level 18 and one from Level 20—were remarkably large, and one was particularly well preserved (Fig. 7). The well-preserved pit had an oblong plan approximately 240-cm long, 70-cm wide, and 140-cm deep. The interior surface was lined with chaff-tempered clay. A layer of charcoal, 5–7 cm thick, was found at the bottom, and layers of burnt river cobbles were discovered at the top. On the layers of cobbles, there was a concentration of animal bones

Fig. 7: Oven pit, Level 18, Square E12.

covered with thick ash deposits. These observations lead us to interpret that this and other ovens with similar structures were utilized for cooking. The large Level 20 pit was a rectangular oven measuring 190 × 80 × 120 cm; its structure was reasonably comparable to the one mentioned above. Although no concentration of animal bones was recovered here, a flint arrowhead was discovered from the sediments above the burnt cobbles (Fig. 8). This may have been brought to the oven along with the game animal.

3–CONCLUSIONS

Our tenth season's excavations, 2009, produced a range of valuable evidence concerning the activities by the Neolithic inhabitants as well as their cultural developments from the LPPNB to the "Pre" Proto-Hassuna. Some of the major results are summarized as follows:

(1) The excavations at Squares E11 and E12 confirmed our previous interpretation of the function of this part of the LPPNB settlement during the earliest occupation phase (Levels 17–20). The first inhabitants of this mound performed intensive open-air activities using numerous fireplaces. Some of the oven pits were sufficiently preserved to provide evidence regarding their actual use or function.

(2) The investigations of Levels 11–14 in Squares E10 and E13, supplemented with the evidence from the comparable levels E11 and 12 that had already been excavated, enabled the reconstruction of a settlement plan of the LPPNB on a large scale (ca. 400 m2). The emerging picture indicates that there were standardized mud-brick building complexes to the east, pise-walled buildings with domestic features such as ovens and basins to the west, and a large single-roomed structure, probably a communal building, in the center (Fig. 4). These three distinct groups of architectural complexes constitute an important source of information for understanding the Neolithic social structure of this settlement.

(3) The sounding in Sector B provided further insights into the use of space at Tell Seker al-Aheimar on an even larger scale. Evidence from the northwestern edge of the mound indicated that this area was used for garbage disposal during the "Pre" Proto-Hassuna phase. A similar scenario was noted at the northeastern edge of the mound (Sector E), where thick ash deposits from the "Pre" Proto-Hassuna to the Proto-Hassuna phases had been recovered in the previous seasons. Since the observed patterns are consistent, the behavioral pattern is also considered to have been fairly consistent during this period.

Fig. 8: Flint arrowhead from an oven pit, Level 20, Square E12.

The above points summarize our field observations only from the viewpoint of architecture. A large number of Neolithic artifacts including flint, obsidian, bone tools and ornaments, and ground stone tools were also recovered. Their detailed analyses both from the stratigraphic and spatial viewpoints, which are currently in progress, should further refine our understanding of the Neolithic cultural developments in the Upper Khabur Basin.

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TELL EL-KERKH 2009

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1. INTRODUCTION

Tell el-Kerkh is a large tell complex situated to the south of the Rouj Basin, Mohafaza Idlib. It consists of three artificial mounds—Tell el-Kerkh 1, Tell el-Kerkh 2, and Tell Ain el-Kerkh. Kerkh 1 dates back to the Neolithic era and extends to the Byzantine era. On the other hand, Kerkh 2 and Ain el-Kerkh comprise solely Neolithic deposits, except for the southern portion of Ain el-Kerkh. Through a series of excavations at Tell el-Kerkh, we intend to examine the large Neolithic settlements and study the formation of a complex society in prehistoric times. In order to achieve this objective, the focus of our research since 1997 has been the northern half of Ain el-Kerkh.

This season, three major operations were carried out as part of the fieldwork (Fig.1). The first was the excavation of the Rouj 2c settlement and cemetery in the central area of Tell Ain el-Kerkh (Squares E270 and E271). The last two seasons' excavations in Square E271 unearthed an unexpected Pottery Neolithic cemetery (hereafter, Kerkh PN cemetery) dating back to 6500–6000 BC. The discovery of the Kerkh PN cemetery, a very rare site, provided us with much information about the civilization in this area and the people's views about the afterlife. In fact, our scientific investigations on the human bones and teeth found in the cemetery have already provided us with information about the diet and human relations of the Neolithic people at Tell el-Kerkh. As we would like to analyze both the spatial and chronological extents of this important Kerkh PN cemetery, we will continue digging down in Square E271 and excavating the neighboring Square E270 located to the west of Square E271.

The second operation was also related to the research on the Kerkh PN cemetery. The excavations of the last two seasons clearly revealed that the cemetery extends to the northern end of Square E271. Therefore, we decided to begin the new excavations in the neighboring Square E251 located to its north. A new 10 × 5 m grid (E251c and d) was determined. We dug down about 1.2m from the tell surface.

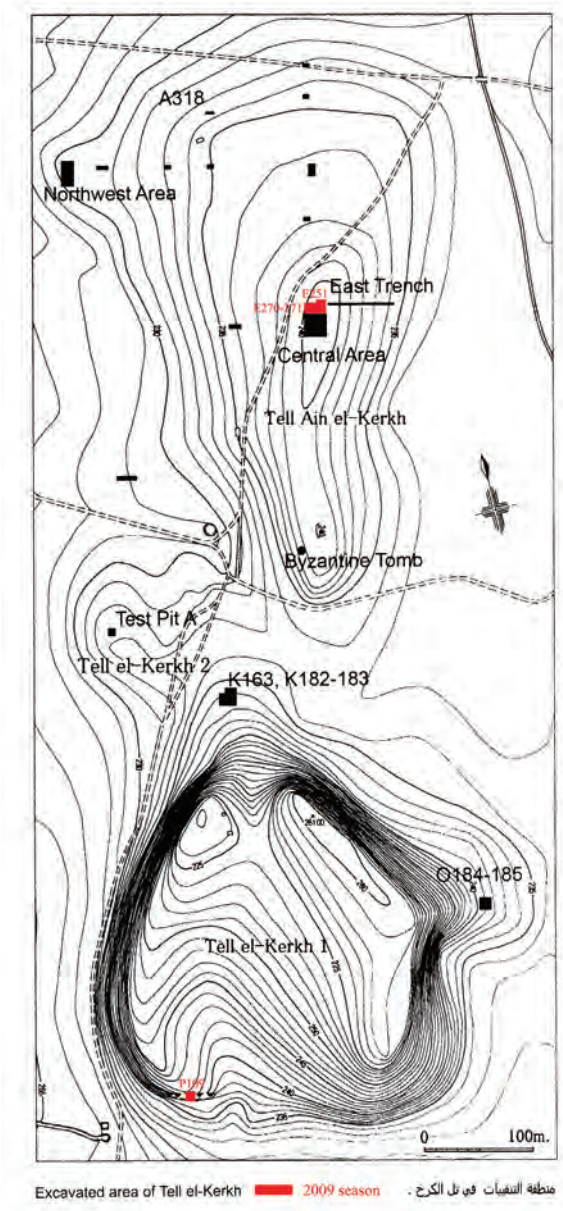

Fig.1: The excavated squares in 2009.

Our third operation was setting up a trial step trench at the southern slope of Tell el-Kerkh 1. This step trench, called Square P110 in the entire grid system, has been functional since 2007. The purpose of this step trench is to grasp the complete cultural sequence of Tell el-Kerkh 1. The chief purpose of this excavation season is to reveal the layer depicting the transition from the Late Bronze Age to the Iron Age. For this purpose, we set up a new trench (Square P109), measuring 5 × 6 m, to the west of Square P110.

Our fieldwork at Tell el-Kerkh lasted from July 14 to August 20, 2009. We continued with the study of the material until September 20.

2. CENTRAL AREA

As mentioned above, three squares—E270, E271, and E251—were excavated in the central area during this season.

Square E270

Until the 2002 season, the cultural deposits between layers 1 to 4 had already been excavated from Square E270. Since the Kerkh PN cemetery was discovered in layers 5 and 6 of the neighboring Square E271, we planned to excavate Square E270 in order to estimate the western limit of the cemetery. The northern half of the square (Square E270a and b), measuring 10 × 5 m, was dug down in this season.

The lower portion of layers 4 and 5 was uncovered. The former revealed a thin ashy layer and did not provide evidence of any notable building structures. However, we suddenly uncovered a series of graves when we dug into layer 5 (Fig.2). Five graves, containing a total of nine individuals, were discovered in this season.

Four of the five graves uncovered are primary burials. Str.918 contains an infant (4–6 months) burial and Str.925 is a fetus burial. Str.926 contains an adult female buried in a strongly flexed position, lying on her right side (Fig.3). The find is very notable, because except for the presence of the mandible, her entire cranium appears to be missing. Since no cuts were observed on the cervical vertebrae, it appears that her skull was removed before skeletonization. This is the first specimen from Tell el-Kerkh that indicates a clear skull detachment. Seven beads, made of shell, bone, and stone, were discovered around her neck and near her lower spine. Str.927 is a 3-person grave. The main individual is a young adult female buried in a flexed position, lying on her right side. The other two small individuals buried with her

Fig.2: Graves in layer 5, Square E270.

Fig.3: Str.926

are a 4- or 5-year-old juvenile whose cranium was placed at the main female's back and a fetus whose mandible was found at the abdomen of the main adult female. These three individuals seemed to have died together and been buried in the same grave. A small and unbroken DFBW bowl and six beads, made of various materials, were discovered in this grave.

Besides these primary burials, one secondary burial (Str.930) was discovered near the northern end of Square E270b. It contained disarticulated human skeletons, mixed with many animal bones, especially cattle bones, potsherds, and stones. It seemed to be a mere dumping ground, but it had the characteristics of a secondary burial—an accumulation of human skulls and long bones (Fig.4). Two skulls seemed to have been placed in an upright position, facing east. Long human bones, such as femurs and humeri, were found around the skulls. Phalanges were discovered at the eastern end of the heap. Our physical anthropologist determined that these human bones belonged to at least three adult females. No burial goods were uncovered in this burial.

Although the five burials uncovered in Square E270 and the burials from the Kerkh PN cemetery of Square E271 are a few meters apart, their respective levels and chronological positions are quite similar. Therefore, we can categorize these five burials into another burial group within the Kerkh PN cemetery.

Square E271

This is the square from which we discovered and excavated the Kerkh PN cemetery in 2007 and 2008. The cemetery consists of cremation pits and primary and secondary burials. Until the 2008 season, 112 skeletons were found in this cemetery. In the 2009 season, we dug down the square to assess the chronological extent of the cemetery. As this cemetery was located beside the habitation area of layers 5 and 6, we began to excavate the houses (Str.109, Str.827) in the vicinity of the cemetery in Square E271.

Str.109: Most parts of the Str.109 were excavated during the 2002 season, but its plastered floor and foundation walls have been preserved until now. Str.109 was one of the typical dwellings of the Rouj 2c period. It has a square plan measuring c. 6 × 6 m, and its interior was divided into a main room with a plastered floor and other small rooms devoid of plastering. The main square room has a hearth along its eastern wall. First, we removed the lime-plastered floor and

Fig.4: Str.930

Fig.5: Foundation walls of Str.109

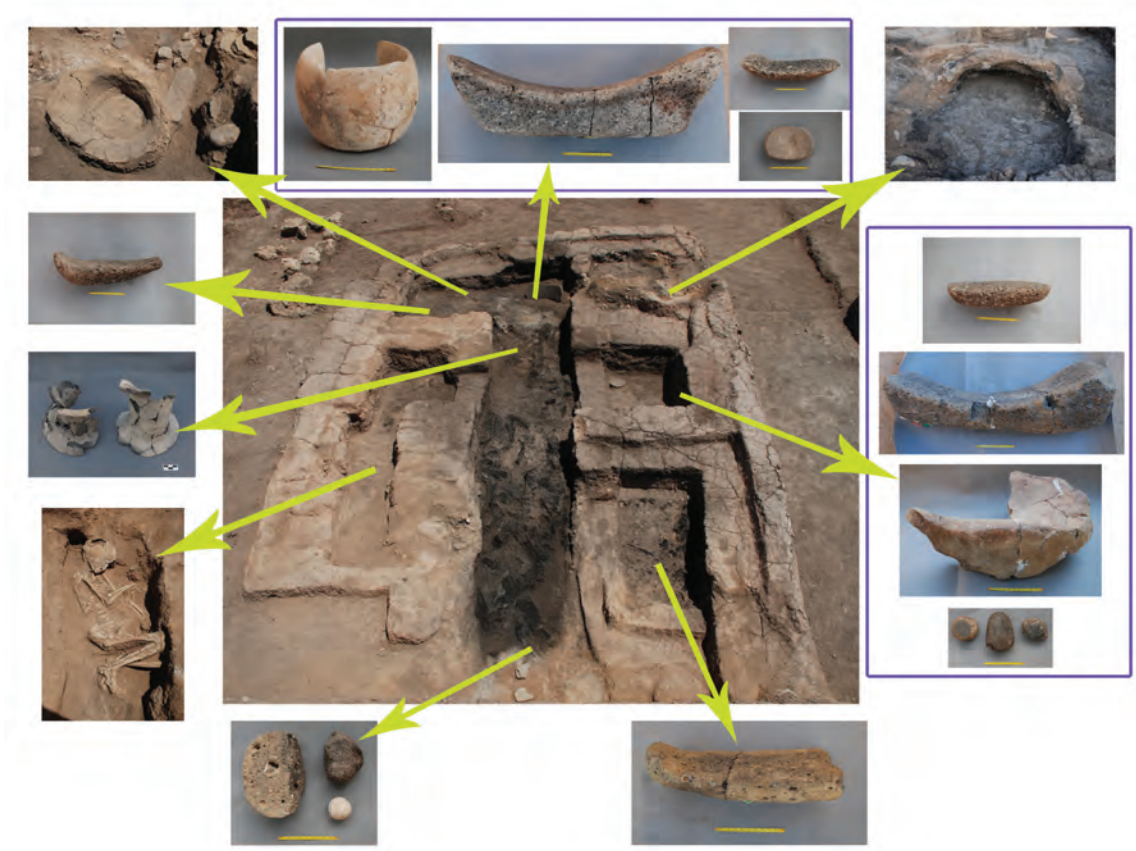

Fig.6: Str.827

revealed the entire foundation of this building. A careful stone pavement was found beneath the plastered floor. The stone pavement remained on the 4.0 × 2.5 m area. The stone pavement and plastering were supported by the pisé walls and the soil filled in between the walls. The extent of the supporting walls indicates that the 5.4 × 4.0 m area was originally paved and plastered. This paved and plastered area must have been the main habitation area. To the east of this main habitation space, three small square rooms were constructed in a row. The previous excavation revealed that a tannor had been built in the central room. When we dug down to the bottom of the walls of the northern room, we noticed that an antler had been placed along its eastern wall. It is possible that the antler was used and placed for the groundbreaking ceremony of this building (see Tsuneki 2002). The entire plan of the foundation walls (Fig.5) indicated that Str.109 consisted of a habitation room and 3–4 small rooms for storage and food processing purposes.

Str.827: After removing the foundation walls of Str.109, we dug down into layer 7. In the last season, the eastern end of the Str.827 building was excavated in layer 7 of E271b and d. This structure revealed a well-preserved tannor, with an intact ceiling. As the Neolithic cemetery was established to the east of this building, we tried to excavate it. The building in Str.827 has a rectangular plan, measuring more than 4.2 × 6.2 m, and extends in the east-west direction. It was originally built probably as a tripartite building with some partitions added later. We can excavate the last phase of Str.827 in the 2009 season (Fig.6). A narrow corridor runs east-west through the center of the building; this corridor is flanked on both sides by six small rooms. A small room at the southeastern corner (Room 1) was uncovered in the 2008 season. It was furnished as a well-preserved tannor, but now, only the ceiling remains. As this building seems to have been damaged in a fire, many objects were discovered in situ. A large saddle quern made of porous basalt, an upper stone of saddle quern, two grinding stones, a beautiful limestone vessel, a large clay basin, two pot stands, and a hammer stone were procured from the eastern end of the corridor. Most of the objects were found intact, while others were broken during the fire. In addition to these objects, three fragments of the upper stone of saddle quern were discovered. Another large saddle quern made of porous basalt was found with an upper stone of saddle quern in the middle-south room (Room 2). A large broken mortar, a large amorphous stone with a ground surface, a grinding stone, a stone axe, and some fragments of grinding stones were also found. The southwestern room (Room 3) and the northeastern room (Room 4) each contained a complete upper stone of saddle quern. The narrow north-middle room (Room 5) contained a stone axe. A skeleton of a juvenile of around 11–13 years was discovered in this room. Another stone axe was found in the room in the northwestern corner (Room 6). The objects, especially the ground stones, uncovered from each room and space are listed in Table 1. The most remarkable objects were a series of food processing tools, such as saddle querns and grinding stones. These findings indicate that this building had been used as a kitchen at least during its final stages. The number of querns (6 complete and 5 fragments), including 2 large ones, are not unlike those found in ordinary dwellings. The tannor furnished in Room 1 was of an unusual kind. The clay basin furnished in the eastern part of the central corridor also has an unusual shape. A large flint scraper was discovered in this basin. The extraordinary findings include two complete pot stands. All these findings and situations indicated that this building was not a dwelling house but a community kitchen. It would be premature to speculate further at this juncture, but it is possible to suppose that this community kitchen was used for funeral ceremonies.

Str.916: This building was discovered to the north of Str.827, beyond a narrow 0.7m wide street and at the same level. The direction and long axis of this building were quite similar to those of Str.827. As the northern half of this structure did not fall within the excavated area, we could uncover only the southern half of the building. It might have a rectangular plan, measuring 5.2m from east to west. The building might have been divided into at least two rooms. The eastern room appears to have been severely destroyed by a cremation pit, Str.919, such that only its stone foundation remained. Its western room is relatively well-preserved. A pisé wall remained on the stone foundation, which was made up of 3–4 layers of limestone.

Graves in Square E271: The eastern half of Square E271 (the main cemetery area excavated in 2007 and 2008) and other spaces between the abovementioned buildings continued to reveal human burials. In total, 30 individuals were discovered from 18 graves in Square E271 in the 2009 season. One of the graves (Str.908) contained was a juvenile buried in Room 5 of Str.827, and the other two contained an adult female (Str.924) and a juvenile (Str.920), uncovered from the alleyway between the building Strs. 827 and 916. Dismembered human bones, including those of 7 individuals, were discovered near the southwestern corner of the Str.916 building in the northern part of Squares E271a and b. This secondary burial (Str.932) contains cremated human bones belonging to two juveniles (one of them being 1 or 2 years old), a subadult, and an adult (probably male). Therefore, these 3 primary burials and a secondary burial must belong to layer

Fig.7: Str.909

Fig.8: Str.913

Fig.9: Str.933

7 and they seem to be older than those at the Kerkh PN cemetery. However, the rest of the 14 graves were probably dug down from the upper layers 6 and 5. If this is the case, they were parts of the Kerkh PN cemetery that we already uncovered in 2007 and 2008.

These 14 graves consist of 11 primary burials, 2 secondary burials, and 1 cremation pit. The primary burials included 3 adult males (Strs. 904, 921, and 922), 1 adult female (Str.909), 3 juveniles (Str.902, 913, and 914), 1 infant (Str.912), and 3 neonates or fetuses (Strs. 901, 911, and 933). All of them were buried in a flexed position, lying on one side or in a prone position. Str.909 is one of the notable specimens (Fig.7), because a stone seal was discovered beside her waist. The stamp is shaped like a gourd with a design comprising straight and parallel lines. Str.913 is a juvenile (1–1.5 years) primary burial discovered just under Strs. 904 and 912 (Fig.8). It is the first juvenile to be found buried in a prone position. Twenty beads were discovered alongside this juvenile. They comprise 3 flat agate beads, 13 butterfly and/or barrel serpentinite beads, and 4 oval stone beads. Str.913 also contains a juvenile (3–4 years) buried with 8 beads. The beads were discovered around the neck, presumably forming a necklace. Three flat agate beads, a trapezoid serpentinite bead, and stone beads of various shapes, such as barrel, oval, cylindrical, and short cylindrical, were included. Str.933 is a fetus burial with DFBW (Fig.9). The fetus was buried in a flexed position, lying on its right side. This is not a real urn burial, but one of the first burials using pottery.

Two secondary burials were also discovered. Str.910 was discovered in the northern edge of Square E271a, consisting of a part of a skull, some long bones, fingers, and feet. They belonged to at least 3 individuals, that is, 2 adults and an infant. Str.931 contains an isolated adult skull, without the lower jaw, discovered in the eastern edge of Square E271d. We could not find the remaining bones.

Str.919 is a cremation pit discovered in the northwestern part of Square E271b (Fig.10). We call it Concentration 9 following the termi-

Fig.10: Str.919

nology used in the former seasons. This is the fourth cremation pit that we uncovered within the Kerkh PN cemetery. It is a rectangular pit, measuring 1.0 × 0.9 m and only 0.15m deep. The pit was filled with burnt soil and black-and-white ash. Fine black organic matters were found at the bottom of the pit. The remains of at least 5 individuals—3 adults, a subadult (16 years) and a juvenile—were discovered in this pit. There were many bones that had turned white owing to high temperatures caused by fire. However, some bones remained black and brown. Though most bones were fragmental, some skeletal parts were still articulated. This indicated that bodies may have been cremated in this pit soon after the corpses decayed at other places. No burial goods were found.

The excavations of the graves in E270 and E271 in this season revealed the following. (1) The Neolithic cemetery emerged in layer 6, continued until layer 5, and came to an end before layer 4. (2) The extent of the Neolithic cemetery was larger than 6 × 10 m, which was what we had supposed until last season. (3) Before being used as a cemetery, Square E271 was mainly a habitation area, though the people sometimes made burials in this habitation area.

Square E251

As mentioned above, the Neolithic cemetery was discovered and excavated in Square E271 in the 2007 and 2008 seasons. However, we did not estimate the extent of this important cemetery. We needed a larger excavation area for this purpose. As the cemetery was expected to extend northwards, we fixed a new Square E251 to the north of E271. We fixed an excavation area of 5 (north-south) × 10 m (east-west) in Square E251 with the aim of grasping the northern bound of the cemetery.

We started the excavation from the mound surface and dug down about 1.2m (about 239.6m above sea level). The cultural deposits of this 1.2m thickness can be divided into three building layers. All of them belong to the Rouj 2d period (the latter phase of the Pottery Neolithic period).

others	stone vessel	hammer stone	stone axe	grinding stone	saddle quern (upper stone)	saddle quern (lower stone)	mortar	
					-	-	-	Room 1
			1 (f=1)	1 (f=1)	1 (f=1)	1	1	Room 2
				-	1 (f=1)	-	-	Room 3
					1	-	-	Room 4
			1		-	-	-	Room 5
			1		-	-	-	Room 6
	1	2		2 (f=1)	1 (f=3)	1	-	Central corridor
pot stand 2, clay basin 1, flake scraper 1, pumice 2	1	2	3 (f=1)	3 (f=1)	4 (f=5)	2	1	Total
f = fragment								

Table 1: Ground stone objects discovered from Str.827

Square E251 revealed three categories of structures, that is, tannors, stone rows, and burials. Tannors were the largest in number; this seems to indicate that this area had been used primarily for domestic purposes, particularly cooking, during the Rouj 2d period. Various stone rows were uncovered in the entire square, but most of them were very short rows without any angles. Some of them appear to have been stone foundations for buildings. We discovered only one burial, which belongs to a 30–35-year-old male buried in a flexed position, lying on his right side. We can probably reach the Rouj 2c layers if we dig down further for about 0.5m.

3. TELL EL-KERKH 1

One of main objectives of the excavations at Tell el-Kerkh 1 is to fill the gaps in the chronological sequence of the mound between the Neolithic and the Byzantine periods, especially the Bronze Age and Iron Age. The step-trench of Square P110 has so far revealed 3 main levels: level 1 is Iron Age II, level 2 is the Middle Bronze Age (or may include Late Bronze Age), and level 3 is Early Bronze Age IVb. The aim of this excavation season was to reveal the sequence of layers from Iron Age II to Late Bronze Age I. However, level 1 at Square P110 was not well-preserved. Thus, a new trench was set up on the west of Square P110, that is, Square P109. Square P109 is a trench extending north-south and measuring 5 × 6 m.

The excavation in Square P109 has so far revealed 3 building layers from Iron Age II to Iron Age I or Late Bronze Age II. A stone structure was unearthed in the topmost level. It comprises 2 stone foundations of walls using large stones of ca. 40 × 50 cm. Each wall has one corner, and they seem to be a part of the room. The potsherds found in the structure contained goods typical of Iron Age II, such as a red slip and a large storage jar. In the second building layer, some stone walls were found in a fragmental condition. Most of the structures were located in the northern half of the trench. It seems that the orientation of the walls was similar to the walls in the topmost layer. Unlike the second building layer, the third building layer was well-preserved. Many rooms constructed with mud-brick foundations were discovered in this layer. The floors were paved with a thick lime plaster. Since the bricks had turned orange and black, it is probable that at one point,

the room was damaged by fire. Almost all the potsherds found around the rooms are local ware, but they seem to be typical of Iron Age I or the Late Bronze Age.

On the basis of the analysis of the pottery, we assume that the topmost and the second building layer belong to Iron Age II, and the third building layer, especially the dwellings constructed with mud-bricks, date back to Iron Age I or the Late Bronze Age. However, the analysis is preliminary and the results obtained in this season have to be further refined in a more detailed study. Our aim is to reveal the sequence of layers from Iron Age II to Late Bronze Age I and establish the later phases of the Rouj Chronology.

4. CONCLUDING REMARKS

The excavations that we carried out in the central area of Tell Ain el-Kerkh enabled us to estimate the chronological extent of the Kerkh PN cemetery. The cemetery was managed during layers 5 and 6 of the central area. The cemetery was covered with the buildings of layer 4, and the cemetery was on top of the buildings of layer 7. All the layers between layers 4 and 7 belong to the Rouj 2c period, and the cemetery dates back to the middle phase of the Rouj 2c period, that is, 6500–6000 BC. We discovered the cultural deposits of the Rouj 2d period through the excavations in Squares E251c and d. As we could not reach the cemetery level (the Rouj 2c period) in this season, this operation must be continued in the next season. From the results obtained in Square P109 of Tell el-Kerkh 1, we confirmed 3 building layers. The upper 2 layers belong to Iron Age II, and the third layer dates back to Iron Age I or the Late Bronze Age. This third layer consists of mud-brick dwellings. Presently, we are conducting a detailed study on the pottery discovered from this layer. The chronological hiatus between the Late Bronze Age and the Iron Age at Tell el-Kerkh will be revealed by this study.

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TELL FERES AL SHARQI 2009 (QUATRIÈME CAMPAGNE)

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Au bout de quatre campagnes (2006-2009), le secteur exploré atteint quelque 700 m2. Les fouilles se sont déployées au sommet et sur la pente nord du tell, et dix niveaux principaux ont été distingués sur un dénivelé de 5 m, allant du LC5 (fin du 4e millénaire) à l'Obeid (milieu du 5e millénaire). Cependant, les différentes phases du Chalcolithique Récent ne sont pas toutes représentées au même degré, et le site se prête surtout à examiner le passage de l'Obeid au début du Chalcolithique Récent (LC1-2).

1. Les niveaux supérieurs (R. Vallet)

Depuis 2007, les travaux sur les niveaux supérieurs du site (Niveaux 0 à 5[(1)]) se concentrent sur la fouille d'un grand complexe d'habitat LC4 (c. 3600-3350 av. J.-C.) constituant notre Niveau 2 (Fig. 1). Après trois campagnes, le secteur exploré atteint 362,5 m2. En 2009, nos objectifs étaient d'achever la fouille de l'habitation tripartite du complexe (au NO) et de la partie adjacente de la grande cour 15, et de poursuivre vers le sud le dégagement en extension, afin de trouver la limite sud du complexe.

1.1 L'habitation tripartite

Dans l'habitation proprement dite, nous avons maintenant une vue beaucoup plus claire de l'histoire et du fonctionnement du bâtiment. La pièce 7, le vestibule de la maison, a livré deux séries de sols séparées par une épaisse couche de destruction, confirmant que le bâtiment a bien été reconstruit, comme nous le supposions sur la base d'observations effectuées dans la cour. En outre, la phase récente peut être subdivisée en deux sous-phases, tandis que la phase ancienne montre trois sous-phases successives, pendant lesquelles les aménagements construits dans les pièces ont changé (ci-dessous). Nous réorganisons en conséquence la stratigraphie de la façon suivante, de haut en bas :

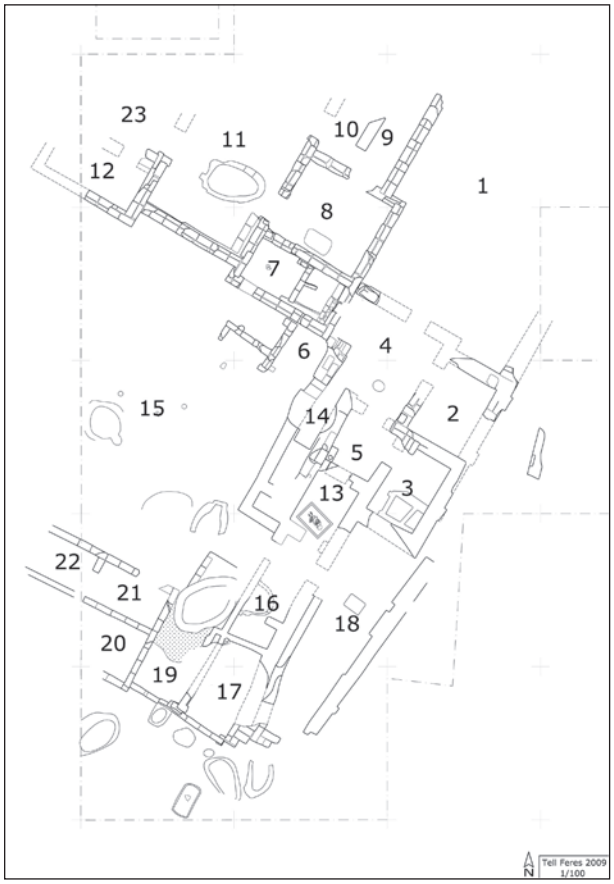

Fig 1

2A-1 : complexe récent, état final (avec des additions mineures, murs 102 et 123 dans la cour)

2A-2 : complexe récent, état d'origine

2B-1-2-3 : complexe ancien (globalement de même plan)

Dans l'aile est, la moitié est de la pièce 7 était pourvue d'une étroite banquette basse le long du mur est et d'une sorte de drain horizontal le long du mur sud (phase 2B-3). Cette partie de la pièce servait d'espace de stockage pour la cuisine voisine (pièce 8) et fut isolée à la phase 2B-2 par une cloison, puis pourvue d'un carrelage (phase 2B-1). Dans la pièce 8 au nord, le passage menant à la salle centrale 11 se trouvait au sud-ouest, sous une fosse LC5 qui l'avait gravement endommagé. De façon assez surprenante, deux fours superposés (659 puis 122), dans la grande salle, étaient installés en face du passage, gênant quelque peu, mais sans l'interdire, la circulation entre les deux pièces. L'examen attentif des sols montre que le four 122 a remplacé le four 559 de la pièce 8 : un petit foyer circulaire (553) au centre de la pièce 8 (phase 2B-3) est remplacé par le four 559 dans l'angle NE (phase 2B-2), mais celui-ci est ensuite rasé et remplacé par le grand four 122 (dans la pièce principale) qui reste en usage jusqu'à la fin de la phase 2B. Dans la salle centrale 11, la séquence des sols a été examinée attentivement et les passages de la partie subsistante de la pièce localisés. Nous savons maintenant que l'interruption brutale des longs murs latéraux correspond à des passages, tous signalés par des briques en boutisse à la base des murs. Dans la pièce, le four 122 et la banquette 126 (dans l'angle SE) reposaient sur des sols, et, plus bas, sur des aménagements identiques (four 659 avec une ouverture au nord, banquette 668). Au total, l'évolution de la pièce peut-être reconstituée de la façon suivante : à l'origine, la pièce était pourvue du four 659 et (un peu plus tard) de la banquette 668 (phase 2B-3). Ces deux structures furent rasées à la phase 2B-2, le four 659 étant remplacé par le four 559 de la pièce 8. Par la suite, celui-ci fut à son tour remplacé par un nouveau grand four (122) et sa banquette associée (126), implantés à nouveau dans la grande pièce (phase 2B-1). Il semble qu'une localisation alternative de la cuisine fut expérimentée, avant que celle-ci ne retourne à son emplacement d'origine. La phase 2A est pour sa part complètement emportée par l'érosion dans la pièce 11.

1. 2. La cour

La cour principale (15) du complexe n'était pas notre priorité cette saison, mais pour achever la fouille de l'habitation tripartite, il était nécessaire d'en dégager au moins la partie septentrionale, où d'étroits murets jouxtent la maison. Les sols de la phase 2B ont donc été dégagés sur une large bande devant la maison jusqu'à l'aile est du complexe, dont l'entrée (0.6m) durant la phase 2B était située un peu plus au sud qu'ultérieurement et précédée d'un porche (2 x 1.3m), comme la maison. Mais les principaux résultats viennent du sud, car nous avons maintenant la

limite de la cour grâce à la découverte de l'aile sud du complexe (ci-dessous). La cour mesure 9,5 m du nord au sud et probablement 10,5 m d'est en ouest (selon la restitution de l'habitation), soit 100 m2. Elle est pourvue de différentes structures, principalement au SE, qui s'organisent en au moins cinq phases successives. De haut en bas, on trouve deux fours, reposant chacun sur une semelle de tessons. Le four 554, au sud, semble avoir bloqué l'accès à une sorte de couloir entre les ailes sud et est (espace 19), et fut certainement pour cette raison remplacé par le four 185 plus au nord. Le four 554 et son sol de tessons reposaient sur une plate-forme en brique (d'au moins 1,7 x 2 m) qu'ils avaient clairement arasée. Sous cette plate-forme, et dans l'espace 19, se trouvait un sol brûlé, associé à un autre four (partiellement scellé par le four 554). A l'ouest, ce sol était bien associé au corps de bâtiment sud, mais à l'est il passait entre les deux états successifs du mur ouest de la pièce 17, montrant que cette pièce (et peut-être la pièce 16 plus au nord) n'exista pas pendant un temps. Plus bas enfin, les restes d'un autre sol furent mis au jour, appartenant à la toute première phase du complexe et reposant directement sur un niveau LC2. Bien qu'il n'y ait pas de doute que les sols les plus profonds et les installations qui leur sont associées appartiennent à la phase 2B et les plus hauts à la phase 2A, nous ne savons pas encore précisément quelle sous-phase marque la transition, et devons achever la fouille de ce secteur l'an prochain.

1. 3. Les annexes Sud et Est

Au sud, deux nouveaux carrés ont été ouverts cette année, 21 B8, 21 B9, et la moitié ouest de 21 A8 (62,5 m2 au total), à la recherche de la limite méridionale du complexe[(2)]. Comme c'est toujours le cas au sommet du site, la surface était très perturbée (par trois tombes et huit fosses notamment), mais nous avons retrouvé la façade sud de l'édifice, de sorte que la fouille extensive est terminée dans cette direction. A l'ouest, l'aile sud du complexe apparut d'abord, avec des pièces étroites disposées selon un plan bipartite, avec deux petites pièces antérieures (21 et 22, 1,3 m de large), connectées entre elles et donnant sur une plus grande pièce à l'arrière (20, 1.8 m de large). Le bâtiment, exclusivement constitué de murs étroits (un seul rang de briques), semble contemporain de l'ensemble de la séquence attestée dans la cour et à l'est (ci-dessus) et montre deux phases successives, avec des sols ordinaires remplacés par des carrelages. A l'est de l'espace 19 se développe l'aile est, où la pièce 17 (découverte en 2008) est en fait la dernière de cette aile. Elle mesure 1,35/1,65 x 2,8/3 m et, contrairement au reste de la construction, est particulièrement irrégulière, en raison certainement du fort pendage vers le SE à cet endroit. La cour 18 s'étend à l'est des pièces 16 et 17. En 2008, nous avions suggéré qu'il s'agissait peut-être d'une arrière cour, car nous envisagions une entrée principale du complexe à l'ouest de la cour 15. Nous savons maintenant qu'il s'agit au contraire d'une avant cour, qui s'étend vers le sud jusqu'à l'angle de la parcelle, où nous avons trouvé cette année l'entrée principale du complexe. La cour 18 est irrégulière, comme la pièce 17 et pour les mêmes raisons, spécialement au sud où elle est très étroite. Elle mesure 1,65/2,50 x 7,35 m (15,25 m2). Au sud, l'angle de la parcelle n'est pas droit mais coupé à l'oblique et pourvu d'un décor de ressauts en zigzag très original, au travers duquel se trouve l'entrée (0,77 m) du complexe. La cour 18 offre une longue succession de sols, couvrant sans aucun doute toute l'histoire du bâtiment. Elle est pourvue d'un petit foyer rectangulaire (543) et d'une banquette (609) le long du mur ouest, mais pas sur toute sa longueur. La pièce 16, en effet, apparaît être le vestibule du complexe, au travers duquel on accédait à la cour 15 puis de là à l'habitation ou à l'aile sud. Banquette et foyer indiquent que des gens se retrouvaient fréquemment dans l'avant cour, et de fait les parages étaient fréquentés, comme le montre la découverte de cinq fours et d'une fosse à argile (sans doute associée à un four de potier proche) le long de la façade sud du complexe. L'endroit resta d'ailleurs une zone d'activité majeure pour le site après l'abandon du complexe : le long de sa façade est, ou à travers celle-ci, trois nouveaux fours LC4 (Niveau 1C) ont été découverts cette année (cinq en tout).

La fouille extensive du Niveau 2 devrait s'achever l'an prochain, avec l'ouverture de deux carrés à l'ouest, mais en tout état de cause le plan est d'ores et déjà parfaitement compréhensible. Le complexe, rectangulaire, couvre une surface que l'on peut estimer à 425 m2 (25 x 17 m). Son plan insère une habitation tripartite de type presque obeidien dans un grand ensemble planifié qui annonce les complexes (proprement urukiens ceux-là) de la fin du millénaire (Habuba Kabira, Djebel Aruda…). Si l'état de conservation de la construction, très mauvais, explique qu'elle ait jusqu'ici livré peu de matériel (en dehors d'une abondante céramique), l'intérêt de cette découverte est ailleurs : cette résidence, encore unique, montre le haut niveau de développement atteint dans les campagnes de Djézireh syrienne dès 3600 av. J-C, une condition préalable impérative à la croissance des sites proto-urbains de la région, à commencer par Tell Brak.

Le Niveau 3 sous-jacent, qui semble abriter un vaste grenier, n'a pas encore pu être exploré davantage. La séquence stratigraphique fait alors un bond de plusieurs siècles en arrière, puisque les niveaux antérieurs remontent au LC2. Après des couches d'abandon dont on a fait un Niveau 4, quelques vestiges ont été dégagés (Niveau 5) qui semblent esquisser un plan tripartite aux façades pourvues de pilastres, mais l'on n'y aura accès qu'après le démontage des vestiges du Niveau 2.

2. Les niveaux inférieurs (J.-D. Forest)

Un peu plus bas sur la pente, les deux niveaux suivants, assez largement explorés, n'ont encore livré que des bâtiments utilitaires (Fig. 2). Le Niveau 6, très endommagé par une vaste fosse Ninivite 5, semble partagé en deux par un long mur à multiples décrochements. A l'ouest se trouvent les restes fragmentaires d'une sorte d'enclos qui abritait diverses installations de stockage ; à l'est un édifice pluricellulaire se distingue par un grand four[3]. Le Niveau 7 associe lui aussi diverses installations utilitaires, en particuliers des greniers, indépendants ou englobés, comme au niveau précédent, dans une sorte d'enclos. Le Niveau 8 (à la transition du LC1 et du LC2) reste évanescent et l'on peut surtout lui attribuer un silo et deux fours (apparemment de potiers) creusés dans les ruines d'un bâtiment plus ancien.

Les vestiges désormais LC1 (c. 4400-4200) du Niveau 9 sont plus exceptionnels. Ce niveau voit d'abord la construction simultanée de deux bâtiments, GB1 à l'ouest (dont nous n'avons encore que quelques éléments) et GB3 à l'est, séparés par une ruelle large de 2 m (Fig. 3). Le bâtiment ouest au moins (mais probablement l'ensemble) est longé par un fossé dans lequel se déversait l'eau de pluie drainée par de petites rigoles au fond tapissé de tessons. Par la suite, GB1 est remplacé par un bâtiment plus vaste, GB2, qui annexe l'ancienne ruelle et se prolonge davantage au sud (Fig. 4). Il présente une façade (ouest) à redans dont les éléments en saillie sont pourvus d'une petite niche ; sa largeur est considérable (de l'ordre de 7,40 m) et explique la présence de deux rangs de poteaux pour soutenir la couverture ; enfin il est associé au nord à deux sols extérieurs entièrement tapissés de tessons. Jusqu'en 2008, nous pensions avoir affaire à une vaste salle hypostyle, mais l'extension des fouilles nous a fait découvrir tout autre chose, bien que la partie sud du bâtiment fût très endommagée par une vaste fosse à argile : loin de se prolonger, la salle aux poteaux fait place à deux étroits couloirs accolés, puis à un secteur dont on peut seulement dire qu'il abrite l'entrée (munie d'une crapaudine en basalte) et une cage d'escalier à double volée. Le bâtiment n'est pas encore totalement dégagé, alors que sa longueur atteint déjà près de 14 m. Sans doute a-t-on affaire à un bâtiment public ou communautaire, mais le plan est totalement inédit et nous n'avons pas encore assez d'éléments pour en proposer une analyse sérieuse.

A l'est, GB3 se présente comme un bâtiment monocellulaire, avec une pièce large de 4,20 m, dégagée sur 8,40 m de long. Celle-ci était accessible, jusqu'à la construction de GB2, par deux ouvertures symétriques encadrées de pilastres et dotées d'une crapaudine en basalte. Le cœur de la

Fig 1

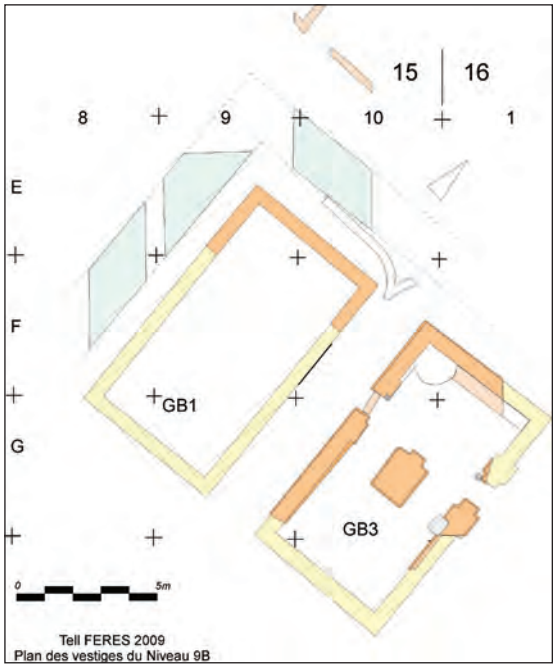

Fig 1

Fig 1

pièce est occupé par un énorme foyer construit (2,60 m2) qui rappelle ceux, plus récents, de Gawra VIII et de Sheikh Hassan. La pièce n'a pu être fouillée au NE car le démontage d'un grenier du Niveau 7 nous aurait entraîné trop loin, mais la présence d'une crapaudine invite à penser que le bâtiment ne possédait pas d'annexes dans cette direction. De même, son dégagement s'est arrêté au sud sur l'enclos du Niveau 7, mais l'ouverture SE de GB2 suggère que GB3 ne se poursuivait guère dans cette direction et que nous en possédons par conséquent l'essentiel, avec une pièce de l'ordre de 35 m2. Quoi qu'il en soit, nous avons là encore affaire à un bâtiment public ou communautaire, et le plus étonnant est l'association de deux édifices de cette nature. Chacun avait certainement ses spécificités fonctionnelles, mais nous ignorons lesquelles.

Enfin, on a commencé à dégager plus au nord un bâtiment du Niveau 10 (Obeid) abritant un four, peut-être de potier. La prochaine campagne tentera d'achever la fouille des deux grands bâtiments du Niveau 9 et poursuivra celle du bâtiment obeidien plus profond.

Notes:

(1) Dernier état de la stratigraphie in : Forest J.-D., Vallet R. et Baldi J.S. (avec la participation de A. Emery) à paraître, Tell Feres al Sharqi, synthèse provisoire au terme de trois campagnes (2006−2008), Annales Archéologiques Arabes Syriennes.

(2) Ce chantier (et l'angle SE de la grande cour) était conduit par A. Gaulon (Université de Paris I-Panthéon-Sorbonne).

(3) Le mur à décrochements et ce bâtiment Est étaient jusqu'ici attribués, mais à tort, à une phase récente du Niveau 7.

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RAPORT ON THE ACTIVITIES OF THE POLISH-SYRIAN MISSION TO TELL ARBID, GOVERNORATE OF HASAKE, SPRING SEASON OF 2009

Rafał KOLIŃSKI

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In June of 2008 a new project was started at Tell Arbid, aimed at researching post-Akkadian (EJ V) remains identified previously in the sector SR, on the eastern slope of the main tell. The present report describes field activities of the second season of the project planned for three field seasons. It was realized jointly by a team of the Adam Mickiewicz University of Poznań, Poland, led by the present writer acting as a field director, and a team of Direction Générale des Antiquités et Musées, in the framework of the Polish-Syrian Mission to Tell Arbid, directed jointly by prof. Piotr Bieliński of the Warsaw University and Mr. Jowan Kassim from the DGAM office in Qamishli.

ABSTRACT: The second season of work of Adam Mickiewicz University team in Sector P at Tell Arbid aimed at continuation of work on two small cemeteries dated to the period of Khabur Ware pottery and at further exploration of a huge post-Akkadian building identified in the previous year. During the 2009 season 15 Khabur period graves were explored, falling into three main categories: chamber graves (3 examples), cist graves (3 examples) and shaft or pit graves (9 examples). Of those, chamber grave G7/37/62 was extremely interesting because its architecture was very well preserved, and it contained rich set of burial gifts. Excavations in the post-Akkadian level progressed first of all in the "Main Building", where three rooms and a spacious paved courtyard were cleared. A group of smaller rooms located to the west and an open space to the south of the "Main Building" have been explored. A number of pottery vessels was found on the floors, but more interesting were items of bronze (including two sickles, six pins, and some other implements). Presence of deposits of scrap bronze and of a sandstone casting mould suggest very strongly that a metallurgy workshop was located within the complex of buildings. Two children graves of the same period yielded rich set of finds: bracelets of bronze, stone, frit and sea shell beads and some pottery vessels.

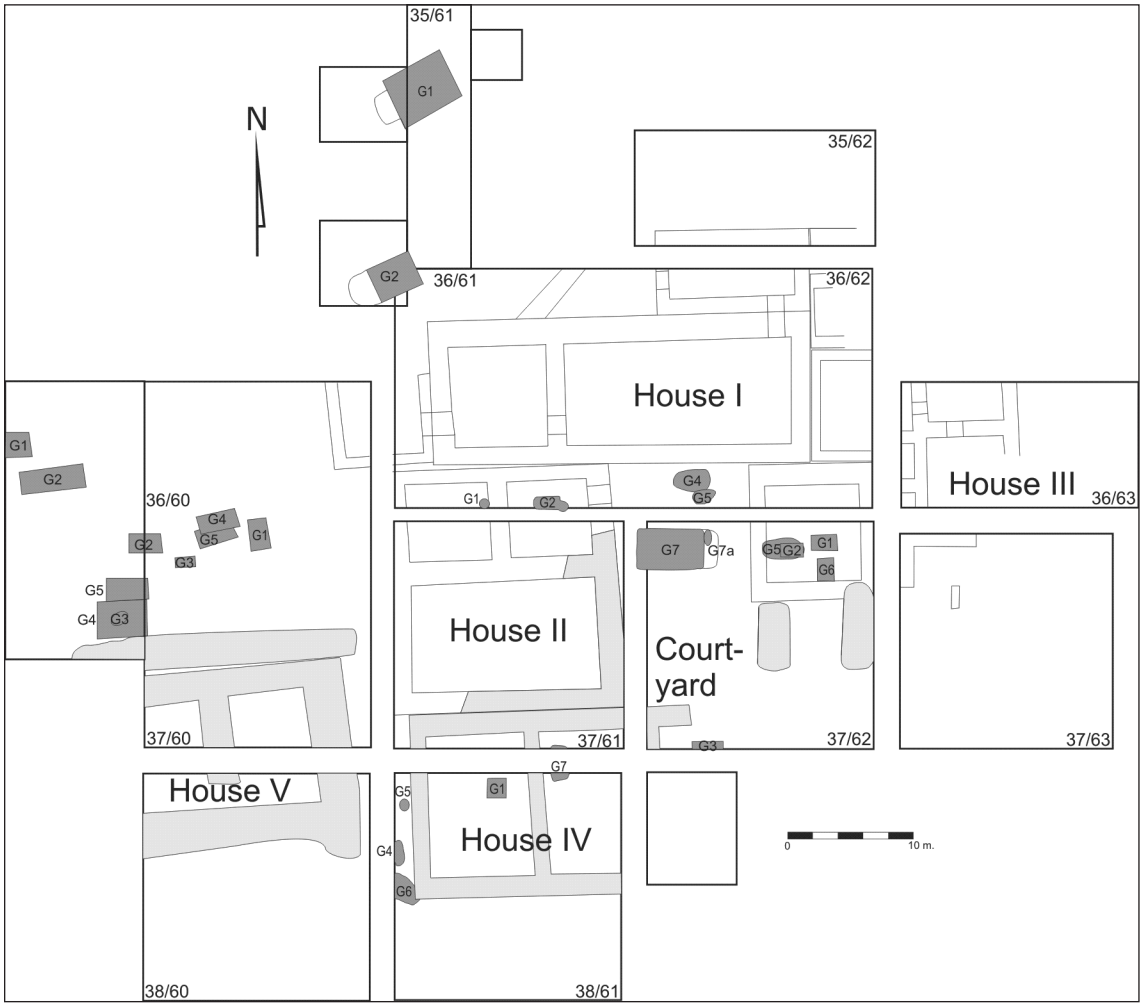

Fig. 1: General plan of the Khabur Ware Period remains after the 2009 season (drawn by R. Koliński).

The aim of the 2009 campaign was the post-Akkadian period occupation; nevertheless continuation of work in at least two areas featuring the Khabur Ware period graves was planned. However it turned out, that the main effort of the mission's work was devoted to exploration of graves. Consequently, our knowledge of the post-Akkadian layer settlement did not increase as much as it was expected before the campaign. As in the case of the previous report, discoveries will be described starting with the most recent period, and ending with the early 3rd millennium BC, which, though layers of this dated have not been explored, was represented by dispersed items (mainly sealings) discovered within later deposits.

The Khabur Ware Period

The main effort, as it was already mentioned, was devoted to excavation of the Khabur Ware period graves. Continuation of the 2008 explorations in this respect was planned in two areas: the first was a cemetery of chamber graves, identified in sq. 35/61, and the second a cemetery of cist graves in sq. 37/60. During the season it turned out that there is a third cemetery located under Khabur Ware period courtyard (covering large part of sq. 37/62 and southern part of sq. 36/62) and possibly a fourth one, in square 38/61 (Fig. 1).

Chamber grave cemetery in square 35/61. Two chamber graves have been discovered in this square in 2008, and the chamber of G2 was then explored. This year's effort was devoted mainly to excavation of G1.

Fig. 2: Façade of the Khabur Ware Period chamber grave G1/35/61 (phot. by R. Koliński).

The grave was composed of a rectangular chamber covered with dried brick vault and a service shaft located on its western side, providing entrance to the grave necessary to perform subsequent funerals. The grave chamber has been constructed in a pit dug into the ground, reaching at least 2 m below the level of ground corresponding to the Khabur Ware period. When construction of the structure of the grave was finished a retaining wall has been build over one of the shorter walls of the chamber. In this way an impressive façade of the grave was created, measuring in the case of G1/35/61 approximately 1,75 by 1,75 m with an arched doorway constituting its main feature (Fig. 2).

The chamber of grave G1/35/61 has inside dimensions of 1,8 by 1,15 m. All walls were build of dried bricks, longer walls constituting the lowermost part of the chamber vault. Top of the vault has collapsed and only bricks which were supported by the western façade were found in the original position. In the eastern corner of the chamber traces of a robbery pit were noticed, cutting partly into the north-eastern and south-eastern wall of the chamber. Probably this pit caused the collapse of a vault, which was discovered in a shape of broken bricks lying over the burial and over floor of the grave chamber.

Bones belonging to a single skeleton have been discovered on the floor of the chamber. Its lower part (leg bones, pelvis and lowermost vertebrae) were lying in an anatomical order in the western corner of the chamber, in a position suggesting that the body was original laid in a contracted position, with a head towards west, and face looking south. Some more bones, including ribs, more vertebrae, wishbones and bones of arms were found in two separate groups, in the northern and in the eastern corner of the chamber, but on much higher level than the lower part of the body. The higher position resulted probably from displacements of some bones by robbers. Skull was entirely missing.[1]

Though grave G1 bears clear traces of robbery, some of its original content survived. Two Khabur Ware pottery jars were found standing on the floor along the southern wall of the cham-

Fig. 3: Cist graves G4 and G5 in square 37/59 (phot. by R. Koliński).

ber, close to the blocked entrance, and a third vessel, a shallow bowl of Kitchen Ware with some traces of soot on a rim was found in the eastern part of the chamber, lying upside-down. In the center of the grave a point of a broken bronze pin was discovered.

Some work has been done on the G2/35/61 as well. The grave chamber has been for its most part explored in 2008, but when the shaft of G1 was cleared it was necessary to check G2 for a presence of similar feature. Exactly as it was in the case of G1/35/6, a retaining wall built over the western side wall of the chamber was unearthed. Further to the west traces of service shaft were observed. A particular feature of G2/35/61 was its vault, which was constructed in an exceptional way, that is of two layers of dried bricks. Lower layer consisted of radialy put half-bricks, forming the actual vault. It was covered another layer of square bricks laid flat on the top of the vault, apparently to make it stronger.

Cist grave cemetery in square 37/59. Several graves of this cemetery have been excavated in squares 37/60 and 36/60 since 1998. During the present season excavations were extended towards west, into square 37/59, in aim to explore any graves which may eventually appear, including three graves discovered already in the 2008 season. Two of them were visible in the western section of sq. 37/60, while the eastern part of the third one was partly excavated (G2/37/60), yielding 2 pots, a bronze pin and several beads.

Excavations of the western part of G2/37/60 yielded interesting results. First, remains of original closing of the grave were identified in shape of six fragmentarily preserved, vertical bricks. It is now clear that G2, as many other graves in the area, was closed by bricks set vertically on a side or on a corner (“in diamond”)(Fig. 3)[(2)]. In the chamber of G2 human bones belonging to a lower part of a body were discovered. They belong obviously to a skeleton whose upper part was removed during the previous season. It is now clear that the body was lying in a contracted position, with a head towards east, and facing south. Beside knee a plain ware jug has been found. Another common ware vessel was found laying upside down in a rectangular shaft adhering to

the grave from the west. Its role is obscure, but presence of a pot demonstrates, that it formed a part of the burial. Its presence should be probably explained in the context of finds of the previous year, when bones another person were collected from the eastern part of the grave. It is likely that the shaft, never observed by the graves of this kind, was dug in order to introduce another burial into grave G2.

Two more cist graves with closing "in diamond" (G4 and G5) were excavated in the southern part of the 37/59 extension. They were set parallel to G2, and G4 partly cut into southern wall of G5, which was clearly earlier. Chamber of G4 was 1,3 m long and 0,5 m wide. It contained bones of an adult laid in a heap under the southern wall, with a skull placed on its top. Lack of burial gifts is somewhat surprising, because it is the first grave of "in diamond" type, where no goods were deposited. Grave G5 was slightly bigger (inner dimensions of chamber were 1,7 by 0,7 m) and differed from G4 in many aspects. First, the skeleton was located in the western part of the chamber. Though it was laid in a typical contracted position, its head was turned west and facing north. An animal offering (hind part of unidentified mammal) was deposited close to the head. A painted Khabur Ware jar (showing decoration of slashed triangles), bronze pin with a melon head (22 cm of length) and nearly 100 beads of various materials were found in the grave.

Cemetery under the yard (squares 36/62 and 37/62). Presence of graves under an open space located between the houses has been noticed in 1998 and confirmed in 2008 when two shaft burials were excavated there. After the 2009 campaign it is certain that there was another concentration of graves in this part of the sector, as a chamber grave, three pot burials and a pit inhumation were excavated in this area, all related to the Khabur Ware settlement.

Chamber grave G7/37/62 is the most interesting grave of this area. Its vaulted chamber is 2,1 m long and 1,05 m wide and was originally 1,35 m high (inside dimensions). The vault collapsed, but the tomb has not been reached by robbers and original set of burial furniture was found there. The tomb was provided with a "service shaft" on the east, where the entrance to the chamber was located. Its length corresponded to the width of the tomb façade (1,75 m) and was ca. 1 m wide. Over the entrance a support wall was constructed, similar to that discovered in the case of chamber graves G1 and G2 of sq. 35/61. Its top was observed (though not interpreted correctly) already in 2001, and it seems that it was originally reaching the level of the courtyard, from which the tomb pit was dug in.

The "service shaft" did not served only as a mean for entering the tomb, but was also used as additional space for grave goods and rituals activities related to burials. Cattle bones started to appear in its fill already on relatively high level, corresponding to the top of the brick arch of the doorway. Slightly below, two large plain ware jars appeared in the fill, one placed obliquely in the south-western corner of the shaft, the other standing vertically in its northern part. On a yet lower level another concentration of animal bones has been encountered. Among them, in the southern part of the shaft, a complete skeleton of a dog was cleared, apparently belonging to an animal owned once by one of persons buried in the grave. Finally, at the bottom of the shaft, in its northernmost part, a child burial was discovered (G8), hidden partly under another pottery vessel laid on a side. This grave was accompanied by two pottery vessels: a small juglet with band painting typical for children burials and a larger vessel of a particular shape and decoration. To a rim of medium size jug a bottomless bowl was attached before burning, forming in this way a composite vessel. Both bowl and jug are decorated with red paint forming hatched triangles, overposed angles and a palm-leave motive (Fig. 4).

The burial chamber of G7 can be divided into two zones: the eastern one, covering eastern half of the chamber, and the western one. The eastern zone has been used for the latest burial in G7. A skeleton was laid under the southern wall of the chamber in a crouched position, with a head turned west and facing to the north. Under the northern wall two jugs of Khabur Ware were standing,

Fig. 4: Pottery from Grave G8/37/62 (phot. by M. Szabłowski).

Fig. 5: A shat axe from Grave G7/37/62 (phot. by M. Szabłowski).

both showing banded painted decoration. Three fragments of painted cup were found between the bones, but as other fragments of the vessel are missing it is hard to believe that it belonged to burial gifts. The body was accompanied by a bronze toggle pin with a nail head and a few beads.

The western zone, occupying the entire western part of the chamber was covered with a layer of mixed human and animal bones, reaching from 10 to 20 cm of thickness. Bones were very badly preserved, in some cases nearly totally decomposed. There is no doubt, that this layer formed when older bones (and grave goods) were piled up in the far, western part of the chamber to make a place for a new burial.

Grave goods discovered in that area include about dozen items of bronze and other metals, 6 pottery vessels, fragmentary mortar of basalt and a huge number of beads of carnelian, agate, and frit. The most interesting item of bronze is a shaft axe (Fig. 5), some 11,5 cm long. It has a decorative, plastic bands on sides and globular ending of a butt[3]. In the shaft hole fragment of wood was still present. Two wooden shaft fragments covered with bronze foil were found as well, but their position does not allow to identify them as the butt of the axe's shaft. It is thus possible that they belonged to a stick or a rod. Other pieces of weaponry found in the grave are three bronze daggers[4]. The longest one is 21 cm long and is provided with a double midrib. The second is 17 cm long and has a single rivet opening on a tong. The last one is 17 cm long as well and has no observable features. The second group of bronzes consists of decorative items. It included a solid bronze bracelet, a toggle pin with a nail head (length 24 cm), bronze pincers (length 5,5 cm), rectangular bronze plaque with a hole (3,5 x 2,5 cm), round plaque with a large hole (diam. 2,5 cm), cylindrical object of lead (length 3,3 cm), and a number of smaller, hard to identify objects. Of interest was a pierced disc of soft translucent stone of diameter of 7 cm, and some of the beads, which included a bird-shape pendant of lazurite. Among the vessels there were three bowls: the largest one was of gray ware, showing a typical, polished surface. Other, of fine ware, has a similar shape but was smaller, the third one was of common ware, and as it has soot traces on the rim it is possible that it served as a lamp. Three other vessels were jars of different size: the smallest was a typical juglet deposited in children graves, this vessel, and the medium one bear banded decoration typical of Khabur Ware. The third and largest one was of plain ware and reminded of two plain ware jars found in the service shaft of the grave.

It is difficult to evaluate how many persons were buried in the chamber of G7 before anthropological analysis of bone assemblage will be performed, but preliminary assessment, based on number of skull and jaw fragments suggests, that besides last inhumation, G7 accommodated bodies of at least 5 persons.

Other graves discovered in the area were not as rich as G7, but were remarkable as well. In square 37/62 two shaft burials were discovered, belonging clearly to the same series as G1 and G2 of the 2008 season. In G5 a large pot with incised decoration was used for a coffin, similar to one used in grave G2. The parallel goes even further, as in both graves very similar set of three vessels has been found: a miniature painted pot with decoration of slashed triangles, a juglet and a cup with banded decoration. Mouth of the coffin-pot was directed east, but child buried in it was laid with a head towards west. Same orientation of vessel (in this case a storage jar was employed) and of body was a feature of grave G5. In this case no vessels were deposited in the grave, but deceased child was provided with two bronze bracelets and several beads of various material.

Two more graves have been discovered in sq. 36/62 but still within the extent of the Khabur period open space. Pit grave G4 contained skeleton of a child of age about 8 years, provided with a single painted juglet held in hand beside mouth. Orientation of the grave has not been clear, because body seems to be pushed into a small pit and does not seem to observe cardinal points. Grave 5/36/62, located besides, belongs to a type of shaft graves with a pot burial in a side niche. In this case very large pot was used for the coffin (40 cm rim diameter, 65 cm preserved height) despite the fact that a very small child has been deposited into it. Yet, burial jar contained a wealth of burial gifts: 10 small vessels (3 bowls and 7 juglets) were placed inside the pot, beside the body, and one jug of a larger size was left standing outside the pot, on the floor of the shaft. Besides pottery, in the grave there were 26 beads and a bronze item, too corroded to be identified.

The post-Akkadian period

Remains of the post-Akkadian period were excavated mainly in squares: 37/60, 37/61, 37/62 and 38/61. Towards the end of the season some clearing work has been undertaken in squares 36/61 and 36/62, because post-Akkadian structures seem to continue in this direction (Fig. 6). On the other hand, it is now clear that in the south buildings of the post-Akkadian period either never existed (sq. 38/61) or become eroded (sq. 38/62).

"Main Building". Work in "Main Building" comprised of excavations in three rooms belonging to this structure (L13/37/62, L10/37/61 and L24/37/61), where floor levels were cleared during the season; some work has been done on the courtyard (L9/37/62) as well.

Two rooms of "Main Building" were cleared in square 37/61. South-western wall of L9/37/62 continued into this trench, but it was cut nearly to the floor level by the Khabur Ware period foundations. It seems, however, that in the northern part of the wall there was an entrance leading to a small, rectangular room (L10, 2,5 by 2 m). Its floor has been cleared, though it was damaged by a pit located in the central part of the room. On the floor a particular item made of gypsum was found. It was about half of a rectangular plaque of rounded corners, 14,5 cm wide and 4 cm thick. Its upper surface bears three rows of round hollows, which were regularly spaced over preserved part of the surface of the plaque. It reminds simple game boards, which usually feature three rows of 10 holes[5]. From L10 two narrow doorways led into opposite directions. Towards southeast another small room was unearthed (L24, measuring 2 by 2 m). Along its eastern wall an installation made of vertical bricks was found. From the fill of this room several fragmentary items of bronze were retrieved including fragment of an axe. The most important discovery, however, was a complete sickle blade made of bronze (Fig. 7). After cleaning it turned out that a star sign, meaning in cuneiform writing "god", has been itched on one side of the blade. Presence of other

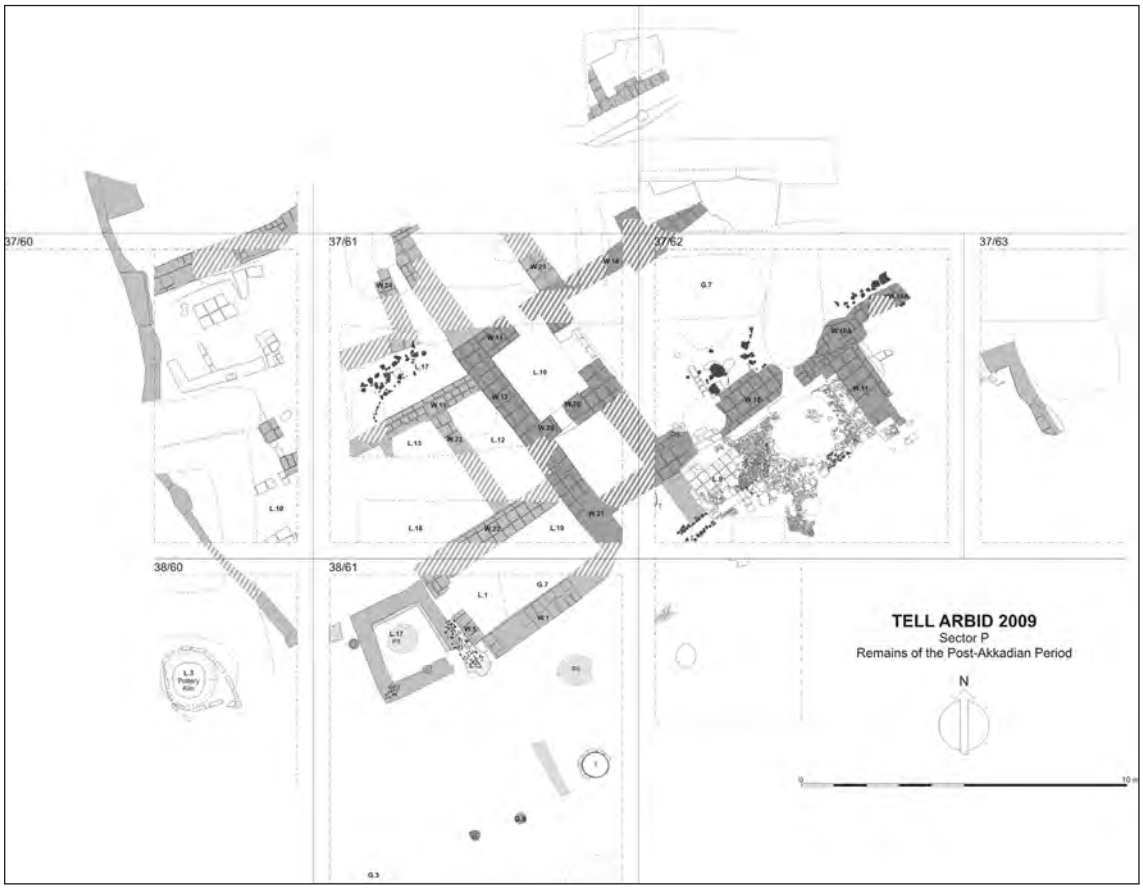

Fig. 6: General plan of the post-Akkadian remains after the 2009 season (drawn by M. Momot).

Fig. 7: A bronze sickle discovered in room L24 of the "Main Building" (phot. by M. Szabłowski).

fragmentary items and scraps of bronze suggest rather, that this small room played role of a store, and scrap bronze was supposedly put there in hope of recasting it at a later date. The opposite doorway of L10 led into a part of the building which has not been yet excavated. Soundings in squares 36/61 and 62 demonstrated that the described building extends further in this direction and that at least some of its walls are preserved as high as those of L10 (up to 1,7 m over the floor level). Presently, outline of one room of dimensions 2,5 by 2,3 m is visible, while other room, further east, seem to be provided with an internal buttress, corresponding to the one observed on the northern wall of L9/37/62.

Work in Square 37/62 focused on the courtyard (Locus 9) and on the main room of the structure (Locus 13). It turned out that the courtyard

Fig. 8: Pottery and basalt implements on the preserved part of the floor in L9 of the "Main Building" (phot. by M. Szabłowski).

has a quite long history, and was at least three times rearranged, what is reflected by changes in the outline of red plaster and small additions to the original structure. Presence of a doorway located in W11 and leading to a room towards north-east was confirmed: a large white stone formed part of the threshold, while remaining space of the passage has been paved with pebbles similar to those used for the courtyard. Ca. 5 cm under the first layer of pebbles remains of another such a layer were observed in the said entrance, and remains of a terracotta pipe laid perpendicular to the wall were cleared below it.

In Locus 13 the topmost floor level has been cleared on a substantial part of the room. It has been however badly damaged by later pits: that of Khabur period chamber grave G7 in the northern part of the square, pit L14 in the east, and two smaller pits: L11 cutting partly into the main entrance to the room and L21 whose northern part was later destroyed by pit of G7. It southeastern wall (W 10) was provided with a buttress, 1,35 m wide, protruding from the wall for 0,2 m. Remains of similar buttress of the north-western wall were cleared in the very corner of the square, allowing reconstruction of the room as a square space of a side dimension of 5,15 m. All the walls of this (and of other rooms belonging to "Main Building") were covered with a thick coat (3-5 cm) of red clay plaster, witnessing long period of use. Floor levels were composed of similar layer of clay, and in the section provided by grave pit there is evidence for at least three subsequent floors separated by a thin level of ashes and refuse. On the topmost floor several installations and a number of pottery vessels were found. On the western side of the main entrance a massive door-socket of white stone has been set into the floor. On the opposite side of the entrance two short, parallel walls build of half-bricks and covered with the same plaster as main walls were cleared enclosing small pace in which a complete coarse ware jar and Kitchen Ware pot were discovered (Fig. 8). In the same area a saddle quern, two large grinders as well as a mortar, all made of local basalt, were found lying on the floor which was littered with sherds. It seems thus, that during the last phase of use this large room was used for domestic activities.

Unclear situation was encountered in the east where large pit destroyed a substantial part of the structure. Only during the last day of fieldwork original north-eastern wall of L9 has been traced. It seems that at a certain moment it was removed and a stump of this wall was covered with a floor of horizontally laid sherds. On this layer a new wall, being continuation of W10, was constructed, what changed the shape of Locus 13 from square to rectangular. The described situation suggest a significant reconstruction of the eastern part of the building, but its nature and extent are at present hard to define.

"Extension". The interpretation of a character of "Extension" needs to be corrected after the present season of the work. It is clear now that instead of a single structure build against the already standing "Main Building", there were several small structures, some composed of one, others of more rooms, apparently build at different stages of the history of the post-Akkadian occupation in the Sector P of Tell Arbid. Consequently, different units will be designated with Latin numbers, starting with the southernmost one. "Extension 1" structure includes at least 4 rooms: L1/38/61 and its continuation into Square 37/61, and Loci 12, 13 and 18 of sq. 37/61. Very little of work has been done within this structure, which was for its larger part cleared during the pervious season.

L17/37/61, located further to the north, cannot be interpreted as a room anymore. It yielded very specific deposits, with considerable admixture of ashes, pottery fragments and stones, typical for streets and areas which are hardly drained of rain water. This space was 1,65 wide, and probably has a L-shaped outline – its northern limit has been damage by two pits. Deposits of L17 provided not only considerable amount of pottery sherds (whole pots turned out to be very difficult to reconstruct) but also some very interesting small finds: fragmentary bead of gold (length 0,6 cm), a complete kohl-pin of bronze (length 7,5 cm), a bronze toggle pin and some crap bronze fragments.

"Extension 2" is composed of two rooms located on the northern side of L17 and continuing into trench 37/60. The nature of the western room is difficult to interpret at the moment (it is covered by walls of the Khabur period houses). The eastern room witnessed two phases of use: an earlier, constructed of pisé (Locus 35) and a later, build of bricks (Locus 33). This part of "Extension" yielded very interesting finds, coming mainly from the floor of L33. Another bronze sickle blade (24 cm long), two pins of bronze and some scrap bronze fragments were found together with sandstone casting form. It has a bell shape, 8,8 cm wide and 7 cm long and served to make two fork-like items. This concentration of bronzes and presence of a mould suggest, that this area might be used for metallurgical activities.

To the south and to the west of the buildings open areas were located. In square 38/61 some water installations, a large tannour and a sequence of floors, some of them of a very good quality, point to an intensive use of this area for various activities. A different situation has been encountered in square 37/60. The whole western half of the trench has been separated from the build up area by means of a pisé wall W15 and space behind this wall was used for disposal of waste. Ashy deposits containing nearly exclusively post-Akkadian pottery and numerous animal figurines accumulated there reached more than 2 m in thickness, pointing that this area has been used as a midden for a long period of time.

Some post-Akkadian graves were cleared during the season, mostly in sq. 38/61 where exploration reached under the topmost post-Akkadian architectural level. These graves may be divided into two groups: a better represented group of very young children buried usually in a Kitchen Ware vessel (or more rarely in a common ware pot) under the floor level of room and a group of graves of persons of slightly more elevated age, buried usually with no relation to architecture. Chronological identification of the first group bases on their relation to architectural remains and on rim shape of Kitchen Ware vessels used to accommodate burial, which represent a late 3rd millennium variant. Only in the case of three graves G9, G12 and G10 grave goods were found.

Fig. 9: Grave goods from the post-Akkadian grave G12/38/61 (phot. by M. Szabłowski).

G9 has been discovered already in 2008, but not explored then. It is a pot burial: body has been deposited in a vessel standing on a rim whose bottom part was missing. After funeral it was closed a lower part of other vessel. In the grave, beside bones of young child, there were two bronze bracelets and a number of beads of sea shell and stone. One of the beads was made of broken prehistoric stamp seal of stone, showing geometric design (crossing lines). Grave G12 turned out to be even richer. It belonged to a child of age just below 10 years which was placed directly into the burial pit. Beside the head there were three pottery vessels: small pot of round bottom and two small jars. Body was accompanied by a set of bronzes: two bracelets, ring on one of fingers and a crescent-shaped pendent, found under lower jaw – probably worn on the neck (Fig. 9). The last of the burials has been found in the section. A niche containing bones of a full grown person was discovered, accompanied by single cup of late Akkadian type. Most likely the grave included a shaft as well, but it was hidden entirely behind the section and not explored.

Akkadian and earlier remains

Strata predating the post-Akkadian settlement had been encountered in square 38/61, where a large part of single room built according to cardinal points (L11/38/61) was cleared. It has a doorway in the northern wall, provided with a threshold of sherds and stones and a bench along the western wall. Both bench and walls were covered with a thin coat of white plaster. On the floor of the room a conical cup and a jar of rounded bottom were found dating the room to the Akkadian period. It seems, that it has survived accidentally, being located on that part of the slope of the tell, which has not been intensively used by post-Akkadian settlers and, in consequence, avoided terracing.

As it was during the previous season some seal impressions dating to the early and mid part of the 3rd millennium have been found during the season. One of them deserve a comment. It was found in the area of mixed post-Akkadian and Akkadian deposits in square 38/61, and presents one of favorite scenes of the 3rd millennium BC Mesopotamian art: an eagle (or Anzu bird) whose legs rest on a rumps of two lions. Because of popularity of this motive it is difficult to date it precisely, but craftsmanship of the seal point to late ED III or Akkadian period(6).

Finally, in the midden deposits in western part of square 37/60 an alabaster cylinder seal was discovered. It is decorated with a motive of two crossing zigzags. Despite simplicity of the motive, on a base of a very close analogy from Mari it is possible to propose an early date for the seal, certainly in the first quarter of the 3rd millennium BC (Parrot 1956, no. 586, Pl. 67). Two sealings bearing impressions of Piedmont Style seals were discovered in the same context.

SUMMARY

The 2009 season of work in Sector P at Tell Arbid brought extremely interesting results. Discoveries of Khabur Ware period graves, while unexpected, brought some very well preserved examples of grave architecture, especially in respect to chamber graves. They also provided interesting and rich finds of grave goods, shedding light on the burial customs of the period. Knowledge of the post-Akkadian settlement increased as well. While the structure of the settlement remains still unclear, there is no doubt of its wealth, as suggested by numerous finds of bronze objects, and by architectural features of the "Main Building".

Further work, scheduled on May-June of 2010, will focus on exploration of "Main Building", especially of chambers located to the east and north of the already known part of this structure. Work in "Extensions" area will be devoted to clarifying of stratigraphic sequence of the post-Akkadian settlement.

NOTES:

(1) Human bones from the 2009 season will be studied by dr. A. Sołtysiak (University of Warsaw) in the Arbid dig-house in the fall season of 2010.

(2) This kind arrangement is, to my knowledge, not evidenced on any other site of the area during the Middle Bronze Age period.

(3) The closest analogy to the axe is known from Ashur, where two similar, but larger examples were found in a hoard from the Temple of Ashur (dated to the Akkadian period) (HALLER, Bernd, 1955, Die heiligtumer des Gottes Assur, Berlin, p. 12, Taf. 27) and from Erdgrab 2306 (dated to the Ur III period) (ANDRAE, Walter, 1922, Die archaischen Ischtar Tempel, Leipzig, Taf. 60).

(4) All belong to Type 37 of Philip (PHILIP, Graham, 1989, Metal Weapons of the Early and Middle Bronze Ages in Syria-Palestine, British Archaeological Reports vol. 526, Oxford), characteristic for late 3rd and early 2nd Millennium BC period in Jezireh.

(5) "A game of 30 fields", cf. ROMAIN, Pascal, 2000, Les répresentations des jeux de pions, Board Games Studies, 3, p. 18, Figs. 4 and 5.

(6) FUHR-JÖPPELT, Ilse, 1972, Materialen zur Ikonographie des Löwenadlers Anzu-Imdugud, München.

RESULTS OF THE 2009 EXCAVATION CAMPAIGN IN TELL CHUERA: A RÉSUMÉ

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The 2009 excavation campaign in Tell Chuera took place from April 28 to June 6. The team comprised O. Kromberg (area S), L. Dross (area H MS), J. Ostheimer (area H east), T. Helms, A. Binder, A. Tamm (all area W) as area supervisors (all from Frankfurt); to a large degree they are also responsible for the following reports. In addition have participated ten students from Frankfurt, Durham and Damascus; as usual, K.-H. Engemann (Frankfurt) was our draftsman. Ahmad Sultan (Raqqa) was the representative. We employed up to 70 local workmen. Our sincere thanks go out to all of them, including the kitchen team. The campaign was mainly financed by the German Research Foundation (DFG), to a lesser extent by the Oppenheim Foundation, Cologne, and by the sponsoring association ENKI. Last but not least we express our gratitude to the Syrian Department General of Antiquities and Museums, above all to Dr. Michel Maqdassi, for many years of support.

The excavation campaign aimed at reaching meaningful terminations in all areas under examination in the course of this last grant period. These were in detail:

1- Temple S in the centre of the Upper Town [Fig. 1]

2- the central depression (central axis [Fig. 2]) where the Upper Town is accessed from the Lower Town (areas H MS and H east)

3- a complex investigation at the outer town wall (areas W3, W4 and W6 [Fig. 3]).

The temple excepted, work in all areas may be regarded as terminated, although a few detailed investigations might prove necessary in view of the final publication.

At Temple S ("Steinbau" 6) it is now possible, for the first time in Tell Chuera, to reconstruct the complete building history of a sacred edifice. As the state of preservation is very good, the possibility arises here to document a long building sequence in detail – something that, in Tell

Fig. 1: Plan of "Steinbau" VI (Temple S).

Fig. 2: View of "Steinbau" VI (Temple S, phase 5).

Chuera, has so far only been feasible for domestic structures. Building levels 1-3 (Tell Chuera ID=EBA IVA) had already been exposed on a large scale [Fig. 1); the older phases, in particular, provided a great number of installations. This year we have documented building levels 4 to 7 (Tell Chuera IC=EBA III): only building levels 4 and 5 were occupation horizons proper, while building levels 6 and 7 must be regarded as founding phases.

Before the architecture that has been exposed here may be included in the planned archaeological circuit, fieldwork should be completely terminated, i.e. both, the plan of building level 7 and the starting-point of the construction must be determined.

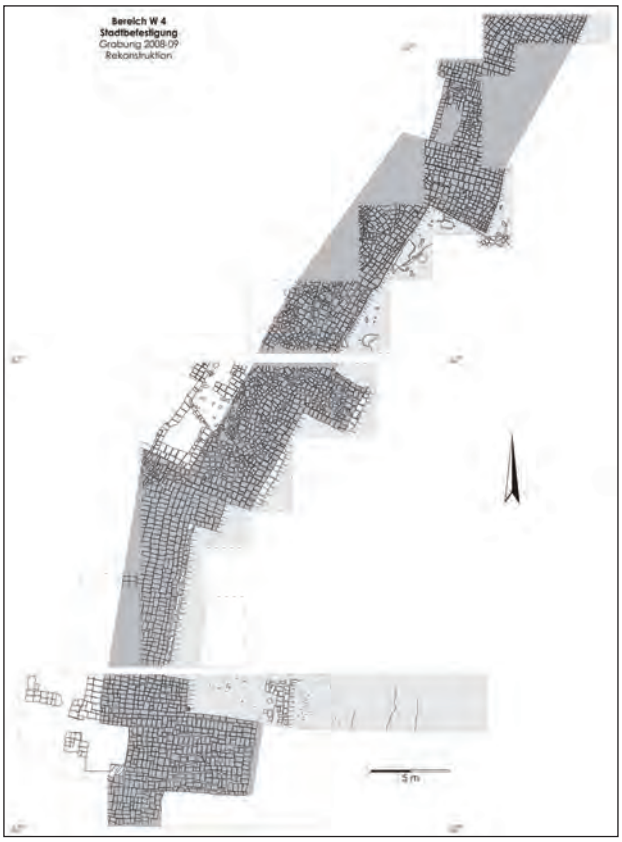

Fig. 3: Plan of the outer town wall in area W.

In contrast, work in the central depression (H MS, H east) may safely be regarded as terminated – even if the older gate of periods Tell Chuera IA and IB could not be pinpointed. On the other hand, the history of the inner town wall has been determined from its beginnings in the Late Chalcolithic or in the early EBA I through a hiatus in EBA II/III till its rebuilding towards the end of EBA III. In periods Tell Chuera ID and IC (EBA III-IVA) this gateway, executed as a one-chamber-gate, obviously secured the access from the Lower Town to the Upper Town (Fig.

2). From both phases there exist massive stone foundations laying out the same ground plan but in different dimensions: demonstrably, the passage of the period ID structure was much wider. Both gateways correspond to the course of the inner town wall of those periods. The presumed gateways of the older periods Tell Chuera IA to IB were probably situated somewhat further to the west, according to the course of the older town wall. It is also possible by now to make definite statements about the settlement structure in this area – the erection of terraces as building sites, and the water management.

Also work at the outer fortification wall (area W) has delivered satisfactory results with regard to the shape of the latest town wall and to the structures adjoining it on the inside. The excavations have shown that, in period ID, the Lower Town of Tell Chuera – at least in its eastward expansion – was surrounded by a polygonal fortification wall (Fig. 3). The town wall was erected on a glacis-like mound and consisted of straight segments arranged in a staggered way. Rectangular bastions of different size (bastions I and II) reinforced the town wall in the manner of advance positions of defence. The documented remains (building phase 2) represent the last massive fortification of the Lower Town. Once this fortification was erected, any further fortifying measures (building phase 1) were of no great account.

Various masonry techniques and bricks of different qualities were used in the construction of the town wall. Together with the excavations that have been conducted at different places of the Lower Town wall, the results may contribute to the detailed reconstruction of the town's fortification in the Early Bronze Age. Just the question of the town gate remains to be clarified.

PRELIMINARY REPORT ABOUT THE SURVEY AT JEBEL EL-HAMMAM NEAR MESKENE 2009

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Introduction

1 Discovery of the site

In 2005 a trench was discovered on a slope above a beach; the trench had been caused by a bulldozer preparing terraces for reforestation. At the resulting edge there came to light occupational structures, such as several stone foundations and floors. According to the ceramics that had been exposed by lootings the settlement dates to the Bronze Age.

2 Location and description of the site

The site is located on a spur, ca. 1.5 km northwest of Emar, which stretches far into Lake Assad (fig. 1). The slopes are steep and surrounded by cliffs along the northwestern flank (fig.2). The spur is ca. 150 m long and up to 70 m wide, just leaving room for a small fortified settlement or for a fortress. The only access leads from a plateau in the southwest across a neck just ca. 20 m wide. Thus, defence of the settlement was easy.

From the top of the mountain you have an unhampered view. The weather permitting you may make out Jebel Aruda in the north as well as Qal'at Jabar in the east, an overview over the Euphrates valley for 40 – 50 km in either direction. The strategic importance of the site is obvious: also Emar is visible from there, and the road in the valley could be easily controlled.

Organisation

After a second visit to Jebel El-Hamam we were convinced of the importance of the site and decided to ask the Antiquities Department for the permission to make a sounding. In the summer of 2009 we were graciously allowed to do a survey. We applied with the Fritz Thyssen

Stiftung for the necessary means for a first investigation, which were granted without delay. Our sincere thanks are extended to all who made this undertaking possible, especially to Dr. Bassam Jamous, Director General of the Direction Générale des Antiquités et des Musées, and Dr. Michel al-Maqdissi, Director of Excavations at the DGAM.

The investigation of the tell called Jebel Hammam, before provisionally named "Tell Abu Traks", was to include the following activities: The topographical documentation, a thorough examination of the surface and of the bulldozer trench, documentation of the ceramics.

Accordingly, the team consisted of Dieter Müller, surveyor with many years of experience working for the preservation of ancient monuments in Baden-Wuerttemberg, but also for excavations in Spain, France, Jordan as well as in Emar; Ferhan Sakal, archaeologist, who has been a member of the Emar team since 1998; Brigitte Finkbeiner for the documentation. The drawing of the ceramics was executed by Khalid el-Humeidi.

Fig. 1: Situation of Jebel El-Hammam and the ruins of Emar, seen from a satellite.

Fig. 2: Jebel El-Hammam seen from the west.

Fig. 3: The bulldozer trench, seen from the south.

Execution of the survey

1. Examination of the bulldozer trench

During the topographical documentation the section made by the bulldozer was cleaned in three places in order to examine the stratigraphy of the tell (fig. 3).

East profile: north

In this profile it was possible to expose virgin soil. A first phase is manifested by a pit let down into virgin soil (fig. 4) and filled with several layers of ashes and floors containing lime.

Another lime floor lying over that pit could be pursued further towards the north. From that floor there rose a wall orientated NW/SE and protruding diagonally out of the profile: it incorporates the second phase of occupation. The wall was ca. 1.5 m wide and preserved to a height of 1 m. Five courses of mud bricks could be counted. To the south of that piece of wall there was another wall but orientated E/W (fig. 5), it probably belongs to

the first-mentioned wall. Three courses of mud bricks were preserved. The northern wall showed neither foundation nor substructures. The wall stood directly on the floor. On top of that wall another pit was exposed with the base of a vessel in situ. Similar pits were also observed in other parts of the tell. They seem to mark a third phase.

East profile: centre

Here the bulldozer had cut into virgin soil for more than half a metre so that it was possible to study the soil. It is reddish and crystalline so that at some places it looked polished from the bulldozer's shovel. It is porous and sterile. Ashy layers lay immediately above virgin soil.

East profile: south

This place is the narrowest as well as the southernmost part of the tell, where it joins the plateau extending to the south. An obviously unnatural elevation made us clean the bulldozer profile at that spot. As presumed, a wall, 2.5 m wide and running E-W, could be exposed here – certainly the outer defence wall of the settlement (fig. 6). The wall is preserved to a height of ca. 2 m and consists of conglomerate and limestone ashlars; in the north it was partly let into virgin soil. In the south the face of the wall is to be seen more easily. A ditch at the southern foot of the wall would not come as a surprise.

As the foundations of the wall lay below the bulldozer trench, it was only possible to observe the findings the plan. Four conglomerate stones further towards the west lie in line with the wall and confirm its existence. It remains unclear whether the bulldozer has destroyed the wall here or whether it happened to hit and clear the gate that may be supposed in this part.

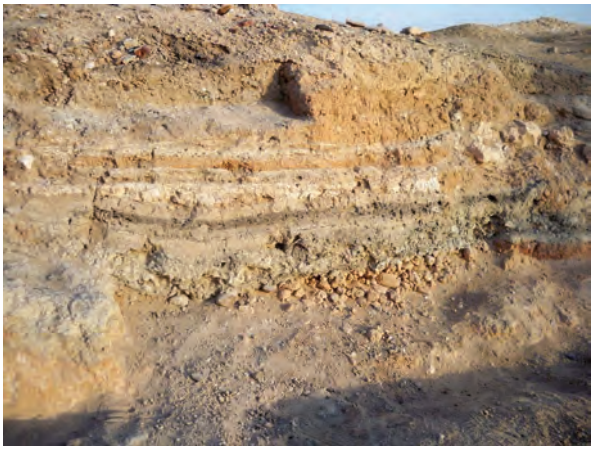

Fig. 4: Pit in the northern section of the bulldozer trench.

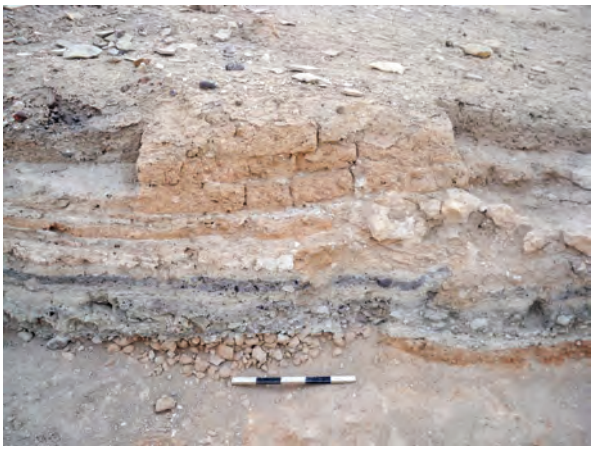

Fig. 5: Detail from fig. 4 with the burnt mud brick wall.

Fig. 6: The town wall, disturbed by the bulldozer, from the west.

2. Topographical documentation

The very steep and difficult terrain was surveyed with a Total Station and documented by over 850 marks. A preliminary version of the topographical plan is given in fig. 7.

3. Ceramics

150 sherds were collected from the surface of Jebel El-Hamam and entered into a database. The surface collection contains rim sherds, base sherds and decorated body sherds. Among the wares were mineral- as well as chaff-tempered ones, some turned on the wheel, others partly handmade. Most evident was a coarse cooking-pot ware, tempered with small pebbles and quartz.

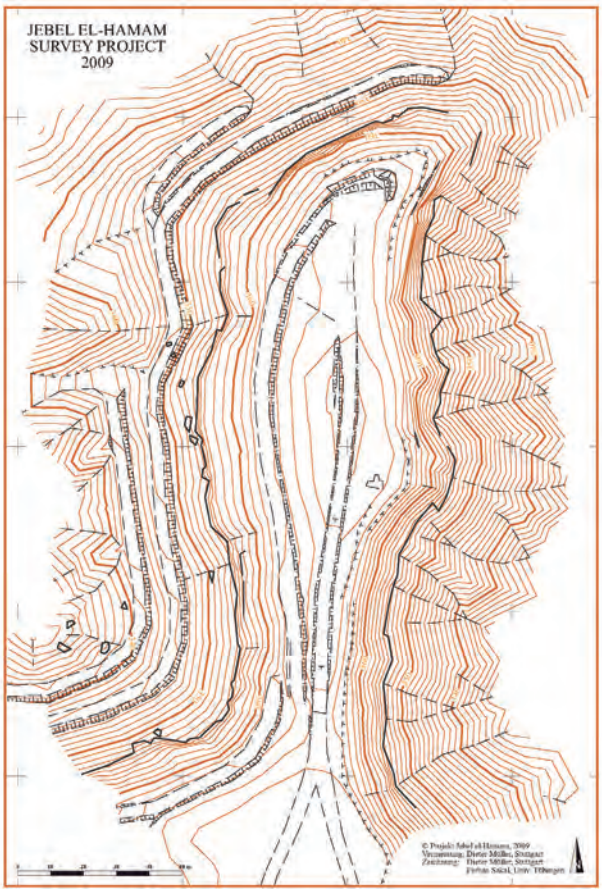

Fig. 7: Topographical plan of the site (D. Mueller 2009).

Even before a thorough evaluation of the ceramics it is clear that the Bronze Age shapes as found in Emar do not exist here. Therefore neither the late 3rd millennium nor the 2nd millennium are represented. The sherd of a painted vessel has parallels in level 3 at Halawa B[1], in level V-2 at Qara Quzaq[2], in Tell el-Abd[3] and in Tell Hadidi[4]. This painted ware seems to be close to the Karababa ware[5], typical of the Upper Euphrates; so far it was known only as far south as Halawa B. Now its southern boundary has moved to Jebel El-Hammam. A proposed date is the first half of the 3rd millennium B. C. A comparison with the EBA II ceramics known from Tell el-Abd seems to confirm this suggestion; but only a detailed evaluation of the ceramics will bring about a clear result.

Results

Jebel El-Hamam was obviously settled for a very short time, only. The three cleaned sections of the profile in the bulldozer trench suggest at least three building phases (pit–wall– pit), but just one of them gives proof of more extended building activities. In all probability, the town wall and the mud brick walls in the north belong together, but it would need an excavation to prove this.

Notes

1- Lüth 1989, fig. 69,2-4.

2- Valdés Pereiro, in press

3- Personal communication P. Sconzo.

4- Dornemann 1993, cat. no. 282.

5- Marro – Helwing 1995, 363.

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Lüth, F., 1989 Tell Halawa B, in: W. Orthmann (ed.) Halawa 1980-1986, Saarbrücker Beiträge zur Altertumskunde 52, 85-112.

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PRELIMINARY REPORT ON THE 22TH SEASON OF EXCAVATIONS AT TELL MOZAN-URKESH (JULY-OCTOBER 2009)

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Introduction

The 22nd season at Tell Mozan lasted from July 17 to October 8. Excavations began on July 20 and lasted to the beginning of Ramadan. The remainder of the season was a long study period. Federico Buccellati served as Field Director. We will first present the results of work done in each of the excavation units, i.e., from west to east (Fig.1): J5 with James L. Walker as unit director, J1 with Lorenzo Crescioli, J2 with Caitlin Chaves, and J6 with Patrizia Camatta. We will then describe briefly some of the activities carried out during the study period.

J5: the western upslope

In 2008, the important result in Unit J5 was the exposure of a Mittani staircase, smaller than the monumental third millennium staircase to the east (in J1). We had concluded that this staircase corresponded to an overall reorganization of the sacred space, which entailed both the filling in of the Plaza and the shift to the west of the service area of the Temple.

Two major results emerged from the 2009 excavations. First, we could more specifically date (stratigraphically) the western staircase to the later Mittani period, because of the earlier layers that are below the western staircase.

Second, immediately below the Mittani layers, we came upon an extremely well defined third millennium installation, for which in turn two phases can be identified. The earlier phase, dated early in ED III (EJ 3), is a stone escarpment (Fig. 3) that protected the base of the revetment wall. The later phase, dated later in ED III, is the thick clay escarpment that we had already fully exposed in earlier seasons in J1. The reasons for this extensive protection system related to the revetment wall became clear during the excavations in J1.

Fig.1: Overhead with excavation units. Oblique kite view of entire JP area from the south, showing excavation units discussed in this article. Photo by Federico A. Buccellati

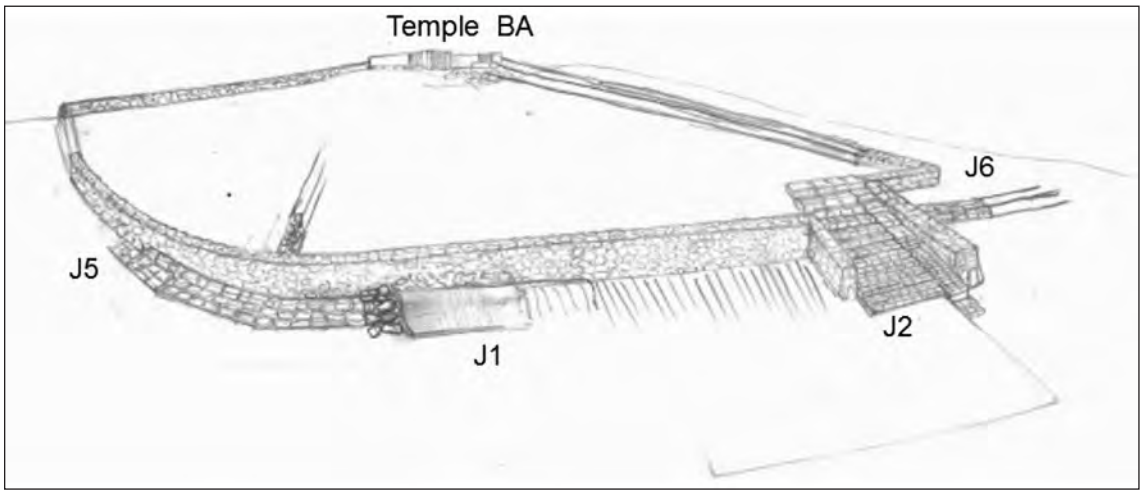

Fig.2: Sketch reconstruction of the Temple Terrace. The LC 3 situation, oblique view from the southwest. Drawing by Sabrina Droz.

J1: THE NORTHWESTERN EDGE OF THE PLAZA

Excavations in J1 proceeded at a very slow pace because of the complexity of the stratigraphy and the delicate nature of the deposit. The final result was very rewarding.

Two stone walls, bonded at a 90 degree angle, were exposed, forming the northwestern corner of the Plaza in the fourth millennium (Fig.4). Five important conclusions emerged.

Fig.4: The LC 3walls in J1. View from the south. Photo by Diadin Mustapha.

Fig.3: The stone escarpment in J5. View from the west. Photo by Federico A. Buccellati.

1- We reached the base of the east-west wall, and we could determine that the accumulations against it were clearly to be dated to Late Chalcolithic 3. Since this wall is bonded with the northwest wall, it is certain that this dates to the same period, even though we have not exposed its base.

2- The east-west wall was parallel to the third millennium wall, with which it is very similar in structure, and it continues to the east into the baulk. Hence we can safely deduce that this served the same function, as a revetment wall to an earlier Temple Terrace.

3- The deposit behind the east-west wall (i.e., to the north), though exposed to a very limited extent, is consonant with the nature of the fill we have elsewhere for the Temple Terrace, and we know from earlier excavations in J3 that there is LC 3 material immediately below the present surface of the Terrace, at an elevation much higher than in J1. Hence we

Fig.5: The floors in J1. View from the east. Photo by Diadin Mustapha.

conclude that there was already in the mid fourth millennium a high Temple Terrace very similar in structure, and most likely in function, to that of the mid third millennium.

4- The sharp angle formed by the two walls can only represent the northwest corner of the Plaza as it already existed in the mid fourth millennium. This, too, implies that the overall organization of the public sacred space was already the same at that early date.

5- There is evidence of a large scale collapse of both walls. We attribute this to a major episode of flooding, with water rushing down from the west and the north. To the west, there must then have been already a sharp upslope which led to LC 3levels: this is significant in terms of the importance of the LC 3 settlement, which would have reached already at that date an elevation as high as some 20 meters above the plain level. To the north, the onrush of water would have come from within the fill of the Temple Terrace itself, unless it was intentionally removed at the time of the construction of the later wall.

The flooding events just described help explain two structural details of the third millennium Temple Terrace. To the west, the massive stone escarpment first, and then the equally impressive clay escarpment were obviously intended to protect the revetment wall from the water flow coming from higher ground. To the north, the seemingly curious fact that the joints in the revetment wall are plastered on the inside can now be seen to have functioned as a preventive technique against water collecting in single underground channels that would cause a breech in the wall.

J2: THE MONUMENTAL STAIRCASE

It was our intent to clarify the date of the earliest steps, and to probe below them in search for what appeared to be an earlier version of the same.

Our work was slowed down considerably because of the nature of the accumulations, very difficult to disentangle stratigraphically, since they did not rest on hard pavements, but on

Fig.6: The eastern wall in J6. View from the south-east. Photo by Diadin Mustapha.

rather ephemeral floor surfaces. As a result we did not fully reach our goals. However, two significant results were obtained. First, a pattern of water erosion at the western end of the staircase could be matched with a very slight slope in the staircase itself: water would cascade down the steps to their western edge, and continue in that direction towards what appears to have been the lower level of the Plaza to the southwest. We saw evidence of muddy floors from the presence of human (and possibly canine) footprints a few meters to the south of the staircase (Fig. 5).

Second, the earliest accumulations against the lowermost step date to the Akkadian period, slightly later than the ED III period to which we attribute the construction of the revetment wall. Since the staircase seems structurally linked to the ED III wall, we interpret this phenomenon as indicating that the earliest (ED III) floors were kept clean and that only in the Akkadian period were (minimal) accumulations allowed to be deposited in front of the staircase.

J6: THE EASTERN EDGE OF THE TEMENOS

All indications from earlier excavations pointed towards the existence of a boundary between the western and the eastern sides of the Plaza – the western being lower and kept unobstructed over many centuries, the eastern being higher and reserved for buildings presumably forming the service area for the Temple.

The 2009 excavations provided clear evidence (Fig. 6; see also Figs. 1 and 2) in favor of just such a sharp boundary. The continuation of the third millennium revetment wall was set further to the north, at the very top of the staircase. Some 10 meters east of the staircase, the wall made a sharp corner turning to the north, presumably marking the southeastern corner of the temenos as marked by the revetment wall.

While we do not have the base of this wall, the lowermost accumulations against it date to ED III, and it seems unlikely that the wall might be earlier, since it is linked structurally with the overall complex of the Temple Terrace. There is possible evidence of earlier material in the form of mudbricks found below the stone staircase, but it is too soon to tell. Also, the nature of the escarpment against the revetment wall, and the function of another wall south of the western revetment wall and parallel to it cannot at this point be adequately explained.

The royal palace revisited

In preparation for the conservation efforts described below in section 10, a series of soundings were done to determine the extent of the foundation system. This was necessary because the ancient walls were poorly preserved or missing, and it was necessary to determine if foundations were present before reconstructing the walls in mudbrick.

The results of these soundings were very interesting: through these excavations we now better understand the room structure and the construction techniques used. In palace sector A the ancient walls were nearly completely destroyed by erosion and recent stone quarrying. The soundings conducted this season uncovered some of the foundations for these walls, giving us for the first time a precise outline in this heavily damaged area. The walls seen in Fig. 7 show clearly this modified understanding vis-à-vis our previous interpretation. While the differences are minor, the palace plan shows such an architectural consistency that even these details enhance our comprehension of this monumental building.

One surprising aspect of these soundings was the inconsistency of the foundations. Due to the mirrored aspect of the architecture, one would expect to find that the foundations were laid with the same consistency. This is, however, not the case. In one instance a foundation continued across a doorway (under the first floor) as if the doorway was not planned. In another case, the foundation was 5-10 cm. wider than the wall above, while in yet another area the wall face and the foundation face were flush. These differences lead one to ask: what was the reason behind this changing construction technique? Alternative possibilities emerge: either the plan of the palace was being modified during the construction of the foundations, or the variations reflect different construction periods, or else the differences were considered necessary for the stability of the building, especially in view of the southwestern slope in the terrain before construction. In either case we gain a better understanding of the architects behind such a building, and further soundings of this nature in this building and other monumental buildings of its kind may lead us to better understand the methods employed by these architects.

The work done on this palace is part of a larger project studying the construction, function and stratigraphy of the palace, which will continue exploring such questions in future excavation seasons.

The Urkesh Global Record

Work on the digital publication of our data continued at an intense rhythm, under the terms of a grant from the Mellon Foundation. The primary record for the individual excavations units was close to completion by the end of the study period. This was a primary goal, and we came close to meeting our expectations: some of the tasks that still remained incomplete pertained to the photographic documentation and to the description and auditing of the items. As routines are further streamlined and more of the staff develops greater familiarity with them, we feel that it should be possible to aim for a real time completion of this part of the record during the time spent in the field.

Fig.7: Overhead of the Palace after conservation and reconstruction: Sectors A (left) and B (right) of the service wing AK. Direct kite overview. Photo by Diadin Mustapha. Three different types of intervention are indicated by patterns. (1) Solid color is painted on top of the cover of shelters placed above perimetral walls where stone foundations are extant. (2) Hatched color is painted on top of covers placed above reconstructed perimetral walls (the reconstruction was done, with lower courses in stone and modern mudbrick, where nothing was left of the ancient wall). (3) Partition walls are highlighted by a white frame, and are left without shelters since no mudbrick was extant for these walls in these two sectors.
Soundings next to walls show exposed wall foundations.

We also worked on the interpretive portion of the digital unit books. This is a task that remains more difficult to complete during the study period in the field. However, as some of the digital books acquire their final shape in this regard as well, they will serve as concrete models for future work: this will in turn make it easier to prepare the interpretive section of the digital book in a timely fashion as well, so that our ultimate goal may be met – to achieve a full publication of the primary excavation record very shortly after completion of the field season.

Ceramic analysis

Since we are excavating along the revetment wall ED III strata, we revised our ED III catalog of shapes from our earlier excavations of the Temple BA strata with the aim of integrating the new ceramic data from this season. For the ED III ceramics excavated during the 2009 season we analyzed, made drawings with detailed descriptions of all the important shapes, created digital vector drawings and arranged them on pages in preparation for publication. This is a process we carry out every season so that we leave the field with a large number of plates ready for publication. In view of the fact that we are continuing to excavate Late Chalcolithic 3 pottery, we have made an updated LC 3 catalog also. Our strata continue to exhibit only local LC 3 ceramics with occasional hints of pottery imported from the south. On the basis of this distributional pattern we

think that knowledge of southern administrative devices, as seen in the previously excavated cylinder seal impressions, could have been the result of contact with nearby sites, such as Tell Brak, where these devices were also in use and not any direct contact with individuals or administrative mechanisms from the south.

In Area J1 the ceramic deposits from the Early Ninevite V period have been drawn and described in the expectation that we will have in the near future enough of a range of these ceramics to produce a catalog. We have a catalog of the ceramics excavated earlier in the Outer City but there the tombs were dated to the Late Ninevite V period and the strata we are presently excavating in J1 are dated to Early Ninevite V. However, due to their depth near the temple terrace and the revetment wall, the strata from this period are not at this point well known.

In conjunction with our ongoing research in the ceramic ware types represented in Mozan we made a detailed macroscopic description of the changes in ceramic recipes used by the Mozan potters through time. This macroscopic research will then be compared with the results of the computer based analysis of the cut and scanned sherds in our extensive database.

The analysis of the Middle Assyrian ceramics from J5 was advanced this season with the description of the wares and shapes from the Middle Assyrian period and the preparation of the Middle Assyrian catalog. While we have excavated few features from this period, and only in J5, there are indications from various features previously excavated that there exist other areas of MA occupation or at least use of areas of the High Mound so this new catalog of Mozan shapes and wares will be fundamental as a basis for further analysis.

The major time commitment this season was on the analysis of the wares and shapes from the ongoing excavation of Mittani strata. This season we analyzed more than twenty thousand body sherds and some eight thousand shape sherds. Additions were made of new types not previously encountered to our already extensive Mittani ceramics catalog.

Epigraphy

Time was devoted during the season to prepare a complete publication of all the epigraphic material that was found during the previous seasons. While the few complete tablets had been published in various venues, a number of fragments remained unpublished. Prof. Lucio Milano had originally been entrusted with the task, but as his duties at Tell Beydar kept him otherwise more fully engaged with regard to the publication of epigraphic finds, and as he could not continue beyond the publication of the two tablets from F1, we decided to ask his former student, Dr. Massimo Maiocchi, to complete the task.

Using a catalog established by G. Buccellati, that included a number of photographs and hand copies, and following a stay at the Museum in Der ez-Zor for the purpose of collating all the texts, Maiocchi has completed the task and prepared a full publication of 87 numbers, including therein also the texts published previously. This will appear as a digital monograph with the Urkesh website.

While most of the new material is of minimal significance, Maiocchi was able to identify one Akkadian period administrative tablet, A7.341, as containing Hurrian morphological elements. This is very important, because it shows that Hurrian was in active use within the administrative infrastructure, not only as a spoken means of verbal exchange, but also at the level of the scribal environment. This is in fact the first Hurrian administrative text of the third millennium, and along with the Tish-atal inscriptions it documents the existence of an explicit Hurrian dimension at such an early date. It is highly unlikely that such a scribal routine could have sprung up suddenly at the time of the Akkadian ascendancy, hence we can see here a suggestion, however slim for now, of an independent Hurrian scribal school tradition reaching back to pre Akkadian times.

Architectural conservation

A major effort was made in the area of architectural conservation and site presentation, under the terms of a grant from the World Monuments Fund. With regard to conservation, we undertook a complete overhaul of the service wing (AK) of the Royal Palace. This was linked to a thorough review of the foundation system (see above, section 6). In the process, we arrived at a new approach that distinguishes more sharply between conservation and reconstruction.

At many sites, reconstruction seems to be favored over conservation, even when ancient walls, as exposed, give adequate evidence of the ancient architecture. Alternatively, walls are covered with modern plaster which obscures the ancient fabric and is ultimately invasive as it adheres to, and potentially damages, the ancient surfaces. Our approach, consisting of measured draped shelters that mirror exactly the dimensions of the ancient walls, is by now well known, and it has proven to be very successful. But in addition, we have also reconstructed ancient walls (in the case of the Temple) where only the foundations or foundation traces were otherwise available. This season, we implemented a three pronged approach to architectural conservation in the AK wing of the Palace.

1- We overhauled many of the draped shelters. From past experience, a certain material known as Weathashade had proven to be the best for the side panels of the shelters. This year we had decided to replace with it the old material of different types that we had used in various parts of the palace. We did purchase the material in the US (it cannot be found elsewhere) and had arranged for shipping, but in the end the deal fell through because of the unfortunate US sanctions. Thus we resorted to a different solution: we purchased normal burlap, which is more fragile than Weathashade and susceptible to wind and water degradation, but is otherwise both attractive aesthetically and very light. To make up for its fragility, we decided to make multiple small panels, each framed with a strong ribbon: we purchased a special sewing machine and trained two of our workmen to use it. If, as we hope, the new arrangement of small panels with a strong edge survives the test of the winter, this will be obviously a better solution than Weathashade, because of its lower cost and local availability.

2- In the southwestern corner of the AK wing of the Palace there are several portions of walls where only the ancient stone foundation is extant, without any mudbricks. Here, we placed shelters without side panels. The top of the shelters is the same as for the draped shelters, i.e., in mud. However, their top face is painted with a solid light green color to emphasize even from above the nature of the structure. From close-by, their function is obvious, since one can see immediately the nature of the remains that are being protected.

3- In the few portions where no ancient wall is extant, but only the trace of the foundation trench, we reconstructed the ancient wall with stones and modern mudbricks. The top of the walls is plastered and painted with hatched lines, to emphasize the fact that these are reconstructed features.

The paint was applied at the very end of the season, and the overhead photo in Fig. 7 shows the situation as we had intended it to appear. But, on the day before we left, we experienced a heavy rainstorm that completely obliterated the paint. There was no time to repair it, so we had to leave it for next year to apply the paint over a lime plaster, as we have done elsewhere on the site.

In addition to this conservation work in the AK sector of the Palace, we have also introduced a new protection system in excavation unit J1. Here, besides side panels and extensive overhangs to protect the stone wall, we also added a horizontal panel that covers the entire fourth millennium exposure, and can be pulled like the vertical panels to expose the walls to view.

Site presentation

Under the terms of the same World Monuments Fund grant, we also extended very considerably our approach to site presentation.

One aspect was the physical design of the small metal panels. This was to correct two problems that had developed in the winter. The first was that the wind would blow open the cover, and then pull away the plasticized pages glued to the panel itself. We hope to have fixed this problem by adding a simple latch, without any lock, that can be opened manually without a key. The second was that birds had found the top of the panels ideal as a perch on which to roost, with unseemly consequences for the oblique face of the panel underneath… To prevent this from happening, we placed a thin flat strip of metal that acts as a small roof at the top of the panel.

The content of the panels, in both English and Arabic, had proven to be excellent and was extremely well received. Accordingly, we added many more of these "footnotes" as we called them, in the sense that visitors could read them or pass them by as they wished. The overall theoretical concept is encapsulated in the term we use to refer to this approach, "the site as a book": one reads the site as one proceeds, with much attention being given not only to the content of the individual panels, but also to the sequential story line that develops as one walks along, through both the cultural aspects of the site and the archaeological dimension of the discovery process. This is highlighted by a system of gravel paths that facilitate the movement of visitors along a pre-established, suggested itinerary.

Plans for an Eco-Archaeological Park

While the site of Mozan is already a well established Archaeological Park, we have been, over the years, seeking ways to widen its scope to the surrounding areas, in order first of all to protect the landscape, which is still very pristine, and then to develop another dimension of the Archeological Park, one that would take into consideration the ecological dimension of modern as well as ancient life.

In line with this ideal, we have proposed the establishment of an Eco-Archeological Park, some 50 square kilometers in size, with some very specific goals in mind. For example, we would develop mini-museums in some, if not all, of the sixteen villages included within its perimeter, which would illustrate aspects of the ancient eco-system (plants, animals, etc.) with reference to modern conditions. For instance, a display of botanical specimens from the archaeological levels would be accompanied by a garden with a comparable current crop of the same specimens.

A goal of this project would also be to encourage local sustainability, not only by involving the inhabitants of the villages in the maintenance of these installations, but also by establishing a small network of homes offering bed-and-breakfast hospitality, thereby offering the local inhabitants a mechanism for showcasing the legendary Syrian hospitality while at the same time benefiting from a reasonable new source of income.

LES NOUVELLES RECHERCHES ARCHÉOLOGIQUES À MARI, RÉSULTATS DE LA CAMPAGNE DE 2009.

P. BUTTERLIN

Université de Versailles-Saint-Quentin-en-Yvelines-France

Les nouvelles recherches archéologiques à Mari ont débuté en 2005, sous la direction de l'auteur. Trois axes de recherches ont été définis(1) et les travaux ont porté surtout sur l'environnement du centre monumental et la ville est, l'exploration systématique des tells bas ayant été différée le temps d'achever un nouveau levé du terrain, ce qui est maintenant fait (Fig. 1)(2). Les travaux de 2009 ont compris plusieurs volets distincts et complémentaires :

d'une part les recherches archéologiques, d'autre part une série d'opérations de restauration sur la zone palatine(3) et la construction d'un centre de visite de 350 m2 sur le site de juillet à novembre (fin des travaux programmée pour juin 2010, Fig. 2).

Deux secteurs majeurs de fouille ont été privilégiés cette année en vue de la publication de leurs résultats (Fig.3) :

- Axe 1 de recherche, le centre monumental et son environnement où l'on a concentré en 2009 l'effort sur le massif rouge. 4 chantiers se sont poursuivis en vue d'une publication complète du monument et de son environnement, comprenant les fouilles Parrot, Margueron et Butterlin : il s'agit des chantiers Temple Nord 1, Temple Nord 3, Temple sud-est et G.
- Axe 2 de recherches (ville est) : stratigraphie et organisation du bâti. 4 autres opérations ont été poursuivies, les chantiers N3, N 4 et N 5 au sud qui sont des sondages complémentaires les uns des autres et la grande tranchée V 1.

I- Opérations en « ville est »

Quatre chantiers ont donc été poursuivis en ville est : N3, N 4, N 5 et V 1.

N3 est un chantier en activité depuis 2006 qui a livré les restes d'un puissant bastion avancé des défenses de la ville 3(4). En 2008, on a dégagé en arrière de ce bastion, au nord, un quartier d'habitation dont la fouille s'est poursuivie en 2009. Il s'agit essentiellement d'une grande mai-

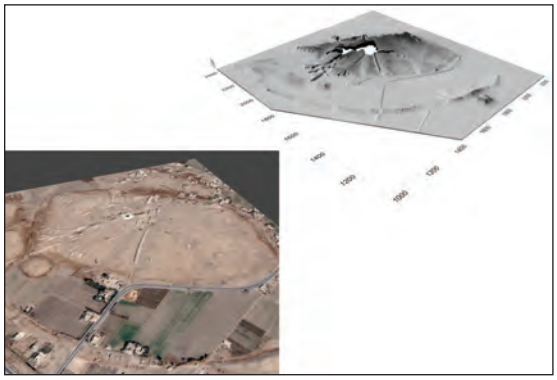

Fig.1: Plan 3D et rendus sur photo satellite de Tell Hariri

Fig.1: centre

Fig.1: Mari, chantiers 2009

Fig.4

son, aux murs larges de 60 cm à 1 m environ. En 2008, plusieurs unités bâties ont été dégagées, sans que l'on ait pu acquérir la certitude qu'il s'agissait d'une ou plusieurs maisons. On a défini en 2008 dix loci, sur une superficie de près de 140 m 2 et établi clairement qu'il s'agit d'une grande résidence (Fig.4) .

Le bon état de conservation des vestiges (murs conservés sur 50 cm à 1 m de hauteur par endroits et matériel sur le sol) engage à faire un dégagement sur une grande surface afin de préciser l'organisation de tout un ensemble bâti à l'arrière des remparts, loin de la zone officielle du centre monumental. L'orientation d'ensemble des murs est différente de celle du grand bastion situé au sud et il est indispensable de poursuivre l'étude d'un ensemble qui a été bâti d'un seul tenant à l'époque amorrite. Les recherches de 2009 n'ont pas permis d'établir les limites d'un édifice qui comportent plusieurs unités organisées autour d'une pièce oblongue, flanquée sur un côté de deux pièces latérales et dont l'accès se faisait par l'ouest. Plusieurs nouvelles pièces ont été dégagées (Loci 12-13) et il semble que nous sommes en présence d'une seule grande unité d'habitation dont les limites ne sont pour le moment pas encore très claires. Les limites sud et ouest du bâtiment au mur décoré de niches ont été atteintes au sud (carré IX M 3) mais on ne l'a pas encore définie au nord.

La superficie du bâtiment, qui dépasse les 300 m2, exclut définitivement l'hypothèse d'une trame domestique modeste et renvoie soit à une fonction publique soit à une grande résidence. En second lieu, alors que tous les espaces sont associés à des fonctions de stockage, de préparation et de cuisson des aliments, aucun élément ne prouve pour le moment l'existence de pièces de réception ou liées à des pratiques administratives.

Il s'agit d'une tranchée implantée au travers du passage d'un oued, à l'est du chantier N 3. Elle est destinée à rechercher les vestiges éventuels d'une porte de la ville 2. L'excellent état de conservation du rempart de ville 2 et de ses fondations de pierre nous engage à espérer trouver une porte de la ville 2 de Mari, ce que Margueron n'a pas trouvé en raison de l'état

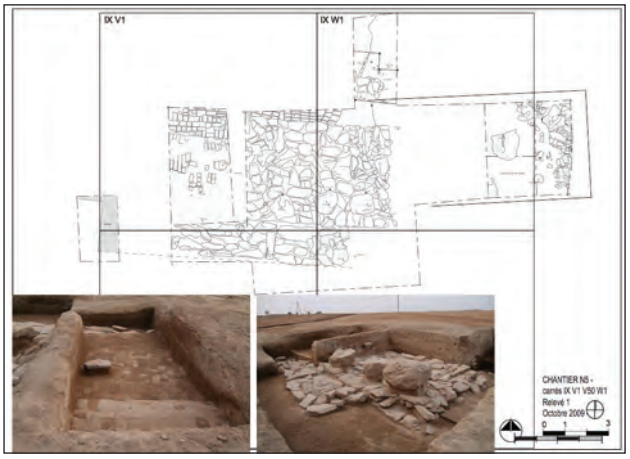

Fig.5

de conservation des remparts des chantiers J[5]. Les conditions topographiques du secteur laissent par ailleurs augurer d'une meilleure accessibilité des niveaux.

De fait on a dégagé rapidement les fondations massives en blocs de gypse d'une tour avancée qui paraît avoir flanqué un passage (Fig. 5) : l'ouvrage est comme dans le chantier N 4 extrêmement massif plus de 4,50 m de large, fait de pierres massives grossièrement appareillées. Les fouilles ont livré les vestiges d'une porte en simple tenaille, édifiée sur des fondations composites (socle monumental en gypse pour le parement extérieur et briques crues pour le parement intérieur). Le montant Est, repéré dans la partie orientale du chantier, a été complètement détruit ou démantelé par le wadi. Quelques gros blocs de gypse, peut-être toujours en place, laissent cependant supposer que le passage avait une largeur originelle proche de 4,60 m. L'état de conservation du montant Ouest est en revanche exceptionnel. Les fondations en briques jouxtent harmonieusement la limite Nord du socle de gypse ; l'orientation des rangées de briques et l'alignement des pierres sont en effet rigoureusement identiques. Le parement extérieur (partie basse de la superstructure) est blindé de plusieurs grosses pierres de gypse noyées dans la maçonnerie de briques crues, probablement un dispositif anti-bélier. Enfin, contre ce parement, est plaquée une tour-contrefort de 11,50 m de longueur et 2 m de largeur.

L'ensemble défensif qui a été dégagé permet de restituer toute une section de l'enceinte de ville 2 sur près de 50 m de longueur : l'un des éléments les plus intéressants est le changement d'orientation de la courtine à la hauteur de la porte qui est en creux par rapport à l'orientation générale du rempart. Second élément, la porte elle-même, à tenaille simple est le plus ancien exemple connu de portes urbaines en Syrie et la seule que nous ayons retrouvée dans un état de conservation pareil et à une telle échelle. C'est un jalon majeur pour l'étude des systèmes de défense, au milieu du III e millénaire.

Enfin, les recherche sur le chantier V 1 se sont poursuivies dans deux secteurs : d'une part sur les niveaux de ville 3, datés de la période amorrite, d'autre part, dans les fondations de la ville 2. Les niveaux les plus récents du chantier V 1 ont livré en 2007-2008 deux niveaux amorrites qui recouvrent les vestiges très dégradés de la ville 2. En 2009, on a repris la fouille sous le bâtiment officiel amorrite incendié à la fin de la ville 3 afin d'étudier le niveau domestique identifié en 2007 (niveau IV)[6]. L'élargissement de la fouille à l'ouest, sous le bâtiment monumental a permis d'établir qu'il ne s'agit pas d'un niveau domestique mais de trois niveaux distincts bien définis, toujours de la période amorrite. Une tombe collective se trouvait sous le niveau le plus ancien, elle aussi de période amorrite.

Les recherches dans les fondations de la ville 2 ont porté sur une fosse dont avait repéré les limites en 2008 : il s'agit d'une fosse quadrangulaire profonde de 3 m dans laquelle ont été retrouvées une sépulture et une maquette architecturale (Fig.6), dans un contexte très perturbé : la maquette était posée sur le côté et avait été cassée par un mortier. C'est le cinquième exemplaire de maquette circulaire découvert à Mari, toujours dans les fondations de la ville 2, dans un contexte malheureusement très perturbé.

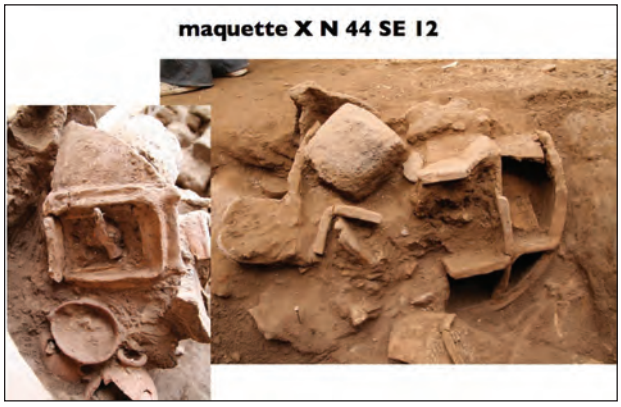

Fig.6

Fig.7

II. Axe 1 de recherches : le centre monumental et son environnement : recherches au massif rouge 2009

Les recherches au massif rouge ont débuté en 2006[7] et comportent trois volets complémentaires : les recherches sur le monument proprement dit et son évolution, l'étude de l'environnement proche du massif rouge et enfin l'étude de l'environnement du centre religieux de Mari. Plusieurs chantiers ont été ouverts depuis 2006, temple nord 1, au nord est au nord et à l'ouest du massif rouge, temple nord 2, dans le bâtiment accolé au nord du massif rouge et temple nord 3, depuis 2008, qui est destiné à étudier l'environnement nord du quartier des temples de Mari.

En 2009, quatre opérations ont été conduites (Fig.3 et Fig. 8): temple nord 1 ouest, temple nord 3, temple sud-est, et au sud du massif le chantier G, ou temple sud.

L'opération temple sud-est s'est poursuivie en 2009 dans deux directions : il s'agissait, après avoir bien défini les différentes phases du massif rouge dans ce secteur, de poursuivre le sondage dans la via sacra et de lier le massif à la ville est. Il s'est avéré que les travaux d'élargissement du massif rouge ont conduit à une translation de la via sacra vers l'est et à des réaménagements du quartier limitrophe. Nous avons identifié clairement deux niveaux de ville 2, à l'est du massif rouge. Ces niveaux ne sont connus pour l'instant qu'à travers un modeste sondage. La via sacra elle-même présente deux niveaux (Fig. 7) : le plus ancien est une chaussée draînante « classique » remplie de gravillons, le niveau plus récent est lui rempli de matériaux détritiques rougeâtres, un schéma déjà repéré au chantier temple nord-est 1, en 2006.

Les fouilles dans le secteur nord-ouest du massif rouge se sont échelonnées sur les campagnes de 2006 (angle nord-ouest du massif), 2007 (secteur sous le temple tour et sondage ouest) et 2008 (secteur au nord du temple tour). L'objectif en 2009 était de faire le lien entre l'angle nord-ouest du massif rouge et les trois autres secteurs de recherche. Le but était surtout :

1-° d'étudier la partie nord du bâtiment ouest dégagé sous le temple tour en 2007, et repérée en 2008 ;

2-° D'étudier la stratigraphie de l'angle nord-ouest du massif rouge où avait été dégagé en 2006 un mur arasé au moment de la construction du massif rose (état 3 du massif) et son lien avec la séquence établie au sud en 2007, qui avait permis d'atteindre une allée plâtrée : comment fonctionnaient ensemble ces divers édifices qui datent de la ville 2 et présentent chacun plusieurs phases ?

Pour résumer la situation, disons en deux mots ,que nous savons maintenant :

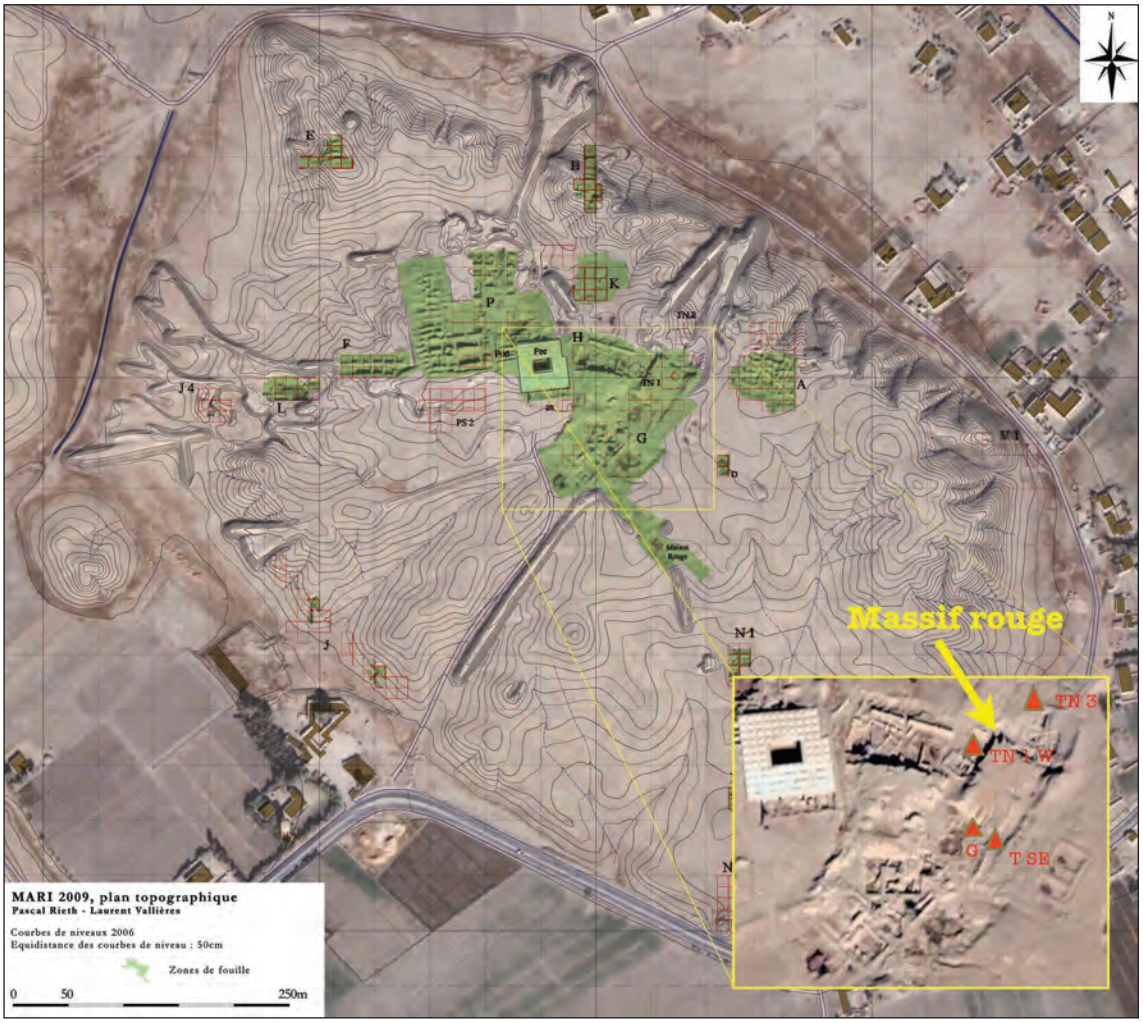

Fig.8

1-° que le temple tour est un édifice qui a été construit très probablement au moment de la restauration du massif rouge par Apil Kin (ville 3) et non pendant la ville 2.

2-° Parrot a dégagé à l'ouest du massif rouge un réseau de murs qui appartiennent à au moins deux phases distinctes de la ville 2 à l'ouest et à trois phases probables au nord. Le bâtiment que nous qualifions de bâtiment ouest appartient à une de ces phases mais il reste à établir s'il présente des phases plus anciennes comme c'est le cas au bâtiment nord. En faisant la jonction stratigraphique entre ces divers secteurs, il deviendra possible de connecter ces divers édifices et surtout de faire le lien avec les phases du massif lui-même dont on prévoit de réétudier la façade ouest, à ce niveau là du massif.

Deux carrés ont donc été ouverts cette année en 2009, en IV E 2 et IV F 2. En IV D 2 NE/SE et IV E 2, les vestiges du bâtiment ouest ont été retrouvé arasés à la cote de 180 m environ. Comme au sud, les murs du bâtiment étaient enduits d'un fin enduit de plâtre, tout comme les sols de l'ensemble. Les sols plâtrés, situés à des cotes voisines de 179, 30 m, sont conservés de manière inégale dans l'ensemble d'un monument qui a été vidé de son contenu avant d'être comblé de briques et de terres très tassées. Quatre nouveaux loci ont été identifiés (Loci 9, 10, 11 et 12), sans que l'on ait atteint apparemment la limite nord du monument qui passe sous les vestiges des loci h et i dégagés par Parrot.

Au sud du massif rouge,on a fait le lien entre le chantier G et le chantier Temple sud-est, afin de mettre en rapport les observations faites en 1999 par Beyer et nos propres recherches sur l'angle

Fig.9

Fig.10

Fig.11

sud-est du monument. Rappelons que sous l'esplanade de Dagan, Parrot a dégagé une esplanade dallée plus ancienne et un sanctuaire dit sanctuaire anonyme, dont les liens avec le massif rouge n'ont pas été bien définis. La reprise des recherches en 1999 a montré qu'il existait sous les temples anonymes de puissants murs de ville 2, probablement ceux d'un sanctuaire précurseur des temples anonymes. Seul le mur ouest de ce monument avait été repéré au nord, clairement liaisonné aux murs du massif lui-même. Il est indispensable de comprendre comment ce « temple » fonctionnait et à quelle phase du massif il fallait le rattacher.

Le temple en question reste mal connu mais les fouilles de 1999 ont permis d'établir qu'il existait au moins trois sols dans cet édifice aux murs très massifs de 1, 50 m de largeur. Cette année la fouille s'est concentrée dans la cella supposée de l'édifice ou a été dégagé le sol N°3. Sur le sol, ont été trouvées deux belles statuettes archaïques acéphales. Toute une série d'installations cultuelles ont été dégagées, une barcasse et notamment deux bassins en pierre bitumée longs de 70 cm et large de 30 cm environ. Ces bassins appartenaient aux phases récentes du complexe : ils étaient posés contre un grand massif de briques, large de plus de 2 m appuyé contre la façade sud du massif rouge. Le démontage de ce massif liaisonné aux briques grises qui recouvrent elles le massif rouge a permis de découvrir toute une série d'installations. Il existe, sous les bassins bitumés, une plate-forme plâtrée au pied du massif lui-même à l'ouest ; elle était haute de 80 cm environ., longue d'environ. 2, 50 m. Mais l'arrière est brutalement cassé, en biais, de même que le sol retrouvé au pied du podium. A l'est, un podium a pu être dégagé, d'une grande complexité : il s'agit d'une plate forme plâtrée, longue de 2, 85 m et dotée de 3 niches au pied desquelles se trouvaient des barcasses, profondes de 8 à 10 cm ; L'autel était conservé sur une hauteur de 70 cm et un beau sol plâtré a été retrouvé au pied de cette installation tout à fait typique de la fin de la ville 2 de Mari (Fig. 9). Entre ces deux installations, à la cote de 178 m environ enfin a été repérée une troisième installation. Il s'agit d'une installation en gradins faite de dalles de gypse, la dalle centrale était encore recouverte d'une épaisse croûte de bitume. L'étude de cette installation a révélé qu'elle reposait sur des briques semblables à celle du coffrage du massif rouge et des grands massifs de briques repérés au pied de l'ensemble : des briques grises de 50/25 chargées en gravillons. On a en section repéré la tête d'une statue disposée sous la plus grande dalle : sous cette dalle se trouvait une favissa, longue de 1,30 m et large d'environ 40 à 50 cm, bourrée sur un seul niveau de statuettes plus ou moins fragmentaires (Fig. 10). 14 objets ont été recueillis dans la favissa (IX E 48 SE 6 à SE 19), dont quatre statuettes inscrites. Toutes les statues sont cassées, il leur manque la plupart du temps les mains et les pieds mais plusieurs têtes ont été conservées (SE 6, SE 8, SE 13, et SE 17 très abîmé). Quatre statuettes sont inscrites. La plus impressionnante est une statuette en albâtre translucide, inscrite au nom d'Ilmeshar le héraut, dédiée au « Roi du Pays » (Fig. 11). La découverte de ces statuettes nous livre ainsi l'identité de la divinité vénérée au pied du massif, il s'agit du « maître du pays », dont le sanctuaire se trouve, on le sait, en ville 3, au temple aux lions. Cette découverte montre ainsi clairement que le massif rouge joue le même rôle en ville 2 que la Haute terrasse en ville 3, comme le pense Margueron[8].

Fig.12

Chacun des deux massifs présente un sanctuaire accolé, mais l'organisation du complexe est très différente et il reste à comprendre comment on montait sur le massif rouge. Il n'est pas exclus que l'installation à degré repérée entre les deux autels du temple du maître du Pays ait été le départ de l'escalier conduisant au massif.

Les recherches au nord du massif rouge, enfin, sont le résultat d'une fouille qui a débuté en 2008, par un sondage large de 5 m et long de 10. Il se trouve à la limite ouest de la première tranchée de Parrot. On avait identifié deux niveaux architecturaux : un niveau sommital très mal conservé et un niveau architectural bien défini par de puissants murs et des sols plâtrés (Loci 1 à 4), dans le carré H 5 quadrants NE et SE. En 2009, la fouille a été élargie à l'ouest dans les quadrants G 5 NE/SE et H 5 NO/SO. 4 niveaux ont été identifiés : une série de tombes, essentiellement de la période Lim, un niveau architectural que le matériel découvert permet d'assigner à la période Lim, un niveau shakkanakû dégagé en 2008, et dans le sondage entamé dans le locus 1 en 2008, un niveau incendié de ville 2 (Fig. 12).

Conclusion

Outre la spectaculaire découverte des orants de la favissa du temple bas du massif rouge, la campagne de 2009 a permis d'atteindre une série d'objectifs fixés en 2004 : préciser les contours de l'environnement du massif rouge d'une part, définir dans la ville est l'histoire du système de défense et établir une stratigraphie de référence d'autre part. La construction du centre de visite et l'achèvement de la restauration du bloc officiel du Grand palais royal (préalable à l'installation d'une couverture de l'ensemble) sont autant de jalons majeurs d'un plan global de gestion et de conservation des vestiges archéologiques, un plan qui intègre la poursuite des recherches sur le terrain et la mise en valeur de ce site patrimonial majeur. Les sondages pratiqués depuis 2005 ont permis de définir des secteurs prioritaires de fouilles et de mise en valeur, notamment dans l'environnement d'un centre monumental qui reste mal connu. Ces travaux sont complémentaires d'une série de sondages diagnostics destinés à évaluer la nature des dépôts présents en ville est dans les secteurs non explorés et dans les tells bas, qui en dehors de la ceinture (chantiers C 1 à C 7) restent encore très mal connus.

Notes

(1) Butterlin 2008 b et 2009 a.

(2) Les résultats des campagnes sont publiées dans la revue Akh Purattim (pour 2005 et 2006, dans Akh Purattim 3 (soumis pour publication), et pour 2007-2008, dans Akh Purattim 4, à paraître). Pour une vue générale, voir Butterlin 2008 b.

(3) Sur ces travaux de mise en valeur, voir maintenant Bendakir 2009.

(4) Butterlin 2009 a, p. 68-69, fig. 9, p. 78.

(5) Margueron 2004, p. 139-140.

(6) Sur ces niveaux, voir Butterlin 2009 a, p . 69.

(7) Sur les recherches au massif rouge, Butterlin à paraître, voir de manière préliminaire, Butterlin 2007 a, p ; 235-238, fig.7, p. 237.

(8) Margueron 2004, p. 257-258.

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CURRENT EXCAVATIONS AT TALL MUNBĀQA, ANCIENT EKALTE (RAQQA)

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Tall Munbāqa, a settlement with Early, Middle and Late Bronze Age levels, is situated on the left bank of river Euphrates, the present Lake Assad, about 90 km to the east of Aleppo. With support of the Directorate of Museums and Antiquities of Syria a German team and Syrian staff members are working at the site since 1969. We have excavated streets, houses, temples, town gates and town walls as well as various other architectural remains and rich inventories of this Late Bronze Age town named Ekalte.

During the last ten years excavations at Tall Munbāqa were concentrated on a most promising spot near the northern city wall. There, resulting from the geophysical prospection in 1993 the presence of a large rectangular building with first of all unknown function was reconstructed by the scientists (fig 1). The urban situation of this building was crucial, namely at the way between the northern city gate and the entrance to the Kuppe, the central area of the Tall going back to the Early Bronze Age III. This building itself, Steinbau 4, would belong to the town area called Innenstadt by us. This is in contrast to the relics of three other large buildings, Steinbau 1, 2 and 3, which are all to be found on the Kuppe and could be defined as Late Bronze Age temples in the excavations 1969-1994.

Therefore we decided to check the quality of the geophysical informations by some trenches. So in 1999 the excavators started a short campaign in order to execute some sections at carefully chosen spots in this otherwise not yet explored area. Our trenches fully confirmed the contours given by the geophysicists with special technical equipment in 1993. We were also able to date the ceramic material and a few small finds, among them the terracotta relief of a god, to the Late Bronze Age as a whole (fig. 2).

In spite of this fascinating coincidence of prospection and archaeological result we had difficulties to receive financial support for the continuation of field research following this most promising excavation campaign 1999. Five years elapsed before we were able to resume our work in 2004. Further campaigns were in 2005, 2006 and 2008. Preliminary reports concerning the results of each field season are to be found in Mitteilungen der Deutschen Orient-Gesellschaft, MDOG, issue no. 132 (2000), 137 (2005), 139 (2007) and 141 (2009). Some of the results are presented and discussed below.

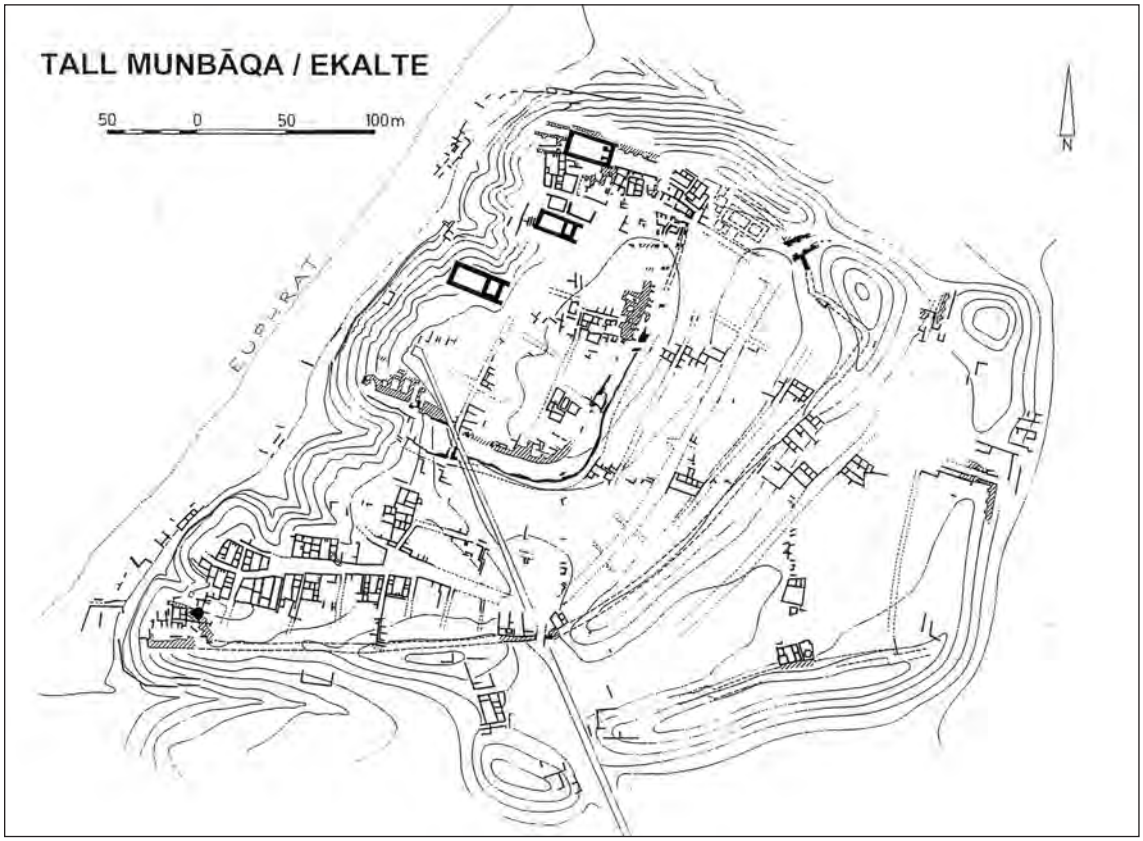

Fig. 1 Site plan of Tall Munbāqa with results of geophysical prospection, status 1994

Fig. 2 Terracotta relief of a male sitting god

The outcome of 1999 dig and the contour given by the geophysical prospection made us suspect a building of a certain type called in German Antentempel, in Latin templum in antis. Steinbau 1 and 2 on the Kuppe clearly belong to this type; in the neighbourhood of Tall Munbāqa one can mention the temple of Halawa, Tall A, excavated by Winfried Orthmann or the temples at Emar, excavated by Jean Margueron. This suspicion was soon confirmed; with the difference that our new building called Steinbau 4 by us had no antechamber in the original design. But the ancient Ekaltians found other ways to add rooms and walls to this basically very simple and impressioning architectural type.

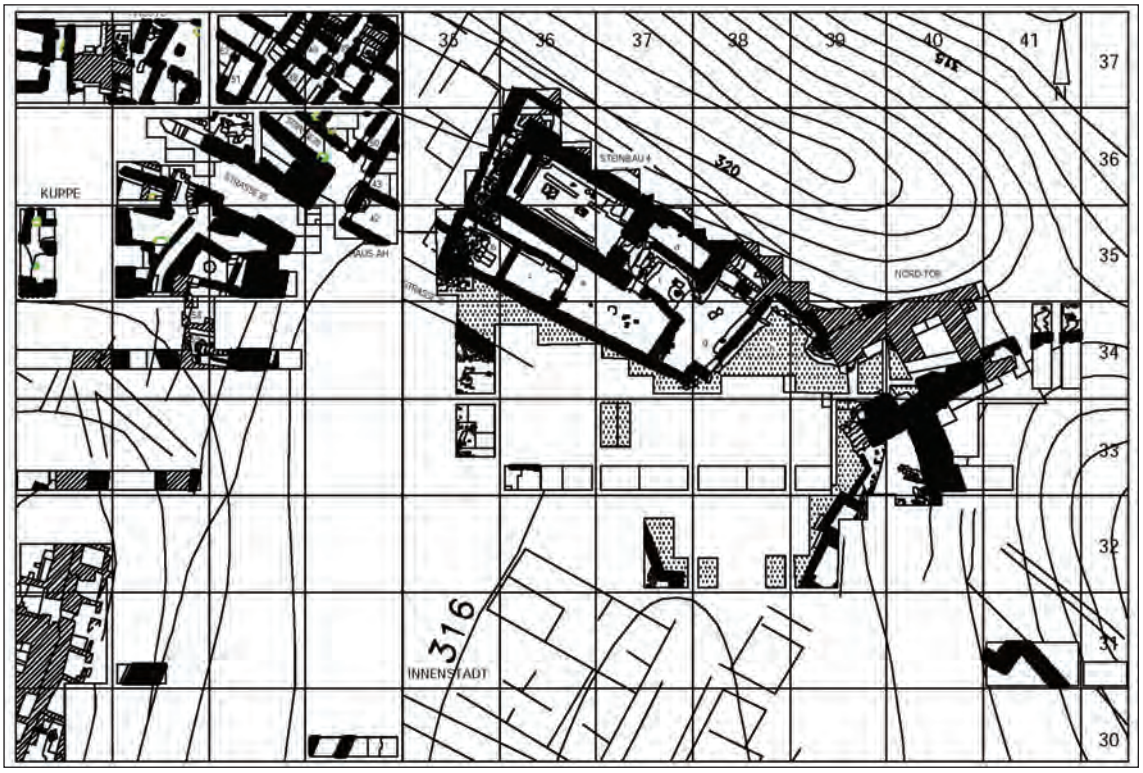

Fig. 3 Plan of the temple compound with Steinbau 4, status 2008

At the end of the 2008 campaign a whole architectural complex with associated rooms and areas had been excavated (fig. 3). The core building is the Antentempel, with a long rectangular main room, the cella (size 11,3 m/5,8 m). In this room we found several installations and small constructions of mud brick (libn) and stones, holes with charcoal, groups of dispersed knuckle bones of sheep/goat and cow together with stones of a certain type (fig. 4). At the end of the room opposite the entrance there is a podium erected from stones. Between the room and the outer, western wall of the temple there is a small cabinet accessible from the main temple cella, probably for storing cultic devices.

The wall behind the podium was a special object of desire for us because we expected a hint to the deity housed in this temple. But we were disappointed. One reason may be the severe destruction of the room by masses of pebble that came down from the northern city wall during the last 3.400 years. But it is also possible that the Ekaltians revered their deities in a more abstract way, i.e. in a non-iconic form. If this is true we might understand the relative lack of iconographical hints to a deity in this place.

This latter opinion is probably strengthened by the arrangement of the area in front of the Antentempel. In area “f”, near the flight of steps leading into the temple, there is a pillar-like stone carefully masoned, a baitylos. This stone is accurately embedded in the pavement and accompanied by a big stone vessel and a slab. The assemblage is comparable to some of the houses found e.g. in the area Ibrahims Garten. These parallels might be an indication of the magic or religious character of this ensemble (fig. 5).

There are different rooms and areas around this temple (Steinbau 4), which seems to be a 520 sqm area of unit function, clearly defined and partly bordered by a boundary wall (Temeneos-Mauer) with one entrance at all (s. fig. 3). We call this architectural ensemble temple area (Tempelbezirk). In the 1999 campaign we found a niche (room “a”, which is part of room “b”) full of pots and pot stands (fig. 6). The access to it was deliberately blocked by mud brick (libn) and magically

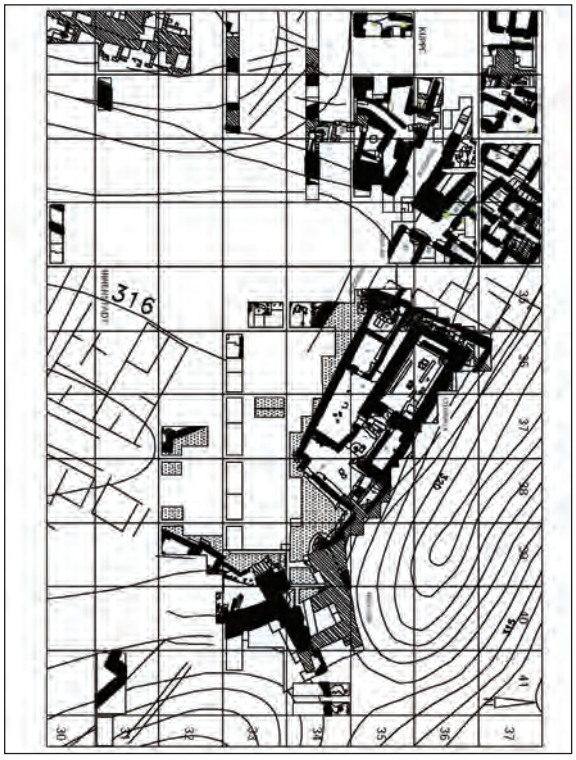

Fig. 4 View of Steinbau 4, seen from northwest, status 2005

Fig. 5 View into area "f" with baitylos from south-east, status 2006

Fig. 6 Pottery of room "a"

protected by some objects, a bronze pin and a couple of shell and frit beads. This niche is built into a big stone wall running from street 30 to the north and disappearing unter the temple. It corresponds largely to the western limit of the religious compound of Steinbau 4. The northern limit is identical with the northern city wall. Conditions of excavating there are quite difficult. So there might be at some spots a small gangway between the city wall and the temple wall. Interestingly there were two staircases in order to leave the temple in northern direction, the one from room "g", the other from the main room of the temple, the cella itself.

All rooms "b" to "g" – it is still uncertain which of them were unroofed – belonging to this temple area contained but few and unspectacular small finds, sherds etc. despite the fact that the temple was not blocked or filled in after falling in disuse. Ceramics give hints to eating and drinking vessels. Fragments of decorated pots and stands show applicated terracotta reliefs with nude women. The same types of pots and potstands as found in the niche "a" were also found in the other rooms around the temple. They certainly belonged to the liturgical equipment of the sanctuary, as we understand this compound. During the 2008 excavations a previous building – possibly erected in Middle Bronze Age – could be verified by small trenches in the cella.

Fig. 7 View of North Gate and town wall from west, status 2008

The urban situation of this particular building ensemble and its façade is of great interest if we try to imagine the daily situation in the Late Bronze Age town. When entering the town of Ekalte through the northern town gate (Nord-Tor) people first saw the temple compound. They were probably invited to sit down on the long bench encircling the intra-urban vestibule and lining the façade of the temple. This architectural feature has an astonishing effect: When we look at the entrance situation of the temple we find a small door in the left half of this wall facing the town gate. Thus the open area and the way to use it dictated an unpretentious solution for the temple entrance. This small door is enhanced by the corner to its left side: There, at an outstanding urban and architectural point, in a kind of recess, we found an erected stone, a baitylos (fig. 7). It is of a simpler look than the pillar in front of the Steinbau 4 in room "f". This small stone is possibly an indicator of the big stone inside. For some occasions when the temple was not accessible, this stone object could have been the aim for pious people outside the temple, for instance when they were passing by in direction to the Innenstadt or to the Kuppe. In combination with the large intra urban open space in front of the North Gate and south of the temple compound which extends to the high density area of the Innenstadt it was possible to have some rituals accomplished under the assistance of a big crowd.

The North Gate and its connection with the town wall are covered by masses of debris on its intra urban northern side but on the southern side we see the join of gate and wall. In a corner there was a big oven or kiln for pottery, possibly from the Middle Bronze Age. A carefully constructed stone stairway shows that this spot was once covered by an unknown construction. It is not yet clear whether this area was industrial before the town was enlarged in Late Bronze Age. We would like to dig further parts of this intra urban area but the steep slopes there present an obstacle (fig. 7).

As already mentioned there has been a large open space to the south of the temple compound. This means a different way to present the entire temple building to those coming from the Innenstadt than to those coming from the town gate. From a southern point of view the architecture of the temple compound and the city wall emerging behind it must have been quite imposing. It is in this area, namely at the southern limits of the open space that we are hoping for another building of some importance. Remember that the clay tablets with sale contracts between citizens and the temple have yet no counterparts in Ekalte itself, i.e. the duplicates of these contracts should be in the temple compound or in a kind of "diocese" centre. Such a location might have been in this area, not very far from Steinbau 4. The excavation campaign 2010 will concentrate on these parts too.

TELL ‘ACHARNEH : CAMPAGNE DE 2009

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Après deux années de pause, la mission canadienne à Tell ‘Acharneh a pu reprendre ses travaux à l’été 2009 grâce au renouvellement de ses subventions par le Conseil de recherches en sciences humaines du Canada. Cependant, les travaux de fouilles proprement dit, réalisés avec l’aide d’une dizaine d’ouvriers du village d’Acharneh, n’ont duré que 3 semaines seulement (18 jours), soit du 27 juin au 16 juillet; ils furent suivis de travaux sur la céramique jusqu’au 22 juillet.

Le but de notre campagne 2009 étant de – continuer à – reconstituer la chrono-stratigraphie du site, nous avons choisi de tirer avantage du ravinement (wadi) qui s’est formé ces dernières années tout le long du flanc méridional du tell principal d’Acharneh car lors de notre toute première campagne, en 1998, nous avions pu y observer une séquence stratigraphique intéressante mais elle était discontinue étant donné la disposition des sondages (Fortin 2006a); nous avons donc convenu d’y ouvrir à nouveau une série de tranchées plus grandes et mieux ordonnées cette fois, du moins de manière à avoir une séquence céramique complète du site à partir de contextes bien stratifiés.

Une tranchée de 5 x 2,5 m fut donc pratiquée dans la partie supérieure du ravin qui coule sur le versant sud du tell principal (fig. 1) dont la surface est en pente prononcée. Nous avons entamé la pente à un niveau absolu (altitude calculée en fonction du niveau moyen de la mer) qui se trouvait immédiatement sous celui des structures mises au jour au sommet du tell principal au cours des campagnes précédentes. Nous avons atteint 5 mètres de profondeur en moyenne dans l’ensemble de l’opération.

Dans cette tranchée, désignée par l’appellation WO1 (Wadi Operation 1), nous avons pu clairement observer en stratigraphie trois niveaux d’occupation qui correspondraient à trois événements distincts ayant contribué à façonner et transformer le tell principal d’Acharneh durant l’Antiquité (fig. 2 et 3); ce sont, du plus récent au plus ancien :

1) un sol en cailloux et tessons de céramique (âge du Fer II : 900-720 av. J.-C.)
2) une couche de destruction rougeâtre (probablement âge du Fer I : 1200/1150-900 av. J.-C.)
3) un mur de soutènement avec remblai de terre (antérieur à l’âge du Fer, donc à 1200/1150 av. J.-C. : âge du Bronze récent)

Fig. 1: Vue générale du flanc méridional du tell principal d'Acharneh montrant l'emplacement de la tranchée ouverte en 2009.

Fig. 3: Stratigraphie de la tranchée WO1, vue vers l'ouest.

Fig. 2: Stratigraphie de la tranchée WO1, vue vers le nord.

1. Sol en cailloux et tessons (âge du Fer II)

Assez près de la surface, sous une accumulation variant entre 0,50 et 2 m selon la déclivité de la pente, se trouve un sol (de cour?) fait de cailloux et de tessons de céramique tenus en place par une matière marneuse blanche. Il était recouvert d'un tapis tressé dont les empreintes des fibres étaient encore bien visibles sur les mottes de terre que nous avons enlevées de sa surface (fig. 4). Ce sol devait appartenir à un très grand édifice car on peut facilement en observer la continuation bien au-delà du secteur fouillé : dans une paroi du ravin et à la surface du flanc de la colline, sur une bonne distance (fig. 5).

Les fragments de céramique insérés entre des cailloux afin de former la surface de ce sol sont datables de la période de l'âge du Fer II (900-720 av. J.-C.). Du reste, ils se comparent parfaitement bien aux tessons retrouvés dans un sol semblable d'un bâtiment contemporain dégagé lors de campagnes antérieures (Fortin 2006b : 114-116 et 2006c : 125-133). Ces tessons appartiennent à des red slipped and burnished bowls, dont les formes se comparent à celles trouvées dans des contextes du Fer II dans le secteur CVB de la ville basse de Tell 'Acharneh (Cooper 2006: fig. 1:6-11), des deep bowl with expanded rims (Cooper 2006: fig. 2:6-13), des globular, hole-mouth cooking pots (Cooper 2006: fig. 4:3), et des large ovoid pithoi with thickened rims and heavy, solid-footed bases (Cooper 2006: fig. 4:12-17). En outre, ces tessons semblent posséder le même éventail de types de fabriques et de technologies de production tels que ceux observés sur des spécimens du Fer II trouvés précédemment dans d'autres secteurs du site.

Ce sol en cailloux et tessons devait faire partie d'un bâtiment ayant occupé le tell principal durant la période de l'âge du Fer II (900-720 av. J.-C.), juste avant sa destruction par Sargon II

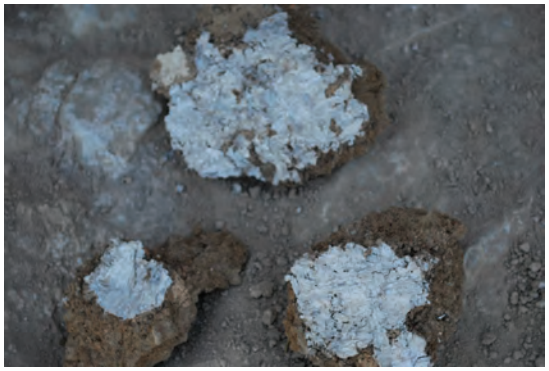

Fig. 4: Empreintes d'un tapis tressé en paille qui recouvrait à l'origine le sol en cailloux et tessons de céramique; si les fibres n'ont pas survécu, leurs empreintes elles sont bien visibles sur les mottes de terre qui se trouvaient par-dessus ce sol.

Fig. 5: Sol en cailloux et tessons de céramique, se prolongeant vers l'est dans une paroi du ravin et passant juste au-dessus d'une couche de destruction caractérisée par une accumulation importante de briques rouges désagrégées par un incendie.

Fig. 6: Couche de destruction rougeâtre insérée entre un sol en cailloux, au-dessus, et, en-dessous, un remblai formé de pans de murs en briques crues effondrés.

en 720 av. J.-C., comme nous l'apprend la fameuse stèle – découverte fortuitement en 1924 à proximité du site – que ce dernier y avait alors fait ériger pour commémorer sa victoire sur une coalition araméenne (Thureau-Dangin 1933; Frame 2006) qui devait comprendre Tell 'Acharneh puisque le noyau du royaume araméen du Hamath était formé par quelques villes situées le long de l'Oronte, incluant Tell 'Acharneh (Dion 1997 : 160-161).

2. Couche de destruction rougeâtre (âge du Fer I?)

Le sol en cailloux et tessons de céramique de l'âge du Fer II signalé plus haut reposait sur une épaisse (1,20 m) couche de destruction formée de briques rouges désagrégées provenant d'un bâtiment dont on peut encore discerner certains murs calcinés en paroi (fig. 6). Cette couche de débris rougeâtre avait été complétée, par endroits, par un remblai de nivellement de terre brune rapportée d'ailleurs.

L'occupation de ce bâtiment en briques rouges, cuites et désagrégées par l'incendie qui l'a détruit, est évidemment antérieure à celle du sol en cailloux/tessons de l'âge du Fer II (900-720 av. J.-C.), juste au-dessus, mais il nous est difficile de dire de combien d'années. La fabrique et la décoration des tessons de céramique recueillis dans cette couche rougeâtre sont différentes de celles des tessons de l'âge du Fer II de la couche supérieure. La couche rougeâtre contenait aussi une grande quantité de tessons des âges du Bronze ancien et moyen, et possiblement quelques

Fig. 7: Mur de soutènement en cailloux dressé contre une accumulation de débris de niveaux antérieurs et contre le parement sud duquel a été minutieusement déposé un remblai formé de terres compactes et homogènes.

fragments attribuables au Bronze récent. En s'appuyant sur ces observations, nous sommes enclins à dater provisoirement cette couche de destruction de la période du Fer I (1200/1150-900 av. J.-C.).

3. Mur de soutènement avec remblai de terre (âge du Bronze récent?)

Une coupure horizontale très nette en stratigraphie indique que les structures (du Fer I?) qui se trouvent dans le niveau de destruction, représenté par la couche rougeâtre décrite plus haut, auraient été construites, à l'origine, sur un remblai fort important constitué de plusieurs éléments disparates (fig. 2, 3 et 7):

plusieurs pans de murs en briques crues brunes et blanches effondrés (suite à un tremblement de terre étant donné l'inclinaison des murs?);

une « masse » rectangulaire de matière marneuse grise posée sur un lit de pierres qui est en relation structurelle avec un

haut (3 m) mur de soutènement formé d'un seul cours de cailloux sans forme contre le parement méridional duquel a été accumulé

un remblai de plus de 4 mètres formé de terres homogènes compactes, sans couches distinctes, et qui semble même se continuer encore plus profondément (fig. 7).

Puisque les terres de ce remblai ont livré des tessons, ainsi que de rares fragments d'objets, des âges du Bronze ancien, moyen et possiblement récent, mais aucun tesson de l'âge du Fer, il est logique de supposer que des éléments de ce remblai, tels les pans de murs, aient pu avoir été originellement construits au Bronze récent, donc avant 1200 ou 1150 av. J.-C.

Cependant, leur « intégration » à un remblai serait plutôt survenue à une époque postérieure (de combien?), vraisemblablement au début de l'âge du Fer, car ces structures étaient effondrées (suite à un tremblement de terre étant donné l'inclinaison des pans de murs? ou d'une attaque par un groupe hostile?) et hors d'usage lorsqu'elles ont été incorporées au remblai.

Du reste, d'épais remblais semblablement formés de terres homogènes et compactes ont été identifiés ailleurs sur le site, lors de précédentes campagnes (Fortin 2006b : 114-116; 2006c : 125-133). Et nous avons essayé de démontrer que ces remblais seraient à mettre en relation avec une importante phase de réaménagement du site à une époque où la vallée était exposée aux attaques répétées des armées assyriennes (Hawkins 1995; Yamada 2000; Klengel 2000; Cooper et Fortin 2004 : 18-22) qui sont illustrées sur certains des célèbres bandeaux en métal appliqués par Salmanazar III (858-824 av. J.-C.) sur une paire de portes monumentales en cèdre de son palais à Balawat (Schachner 2007) : sur l'un d'eux (IX), relatant les importantes campagnes de Salmanazar III dans la province araméenne du Hamath, entre 853 et 838 av. J.-C. (Marcus 1987 : 79-84, pl. XVIIIb), on y voit même des représentations de villes fortifiées, en bordure d'un cours d'eau, et l'une d'elles pourrait bien correspondre à Tell 'Acharneh (Sader 1987 : 225 n. 98; Schachner

2007 : 301, 336-338) car la moyenne vallée de l'Oronte constituait le noyau du royaume du Hamath (Sader 1987 : 185-230; Dion 1997 : 156-170; 2006).

Le réaménagement de Tell 'Acharneh au début de l'âge du Fer, vraisemblablement dans le cadre de la formation des royaumes araméens (Sader 2000) comme cela a pu être observé à Tell Afis (Mazzoni 2000; Venturi 2000) ou Tell Qarqur tout près (Dornemann 2000), aurait été à ce point substantiel qu'il aurait même pu faire disparaître en grande partie – en les utilisant comme remblais – les traces de la ville de l'âge du Bronze (Fortin 2006d), c'est-à-dire la ville de Tunip, qui aurait été précédemment détruite lors du passage des « Peuples de la Mer » quoique cette explication n'est pas absolument assurée (Singer 2000 ; Hawkins 2002 ; Bryce 2005 : 333-346).

Étude de la céramique

L'étude de la céramique de ce niveau, comme des précédents, menée par Lisa Cooper, reste problématique car aucun contexte stratifié n'a encore été retrouvé, contrairement à nos attentes... Nous nous demandons même si nous parviendrons un jour à reconstituer une séquence complète et stratifiée pour Tell 'Acharneh comme cela a été fait récemment pour Qatna (Morandi Bonacossi 2008; Besana et al. 2008). À tout événement, nous prévoyons poursuivre nos travaux l'an prochain (2010) avec l'ouverture d'autres tranchées dans le ravinement le long du flanc méridional du tell principal, voire même la reprise de la fouille dans un secteur (TE) au sommet du tell (ouvert en 2002) afin de retrouver un niveau de l'âge du Bronze récent sous-jacent au niveau de l'âge du Fer.

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LA MISSION CONJOINTE SYRO-FRANÇAISE DE L'ORONTE: TROISIEME CAMPAGNE (2009)

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DGAM-Syria, Université Charles de Gaulle Lille, EPHE-Paris

Mission d'étude (avril 2009)

Une mission d'étude a eu lieu en avril 2009, basée au musée de Hama (annexe du palais Azem). Elle a permis à Michel Dabas (directeur scientifique, Geocarta SA) de faire une étude préliminaire à un travail de prospection géophysique sur la micro-région englobant Tell Massin et Tell al-Nasriyah et qui doit débuter en 2011 ; Stéphane Rottier (anthropologue, maître de conférences à l'université Bordeaux I) et Aline Tenu (archéologue, CNRS, UMR 7041 du CNRS et université de Cambridge) ont étudié au musée de Hama les jarres cinéraires trouvées en 2008 à Tell al-Nasriyah sur le chantier A ; Xavier Faivre (ingénieur de recherches, UMR 7041 du CNRS) et François Bernel (restaurateur, IFPO Damas) on travaillé au remontage et à l'étude céramologique des jarres cinéraires.

Mission de terrain (septembre-octobre 2009)[1]

Morgan de Dapper (professeur au département de géographie de l'université de Gand, Belgique) a entamé l'étude géomorphologique de la micro-région s'étendant entre Tell Zemyoun et Tell Massin au nord et Tell al-Nasriyah et la confluence du Sarout et de l'Oronte au sud.

Paul Courbon (ingénieur topographe de l'IGN et géomètre-expert DPLG) et Pascal Rieth (ingénieur topographe ENSAIS) ont complété les relevés topographiques de Tell Massin et de Tell al-Nasriyah et ont procédé à leur géo-référencement. Ils ont également relevé des points et des profils en différents endroits à la demande du géomorphologue, complété l'implantation du carroyage sur les chantiers de fouilles de Tell al-Nasriyah et levé des séries de points pour les relevés de fin de campagne de plusieurs chantiers.

Six chantiers ont fait l'objet de fouilles à Tell al-Nasriyah cette année (fig. 1).

Le chantier A en bordure de l'Oronte au sud-est a été repris par Ibrahim Shaddoud (DGAM, Hama) pour la partie médiévale (habitat ayyoubide-mamelouk). Aline Tenu a repris de son côté

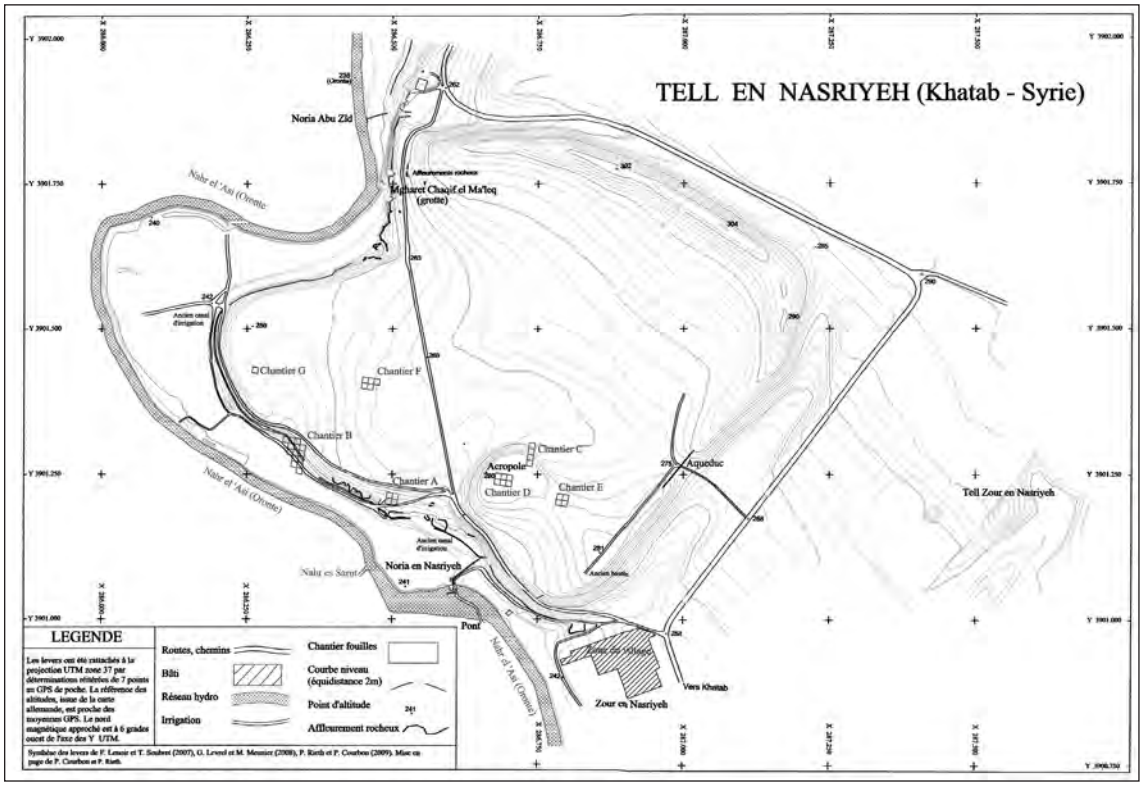

Fig. 1 : Tell al-Nasriyah. Implantation des chantiers en 2009.

la fouille et l'étude de la nécropole à incinération de l'âge du Fer, où elle a mis au jour plusieurs jarres cinéraires (fig. 2), certaines intactes.

Le chantier B en bordure de l'Oronte au sud-ouest a été repris par Yahya Balhawan (doctorant Lille-3) avec Abdallah Bassal (représentant, DGAM, Hama), Dominique Parayre (co-directrice, professeur à l'université Lille-3) et Maël Guérin puis Marie Renard (étudiants de l'université Lille-3). Nous avons constaté que les aménagements des paysans depuis des décennies ont dû détruire la grande porte d'accès à la ville basse depuis le fleuve. Par contre, la rue dégagée en 2008 et qui montait des bords du fleuve à la ville basse a été largement dégagée : elle comporte une partie médiane dallée et deux bas-côtés faits d'un radier de cailloutis avec des pierres. Elle était bordée au nord-est par un mur en gradins sur casemates remplies de galets et de cailloutis (fig. 3). À l'ouest, l'énorme mur de soutènement et de défense qui délimitait la ville basse du côté de l'Oronte a été suivi sur une centaine de mètres en contrebas de la route actuelle. Enfin, nous avons commencé un sondage à l'ouest de ce mur afin d'appréhender la zone qui bordait directement le fleuve (berge ou quai ?) : nous y avons dégagé deux murs qui présentent un beau parement de pierres.

Le chantier F (fig. 4) a été ouvert par Guillaume Gernez (IFPO), assisté de Mayassa Dib (étudiante à l'université de Damas). Dans le carré 72/92, à quelques centimètres de la surface, ont été mises au jour des structures du Fer II avec de beaux murs de pierres, un radier, un tannour et de la céramique en place dont d'énormes jarres de stockage. Dans le carré 72/93, les structures architecturales sont plus monumentales : murs plus épais, sols enduits de très belle facture, seuil monumental permettant semble-t-il l'accès depuis une zone ouverte. Enfin, les caractéristiques architecturales observées dans le carré 73/93 ressemblent à celle du carré 72/92. On a trouvé sur ce chantier cinq tessons de jarre portant une inscription araméenne.

Fig. 2 : Tell al-Nasriyah. Chantier A, jarres cinéraires repérées en 2009.

Fig. 3 : Tell al-Nasriyah. Chantier B, mur en gradins sur casemates bordant la rue du Bronze moyen.

Fig. 4 : Tell al-Nasriyah. Chantier F, plan schématique de la fouille de 2009.

Le chantier G. Un sondage a été fait par Raed Salloum (DGAM, Damas) à l'ouest du site. Sous des couches de surface très dures est apparue une zone noircie avec des traces circulaires de zones à feu et de très nombreux os et dents d'animaux, qui pourraient être les restes d'une cuisine ou une zone de rebut.

Le chantier E sur la pente nord-est de l'acropole a été choisi à cause de la découverte de cols de jarres cassées lors de la prospection de 2007. Les archéologues (Xavier Faivre, ingénieur de recherche CNRS, Nanterre et Martin Sauvage, assistant, ingénieur d'études EPHE, Paris) y ont découvert les vestiges d'un bâtiment du Fer II très abîmé par l'érosion (fig. 5) mais avec un bel assemblage céramique, du matériel lithique en basalte, les restes d'un réceptacle en vannerie ayant servi à contenir une jarre et un tesson inscrit. Sous ce niveau sont un mur de briques enduit daté aussi de l'âge du Fer et des tessons du BA IV dans un sondage plus au nord.

Le chantier D (Nordine Ouraghi, doctorant Lille-3) a été installé au sommet de l'acropole. Sous l'épaisse couche de surface a été dégagé partiellement un bâtiment de pierres aux murs larges de près de trois mètres avec un beau carrelage de briques cuites (fig. 6). Aucun matériel n'a encore été retrouvé en place sur les sols mais plusieurs indices indiquent que ce bâtiment exceptionnel date sans doute du Fer II.

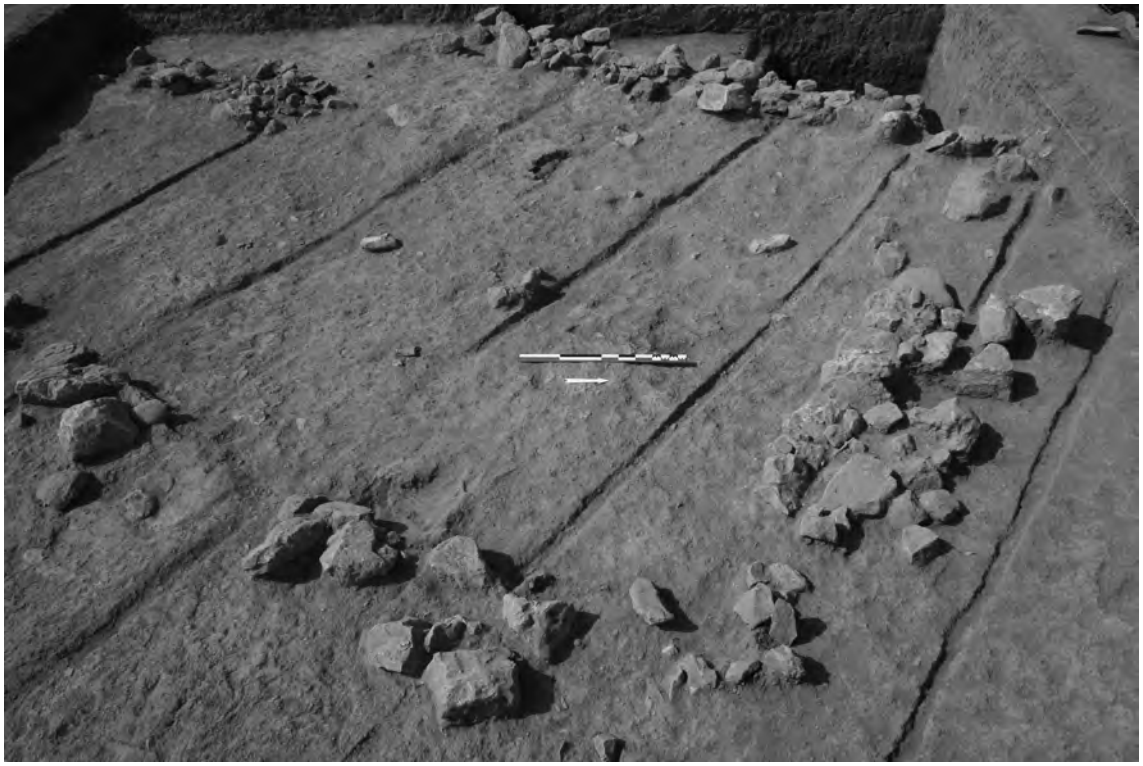

Fig. 5 : Tell al-Nasriyah. Chantier E, détail du niveau de l'âge du Fer.

Fig. 6 : Tell al-Nasriyah. Chantier D, détail des structures dégagées en 2009.

Fig. 7 : Tell al-Nasriyah. Tell Zour al-Nasriyah.

Le « tumulus » situé au nord-est du site

Avec le géomorphologue nous avons travaillé sur le monticule extra-muros situé au nord-est de Nasriyah (Tell Zour al-Nasriyah), immédiatement à l'ouest d'un wadi, et coupé en deux par un bulldozer (fig. 7). Il s'agit de toute évidence d'une structure anthropique, sans doute mégalithique et de fonction funéraire (un paysan aurait vu un énorme mur de blocs de pierre et de nombreuses tombes avant les destructions récentes). Le nettoyage partiel de la coupe montre la présence de murs de briques crues et de parements de pierres. De plus, nous avons constaté qu'au sol, à l'emplacement du monticule coupé et plus au sud (dans le sens des écoulements d'eau de surface), il y avait de très nombreux tessons (en majorité du Bronze moyen) ainsi que des fragments fauniques.

Nous avons demandé au service des Antiquités la protection de ce qui reste de ce « tumulus » et nous y projetons une campagne d'étude pour 2010.

Note:

(1) Membres de la campagne d'automne 2009

Composante syrienne: Abdalla Bassal (27/09-08/11), Chadi Chabo absent pour raisons médicales, Mayassa Dib et Raed Salloum (27/09-24/10), Ibrahim Shaddoud (28/09-29/10), Mohamed al-Dbiyat et Bahjat Mohamad (23/09 et 24/09).

Composante française: Dominique Parayre (19/09-08/11), Martin Sauvage (03/10-24/10), Xavier Faivre (19/09-08/11), Guillaume Gernez (24/09-16/10), Aline Tenu (13/10-07/11).

Etudiants: Yahya Balhawan et Nordine Ouraghi (doctorants, 18/09-09/11), Christelle Ansel (24/09-08/11), Maël Guerin (24/09-15/10), Marie Renard (15/10-08/11).

Spécialistes: Morgan de Dapper (19/09-30/09), Pascal Rieth (19/09-10/10), Paul Courbon (19/09-15/11), Gilbert Naessens (22/10-07/11).

Dates de la mission 2009 : 19 septembre-8 novembre

A SOUNDING AT ARSLAN TASH. RE-VISITING THE "BÂTIMENT AUX IVOIRES"

Serena Maria CECCHINI, Fabrizio VENTURI

University of Bologna-Italy

Since 2006 a joint project of General Directorate of Antiquities and Museums of Syria, the University of Bologna and the Musée du Louvre for the study and the restoration of the Arslan Tash engraved ivories, unhearted by the French archaeologists in the so-called Bâtiment aux ivoires, is operating. In the Northern Syrian City, as everyone knows, in 1928, French excavations of the Musée du Louvre, directed by F. Thureau-Dangin, brought to light palaces, city walls and their gates, temples with inscriptions which allowed the identification of the site with the Assyrian city of Khadatu, a provincial centre of Til Barsip/Kar Salmanu-asharedu. The results of the archaeological activities were quickly published in 1931(1), but unfortunately the Arslan Tash excavations report is lacking of any reference to the material culture. Neither pottery findings nor field notes are nowadays available.

In the frame of the ivories study project, a Joint Syro-Italian archaeological expedition is operating since 2007 in Arslan Tash. The archaeological research has the aim of looking for the missing data about the archaeological context of the finds discovered during the 1928 season.

Although the problem of the origin and dating the ivories and the construction and use of the Bâtiment aux ivoires are quite unrelated, however, in view of a general publication of ivory inlays and objects, we found it appropriate to investigate archaeological area of the Bâtiment aux ivoires, in order to place it in a proper town planning history.

In fact, the lions of gates offer the only possible date, important from a historical perspective. From Aramaic and Assyrian inscriptions engraved on them, recently read by Wolfgang Röllig and Hannes Galter(2), we learn that Ninurta-bel-usur, naming himself the district chief of Kar-Salmanu-asharedu and eunuch of Shamshi-ilu, built the walls and put the lions on the doors.

From inscriptions it is evident that Ninurta-bel-usur, although an eunuch and then an Assyrian official, acts as a ruler; it also defines himself a native of Sirani and Halahhi and therefore seems to belong to a local dynasty(3).

The new town was on the trade route to Assyria through Harran and Guzan. Its foundation by Ninurta-bel-usur could be correlated exactly with the safety of this road[4]. The event would be dated precisely based on the activity of Shamshi-ilu in Syria, at 780, as generally suggested[5].

Hypothetically, we could also put this activity in time of power maximum autonomous Shamshi-ilu, under Ashur-dan III (771-754), when he was the only powerful man in the empire, as recently proposed by Liverani[6].

The ivory furniture may have been donated to Ninurta-bel usur during this period by Shamshi-ilu, after the campaign of Damascus in 773, when the turtānu added on the back of his Pazargik stele an inscription stating that the tribute received from the king Hadyan of Damascus included a seat and a royal bed.

The topographic survey of the site was the first step of the archaeological project in 2007. The second part, in 2008, was the geo-physical investigation, in order to locate the excavated monuments, now disappeared, in the context of the new very dense urban texture. In fact, at present the modern village completely covers the surface of the tell, as can be seen from the cadastral map.

The uninterrupted occupation of the site from the Thureau-Dangin excavation onward leaves no reliable fixed point to position the buildings in the village map. Therefore we have followed some criteria: firstly, we have considered the approximate position of the east and west city gates as remembered by the old villagers; secondly, we have analysed features in the contemporary urban layout, which could be reminiscent of the ancient structures. The external SW street appears to follow the ring shape of the ancient city wall. Furthermore, the so-called marais, a marshy depression around which the old village was set, still remains today, a low open area collecting the waste water from the nearby houses. Then, on the low hill to the north, 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, we have compared the contour lines of the Thureau-Dangin plan with that of the modern village; apart from some obvious differences, the latter shows analogies with the ancient morphology of the tell, still today a more or less horse-shoe-shaped low hill around the marais. The most marked difference concerns the northern sector which is now more advanced and steeply sloped towards the marais than before. This protrusion in the morphology of the tell probably corresponds to the dump area of the French excavations.

The sum of all this data has allowed us to propose a hypothetical position for the buildings excavated by Thureau-Dangin. On the basis of such positioning, we have then identified 9 areas in the street network which were the subject of a geophysical radar survey during the 2008 campaign. Areas L-H-G are situated near the west city-gate and the fortifications; areas A-B are located on the current highest point of the village, and areas C-D-E-F should fall inside or in the vicinity of the wide area occupied by the Assyrian palace and the Bâtiment aux Ivoires. The instrument was set to provide radar profiles of the underlying structures to a depth of 3 m.

The data processing has given interesting results in areas H-L and E2. Below these two East-west streets, at the junction with the ring road bordering the village, the shape of an almost 5-metre-thick structure can undoubtedly be identified as the Khadatu city wall. The survey in area E2, which should be situated in correspondence to the Bâtiment aux Ivoires, has also given indications of walls with N-S orientation. The topographical position and the good results of the survey led us to choose area E2 as our field of excavation. This elongated trapezoidal open courtyard should more or less correspond to the rooms situated to the north/NE of the paved court of the Bâtiment aux Ivoires. Consequently, we decided to open a 10 by 4 m. trench here.

The structures concerning phase I appeared 50 cm below the topsoil: two walls with a nearly N-S E-W orientation define two rooms which open to the east onto a larger space (fig. 1). The composition of these walls leaves few doubts about their identification with those of the Bâtiment aux Ivoires as described by Thureau-Dangin in his report. A different use of materials and architectural techniques distinguished the latter from the Assyrian Palace. The latter were completely built with crumbly red mud bricks, whereas the walls of the Bâtiment aux Ivoires were constructed with very compact whitish-yellow mud bricks laid on a rough-stone base. The walls of the building, which in some parts originally stood to a height of 2 m, have been completely lost. The only trace of them could be represented by unit 2, a compact 30 cm-thick whitish layer composed of clay and fragments of brick, which sealed the whole excavated area. The bases are 120 cm wide, which corresponds to the average thickness of the Bâtiment aux Ivoires walls, and

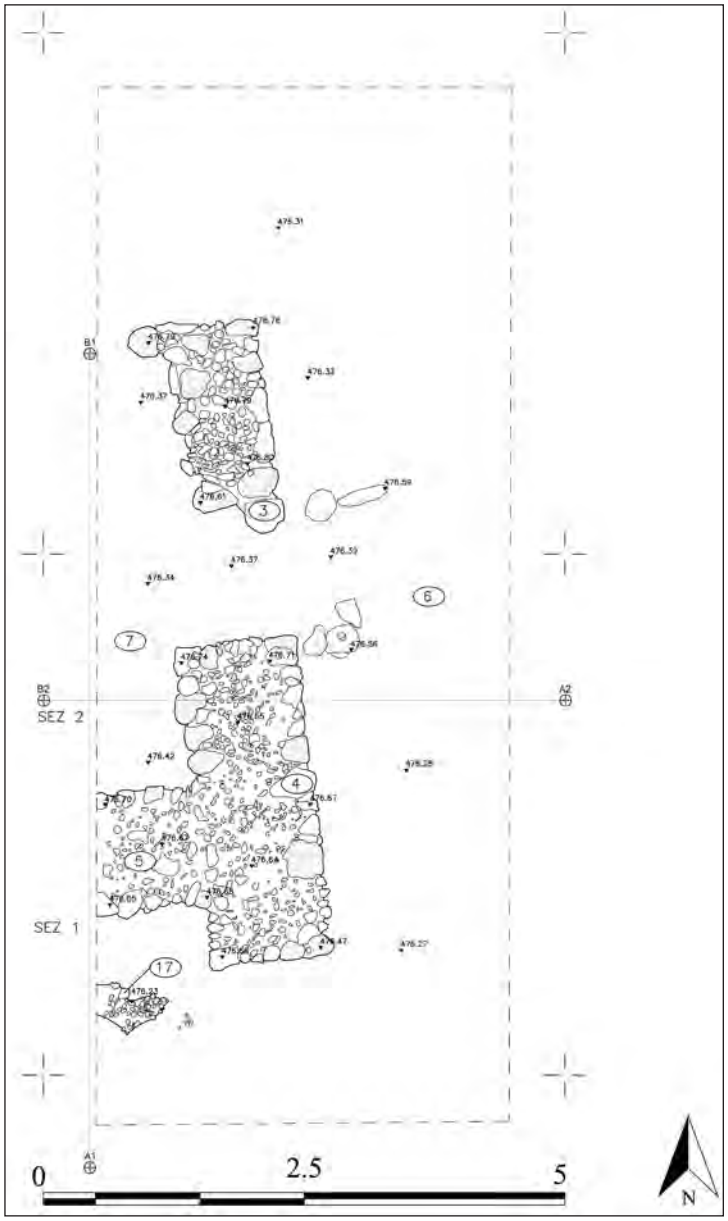

Fig.1

were made, as described by Thureau-Dangin, of two courses of stone for a total height of 40-50 cm. This base, also as in Thureau-Dangin's description, was built on a mud brick foundation, made with the same 38 by 38 whitish-yellow bricks used for the walls (fig. 2). The only difference concerns the laying, which in the case of the foundation was less careful; thick layers of grey mortar-clay divided the brick joints and the external face of the courses was irregular. Our foundation 14 doesn't stop in correspondence with the doors, as the bases do, but is a continuous, unique structure which stops abruptly only on its northern side. Moreover, it is a half-brick larger than the base, for a total width of 140 cm.

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 trench-cut of the foundation, which we call unit 13, is clearly visible, and in the head of the wall it is possible to see the irregular half-bricks used to adapt the brickwork to the external cut.

From Thureau-Dangin's report, we know that these foundations were composed of between four and six courses of bricks and could reach 1 m. in depth. Unit 14 had 8 courses of bricks for

a depth of 120 cm (fig. 3). The brickwork follows the scheme of the walls, illustrated in his fig. 14, i.e. alternated courses: one made by three square bricks and one made by 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 didn't find any evidence of them. Thin horizontal layers of reddish clay, such as unit 7, are stratigraphically related to the lower course of the wall-bases. It might be possible to interpret these layers as preparation for the disappeared floors. The only sign of an original floor comes from the southern room and corresponds to unit 17, a small group of black pebbles. We know that in the building, the only pebbled floor was that of the court. It was paved with alternated carrée made by white and black pebbles in a checkerboard pattern. Nevertheless, the scanty remains and the lack of further original information make it difficult to say if our unit 17 could possibly be the remains of that floor. Anyway, according to this suggestion our southern room should correspond to the court, the northern room to vestibule 1 and the eastern space to room 6. Nevertheless, the position of the area remains conjectural.

After removing part of the Bâtiment aux Ivoires foundation, we continued our excavation identifying two more ancient phases cut by this foundation trench. Phase II is represented by the irregular cobbled floor 26 which extends over the whole excavated area (fig. 4). A simple

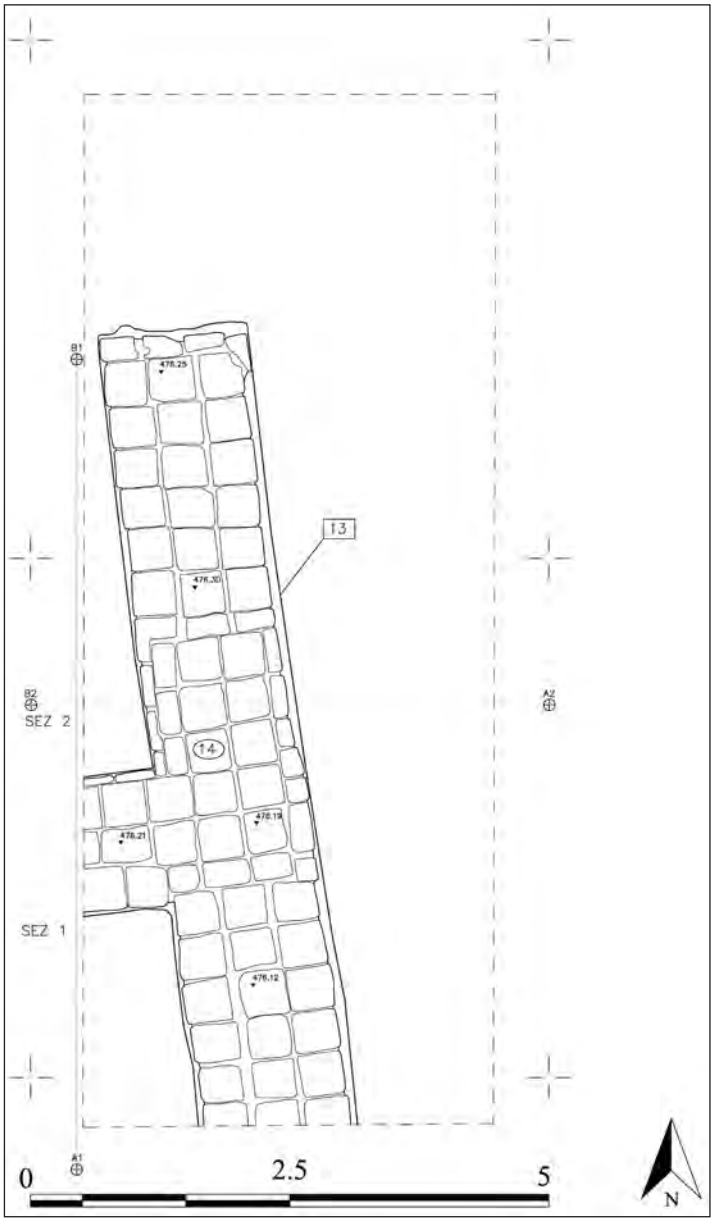

Fig.2

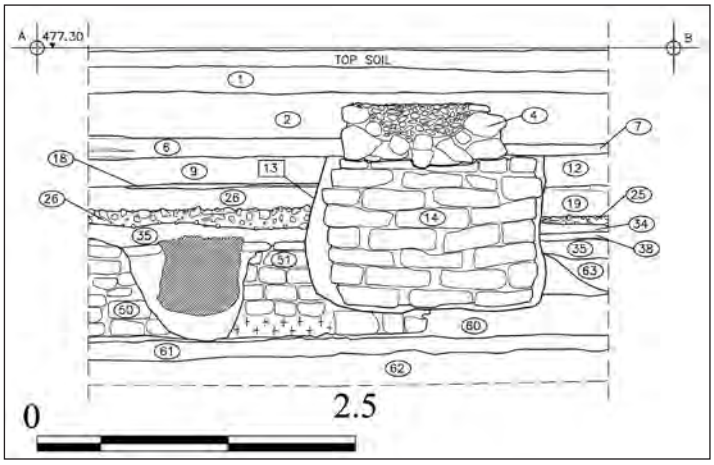

Fig.3

installation was arranged in the south-eastern corner. It consists of a small depression lined by two 40 cm-thick walls. They had a NW-SE orientation and were made of reddish, gritty bricks. 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.

Fig.4

Also in phase III (fig. 5) the majority of the installations were located in the southern square. The area was occupied by a 2.5 by 2 m room. The floor of this small space was completely taken up by two sunken installations consisting of large storage jars whose bases had been cut away. This locus was probably in connection with floor 49 and tannur 59. The walls were 40 cm thick and they were partly removed, like tannur 59, by the Bâtiment aux Ivoires trench foundation (fig. 6). These structures follow the same orientation as that of phase II and use the same reddish, gritty clay for mud bricks. Moreover, these walls have no stone base; all these features define a marked difference between the architecture of phases II-III and that of the Bâtiment aux Ivoires .

The phase III structures were covered by a homogeneous whitish layer. It is in this unit that we found the upper half of a broken barrel-shaped cylinder seal in black serpentine, with an antithetical scene illustrating a religious ceremony. A winged disc is flanked by two bearded figures. The disc has a curled appendage at the top and flaring feathers with lower streamers. A very similar scene decorates some Neo-Assyrian seals, where two figures probably representing high-ranking personages stand in front of a palmette represented under the sun disc. The style, the shape and the scene could indicate a date in the 9th century BC, as parallels coming from the Assyrian heartland and Tell Knedig suggest(7).

The complete removal of the Bâtiment aux Ivoires foundation revealed a very clean light-yellow layer (unit 60). In order to verify if it could be considered virgin soil, we opened an E-W trench. The cross-section confirmed our hypothesis. Unit 60 lies upon two earlier layers (61 and 62) made of compact clay lacking anthropic signs which must be considered natural deposits. Therefore phase III is the oldest archaeological evidence in this area. In the cross-section it is possible to see unit 60 partly removed by the trench-cut of the Bâtiment aux Ivoires foundation,

but also by that of the phase III-red brick walls.

The pottery collected shows homogeneous features through all the excavated phases. We have found few sherds of red slipped bowls and plates. A group of very fine greyish or pinkish ware display various forms such as goblets, bowls, some with a heavily carenated profile, thin-walled hemispherical bowls with a plain rim. Common ware is characterized by plates with plain rim and bowls with thickened inturned rim. Jars have triangular or outwardly thickened rim; hole-mouth cooking pots have simple or inwardly thickened rim.

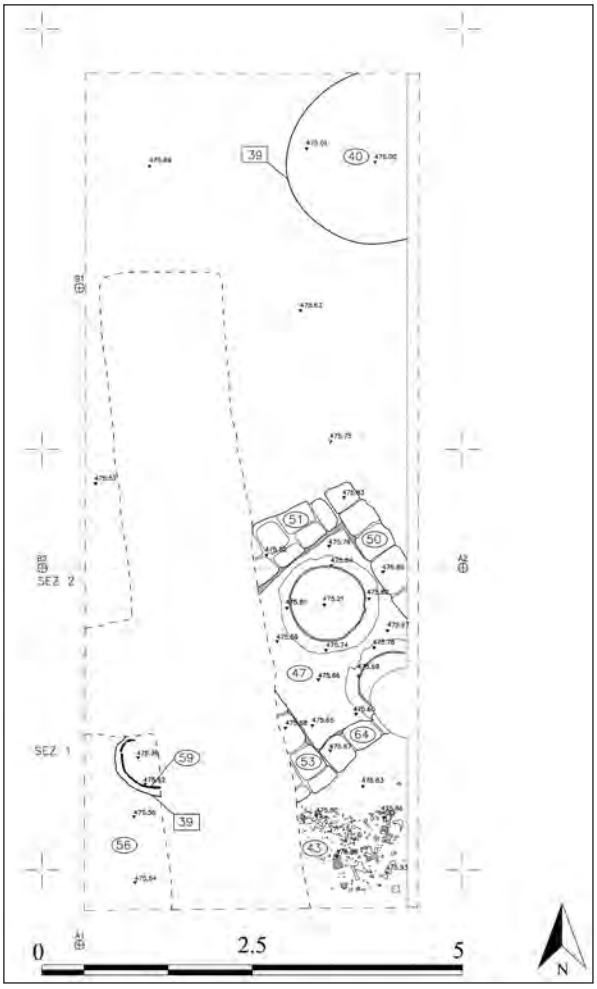

Fig.5


Fig.6

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 Bitanu court of the Assyrian palace could be proof of an earlier construction of the Bâtiment aux Ivoires. Thureau-Dingin gives some further stratigraphical information in his description of the southern limit of the Assyrian palace. Near the southern edge of the acropolis, he discovered the structures of a more ancient building which he called Bâtiment B. These walls had whitish-yellow bricks and stone bases. They were preserved to a height of 50 cm and were used as a foundation on which to arrange the red brick walls of the Assyrian palace. Below these structures lay the walls belonging to a third building called Bâtiment A. On the southern slope of the acropolis he didn't find any other structure and defined Bâtiment A as the most ancient structure identified on the acropolis. The existence of an earlier building is also probably testified in the northern part of the Assyrian palace. The sector called Bâtiment Z had thinner walls and its floors, situated two meter below, were connected to the palace through a ramp built in room 49.

Bâtiment B confirms the existence of an important architectural phase prior to that of the Assyrian palace, characterized by the use of the same materials and techniques of the Bâtiment aux Ivoires, and therefore supports the hypothesis of an earlier date for its construction. Unfortunately, the lack of a direct connection between the two buildings doesn't allow us to determine with

certainty if the Bâtiment aux Ivoires was integrated into the Assyrian palace system as Bâtiment Z, and existed until the final destruction of the town, or if it was obliterated, like Bâtiment B, at the moment of the palace's construction.

However, the sum of all this evidence draws us to the same conclusion at which Thureau-Dangin also arrived. The Assyrian palace was built on the top of the acropolis, partly by cutting the preceding structures and partly by integrating them, thanks to a terrace system which linked the building on its northern and perhaps eastern side to the lower town, while presumably the southern edge of the acropolis sloped steeply toward the marais.

Contrary to Thureau-Dangin's claim, the Bâtiment aux Ivoires was not a typical Assyrian building; the stone base and the brick foundation, the pebbled court with checkerboard pattern and of course the columned passage of room 1 are all features which in my opinion define the Bâtiment aux Ivoires as a genuine Syrian building of the Luwian-Aramaic period. The important role of local people in the Arslan Tash social and political regional framework is testified by the use of Aramaic and Luwian languages in the trilingual inscription on the city-gate lions. In any case, judging by the short stratigraphy below the Bâtiment aux Ivoires and by the Assyrian seal found in phase III, the history of the site seems to lie prevalently in the sphere of the Assyrian interests in the area, starting from the reign of Salmanassar III or his predecessor Assurnasirpal II.

On the basis of these considerations, we could 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 road leading to Til Barsip/Kar-Salmanassar; a period which could be represented by our phases III-II. During the long, powerful administration of the western province of the Turtanu Shamsi-ilu and his eunuch Ninurta-bel-usur, the site became Khadatu and attained the status of provincial capital with the construction of the city-fortifications and important buildings, among which probably the Bâtiment aux Ivoires and Bâtiment B. During the government of Ninurta-bel-usur, even though under Assyrian control, the city had great political autonomy and the role of local powers and culture was prevalent. The situation probably changed at the time of Tiglatpileser III, to whom the construction of the Assyrian palace should be attributed, when the new imperial program, through a policy of centralisation, led to direct control of the western provinces..

Notes

(1) Thureau-Dangin 1931.

(2) As regards Assyrian and Aramaic inscriptions engraved on the lions, cf. Galter 2004, 2007 and Röllig 2009; for the Luwian one, Hawkins 2000, pp. 246–248.

(3) Cf. also recently Galter 2004, 454-456 and Bunnens 2006, p. 98, note 76.

(4) Thureau-Dangin 1931, p. 7.

(5) Galter 2004, p. 450, Röllig 2009, p. 270.

(6) Liverani 2008, p. 758.

(7) COLLON 1987: p.75, n. 340, Collon 2001, n. 162-164; Kulemann-Ossen - Martin 2000: p. 501, fig. 18.

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TELL QARQUR EXPEDITION: REPORT OF THE 2009 SEASON OF EXCAVATIONS

Rudolph DORNEMANN, Jesse CASANA and Lee MAXWELL

Executive Director (retired), Associate Professor Department of Anthropology American Schools of Oriental Research, of University of Ark

Introduction

This paper presents results of the 2009 season of excavations at Tell Qarqur, undertaken from June 9 to July 14 under the direction of Dr. Jesse Casana, Dr. Rudolph Dornemann and Dr. Lee Maxwell. Tell Qarqur is a major archaeological site located in the Orontes River Valley of northwestern Syria, about 5km south of Jisr Shugur. The site is a large, double mound, rising some 30m above the floodplain and possessing more than 10,000 years of occupational history (Figure 1), from the Pre-Pottery Neolithic (8500 BC) through the Mamluk Period (AD 1450). Excavations, currently sponsored by the American Schools of Oriental Research and the University of Arkansas, have been ongoing since 1993 and have been reported in numerous publications (Dornemann 2003; Dornemann and Casana 2008; Dornemann et al. 2008; Casana et al. 2008). Our objectives for the 2009 season included: 1) continued excavation of late first millennium BC phases in Area A, 2) exposure of Early Bronze Age IV levels in Area D, 3) an expansion of excavations in a Late Roman/Byzantine building in Area W, and 4) a continuation of efforts to reach early phases of the site in the Step Trench on the eastern face of the mound. All of these objectives were accomplished and are summarized below.

Area A—Iron Age II/Persian/Hellenistic

In 2009 we excavated several areas in the northeastern corner of Area A, all intended to clarify the dating of several major stone walls, previously dated to the Hellenistic period (Figure 2), and to reveal more of a well-preserved floor uncovered in 2008. In square A23, twelve large, flat stones (about 50-60 cm long and 20-30 cm wide) running in a slightly curved line from east to west were excavated (Figure 3). It appears that these stones were part of a walkway or stairway between the two large stone walls previously excavated in the trench. A significant amount of Persian pottery was collected from the soil underneath these stones, so the conclusion is that this walkway was constructed during that period. However, the lowest levels of excavation in A23 produced only Iron Age II pottery (Figure 3).

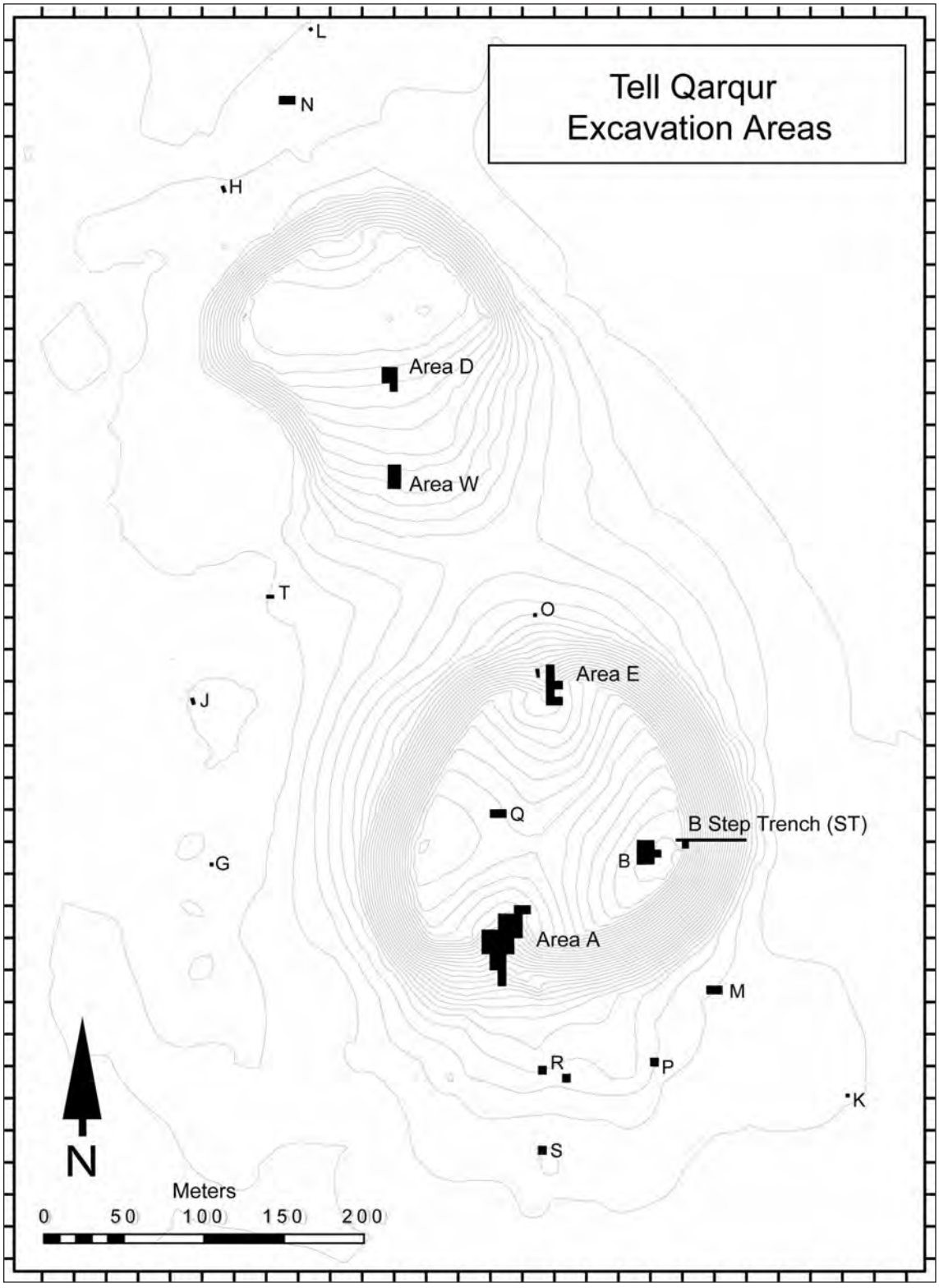

Figure 1. In 2009, excavations were carried out in existing trenches in Areas A and D, while the B Step Trench and Area W were both expanded.

In Square A31 stones of a wall were uncovered which are a continuation of the east-west portion of the wall. These wall remains appear to extend into the area north of A31. Small trenches approximately 1.5 m long x 0.6 m wide were dug on both the east and west sides of this wall, but the lowest course of the wall has not yet been reached on either side. Ini-

Figure 2. Large stone wall in Area A that was previously thought to date to the Hellenistic period, now shown to be of Iron Age date.

tially when the wall of A23 and A30 was uncovered in earlier seasons it was determined that it was constructed during the Hellenistic period. But the new excavations indicate that it belongs to an earlier period, either the Persian or Iron II period. The presence of Hellenistic pottery at the lower levels of excavation in A23 and A30 suggests that southern part of this wall was still exposed during the Hellenistic period and was reused at that time. Our redating of these large walls is significant because it suggests they were in fact part of the same building program involved in construction of the monumental gateway and street excavated in previous seasons.

Figure 3. Stone paving south of large stone wall in Area A (left). Iron Age debris to the south and east of stone wall.

Area D—Early Bronze Age

In 2008, we began to uncover a well-preserved, burned building containing abundant in-situ pottery vessels dating to the Early Bronze Age IV (Figure 4). In the 2009 season, upon removal of about a half meter of fill layers, a number of in situ mudbricks were revealed, forming the southernmost extension of a north to south oriented wall. This may be either the southern edge of the Bronze Age tell, or the edge of another terrace, with a lower Bronze Age terrace yet to be revealed at a lower elevation. Excavation surrounding the wall produced Early Bronze IV pottery sherds, ceramic figurine fragments, a long metal pin, and other finds.

The last two weeks of excavation in D6 concentrated on removing fill layers over the mudbrick wall originating in the northern half of the trench. Within the mudbrick construction, a massive

stone foundation wall running north south in orientation was revealed along with abundant in-situ smashed pottery vessels (Figure 5). We then focused on exposing the floors and articulating the large number of smashed jars, removing them for possible reconstruction. A number of interior stone walls and yellow plaster constructions were also articulated, and it as yet remains unclear as to the chronology of individual phases associated with these architectural features.

The building represents a very significant find as it dates to the later Early Bronze Age IV, a period not well attested in previous excavations in western Syria. Future excavations will focus on exposing more of this important structure and associated features.

Figure 4. General view of Early Bronze Age IV building remains in Area D.

Figure 5. Smashed vessel in Early Bronze IV building (left). View of Area D from the south showing Iron Age strata cutting into Early Bronze levels in the foreground (right).

Area W—Late Roman/Early Byzantine

In 2009, we excavated three new 5x10m squares in Area W, located on the lower slopes of the north mound. The squares, W11/12, W 5/6 and W7/8, are immediately north of squares W1/2 excavated in 2008, where we found an Early Byzantine tomb dating to the fifth or sixth century AD. Placement of the new trenches was guided by results of magnetometry survey completed in 2007, which revealed dense clusters of buildings in this area of the site (Casana et al. 2008). Surface examination showed a high concentration of roof tiles and other Early Byzantine pottery.

Excavations were very successful and have uncovered a large, stone building which we believe to be the remains of a Byzantine church (Figure 6). The structure is built on cardinal directions and has an entry way with a well-cut basalt stone. Outside the building to the south is a tile pavement as well as at least one tomb which was excavated this year (Figure 7). Other small rooms to the east of the building are probably tombs as well. Inside the building on the western edge of the trench we uncovered a fragmentary mosaic floor, completely covered with several layers of collapsed roof tiles. Adjacent to the eas-

tern wall of the main room was a large (1m) cut stone with a cross incised on one face (Figure 7). This stone may have been part of a doorway leading into the chambers to the east. Several of the walls have intact white wall plaster, and many floors were found littered with fragments of it.

In the northernmost part of the excavation, in W11/12, the buildings walls have been cut in several places by subsequent Ayyubid/Crusader occupation of the twelfth-thirteenth centuries AD. There are at least two bread ovens and several small walls built over and cutting into the earlier church. This later phase of occupation seems to have been absent or eroded off towards the south.

Small finds from the building included several bronze and iron lamp hangers with hooks and chains, possibly parts of incense burners. We also recovered a broken portion of a small fluted column drum, perhaps part of an altar or chancellery screen. Three coins were found within the tomb in W7/8, all consistent with a fifth-sixth century date, but no other grave goods were recovered. The tomb itself was well built of tiles and stones, and lined with white plaster. Pottery analysis from throughout the building is dominated by Early Byzantine wares, with occasional earlier materials. In the northernmost parts of the excavation, numerous reconstructable Ayyubid vessels were recovered as well. The mosaic floor was reburied, but in future seasons we plan to expand excavations and remove any reconstructable portions of the floor.

Figure 6. General view of the building in Area W, likely the remains of a Late Roman/Byzantine church.

Figure 7. A tomb just to the south of the building entrance in Area W (left). An overhead view of roof tile collapse and a stone with a cross inscribed on it (right).

Step Trench/Area B

Continuing excavations from 2008, we worked in 2009 to complete and expand a large step trench on the east face of the high tell (Figure 8). At the top of the step trench we opened a new 5x5m trench, Square B13. In 2008, we found a portion of a well-preserved Iron Age building in the step trench and we hoped that this new excavation would expose more of the structure. The building is composed of unusual white mudbrick with plaster facing on a stone foundation and its position at the highest point of the tell suggests a possible public or monumental structure. Excavations in B13 found a parallel wall to the White Building running in an east-west direction. The wall has been severely burned, resulting in a vitrified face (Figure 8). It is built on top of several layers of foundation stones and measures about 1m in width. Inside the building (between the walls in B13 and ST-02) there was about 60cm of burned brick fill overlying a floor surface covered with

remains of broken Iron Age pottery. The floor deposit from B13 dates to the Iron Age I (1200-1000 BC). The position of such a large, white building at the highest point on the tell indicates that it may be an Iron Age temple complex. Given its good state of preservation, we plan to expand this area further in future seasons.

At the base of step trench in ST-09, we found Iron Age II buildings terraced against the base of the site in 2008. This year we decided to remove these poorly preserved structures in hopes of locating Early Bronze strata. Below the buildings we found a mudbrick wall containing abundant Middle Bronze pottery. The wall is sloping, leaning against the underlying strata of the tell, and so is probably the remains of a Middle Bronze rampart built against the site. Below the rampart, we finally encountered strata of late Early Bronze IV date. A small 2x2m sounding dug an additional 2m in depth finally reached Early Bronze III deposits. In future seasons, we plan to expand operations at the base of the tell in hopes of locating the earliest phases of the site's occupation.

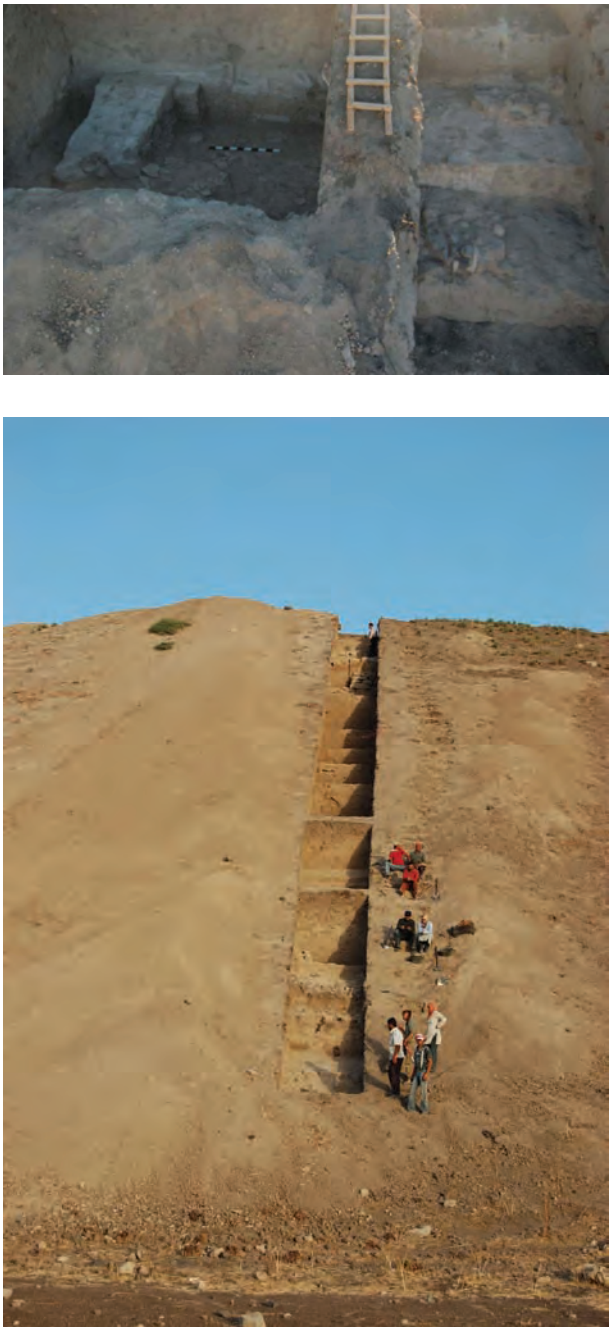

Figure 8. View of the Area B Step Trench from the east as it appeared in 2009 (left). A portion of a burned building exposed at the top of the step trench in Area B13, dating to the Early Iron Age.

Museum Exhibition

The Director General of Antiquities and Museums has begun construction of a special exhibition hall in the Hama Museum to house finds from Tell Qarqur, scheduled to open in 2010. In the 2009 season, we continued work with the DGAM and the Hama Museum to select object and other finds for the hall.

Future Directions

Finds to date hold great promise for future excavations at Tell Qarqur. In particular, the discovery of the well-preserved Early Bronze Age IV building complex in Area D and the unusual, possibly public Early Iron Age building in Area B will be the focus of future efforts. In addition, the later period finds of the Late Roman/Byzantine church and cemetery, as well as the Mamluk town to the south of the tell excavated in 2007, will offer a rare perspective on rural settlement during later historic periods. Together these and other finds will provide a unique view of changing settlement organization, and subsistence practices and economic relationships across more than 5000 years of history in the region.

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THE SYRO-GERMAN/AUSTRIAN ARCHAEOLOGICAL MISSION AT PALMYRA IN 2009

Waleed AL-ASA'AD and Andreas Schmidt-COLINET

DGAM-Syria, Institut für Klassische Archäologie Universität Wien

According to the agreement between the Directorate General of Antiquities and Museums in Syria (DGAM) and the Damascus Branch of the German Archaeological Institute (DAI), the joint Syro-German/Austrian Archaeological Mission at Palmyra worked at Palmyra in 2009 in two separated seasons, from July 11th to July 31st and from August 31st to October 2nd (cf. reports of 1997-2008). Both directors of the mission would like to thank the DGAM and the DAI in Damascus for logistic and administrative support as well as the Austrian Science Fund (FWF) and the University of Vienna for financing the work of the mission(1).

Preliminary results of the mission were published or are in print(2). To inform the public, the Mission sent out several Public Media Reports and International Internet Press Communications. To prepare the seasons at Palmyra, archaeological research as well as technical and chemical analyses and the restoration of small finds continued (fig. 2).

For the work in Palmyra, the foreign members of the Mission were hosted near the Museum. Also offices were installed there(3). Another working room was prepared in the upper gallery of the Museum. There, long tables were installed to display the fragments of wall painting and stucco as well as other small finds.

The aim of the two seasons in 2009 was again to study the material excavated during the last years in the Caravan Building ('Khan') in the area of the pre-roman/‚hellenistic' town (fig. 1) and to push forward the final scientific publication. Also the final deposit of the material was prepared. At the end of the season a CD was prepared with a documentation of the season's work also for the Museum in Palmyra and for the DGAM in Damascus.

The work in Palmyra was focussed on five subjects:

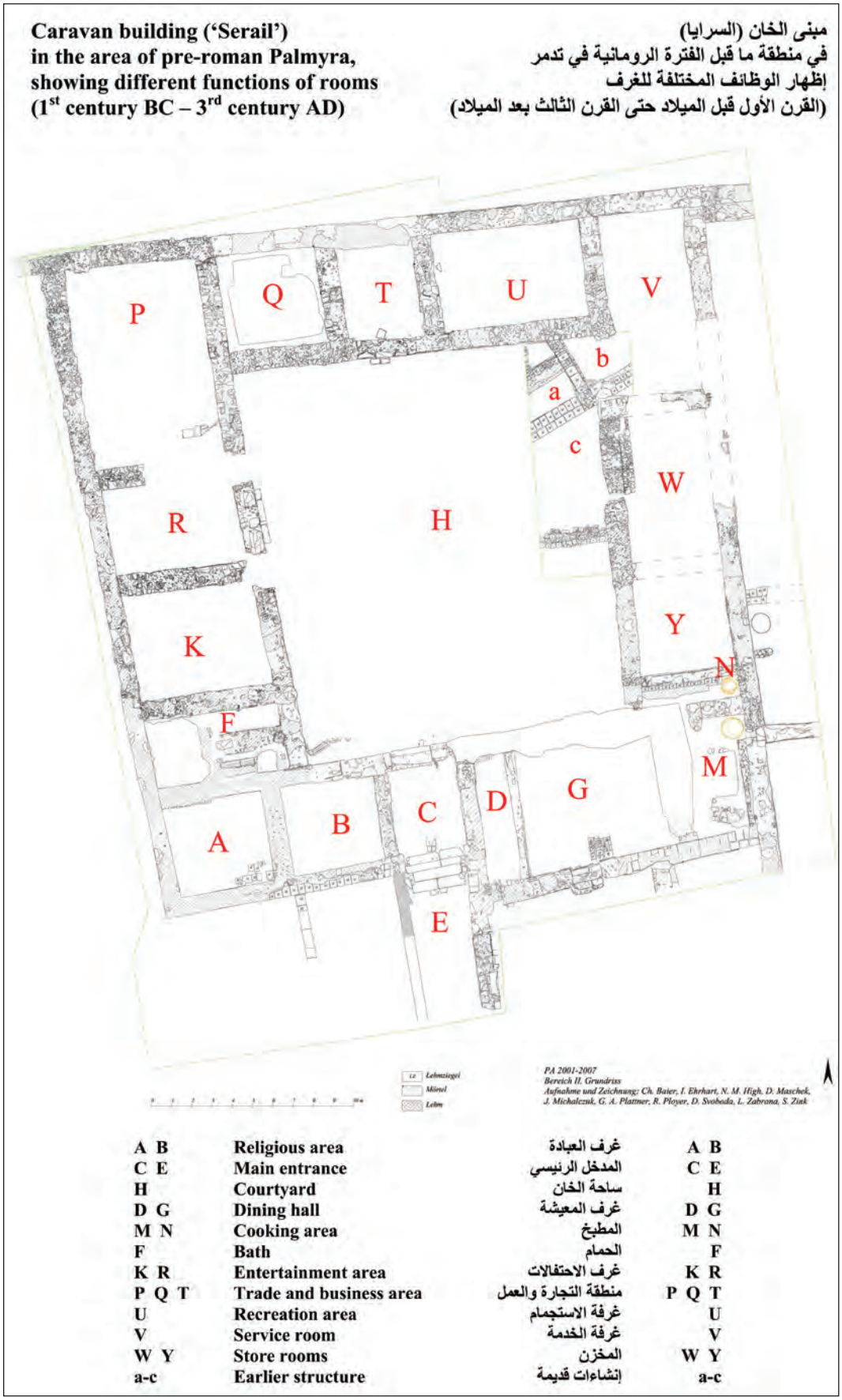

Fig. 1: Caravan Building ('Khan'), Ground Plan.

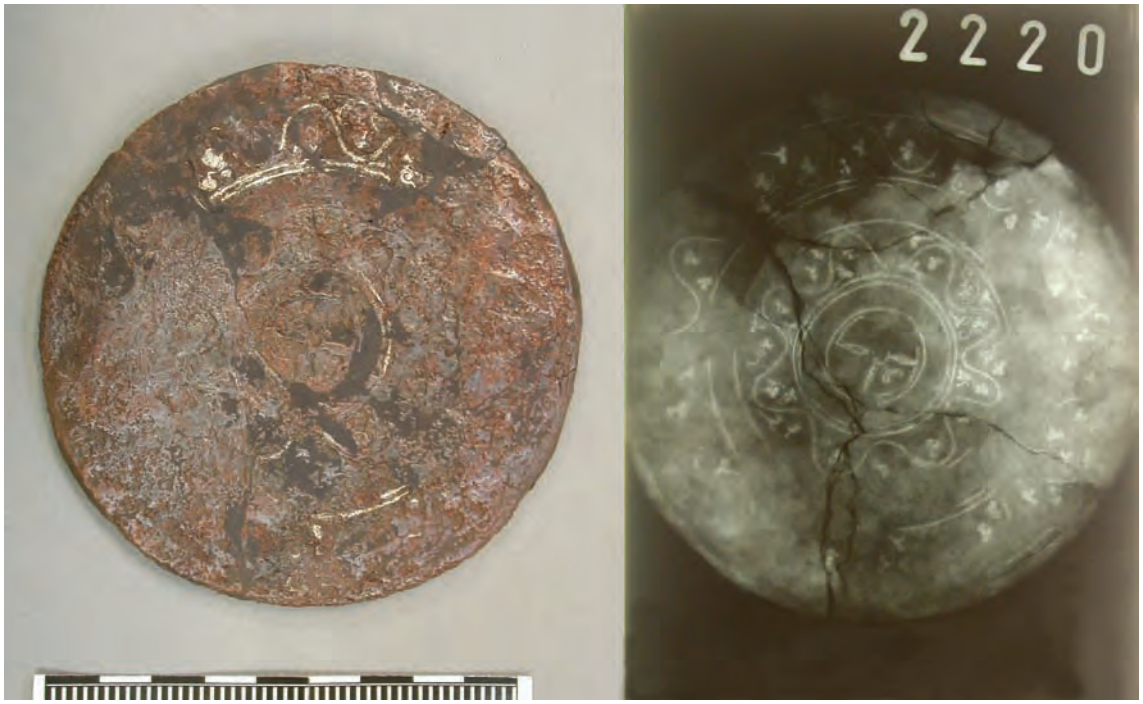

Fig. 2: Iron Box before and after restoration and X-ray.

1) Archaeozoological research (G. Forstenpointner, G. E. Weissengruber)

During the short research campaign of two weeks a total of more than 2500 faunal remains were studied, which had been found during the excavation of the late hellenistic/roman 'Khan' between 2002 and 2007. The archaeozoological analysis focussed on apparently significant samples, talking in terms of stratigraphy and room assignment.

Meat supply of the waste producing inhabitants mainly was based on small domestic ruminants (sheep : goats = 3 : 1) and dromedaries. Occasional consumption of pork, game from gazelles and also donkey- or horsemeat is proven by low percentages of the sample, while only few osseous finds represent domestic fowl, small game birds and fish.

Due to specific patterns of skeletal composition and butchery, assignation of the examined faunal remains to deposited kitchen offal deserves a high grade of reliability. Cranial fragments are almost lacking in camels and significantly underrepresented in small ruminants, while lower jaw bones match or even exceed their expected frequencies.

Some skeletal elements yield additional information on preferences and dietary habits of the waste producing society:

- Pelvic, in particular ileal bones prove a high predominance of withers, castrated rams, which obviously provided the best quality of mutton.
- Thigh bones, which contain the highest amount of eatable bone marrow, always have been crushed in order to obtain this valuable nutritive.
- Camel jaw bones are not only the single proven element of the head skeleton but, may be bearing the whole head meat, apparently they underwent also a specific treatment. In a high percentage

Fig. 3: Fragments of the bony shell of a tortoise.

of those finds the surface of the bones seem to be corroded or even heavily worn, often also slightly charred.

- Referring to analysis of dental attrition and epiphyseal closure a wide majority of the consumed animals was adolescent or young adult, also very young lambs or camel foals are proven.

Non-dietary utilization of animal bones or body parts is proven by ground and/or worn astragals from sheep and goats that particularly have been finds out of layers from room O. The same excavation area yielded also fragments of a tortoise carcass that exposed a carefully drilled hole near the mid-part of the right margin of its upper shell. Due to various parallel finds out of ancient Greek contexts one might be inclined to interpret this find as the remains of a lyre resonating chamber (fig. 3).

Conclusively, the preliminary results of the faunal record from a building of Late Hellenistic and Roman Palmyra allow some – even more preliminary – considerations on functional aspects of its appearance. While no indications on the primary slaughtering process are discernible, preparing of meals was proceeded in a learned and systematic way due to significant traditions of meat selection and butchering. Meat quality was mainly high if not excellent, referring to age and sex data of the consumed animals. Worn and/or ground astragals as well as fragments of a tortoise shell lyre might indicate private or even public forms of entertainment.

Samples of Camelus dromedarius (P. Burger)

In addition to this archaeozoological research, 179 samples of the camel bones from the ‚Khan' (especially fragments of Humerus, Femur, Metacarpus and Mandibula) were selected to be analysed genetically at the Institut Jacques Monod (CNRS Paris). The results of this 'ancient' DNA analyses will be compared with the genetic profiles of recent syrian dromedar populations within the research project "Genetic origin and domestication of ancient world camels".

2) Wall painting (A. Winkels)

For the presentation of wall paintings from the 'Khan' several decoration systems were reconstructed by B. Tober in 2008 already. Some new fragments were analysed this year to assume these reconstructed painting-systems.

From the many fragmentary preserved wall paintings, fragments of three different rooms (room B, G and D/G) were chosen for the conservation and presentation of the different wall painting systems in an exhibition in the Museum of Palmyra (fig. 4).

The fragments either can be defined as belonging together by their joining fragment borders or they can be attributed to the same system due to their stilistic and materialistic occurrence.

Fig. 4: Wall painting system in room D/G.

The following conservation treatment was carried out:

- Reduction of the calcitic crusts, sand and loamy earthern dirt on the surface by dry mechanical cleaning with a scalpel and different fine brushes.
- To conserve the lightly powdering paint layer it needs fixing. Based on the results of some small tests a mineralic silica sol dispersion was chosen for the treatment.
- A very small concentration provides a very good conservation of the paint layer. Based on its excellent stability in the given climate conditions long term consolidation is guaranteed. Unsuitable changes of the material in the aging process can be excluded.
- The fragments belonging together were joined by a dispersed lime binder.
- For long term preservation and presentation the loose fragments have been secured on a new base. They were transferred to a special light weight aluminium plate and applied in a bed of lime mortar above a layer of epoxy resin and sand (fig. 6).
- To investigate the material of the wall paintings, scientific mortar analysis were carried out during and after the conservation.

3) Stucco decoration (B. Tober)

The houndreds of stucco fragments were displayed, documented and studied in detail[4]. More than 300 for a reconstruction of the room-decoration relevant pieces were described in an Access-Database. Thus, it was possible to reconstruct seven decoration systems and to attribute them to different rooms of the 'Khan' based on the Matrix of layers. Obviously the rooms A, P/Q and D/G/M were decorated with stucco of specially high quality and variety.

In the rooms G/M were found the fragments of a garland frieze (fig. 5) decorated with rosettes and different motifs, e. g. masks, baskets and a flute fixed between the hanging garlands. To the same area the friezes 2, 3 and 4 can be attributed. Frieze 2 combines a cyma, ovolo and meander,

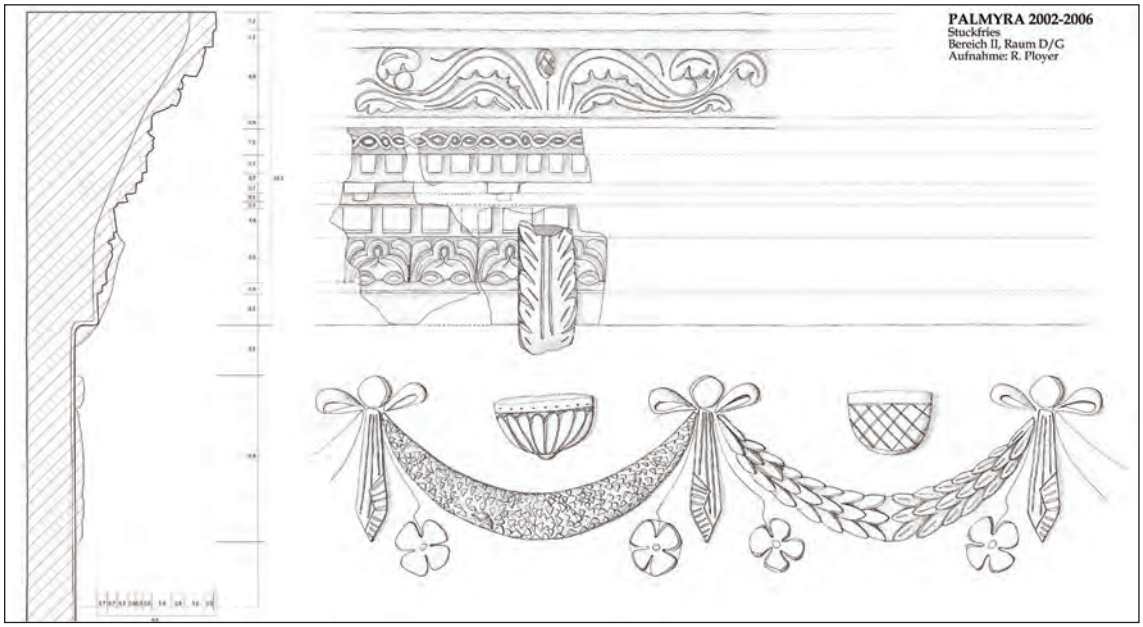

Fig. 5: Reconstruction of stucco frieze in room D/G (R. Ployer).

Fig. 6: Wall painting fragments applied in a bed of lime mortar.

frieze 3 a vegetal scroll, two dentil-friezes and a cyma with consoles of leaves, frieze 4 ovolo, dentils and a palmette frieze. In the area of rooms A/F the fragments of frieze 1 were found (with ovolo, a palmette frieze and ornamental leaves) as well as different types of stucco capitals. To the northwest corner of the building (rooms P/Q) frieze 5 can be attributed (a volumed frieze with vegetal scrolls, ornamental leaves, consoles and dentils).

Frieze 6 (ovolo, S-shaped volutes and ornamental leaves) was found only in room P. For room Q also an architectural stucco wall decoration can be reconstructed, e. g. niches crowned by shell domes and framed by columns with corinthial capitals. Frieze 7 (again S-shaped volutes, ornamental leaves and a cyma) can be attributed to room L. The distribution and concentration of the fragments of the different types of stucco-friezes will allow with high possibility the connection between friezes and rooms and the analyses of room decorations and their context in the building.

The detailed documentation of technical details gives first hints to the different working-techniques of palmyrene stucco production. The imprints of the original wall on the back of the fragments are preserved very seldom. Angular wooden pins fixed the voluminous and heavy stucco-friezes.

In general, the stucco-decoration was formed by free hand (scrolls, consoles with leaves, capitals). Half-fabricated parts were applied and formed later (masks and different motifs). Another technique was the decoration with imprints of mouldings. 19 different series of imprints can be reconstructed. The motifs are very similar (ovolo, cyma, meander, ornamental leaves, palmettes). Several gilded stucco elements of the marine fauna were completely prefabricated and fixed with iron-pins. Whether they belong to the stucco friezes or have been applicated to wooden furniture can be proved by further studies only.

Only a very few and outstanding fragments of the stucco decoration of the 'Khan' were prepared for a permanent exhibition in the Museum of Palmyra because of the very valuable recent polish and french activities in this direction(5).

4) The 'Small finds' (R. Ployer)

The documentation of the glass and metal finds was already completed in 2008. More than 1300 glass fragments were recovered, of which a third could be used for further research and databased. Through the documentation of these glass finds it has been possible to record the form spectrum of the Palmyrene glass from a settlement context from late Hellenistic time up to the late antiquity for the first time.

The other small finds (objects made of bone, ivory, stone and clay as well as terracotta) were documented in detail this year. Among these finds a large number of almost fragmented hair pins and a decorated bone spoon can be mentioned. A lid of a pyxis is made of ivory of an elephant. There were also found numerous counters, marbles and a spinning top, all of them made of air-dried clay and used for leisure activities. Loom weights and spindle whorls are made of clay or stone and indicate textile processing. Among the stone objects there is a small statuette of a seated naked man which seems to be a unique representation in Palmyrene art until now. Among small figural sculpture four fragments of terracotta can be mentioned. One fragment shows a woman sitting to the right on a throne, a lion sitting on her right side (maybe the Goddess Allat).

5) Permanent exhibition and final deposit of the finds

All the material excavated in the area of pre-roman /'hellenistic' Palmyra was checked again to select the finds that should be exposed in the Museum. Other finds will be stored in the depot of the Museum or find another exterior final deposit in the future.

Several proposals and possibilities were discussed to present the results of the Mission with a permanent exhibition in the Museum of Palmyra. The original archaeological material will be in the focus of this exhibition. Furthermore, short information texts, plans and reconstruction

drawings will explain the importance of archaeological finds especially concerning trade as well as the commercial and cultural connections of early Palmyra. The exhibition should be accessible to the public in 2010.

Recent and forthcoming publications concerning the Syro-German/Austrian Mission at Palmyra

Articles

A. Schmidt-Colinet – Kh. al-As‘ad – W. al-As‘ad, Zur Urbanistik des hellenistischen Palmyra. Zweiter Vorbericht, ZOrA 1, 2008, 452-478 fig. 1-20 (with contributions by R. Ployer and Chr. Römer-Srehl).

R. Ployer, Glas aus Palmyra. Funde aus den Grabungen im Areal der ‚hellenistischen' Stadt, in: M. Meyer – V. Gassner (ed.), Standortbestimmung. Akten des 12. Österreichischen Archäologentages Wien 2008 (2010) 313-320 fig. 1-12.

G. Plattner – A. Schmidt-Colinet, Untersuchungen im hellenistisch-kaiserzeitlichen Palmyra, in: S. Ladstätter – V. Scheibelreiter (ed.) Städtisches Wohnen im östlichen Mittelmeer 4. Jh. v. Chr. – 1. Jh. n. Chr.. Akten des Intern. Koll. Oktober 2007 an der ÖAW Wien, Archäologische Forschungen (forthcoming).

Short Reports

Palmyra, Archäologischer Anzeiger 2007/2 (2008), 325 fig. 17-18.

Palmyra, Archäologischer Anzeiger 2008/1 (2008), 271f. fig. 18-21.

A. Schmidt-Colinet, Palmyra (Syrien) – Untersuchungen in der ‘hellenistischen' Stadt, in: DAI Orient-Abteilung (ed.), Aktuelle Forchungsprojekte2008 (2008) 94-95.

Id. Hellenistic City Discovered in Palmyra, Minerva 19/5, 2008, 3.

Id., Ein zweites Palmyra, Welt und Umwelt der Bibel (WUB) 51/1, 2009, 77.

Id., Life before the Romans: Recent Research in Hellenistic Palmyra, Minerva 20/4, 2009, 12-13 fig 1-8.

Internet Report

A. Schmidt-Colinet, Kurzbericht über die Arbeiten in Palmyra 2008, Forum Archaeologiae 49/ XII/2008 (http://farch.net).

Websites

http://klass-archaeologie.univie.ac.at/index.php?id=18025#c41401

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Several other Public Media Reports and International Internet Press Communications.

Notes:

(1) The Mission was directed again by Eng. Waleed al-Asa'ad, director of Antiquities and Museums of Palmyra, and Prof. Dr. Andreas Schmidt-Colinet from Vienna University. Further members of the Mission were: Fayroz Asa'ad, Lamy'a Asa'ad and Huda Baha Eldin (from Palmyra Museum), Mag. René Ployer and Dr. Barbara Tober (both from Vienna University), Dr. Christiane Römer-Strehl (from Bonn University), Prof. Dr. Gerhard Forstenpointner and Prof. Dr. Gerald Weissengruber (both from Vienna Vet.-Med. University) and Dipl. Rest. Alexandra Winkels. Several members of the Museum's staff, last not least its director Khalil al-Hariri, were joining and helping the mission permanently. Both directors are most grateful to all above.

The mission was visited by Dr. Pamela Burger (Vienna), Kristina and Michel Gawlikowski (with the Polish mission at Huarte), Her Excellency Dr. Maria Kunz (Ambassador of Austria in Damascus), Annie and Maurice Sartre (Damascus/Tours) and Constanze Schmidt-Colinet (Munich). Several groups visited the excavation and were guided there. Interviews were given to several journalists.

(2) Cf. list of publications at the end of this report.

(3) We remember grateful the friendly support of Naim Turki and Mahran and Waleed Shleel, directors of Ishtar-Hotel and New Afqa-Hotel.

(4) Cf. until now A. Schmidt-Colinet, Stuck und Wandmalerei aus dem Areal der ‚hellenistischen Stadt' von Palmyra, in: P. Bielinski – F.M. Stepniowski (ed.), Aux pays d'Allat. Mélanges M. Gawlikowski (Warsszaw 2005) 225-241.

(5) Cf. now H. Eristov – N . Blanc – C. Allag, Les stucs trouvés près de la source Efqa à Palmyre. Mission Syro-Française DGAN/CNRS-ENS, Documents d'archéologie syrienne 16 (Damas 2009).

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-

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Archaeological Institute of Kashihara, Nara, DGAM-Syria

I. Introduction

Since 1990 we have carried out several excavations to focus on revealing "Funerary practices in Palmyra". We have amassed the information and data on funerary practices by insensible degrees with those excavations.

Since 2006, we have engaged on the excavation of No. 129-b House Tomb to comprehend Palmyrian funerary practices and their social background more with the indulgent understanding in the Director General of Antiquities and Museums of Syria. This work is situated as the cooperated work with our mission and Syria by the Director General of Antiquities and Museums of Palmyra(1).

II. Location of 129-b House tomb

No.129-b House Tomb named by Weigand and Krencker (1932) is situated at the north necropolis and is located near the city site (Acropolis). This tomb was taken in the Zenobia Wall which was constructed in the Diocretiamus period and renewed in the Islamic period played for the defensive wall. Recently this defensive wall has been made restoration and reconstruction by Palmyra Museum. This work provides some geographical information that there is the difference of elevation between inside and outside of the wall. It indicates that the wall was changed by some geographical circumstances around No.129-b because of water flow(2). Therefore, at present the tomb was constructed on the north edge of the cliff.

III. Content of the research in 2006

In 2006 our work was started to scan collapsed stones by 3D laser scanner (HDS3000) of Leica to understand a situation of the heap of stones and to remove them with archaeological methods. Through these works we realized the rough process of the collapse of the tomb caused by some natural disasters. In this situation the north wall seemed to fall down first and the east, south and west consecutively fall down.

No.129-b House tomb has a plan of square about 12m. In front of the west side foundation stairs attaches to extend to west. A gate was built in the west wall with attaching stairs.

Each wall was formed with four columns consisting of two corner-columns and two middle inter-columns. Each capital of the column was the Corinth style. Between the capital and the column base seven stones were piled. Each wall was formed with seven piled stones of each 75cm – 85cm high except for the foundation and roof structures. The height of the wall was 675cm. The shape of the roof in No.129-b House tomb was a gable style that the German mission reconstructed and the gable faced to west and east (Schmidt-Collnet 1992). There were three pseudo-windows in each wall. the pseudo-windows consisting of two-types eaves such as a regular triangle gable eaves and a gable built in a canopy-type eaves. The location of the pseudo-window was between the capitals. An approximate height of the eaves of niches was 8.3m from the top of the foundation. One of the characteristics of this house tomb could be seen on the surface of the stone blocks for walls. Comparing with stone blocks in other house tombs, these stone blocks were finished with smooth treatment on both sides (outside and inside against the wall).

IV. Content of the research in 2007

Our main work in 2007 was to scan collapsed stones by 3D laser scanner to understand the heap of stones, to remove them and to investigate inside this house tomb same as last year. Also, we focused on searching out an original ground.

The stairs attached to the west side of the foundation to extend to the westward and was 6.72m long, 6.76m wide and about 2.20m high and consisted of 12 steps. Each step was 16cm high and 36cm wide.

The plan of this tomb might be a regular square. This house tomb was a square of side 12.25m in the widest part of the base and about 13m high.

In the west and south side of stairs the ground was formed an upgrade incline from south to north to use as a workshop carrying stones for the defensive wall. The ground was covered with clay, plaster and fragments of stones. During the construction of the wall infants were buried into holes after a step stone for stairs was taken away. They were put into jars for burial.

V. Content of the research in 2008

A. House Tomb

After removal of stones we reached a usual floor level in the structure of the house tomb. We can't realize which stone was for the floor. However, there are some composited soft limestones to form burial facility like loculi in the northeast portion from the centre area inside tomb. It indicates that burial facilities only exist under the floor. The burial facility like sarcophagus was taken away through the construction of the defensive wall. It was understandable that some small fragments of funeral sculptures existed.

There are two types of niches as a pseudo-window. One of them is a triangular type eaves and another one is a canopy type eaves. The window frame of the triangular is like a box and is not decorated anything on the surface. Then the window frame of the canopy type is a column base on the bottom of the window flame.

B. Infant Graves

Infant graves were found at the working slope for constructing the defensive wall as supplemental evidences in 2007. In 2008 through the process to dig up the whole stairs of the house tomb, about 13 infant graves (E-Q) were newly found and four of them were dug up. These infants were buried during constructing the slope for the defensive wall. Every infant grave was existed in different stratums. It shows us that these graves were set up on the slope which was constructed for working place of the defensive wall. These infant graves consisted of a grave with a jar, pit grave and a sepulcher. Especially a sepulcher-type grave before the Islamic period was found for the first time in Palmyra. A sepulcher (a notion of "LAHED" in Arabic) forms L letter shape in the section and consisted of a part of shaft and a space for the dead in the bottom. Three dead were under one year old. Pottery was a jar dated late third century A.D.(3) Therefore, all infant graves on the stairs were set up around the late third century A.D.

VI. Content of the research in 2009

A. House Tomb

This season we removed about hundred stones and put those on the spaces for every direction of the walls and interior stones inside the tomb with identifying the stones to the original position of each wall and interior facility before the collapse based on the scanning with 3D laser system past three years.

There were interior finishing materials as parts of pillars and girders forming as a space like a court yard on the stone floor in the center of the inside tomb. A court yard was a square, 3m to 4m. A pillar was a square.

The floor was covered with a rectangle stone, about 280cm long x from 120cm to 140cm wide x about 35cm thick, in the central area, but we don't know the size of the floorboard along walls yet. The floor was set up the level of the tenth steps from the ground and was about 170cm high from the ground level. The floor was sustained by loculi as a burial facility along a surround wall of the foundation of the tomb and four rectangular pillars under pillars compositing a court yard shape square space. Those facilities were constructed with soft limestone. However, most of the stones formed loculi were taken away.

In the south side foundation of this tomb the gate was set up and two lines of Greek inscription which were eroded at the some part existing on the lintel, however the place of the gate was located in the center of the south side foundation of which was constructed a well in front in early-modern times. The gate was filled with rectangular stone panels with plaster to protect leakage water from the well. The beginning and end of the inscription were covered with a framework of the well. The well was a trapezoid and was 94cm wide in the side of the inscription. Whole inscription will come out next year.

Through the excavation some fragmental bones including animal bones and many small fragments of soft limestone were mixed in the soil like last year. Also, a lot of pottery sheds were found while soil among stones was taking out and cleaned up. Some small fragments of funeral sculptures, decorated stones and a piece of marble which were used for the decorative place were also found.

B. Infant Graves

In the last two years infant graves were found on the working slope for constructing the defensive wall as supplemental evidences in the excavation of No.129-b House Tomb. This year about 10 infant graves (E-T) were dug up around stairs. These infants were buried in the course of construction of the slope for the defensive wall. Every infant grave existed in different stratums. These infant graves consisted of a grave with a jar (G and K), and sepulcher type grave (E, F, I, K, O, P, R, S, T).

Grave E was located in the east of the stairs and was dug earlier than Grave J. In Grave E a shaft was 130cm long, 50cm wide and 35cm deep (place searching for the shaft) and the sepulcher in the south side wall of the shaft was 60cm long, 30cm wide and 15cm high. The dead oriented to the west was lain supine on a marble board and was not accompanied any burial goods. The sepulcher was closed with plaster boards and a piece of soft limestone. The shaft was closed with a marble board.

Grave F was a sepulcher-type grave and was located at the north side of Grave E. This grave was 140cm long, 56cm wide and 96cm deep (place searching for the shaft) in the shaft part and 82cm long, 24cm wide and 24cm deep in the sepulcher part. The sepulcher was dug in the north sidewall and was covered with three mud bricks. An infant who was about one month old was buried with the body extended and oriented to the east, and was not accompanied any burial goods

Grave G was a grave with a jar and was located in the middle of the stone carrying slope. The jar measured 42 cm in diameter was put on the first step of the stair and the bottom of the jar was oriented to northward. The bottom which was used as an insertion part of the dead was minutely cut off and then its part was closed with a mud brick. On the contrary the rim was closed with the part of the bottom cut off. This jar was not buried into a pit. The jar was covered with fragments of stones, pebbles and lumps of plaster with earth after it was put on the first step of the stairs to the house tomb. It means this grave with a jar was embedded the working area for the defensive wall. From one to two-months- old infant was buried without any grave goods and the head was oriented to the north.

Grave K was located at the west end of the middle of the research area beside an unfinished banquet-type funerary sculpture which was served as earth for constructing the working area. Grave K was a grave with a jar and the jar was put into an opening space, 95cm long, 55cm wide and 45cm deep, among stones. The jar was placed with the proper style of the jar westward in the space, and the upper half of the jar was broken with stones upward the jar falling down. Therefore, parts of a skull were run out eastward. From five to six-months-old infant was buried with an erect posture or a sitting posture without any grave goods.

Grave O was a sepulcher-type grave and was located at the south side of Grave H. This grave was 86cm long, 42cm wide and 29cm deep (place searching for the shaft) in the shaft part and 66cm long, 22cm wide and 29cm deep in the sepulcher part. The sepulcher was dug in the south sidewall and was covered with two mud bricks. In this grave a fetus who was eight to nine months old was buried with the body extended and oriented to the west and was not accompanied any burial goods.

Grave P was a sepulcher-type grave and was located at the west side of Grave O. This grave was partly ruined by Grave O in the west side and Grave Q in the south side and was 80cm long, 23cm wide (in the present condition) and 30cm deep (place searching for the shaft) in the shaft part and 61cm long (in the present condition), 30cm wide and 19cm deep in the sepulcher part. The sepulcher was dug in the north sidewall and was covered with a rectangular stone of small stones. An infant who was about three months old was buried with the body extended and oriented to the east and was not accompanied any burial goods.

Grave Q was a sepulcher type grave and was located at the south side of Grave P. This grave was about 100cm long, 45cm wide and 19cm deep (place searching for the shaft) in the shaft part and 72cm long, 31cm wide and 35cm deep in the sepulcher part. The sepulcher was dug in the southwest sidewall and was covered with two mud bricks and two mud brick fragments. An infant who was about two months old was buried with the body extended and oriented to the northwest and was not accompanied any burial goods

Grave R was set up in front of the first step of the stairs to the house tomb. This was like a cist style grave but was not set up a pit. This grave was 115cm long, 50cm wide. After formed a space to put a body with stones the dead was placed inside stone surrounding and then a part of the head was covered with a mud brick, the dead body was covered with earth with stones. The dead was a buried with the body extended and oriented to the west and was not accompanied any burial goods. This infant was two to two years and half years old and was the oldest infant unearthed through our excavation.

Grave S was a sepulcher-type grave which was located between at the west end of the middle of the research area and the west end of an unfinished banquet-type funerary sculpture. As the research area was limited, the area of the pit was not confirmed in this excavation, however an infant was buried with the body extended and oriented to north and was not accompanied any burial goods. This infant was one to two months old. Grave S was dug from the final stage to construct the working area for the defensive wall.

Grave T might be a pit grave. This grave was just located between the west end of the middle of the research area and Grave H, which whole shape and size were not confirmed in this excavation. Under the present circumstances this grave was 35cm long, 30cm wide and 20cm deep(place searching for the pit). An infant was a neonate and might be buried with a sitting posture without a skull. The skull might be lost during excavation.

C. Supplemental research

This year we focused on finding out the facts of causes of destruction of No.128-b House Tomb with Geoarchaeological method. We have assumed that one of causes of the collapse of No.129-b House Tomb was a natural disaster like earthquakes because stones forming the house tomb partially showed to fall down in a regular manner with the research in 2006.

We observed sedimentation and found some traces caused the collapse of the tomb with layers at the west end and south end of the research area. Through the observation some traces of earthquakes were found inside a soft mixture of silt, fine charcoal fragment, ash, and pebble-to-granule-size gray plaster blocks layer near the ground level. Those traces such as a bowl shape and a wave shape were caused by liquefaction in earthquakes. However, we don't know when the earthquake occurred yet. Therefore, we will analyze the date with carbon 14 dating.

VII. Summary

Since 2006 the excavation of No. 129-b House tomb has carried out with a great cooperation of the Directorate of Antiquities and Museum of Syria. This year we continued to analyze the depositional situation of stones of this tomb with 3D laser scanning system. After 3D laser scanning we removed about hundred stones. The whole stairs became visible after partial finished excavation of the infant graves.

At present we have understood the following points in three-year research on No.129-b House tomb.

1- No. 129-b House tomb is a regular square plan of side 12.25m at present.

2- The shape of the roof is gable and the height of this tomb is about 13m.

3- Acroterion might be on the roof.

4- The vestibule is set up the west side and a stairs is installed.

The stairs is 6.72m long, 6.76m wide and about 2.20m high and consists of 12 steps. Each step is 16cm high and 36cm wide. This stairs forms a trapezoid on the whole.

5- Three niches are set up on every wall except for the west side as pseudo-windows consisting of two types.

6- The surface of stone blocks for walls is smoothly finished up on the both sides. This treatment is aware of the visibility of the wall inside, therefore there are no fixture loculi in front of walls.

7- In the center of the floor consists of six stone, about a size of 280cm x about 130cm x about 35cm each.

8- A facility like a square court yard, a square of side about 320cm, is built in the center of the floor. This facility consists of four square pillars with beams

9- Under the floor also a facility like a square court yard, a square of side about 320cm, is built in the center like Funerary Temple (No.86) and No.36.

10- Whole facility under the floor is constructed with soft limestones.

11- A gate is built into the south side foundation also. Two lines Greek inscription are carved on a lintel of the gate.

Other results

1- An up-grade incline from south to north to use as a working area carrying stones for the defensive wall is set on the stairs after taking away stone for stairs.

2- An area after taking away stones of stairs is used for many infant graves. These infant graves consist of a grave with jar, a pit grave and a sepulcher-type grave. Fifteen of seventeen dead infants are under one year old. Infant graves are densely constructed beside the defensive wall and are constructed with certain notion (Scott 1999) that is offered a fervent prayer to victory against the Sassanid dynasty invasion or to construct the defensive wall with safety at work.

3- The sepulcher-type grave is close resemblance to the present Palmyrian grave with the notion of "LAHED" in Islamic world.

4- Some traces of earthquakes are found with sedimentation of layers around 129-b House Tomb.

Above results will be essentially changed with future works.

At the end we express our appreciation to give us a great opportunity and support to operate 3D scanning system by Accord cooperation (http://www.a-accord.co.jp).

** This research was carried out by the Grants-in-Aid for Scientific Research (A) (No.20251008) to K.Saito from the Japan Society for the Promotion of the Science and administrative support by the Directorate of Antiquities and Museums of Palmyra.

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Notes

(1) We would like to express our deepest gratitude to all Syrian authorities that made our project possible. Especially, Dr. Bassam Jamous, Director General of Antiquities and Museums of the Syrian Arab Republic, Dr. Michil Makdesi, Director of the Archaeological Excavation Department are greatly acknowledged the most kind permission and cooperation to us.In Palmyra Eng. Waleed As'sad, Director of the Directorate of Antiquities and Museums of Palmyra; Mr. Khaleil Hariri, Director of Palmyra Museum, Mr. Aumar As'sad, and Ms. Nariman Ebraheim, researchers of the Directorate of Antiquities and Museums of Palmyra worked together as members in our excavation. In Palmyra a lot of practical supports from Mr. Khaled Al-As'sad, former Director of the Directorate of Antiquities and Museums of Palmyra, as a member to read Palmyre inscription through the excavation. Moreover, we have to express our thanks for supports and help to Mr. Abdel basit Kanawi, Ms. Lamiaa As'sad, Ms. Rania Al Rafde, researchers of the Directorate of Antiquities and Museums of Palmyra and other staffs of Antiquities and Museums of Palmyra. Also we deeply express our thanks to Mr. Mahamod Ali and Mr. Souhil Daas to support us seriously during the research term. Finally I would like to pay a tribute to the memory of Dr. Giro Orita, Honorable Advisor of ICARDA, who had played a key role as a coordinator of our excavation in Palmyra since 1990, and died in November, 2008.

(2) A moat about 8m wide and about 4m deep was dug outside the wall.

(3) Instruction by Dr. Christiane Romer-Strehl of the German mission.

Reference

Scott, Eleanor 1999 " The Archaeology of Infancy and Infant Death", BAR International Series 819, Oxford.

Schmidt-Colinet,A.(ed.) 1992 "Das Tempelgrab Nr.36 in Palmyra" Studien zur Palmyrenischen Grabarchitectur und jhrer Ausstattung.Damaszner Mitteilungen Sonderdruck 6.

Wiegand,Th. and Krencker,D. 1932 "Palmyra", Berlin.

Fig. 2: Location of No.129 –b House Tomb in Palmyra (from Google earth).

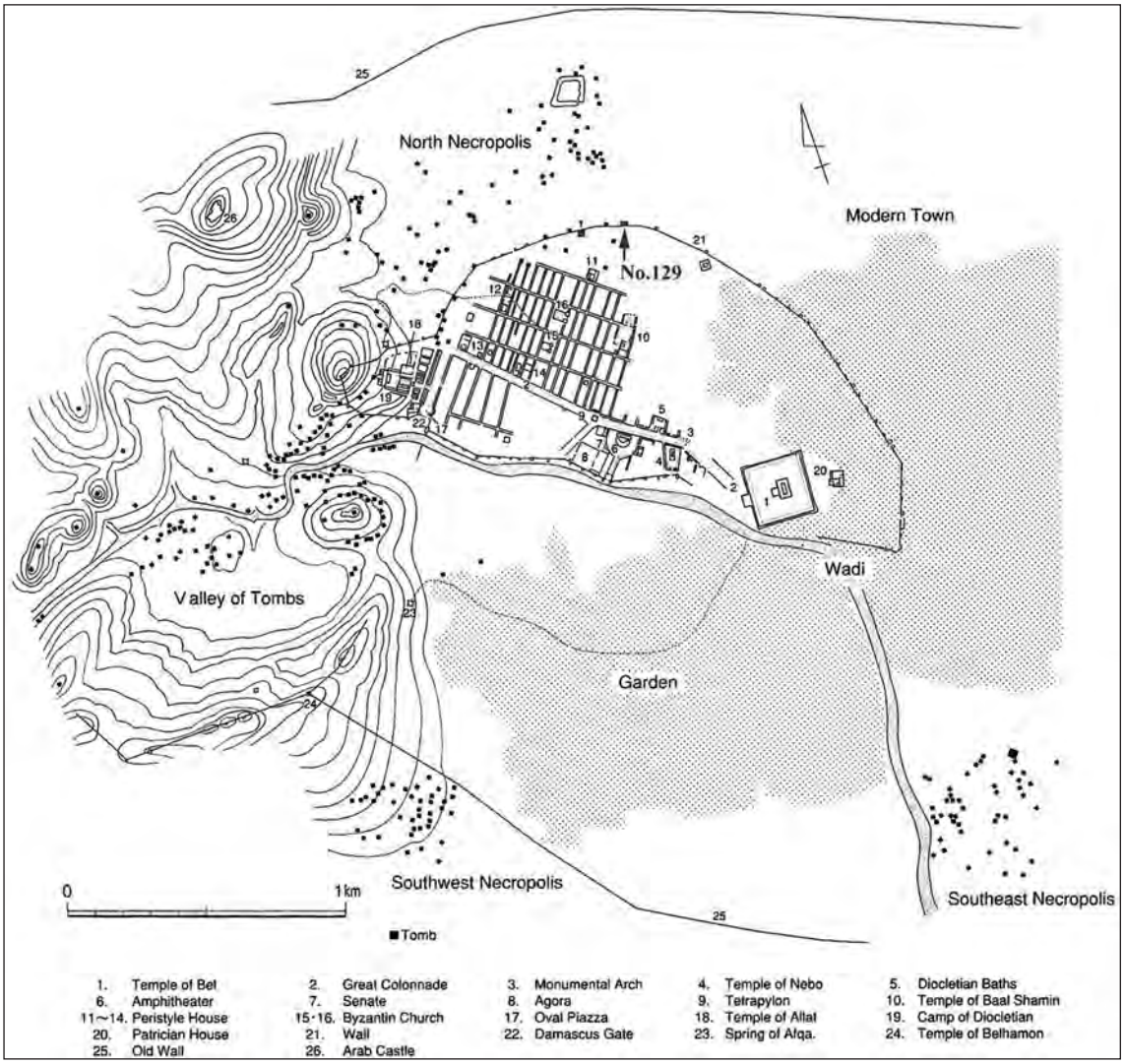

Fig. 1: Location of No.129 –b House Tomb in Palmyra.


Fig. 8: 3D Image of No.129-b House Tomb from the upward in the first scanning in 2006.


Fig. 7: Whole view of No.129-b before the excavation in 2006

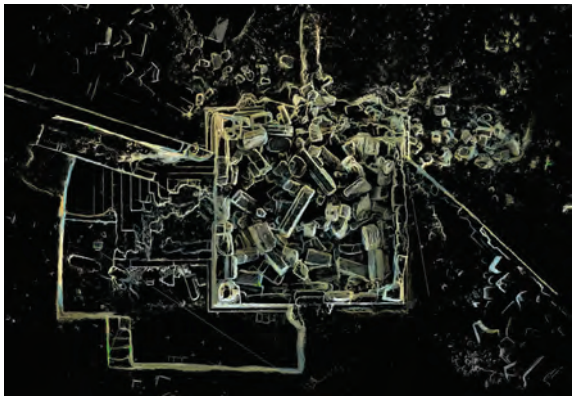

Fig. 12: 3D Image of No.129-b House tomb from the upward in 2008.

Fig. 14: Whole view of No.129-b from the southern upward in 2008 (last situation).

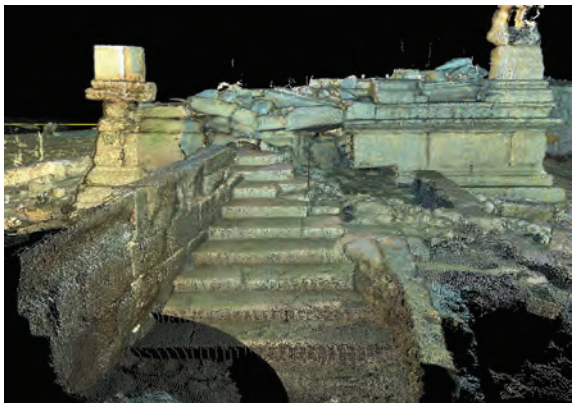

Fig. 13: 3D Image of No.129-b House tomb from the west in 2008.

Fig. 5: Whole view of No.129-b from the west before the north before the excavation in 2006.

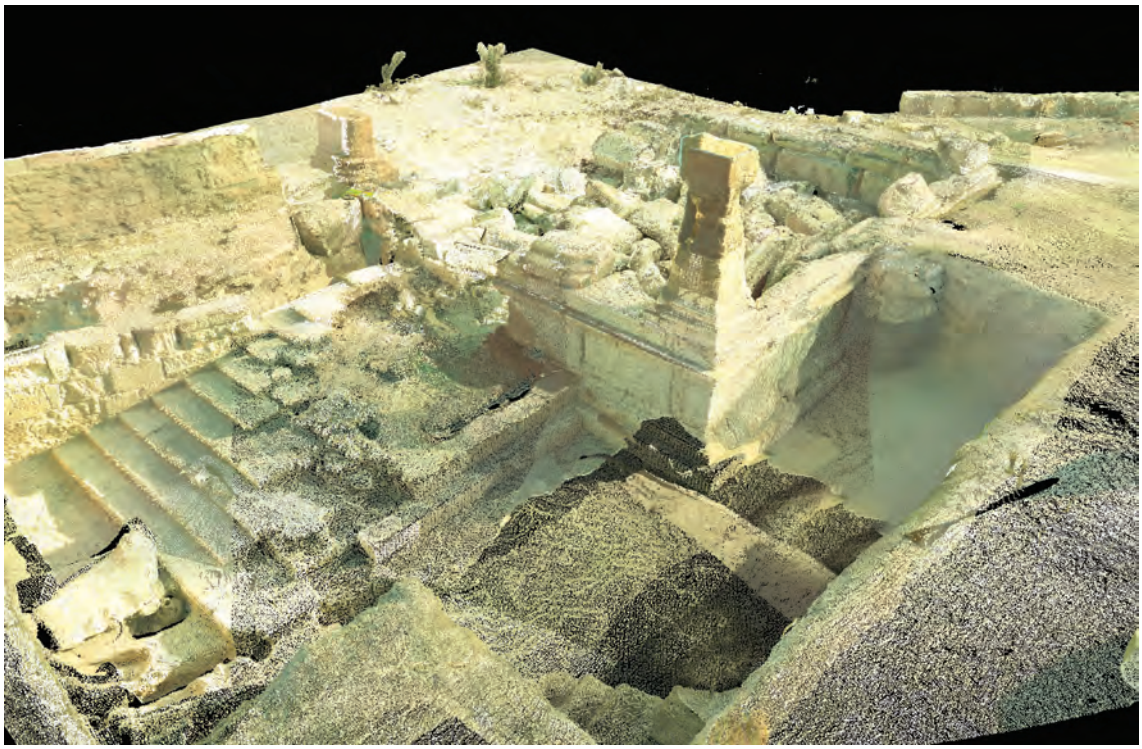

Fig. 19: 3D Image of No.129-b House tomb from the southwest in 2009.

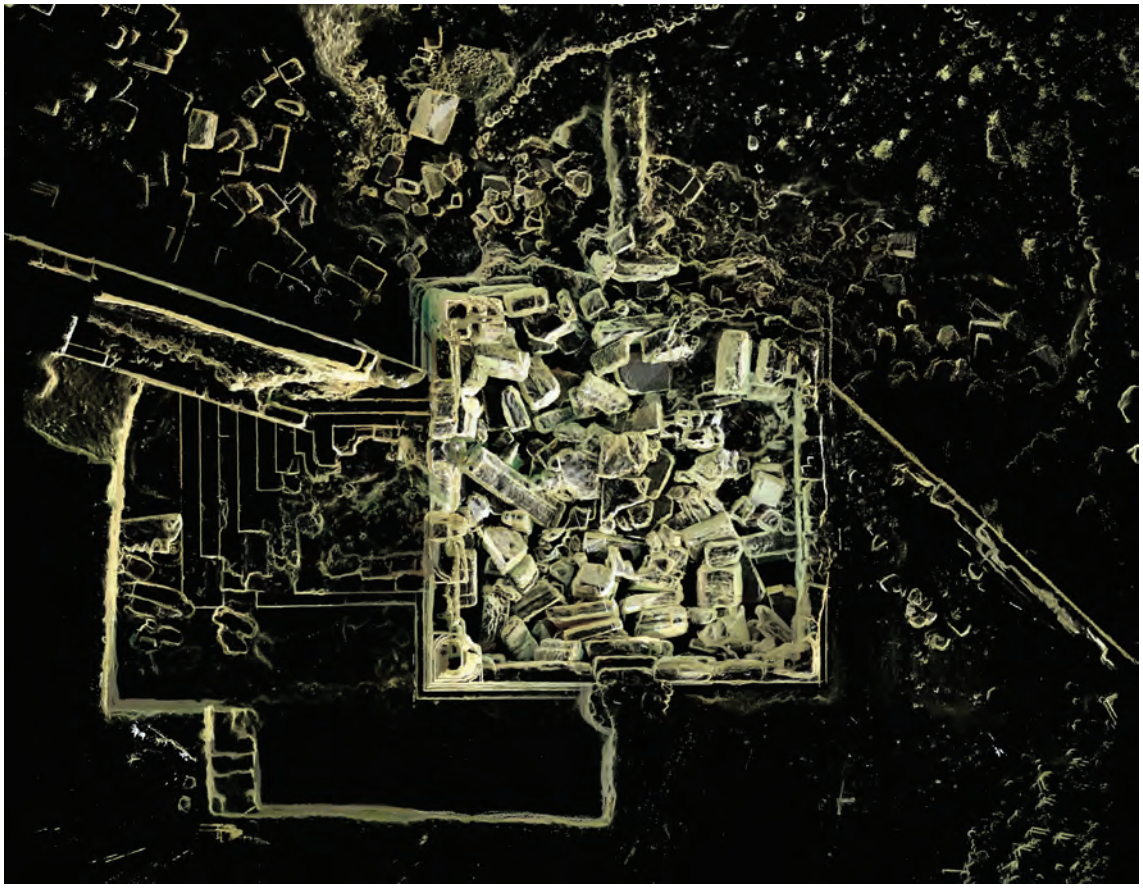

Fig. 17: 3D Image of No.129-b House tomb from the upward in 2009.

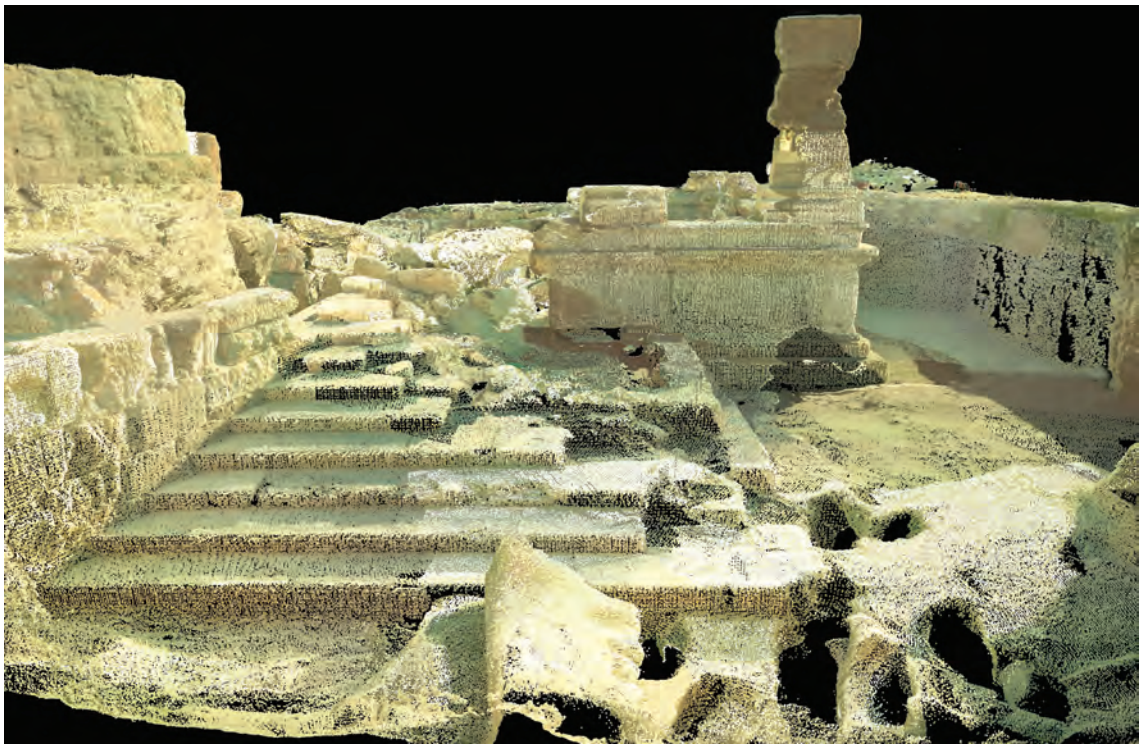

Fig. 20: 3D Image of No.129-b House tomb from the west in 2009.

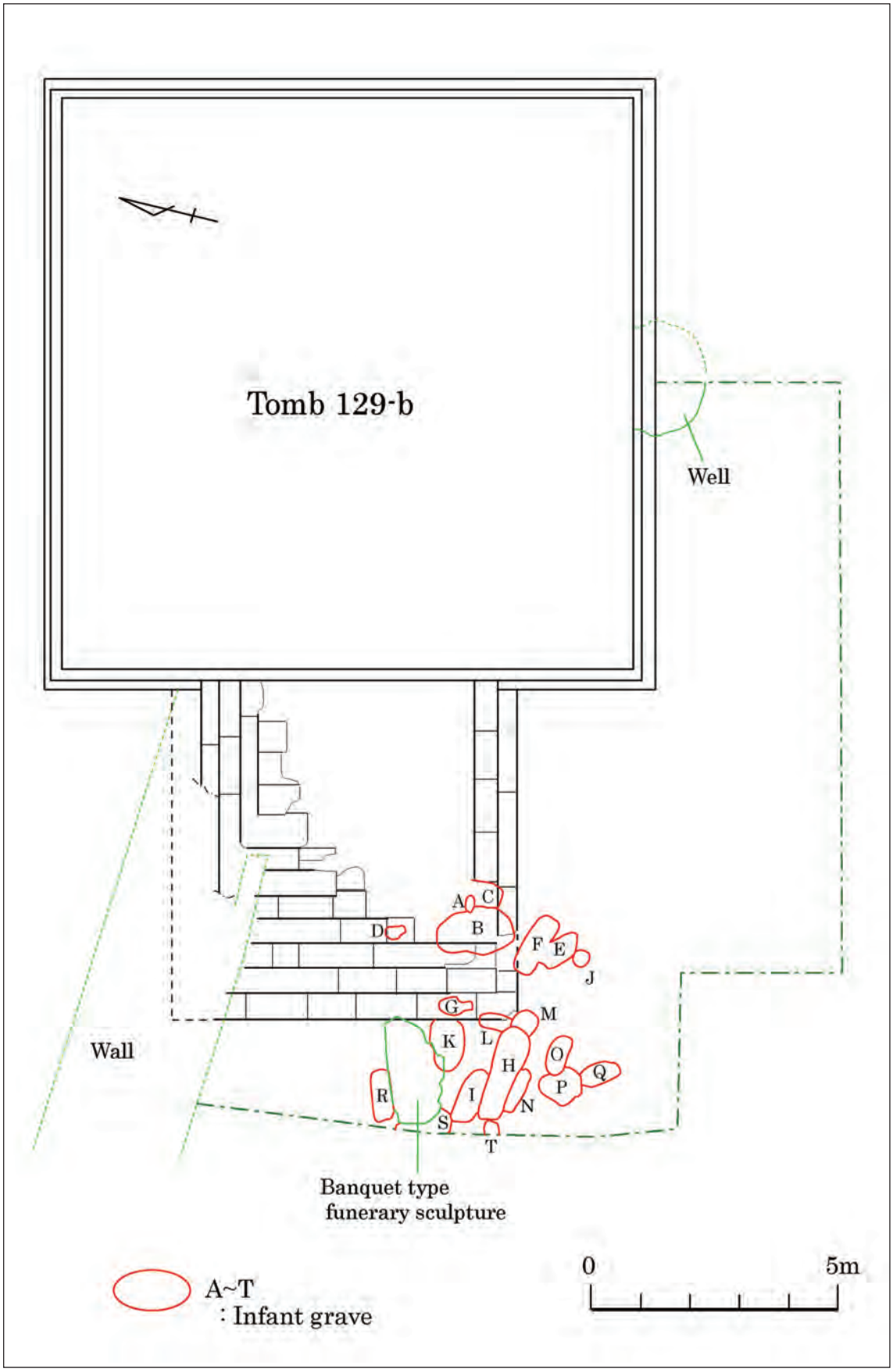

Fig. 23: Distribution map of Archaeological features around Tomb No.129-b.

Fig. 33: Well outside the south side foundation of No.129-b (from the west).

Fig. 34: Close-range view of a well outside the south side of No.129-b (from the south).

Fig. 35: Inscription of inside a well on the south side foundation of No.129-b (from the south).

Fig. 36: Infant grave: Grave E (right) and F (left) (from the east).

Fig. 37: Depositional situation of skeletal remains in Grave E (from the north).

Fig. 38: Depositional situation of skeletal remains in Grave F (from the south) .

Fig. 40: Depositional situation of a jar of Grave G (from the south).

Fig. 41: Depositional situation of skeletal remains inside of a jar in Grave G (from the north).

Fig. 45: Depositional situation of a jar in Grave K (from the south) .

Fig. 46: Depositional situation of skeletal remains inside a jar in Grave K (from the south).

Fig. 48: Depositional situation of skeletal remains in Grave O (from the north).

Fig. 49: Depositional situation of skeletal remains in Grave P (from the south).

Fig. 50: Depositional situation of the cover in Grave Q (from the northeast).

Fig. 51: Depositional situation of skeletal remains in Grave R (from the north).

Fig. 52: Depositional situation of skeletal remains in Grave S (from the east)

Fig. 54: Sedimental layer of the west of No.129-b House Tomb

Fig. 56: Unfinished banquet type funerary sculpture embedded in the working slop for the defensive wall.

Fig. 57: 3D images of the Funerary Temple from the front

Fig. 58: 3D image of the Funerary Temple from the north side

UNE NOUVELLE MISSION CONJOINTE SYRO-ITALIENNE À PALMYRE (PAL.M.A.I.S.): OBSERVATIONS PRÉLIMINAIRES SUR LES CAMPAGNES 2007-2009 DANS LE QUARTIER SUD-OUEST.

Maria Teresa GRASSI

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Introduction:

A la suite de l'accord entre la Direction Générale des Antiquités et des Musées de Damas (DGAM) et l'Università degli Studi de Milan (Italie), en 2007 un nouveau projet de recherche a été entrepris à Palmyre (Tadmor), avec la formation d'une Mission conjointe syrienne-italienne (Pal.M.A.I.S. = Palmira. Missione Archeologica Italo Siriana).

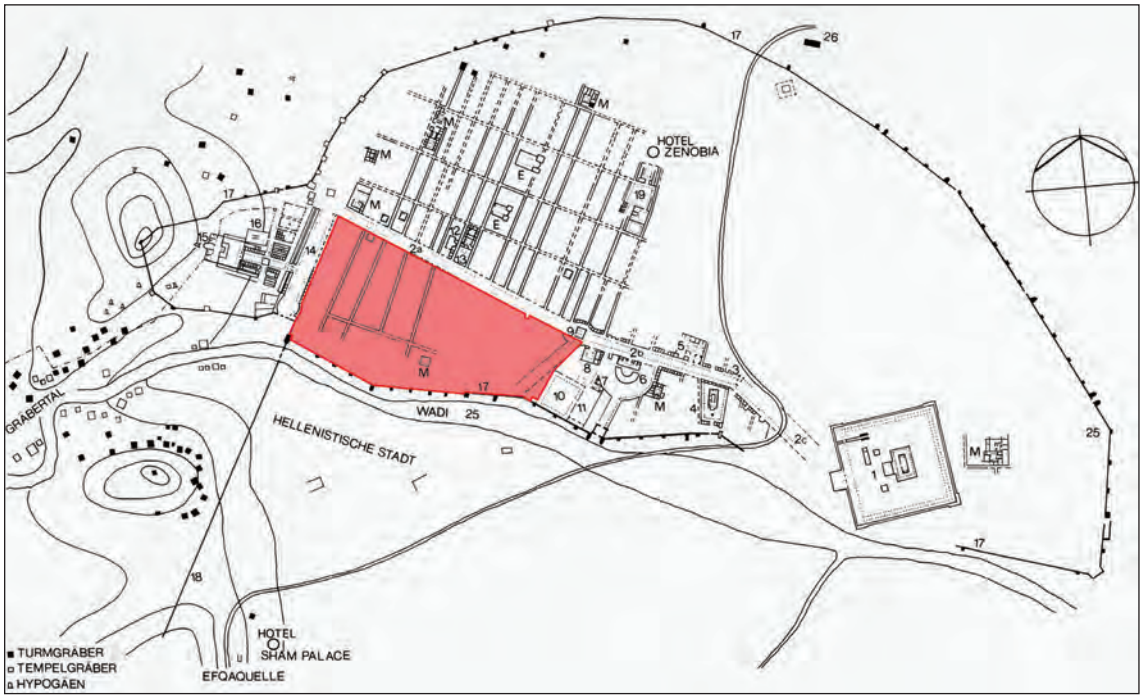
Pour la bienveillance à l'égard de notre projet, nous remercions tout particulièrement Dr. Bassam Jamous, Directeur Général des Antiquités et des Musées; Dr. Michel al-Maqdissi, Directeur des Fouilles et des Etudes archéologiques de Syrie, et le dercteur de l'Università degli Studi de Milano Prof. Enrico Decleva.

Nous tenons à remercier très vivement le Directeur des Antiquités de Palmyre (et Directeur de la Mission pour la partie syrienne) Waleed al As'ad, le Directeur Khalil al-Hariri et tout le personnel du Musée pour l'aide et l'appui constant aux travaux de la Mission et Prof. Michel Gawlikowski, Christiane Delplace et Jacqueline Dentzer-Feydy, qui ont soutenu et encouragé le nouveau projet de recherche à Palmyre.

Notre gratitude va à l'Ambassade d'Italie de Damas et en particulier à S.E. l'Ambassadeur, Dr. Achille Amerio, pour la grande et affectueuse attention à notre projet et aussi au Ministère des Affaires Etrangères d'Italie (en particulier au DGPCC Uff. V – Settore Archeologia).

1-Programme de travail.

Le programme de recherche est dédié à l'exploration du quartier sud-ouest du centre urbain de Palmyre, exclu jusqu'à aujourd'hui de fouilles systématiques et approfondies. L'aire mesure m 547 sur 281 (dimensions maximales) et présente une surface totale d'environ 114.000 m² (plan I).



Plan I

Ses limites sont, à sud-est, le grand mur périmétral de l'Agora; à sud et à sud-ouest le secteur du Rempart de Dioclétien compris entre l'Agora et la Porte de Damas; à nord-ouest et à nord-est la Colonnade Transversale et la Grande Colonnade.

Le quartier sud-ouest, malgré sa centralité dans le cadre du tissu urbain, n'a jamais été l'objet d'une recherche systématique, nécessaire pour mieux connaître sa structure urbanistique, sa chronologie et sa spécifique destination fonctionnelle.

Le quartier sud-ouest se trouve parmi deux autres quartiers de l'ancienne ville mieux connus, celui au nord de la Grande Colonnade, fouillé depuis longtemps par la Mission Polonaise, et celui au sud du ouadi, objet d'un projet de recherche entrepris, depuis 1997, par la DGAM avec l'Institut Archéologique Allemand de Damas et l'Université de Vienne (Autriche).

Les objectifs de la Mission étaient la réalisation du relevé général du quartier sud-ouest et la programmation d'une fouille stratigraphique et extensive, pour définir la chronologie de son occupation et pour vérifier sa supposée destination résidentielle. Un autre objectif de la Mission était l'application des plus modernes technologies pour l'archéologie et, en particulier, la création d'un GIS pour le quartier sud-ouest et même pour la fouille et la création d'un website dédié au nouveau projet (http://users.unimi.it/progettopalmira/).

2- LES RECHERCHES:

Trois campagnes de recherche se déroulèrent en 2007, en 2008 et en 2009.

Pendant la première campagne de recherche, du 7 novembre au 1 décembre 2007, nous avons effectué le contrôle sur le terrain des structures archéologiques, par une enquête systématique de l'aire, de l'est à l'ouest, décidant de considérer avant tout les structures en place (in situ), par exemple les alignements de blocs lithiques qui émergent au niveau du sol ou bien les éléments architectoniques singuliers et isolés, tels que colonnes, montants ou piliers fragmentaires. On a écarté, pour ce type de documentation spécifique, orienté vers la réalisation du relevé général,

Plan II

les éléments qui semblent simplement posés sur le sol et pourtant, peut-être, probablement déplacés de leur place d'origine; pour ce motif, nous avons également exclu les éléments écroulés des structures. Chaque structure in situ identifiée sur le terrain est définie "Unité de Relevé" (UR).

Une enquête ultérieure sur le terrain a visé à l'identification de tous les Eléments Architectoniques (EA) du quartier - colonnes, chapiteaux, consoles, architraves, montants - qui ont été l'objet d'une autre analyse particulière.

En ce qui concerne les structures remarquables sur le terrain, il s'agit, pour la plupart, d'alignements de pierres de taille ou, plus rarement, de simples blocs lithiques, de différents typologie et dimensions. Les alignements majeurs (long plus de 200 m) définissent les limites des ruelles traversant tout le quartier du nord au sud (prédominants) ou de l'est à l'ouest, comparables à la ruelle fouillée par la DGAM en 1963 au nord-est du Tetrapyle, entre la Grande Colonnade et le temple de Baalshamin.

Les 5 ruelles identifiées sur le terrain ont une orientation NE/SO et ne sont pas parallèles (Plan II): par rapport à l'alignement de la Grande Colonnade, les trois premières (à partir de l'est) montrent une inclinaison moyenne de 90° (degrés centésimaux); les deux dernières de 95°. Même les îlots compris entre les ruelles ont, en conséquence, des dimensions non uniformes. La structure urbanistique du quartier sud-ouest ne semble donc pas avoir la régularité caractérisant le quartier au nord de la Grande Colonnade, qui montre une série serrée de longues rues parallèles.

L'orientation des 2 ruelles occidentales du quartier sud-ouest semble identique à celle des rues du quartier au nord de la Grande Colonnade, tandis que les 3 ruelles orientales montrent une orientation légèrement divergent.

Toutes les 5 ruelles du quartier sud-ouest n'ont aucun élément de jonction avec la Grande Colonnade et leur débouché sur l'artère principale du site n'est signalé en aucune manière.

Le grand arc interrompant la rangée sud des colonnes de la Grande Colonnade, à son extrémité occidentale, ne signale pas le débouché d'une ruelle, mais l'entrée d'une structure quadrangulaire bien visible sur le terrain.

Plan III

La limite orientale du quartier sud-ouest est marquée par une autre Rue Colonnade, provenant du Tetrapyle et composée, dans son état actuel, par une seule rangée de 21 colonnes intactes (UR 2). Cette Colonnade montre une orientation différente (123°) de l'orientation des ruelles identifiées dans le quartier sud-ouest et aussi de celle du mur occidental de l'Agora.

On peut observer, pour ce qu'on connait jusqu'à maintenant, que l'urbanisme de ce quartier ne semble avoir aucun rapport avec le quartier hellénistique au sud du ouadi (fouillé par la Mission autrichienne), mais qu'il n'y a même pas une vraie affinité avec le quartier au nord de la Grande Colonnade (fouillé par la Mission Polonaise).

Même les Colonnades entourant le quartier sur trois côtés manquent totalement de jonctions avec les ruelles du quartier. Il semble qu'elles soient seulement juxtaposées , mais pas vraiment harmonisées avec l'urbanisme du quartier sud-ouest.

L'enquête sur le terrain et le relevé ont aussi permis de mettre en évidence d'autres structures, réparties en plusieurs pièces, alternées avec des espaces à l'air libre, probablement reconnaissables comme des bâtiments unitaires. Des alignements mineurs, par rapport à ceux des ruelles cités auparavant, constituent les limites de ces bâtiments et des pièces qui le composent. Parfois la présence des seuils et des montants, encore in situ, marque l'accès aux bâtiments et/ou à quelque pièce. Même si, naturellement, il n'est pas possible, à ce moment, d'en expliciter le plan précis et la destination fonctionnelle, il s'agit toutefois, en certains cas, de bâtiments de dimensions importantes et avec une structure complexe.

Les dimensions, la structure et le décor permettent de supposer qu'ils soient des bâtiments de haut niveau, peut-être des résidences privées, mais dont on ne peut pas exclure du tout, sans des recherches plus approfondies et des fouilles, une éventuelle (partielle?) destination publique.

Pour approfondir la recherche dans ce domaine, on a décidé d'entreprendre une fouille stratigraphique dans la structure la plus imposante du quartier- pour ce qu'il est possible de juger à partir des évidences sur le terrain - située dans son secteur méridional, tout près du rempart tardif de la ville. Elle est constituée par un péristyle presque carré (UR 89), avec 6 colonnes sur chaque côté (en subsistent in situ 12, sur trois côtés), et sa surface semble délimitée par deux ruelles orientées N/S. Le côté du péristyle mesure environ m 12.

3-Les travaux de fouilles:

Les deux campagnes de fouilles se déroulèrent du 2 au 27 novembre 2008 et du 4 au 26 novembre 2009. On a décidé de réaliser les premiers sondages (Sondages 1 et 2/2008) le long du côté ouest du péristyle, qui est le seul à ce moment qui ne présente pas des éléments visibles sur le terrain, et on a poursuivi sur le côté nord et dans l'espace découvert à est (Sondage 3/2009), pour une surface totale de m 20 sur 12 (Plan III).

Plan IV

Le côté ouest du bâtiment présente 4 Pièces, nommées A,B,C,D, disposées selon l'orientation du péristyle. A nord on a découvert deux autres Pièces (E et F). Une moindre partie de l'espace à l'air libre du péristyle, enfin, a été fouillée (Plan IV).

D'après les résultats des deux premières campagnes de fouille on peut exposer quelque hypothèse interprétative, même si la surface objet de la recherche, encore très réduite, et l'étude des matériels, encore en cours, imposent la prudence.

Le bâtiment avec péristyle du quartier sud-ouest montre très clairement une longue période de fréquentation, au moins du II-III au VII-VIII siècle après J.-C. La fouille a donc apporté les premières données chronologiques, entièrement nouvelles, pour le quartier sud-ouest, habité sans solution de continuité pendant plusieurs siècles, d'une manière analogue au quartier implanté au nord de la Grande Colonnade.

La large diffusion du phénomène du réemploi des éléments architectoniques dans les structures visibles sur le terrain, entrevue pendant la campagne 2007, constitue une caractéristique très importante même dans le bâtiment fouillé. Pendant les différents périodes d'occupation, les remaniements et les bricolages des structures ont impliqué un large réemploi des éléments architectoniques et des matériaux de construction, provenant avant tout du même bâtiment. Pendant les périodes les plus récentes, jusqu'à ce moment fouillées, plusieurs éléments sont donc déplacés de leur position originaire dans le bâtiment et réemployés pour une nouvelle utilisation.

A la phase la plus ancienne (Phase I), jusqu'à présent reconnue, se rattachent les deux Pièces du côté ouest, A et B, qui ont des mesures presque identiques, environ m 4 sur 6 (fig. 1).

Les deux Pièces sont communicantes et tous les deux communiquent aussi avec la cour du péristyle (ces trois ouvertures ont des mesures pareilles, presque m 1.20). D'autres portes, l'une au nord dans la Pièce B et deux au sud dans la Pièce A, bouchées pendant une phase suivante avec

Fig. 1

Fig. 2

du leben recouvert d'enduit blanc, permettaient la communication avec d'autres parties du bâtiment, qui doivent encore être fouillées.

D'une manière analogue à d'autres bâtiments palmyréniens, on peut observer la grande quantité d'ouvertures dans chaque pièce, liées au parcours à l'intérieur de ce secteur du bâtiment. Seul le long mur ouest ne comporte pas d'ouvertures.

Les ouvertures orientales communiquaient avec le péristyle ou, pour mieux dire, avec le portique ouest du péristyle. De ce dernier manquent des preuves certaines: les murs des phases suivantes calquent son orientation mais, jusqu'à maintenant, l'existence d'une rangée de 6 colonnes aussi sur ce côté du péristyle n'est pas sûre.

De plus, d'autres solutions ne sont pas exclues du tout pour le portique ouest, par exemple l'existence de colonnes d'un module différent ou de pilastres (?).

Le portique nord, équivalent à la largeur de la suivante Pièce F, devrait être plus large (‘ m 4.50) que le supposé portique ouest (m 3.50), équivalent à la largeur des Pièces C et D.

Autant la technique à blocage du mur nord de la Pièce F, le mur de fond du portique nord, (et de quelque mur des Pièces A et B?), tout comme le style des chapiteaux et l'emploi du fût monolithique en calcaire pour les colonnes sont, jusqu'à maintenant, les seuls indices pour proposer une datation à la fin du II - début du III siècle après J.-C. pour le premier bâtiment avec péristyle. Les morceaux de stuc trouvés, appartenant au décor d'origine du bâtiment, se rapprochent d'autres exemples palmyréniens et suggèrent la même chronologie (fig. 2).

Bien si ne donnent aucune indication chronologique, cependant sont très intéressants les plaques en marbres précieux trouvées en plusieurs endroits de la fouille, qui devraient faire partie du décor du premier bâtiment avec péristyle(marbre vert «serpentino» et marbre rouge foncé «rosso antico», provenant de la Grèce; marbre «pavonazzetto», provenant de l'Asie Mineure et marbres blancs provenant du Proconnese et de la Grèce).

La fouille n'a pas atteint le niveau de fréquentation de la cour du péristyle pendant la Phase I et il faut encore vérifier l'existence, sous les sols tardifs en terre battue, d'un dallage complet in situ, tel que documentent d'autres bâtiments palmyréniens.

Seul le niveau en argile, délimité par le ressaut de fondation des murs, mis au jour dans la partie orientale de la Pièce A, pourrait être le sol ou bien l'aménagement d'un sol de la Phase I, totalement démonté, duquel ne reste aucune trace.

Pendant la Phase suivante (Phase II) deux nouvelles Pièces, C et D, à l'est des Pièces A et B, occupent le supposé portique Ouest du péristyle. Dans la Pièce D est construit un escalier, qui permettait l'accès à un étage ou à une soupente.

Les niveaux des sols sont rehaussés d'environ cm 90/100 (pour couvrir un écroulement, un abandon, une destruction?) et, par conséquence, aussi les ouvertures encore en usage (entre A

et B, entre A et C), avec l'insertion des seuils de réemploi au-dessus des bouchages.


Fig. 3

D'autres seuils de réemploi ont été trouvés dans les ouvertures entre les Pièces C et D et la cour du péristyle, qui reste encore en usage, pendant cette phase, avec un sol en terre battue, réaménagé plusieurs fois. Contre le mur est des Pièces C et D est dressée une cuve.

Les dalles du sol de la Pièce C et peut-être du sol de la Pièce D (perdu pour la plus grande partie) pourraient provenir du démontage de dallages antérieurs (de la cour du péristyle ?). Même la Pièce B a, pendant cette phase, un solide sol en mortier peint en rouge, tandis que la Pièce A a un sol en terre battue, duquel restent de faibles traces.

Les murs de la phase précédente, encore en partie conservés dans les Pièces A et B, sont réaménagés avec tant des blocs lithiques que du leben.

Dans les pièces A et B les ouvertures, respectivement au sud et au nord, sont bouchées avec du leben et les murs sont en partie rehaussés avec des briques crues en leben.

Les remaniements des murs sont cachés par l'enduit couvrant les parois (enduit blanc dans la Pièce B et blanc et rouge dans la Pièce A). Sur l'enduit d'un bloc écroulé dans la Pièce A il y a une inscription grecque cursive gravée à la pointe.

La technique des murs des nouvelles Pièces C et D est différente de la technique à blocage du mur nord de la Pièce F et des murs des Pièces A et B et elle est beaucoup moins soignée, avec des blocs de petites ou moyennes dimensions, mal équarris et liés à l'argile.

Pendant la Phase II on réemploie aussi, pour les nouvelles structures, des blocs lithiques avec des inscriptions, parmi lesquels on signale un bloc, peut-être d'entablement, avec une inscription grecque - dans la première ligne conservée on peut lire (epi)melet(es) (fig. 3) - et deux petits autels avec des inscriptions palmyréniennes, une desquelles, sur cinq lignes, a été reconnue comme une dédicace au «Dieu Inconnu».

Les éléments architectoniques du bâtiment de la Phase I sont aussi réemployés: non seulement les seuils et les dalles, déjà mentionnés, mais un fragment de fût de colonne, faisant partie de la structure de l'escalier dans la Pièce D.

Quelle est la fonction, pendant la Phase II, de ce «bloc» de 4 Pièces sur le côté ouest du péristyle?

Est-elle non seulement résidentielle, mais aussi peut-être productive et/ou commerciale? Ça pourrait l'indiquer quelque aménagement dans les Pièces A et B et la quantité de monnaies retrouvées (en particulier, 15 monnaies dans la Pièce A, parmi lesquelles on signale des folles du VI siècle après J.-C.).

Pendant la Phase II, les Pièces du côté ouest du péristyle montrent une série de remaniements et de réaménagements, à la suite de continus et progressifs écroulements, abandons et réoccupations, jusqu'à l'époque islamique.

Le réaménagement le plus important touche le côté sud de la Pièce D, où est construit un petit four, dans lequel a été trouvée une lampe datable à partir de la moitié du VII siècle après J.-C.

La dernière Phase (Phase III) marque l'abandon de la Pièce D: après le démontage du dallage, la pièce est occupée par des écroulements (aussi du petit four) et définitivement abandonnée (peut-être fermée par de murs de retenue?).

Seulement la suite de la fouille pourra vérifier si l'occupation du côté nord du péristyle (Pièces E et F), qui partage les espaces du bâtiment de la Phase I en petites cellules, soit contemporain à celle identifiée sur le côté ouest ou si suive son abandon.

L'INSCRIPTION DU TOMBEAU ROMAIN DE SIYANOU (SYRIE CÔTIÈRE)

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Ifpo-Syria

Au cours de l'été 1990, un tombeau d'époque romaine portant une inscription grecque a été mis au jour au pied du tell de Siyanou, à l'occasion de la première campagne de fouilles conduite sur ce site de la plaine de Jablé sous la direction d'Adnan Bounni (Direction générale des Antiquités et des Musées, Damas). Sa découverte est signalée dans l'un des premiers rapports de la mission(1). Le monument a été enfoui pour éviter qu'il soit davantage endommagé. Pierre-Louis Gatier (Maison de l'Orient, Lyon) avait fait un relevé de son inscription à la demande des fouilleurs. C'est à son amitié que je dois de pouvoir éditer cette inscription. La publication du texte participe au projet du recueil épigraphique de la Syrie côtière, qui m'est confié depuis 2007 dans le cadre du programme des Inscriptions grecques et latines de la Syrie(2). Que la Direction générale des Antiquités et des Musées de Syrie et Michel al-Maqdissi, l'actuel directeur de la mission archéologique de Siyanou, trouvent dans la présente note l'expression de ma reconnaissance pour leur générosité et leur soutien sans faille.

Le bloc inscrit appartient au linteau en calcaire grossier du tombeau. Brisé à gauche et en dessous, mais complet à droite, il mesure actuellement 48 cm de haut et 199 cm de large pour une épaisseur de 117 cm. L'inscription est gravée sur sa face antérieure, sous une corniche et une rangée de denticules. Elle se poursuivait peut-être sur une ou plusieurs lignes en dessous de celle qui est conservée. Les lettres, de forme lunaire, ont une hauteur de 3 à 4 cm. Le quantième du mois est surligné au début. Je lis :

[Ἔτους - - - μηνὸς Ἀπελ]λαίου δ΄, Θεόδωρος Ἀπολλωνίου [ἐπ]οίει [- - -].

Traduction : « L'an…, le 4 du mois d'Apellaios, Théodoros fils d'Apollonios a fait… »

Théodoros fils d'Apollonios porte un nom et un patronyme grecs assez banals. Cet homme pourrait être soit le défunt, soit un membre de sa famille qui aurait tenu à rappeler l'aménagement du tombeau par ses soins. D'après la forme de ses lettres, le texte peut être datée entre le premier et troisième siècle après Jésus-Christ. Il s'ajoute aux témoignages (vestiges d'une huilerie, matériel céramique et numismatique) qui attestent l'occupation modeste du site rural de Siyanou sous

l'Empire romain. Plus généralement, il complète notre connaissance du milieu des propriétaires terriens sur le territoire de la petite cité phénicienne de Gabala (Jablé) dans l'Antiquité(3).

Notes

(1) Adnan Bounni et Michel al-Maqdissi, « Tell Sianû. Un nouveau chantier syrien », Studies in honour of Vassos Karageorghis, Nicosie, 1992, p. 129-140, cf. p. 129 n. 2.

(2) Voir mon précédent rapport, Julien Aliquot, « Mission épigraphique de la Syrie côtière (IGLS) : rapport 2007-2008 », Chronique archéologique en Syrie, IV, 2010, p. 263-265.

(3) À ce sujet, voir les remarques de Pierre-Louis Gatier, « Nouvelles inscriptions de Gabala et de Béroia », Annales archéologiques arabes syriennes 47-48, 2004-2005, p. 151-157, en particulier p. 153-154.

RESAFA, SYRIA – CITY OF PILGRIMAGE AND CALIPH RESIDENCE. THE SPRING AND AUTUMN CAMPAIGNS 2009

Dorothée SACK, Mohammed SARHAN, Martin GUSSONE

Berlin-FG Historische Bauforschung-Germany, DGAM-Syria

Resafa-Sergiupolis, a city from late Antiquity with well preserved pilgrimage churches and a two-kilometer long city wall preserved to a height of 15 meters, has been consistently called one of the most impressive ruin sites of the Middle East (Ulbert 2008). At this site a castrum of the Limes Arabicus had been established to protect the border of the Roman Empire to the east. Due to the worship of S. Sergius, who is said to have suffered martyrdom here in c. 312 AD, the place developed to one of the most important shrines in the eastern Mediterranean area (Fowden 1999). Under Islamic rule worship continued and the importance of Resafa increased even more. Caliph Hisham b. Abd al-Malik (105/724 to 125/743) took residence in the southern surrounding of the walled city and whose name, Rusafat Hisham, was also conferred upon the city (Sack 1996, 155-156). The veneration of S. Sergius and the maintenance of the main pilgrimage church as well as the usage of a congregational mosque adjacent to his shrine continued until the city was left by its inhabitants, following the Mongol invasion, in the first quarter 7th/third quarter 13th century (Ulbert 1986, 147-154, Sack 1996, 159).

The walled city and its southern surroundings merits special attention as a place to study the interchange of Christian and Islamic Cultures and furthermore as one of the few significant early Islamic settlements to have been spared almost any modern modification.

Since the 1950s the site has been investigated with support from the German Archaeological Institute (DAI) (Ulbert 2008); since 2006, the project "Resafa-Sergiupolis/Rusafat Hisham, City of Pilgrimage and Caliph Residence" has been conducted. The project consists of five divisions and numerous sub-projects; the project in its entirety attributes special significance to a holistic view of the city and its surroundings as a connected settlement area (Sack 2008). In 2009, a spring campaign was conducted from March 16 to April 23 and a autumn campaign from August 25 to October 1 (Sack et al. 2010, 28-43. 92-93)[(1)].

Within the framework of project division 1 'Archaeological Map' Digital Terrain Models of the surroundings of Resafa are generated. The detailed recording of the surface, begun in

autumn of 2008, was extended to the area outside the bypass road in autumn 2009. This campaign focused on a more precise survey of the elevation profiles in the wadi with the goal of showing the drainage of seasonal rainfalls. Furtheron the talks with resident families concerning the origin of the village were continued with the goal of completing the Archaeological Map in view of the recent changes in Resafa.

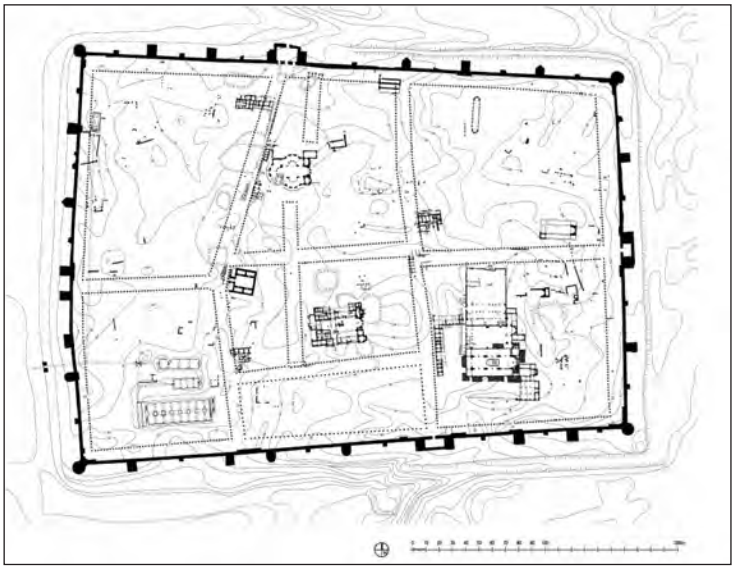

Fig.1: Resafa, intra muros – new city map (M. Gussone, G. Hell, with N. Erbe 2009).

For the area intra muros works on a new city map have been completed. In this new city map all archaeological remains that have been recorded up to now have been uniformly geo-referenced in the current high-precision coordinate system, and the drawings from previous investigations have been processed. Thus a base has been created for chronological plans, which can be produced within the framework of the Archaeological Map. Thus the current 'digital' version of the city map unites the advantages of the high density of evidence from the archaeological documentations, with the more precise localization resulting from increased precision of measuring technology (Fig. 1).

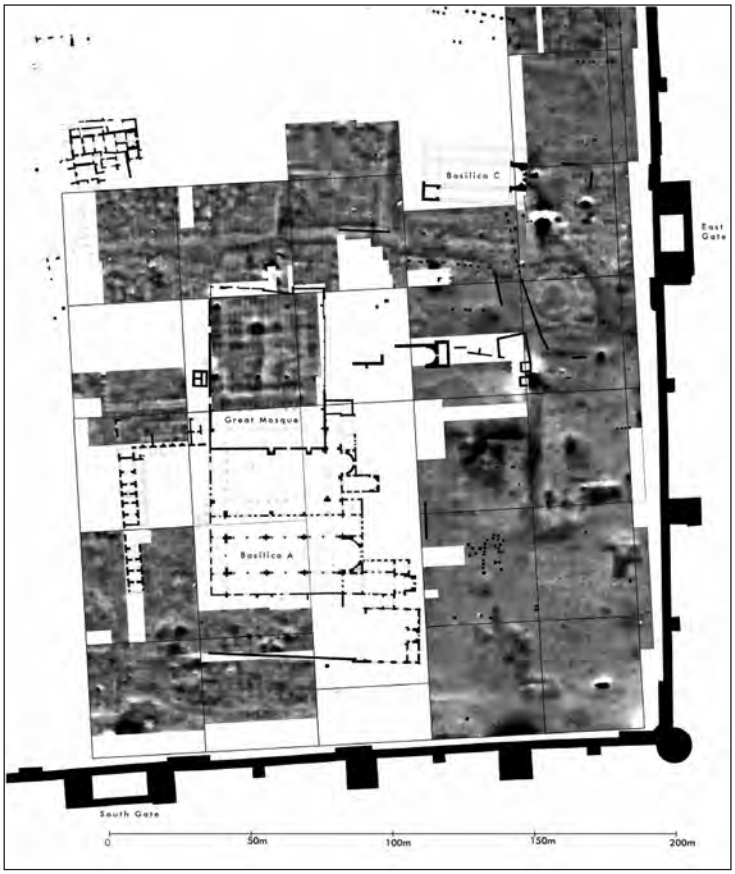

Fig.2: Resafa, intra muros, magnetogram (H. Becker, CAD M. Gussone 2009).

Contributions for project division 2, 'Archaeology and Prospections' have been made in both 2009 campaigns.

Using magnetic prospection, the area directly outside the city wall in the southeast was prospected, along with – for testing purposes for the first time intra muros in Resafa – the walkable areas in the southeast corner of the city. The magnetograms intra muros quite considerably expand the knowledge of the structure and architecture of this city (Fig. 2). Consequently it was possible to make visible one of the main axes of the city from around its center to the East Gate including several expansion phases. On the southern side of this road, near the gate, a circular structure of

extraordinary layout could be detected that so far has no equivalent in Resafa. For the time being, one can only speculate about the purpose of this round structure.

The surveying of surface traces in the southern surroundings begun in 2001 and 2007 – to document architectural remains and settlement structures – were also continued. The surface traces of different find sites (FP ‚Fundplatz/Fundplaetze') – to study only if the terrain is humid in the spring period – has been measured, to get detailed ground plans of the buried monuments. Numerous linear ground discolorations that originated from the mud walls with their greater water storage capacity as well as stuccoed edges and crop marks revealed not only the outer walls of buildings but also a great number of interior walls (Fig. 3). Thus in spring 2009 further 21 find sites have been recorded and the architectural conception and interior organization of individual buildings have been clarified .

Fig.3: FP 102, surface features, plaster edges and ground discoloration (U. Siegel 2009).

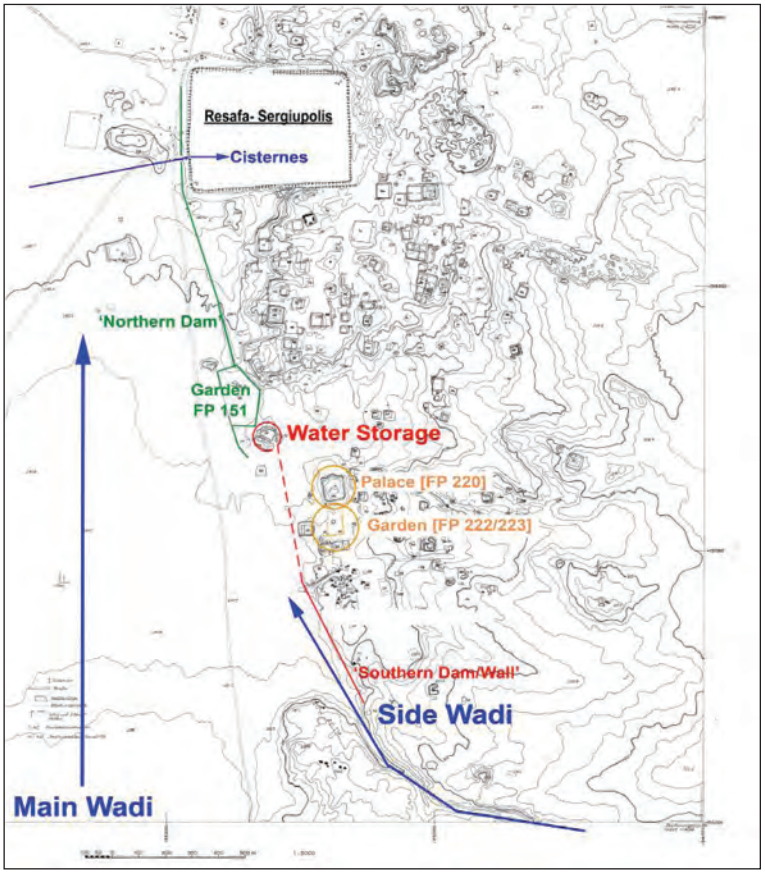

Fig.4: Resafa-Rusāfat Hišām, Overview of the by archaeological sondages explored sites (B. Beckers, C. Konrad, based on D. Sack, 2009).

Particular emphasis was put on the investigations concerning historic water use and on the reconstruction of historic environmental conditions in the area of the Caliph palace to the south of the walled city; these investigations are being conducted in a 'tandem' by an archaeologist and a physical geographer. Following a common survey conducted by the graduate tandem in 2008 in the settlement itself and in its immediate and wider surrounding areas, needed sediment samples first from naturally accessible ground layers and then, with the help of drilling, samples necessary for the reconstruction of the water management and Paleo-environment were taken. In the southern region, the excavations at FP 220 and FP 143 were continued (Fig. 4). At

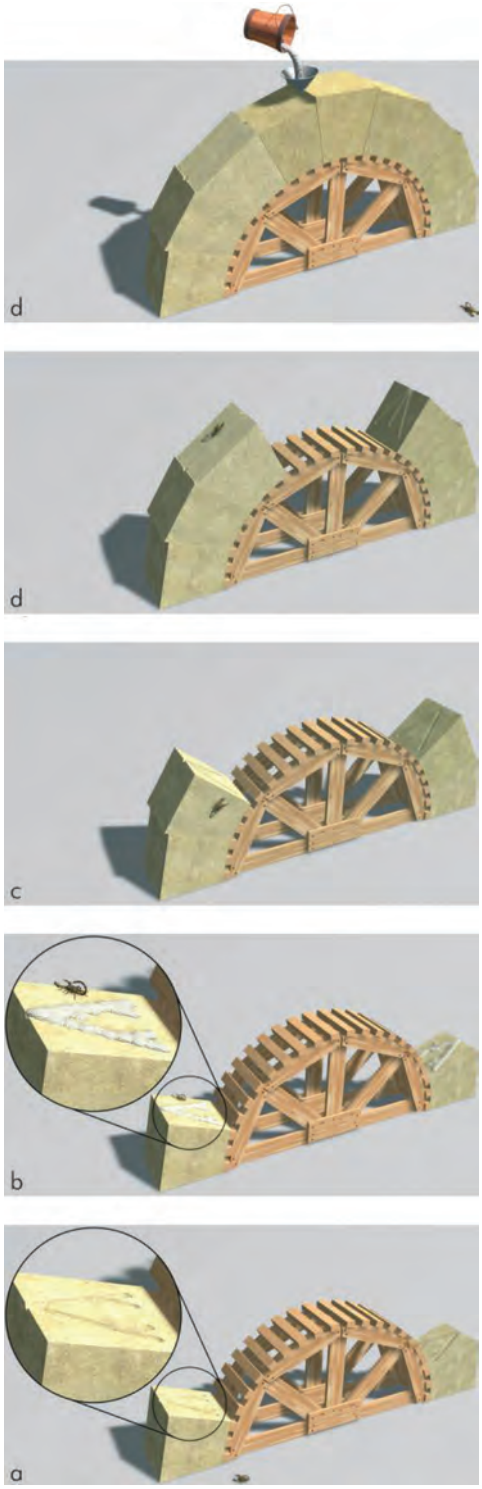

Fig.5: Fig. 1a - e Schematic reconstruction of vaulting technique, Hof 2009.
Filling mortar into a channel; use of a trowel for shallow joints.
Applying the subsequent layers, respectively with mortar in grooves...
...the grooves of one arch can have varying forms.
Setting of the keystone and pouring mortar into the remaining steep joints.

Qasr FP 220, the archaeological investigations, begun in 2007, were largely concluded. In the entrance area of the building a large quantity of stucco was found; the stucco suggests a lavish furnishing of the building and by extension a palace as part of the palace complex of Caliph Hisham Abd al-Malik. The excavations of the autumn campaign focused on the area south of FP 220, which because of its water supply installations is referred to as a garden area. In the center of this area a Umayyad pavilion was excavated, which according to its layout, corresponds to the pavilion at FP 151, previously investigated by Thilo Ulbert in an emergency excavation. In the course of the archaeological survey of the garden area, an installation referred to as a water distributor was also investigated.

The resurvey of the find sites, launched 2008, was continued. This extended surface survey has the goal of a more precise chronological distinction among the find sites, which have been initially investigated since the 1970s. In Resafa, however, occupation doesn't come to an end with the advent of the Abbasids. Rather it continues up to the 7th/13th century. Within this span of time a shift of the occupied zones may be observed. Whereas pre-Islamic occupation was concentrated in the Western quarter, and Umayyad settlement covers more or less the complete area, the post Umayyad occupation was concentrated in the eastern quarter. This becomes particularly notable in the 6th/12th and 7th/13th century. The amount of Ayyubid finds indicates a clear concentration of the settlement in the East quarter of the southern environs during this period.

In the project division 3, 'City Wall', completion of the ground plan of the city wall is in progress. A detailed survey of the gate installations and their subsequent additions has been conducted. The survey of the findings will be implemented step by step into a data base with the goal of making available and visible the results of this examination of the construction regarding particular questions, for example, about the sectional construction of the apex stones of the wall walk. Furthermore construction characteristics were investigated to find out if, the connections — manifest in the architectural sculpture — among Basilica B, the Tetraconch Church ('Zentralbau'), and the North Gate can also be confirmed in aspects of structural engineering. Hardly any stone masonry marks can be found in Resafa's masonry, and marks in the sense of signatures are absent entirely. However, recently marks have been discovered that fulfill

Fig.6: Resafa, Basilica A, Consolidation work, view from southeast (M. Gussone 2009).

a structural function. These are furrows that resemble the letters V, Y, and W or an arrow. Most examples were found among the material of collapsed and buried ruins and it quickly became apparent that these are hidden marks, that is, they never appear on the stone facings. It was noted that the carriers of these marks always were wedge-shaped arch stones and that the furrows were found only on the undersides. Thus the grooves apparently served for the filling in of mortar, the residue of which could be found on some stones. During the investigation of these marks, potential pathways of appropriating and passing on construction ideas have also been traced as a contribution to the reception history of architecture in northern Syria (Fig. 5).

Project division 4, 'Preparation, Planning and Execution of Consolidation- and Conservation Works', is significant not only because of the special attention paid to it by public interest and the Direction Générale des Antiquités et des Musées de la Syrie (DGMAS). The campaign's efforts for the preservation of Basilica A were visible from afar because of the first-time use of a large crane (Fig. 6). After areas that were acutely threatened by collapse had been consolidated in the last year with the help of wooden support structures, a targeted consolidation of selected structural components began in autumn 2009. The aim of this campaign was the dismantling of material that threatened to collapse in the area of the southern aisle and the clerestory and the consolidation of the upper column configurations within the Chapel of the Relics as well as exchanging weakened arch stones of the trompes situated above. Mere shell limestone was employed for the exchange, because although the primary building material of Basilica A is gypsum stone, primarily the lighter shell limestone was used for arches and vaults, as it was in other buildings in Resafa.

The preliminary investigations of the Tetraconch Church ('Zentralbau') were continued. One goal of the work during the 2009 autumn campaign was to extend knowledge concerning the former appearance and architectural organization of the building (Fig. 7). To this end, the previous documentation in preparation for a partial anastylosis of the interior was continued and extended to the lapidaries where building parts are stored, which were salvaged from the collapsed and buried ruin in excavations of the 1950s. In addition, a sondage was conducted in the southeast part of

Fig.7: Tetraconch church (central plan building), Ground plan with the new drawn parts of the building, not to scale (I. Salman, A. Schuhmann, based on W. Karnapp, W. Wirth, 2009).

Fig.8: Collage of the revised design proposal of the platform with railing and information boards in two of the openings. (I. Frase, A. Mollenhauer 2009).

the Tetraconch Church; this was intended to bring to light new facts about the shape of a southern extension and to clarify the connection of the Tetraconch Church to the surrounding buildings.

Another work was focused on surveying the former application of incrustation that now can be categorized rather safely as belonging to a second building phase. Indications of a date for the secondary furnishing are integrated in the incrustation found in the niche of the north wall of the grave of bishop Abraamios. An analysis of the distribution of dowel holes makes it evident that the furnishing with incrustation was executed before earthquake damages occurred. Moreover, the dramatic earthquakes that repeatedly affected Resafa meant an end to the precious but fragile embellishment.

Project division 5, Site Management, focused during the autumn campaign on the planning for the preparation of Tower 1 at the southeastern corner of the city wall as a viewpoint for visitors (Fig. 8). In Damascus, in a run-up to the campaign, the layouts for six information panels which had been developed and revised at the request of DGAMS, and an information leaflet for the visitors of the ruin was handed over to DGAMS. Visitors to the ruin will receive the leaflet along with their tickets. Currently, an English version is available; however, leaflets in Arabic, French and German are expected to follow.

Note

(1) with contributions by Helmut Becker, Brian Beckers, Isabelle Frase, Martin Gussone, Guenter Hell, Catharine Hof, Tobias Horn, Martin Klessing, Christoph Konrad, Martina Mueller-Wiener, Dorothée Sack, Ibrahim Salman, Axel Schuhmann and Ulrike Siegel. Arabic translation by Ibrahim Salman.

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TRAVAUX DE LA MISSION SYRO-FRANÇAISE DE QINNASRIN EN 2009

Marie-Odile ROUSSET, Adnan MOHAMMAD, Yves BIÈRE, Marie-Cécile BOSERT, Marilyne BOVAGNE, Christine KEPINSKI, Ahmad OTHMAN, Marie ROCHETTE

CNRS-France, DGAM-Syria

Le but de notre travail dans le village actuel d'al-'Iss est d'étudier les premières implantations islamiques en Syrie du Nord à travers l'exemple de la ville de Qinnasrin. Il s'agit donc, dans un premier temps, de localiser son emplacement et de déterminer les grandes lignes de son évolution. Depuis les premières études de topographie historique jusqu'à la publication du Limes de Chalcis en 1945, les chercheurs s'accordent pour la situer sur le même site que l'antique Chalcis, c'est à dire sur le territoire de l'actuel village d'al-'Iss.

Durant la campagne 2009, nous avons poursuivi la prospection du village actuel, tell, champs environnants ainsi que de la montagne qui surplombe l'ensemble[(1)]. Les études suivantes ont été conduites : poursuite de l'établissement d'un plan d'ensemble du site, avec un relevé topographique précis de la zone nord et du sommet de la montagne, prospection pédestre, inventaire des blocs architecturaux conservés dans le village et alentours, prospection géophysique. Nous avons également ouvert deux sondages dans la zone nord, pour déterminer quel était le degré de conservation des vestiges qui apparaissent en surface et pour dater les structures en place.

Etat de conservation du site

Le site continue de se dégrader. Sur la montagne, une tombe de l'âge du Bronze a été nouvellement pillée (secteur P98), probablement durant notre séjour car les déblais ont été volontairement étalés pour les dissimuler dans le paysage. Il s'agit d'une grande tombe dont l'ouverture est sommitale, ronde, et qui a probablement une forme de cloche. Parmi les déblais, nous avons reccueilli une épingle en bronze ainsi que des céramiquees typiques de la transition Bronze ancien / Bronze Moyen (expertise de Christine Kepinski).

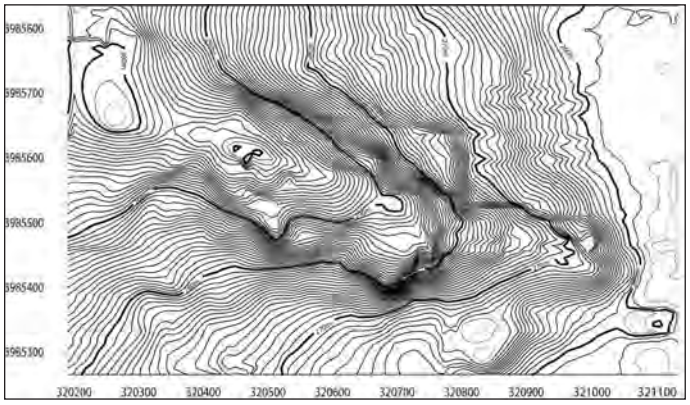

Fig. 1: Le secteur Nord. Plan topographique.

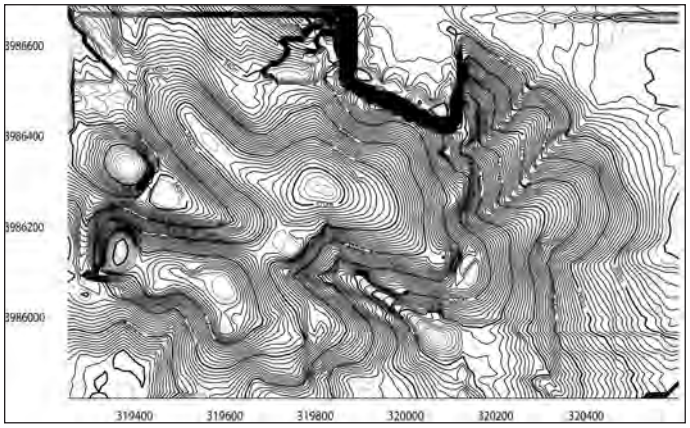

Fig. 2: Plan topographique du sommet de la montagne.

Sur la montagne, outre cette tombe pillée, plusieurs autres excavations ont mis au jour des parties de murs, construites en blocs de pierre grossièrement calibrés, liés par un mortier de terre (P86). En règle générale, les reliefs visibles du terrain ont été sondés par les fouilleurs clandestins. La plupart des pierres taillées qui étaient en place ont été retirées et jetées sur la pente.

Dans l'oued nord-est, le bassin creusé dans la roche P76 qui avait été en partie vidé sur toute sa hauteur (4 m environ) en 2008 a de nouveau fait l'objet d'une tranchée sur un autre côté.

Enfin, la carrière qui entaille le flanc est de la montagne continue de s'étendre, en contradiction avec les affirmations de l'exploitant qui nous avait assuré, en 2008, que son emprise n'irait pas au-delà de ce qui était alors visible. L'excavation a, durant la dernière année, fortement entaillé deux des quatre grandes cavités sises dans la partie est de la montagne.

Les travaux de topographie (M.-C. Bosert)

La totalité du secteur nord a été relevée à l'aide d'un GPS différentiel bi-fréquence Leica 900, loué à l'Ifpo (fig. 1). Cette zone est déterminée par l'extension maximale du village (au sud), la zone des carrières (à l'ouest), l'oued (au nord) et les cultures (à l'est).

Nous avons choisit de privilégier cette année le relevé de la zone sommitale de la montagne, notamment les abords de la carrière, pour documenter au maximum les secteurs qui risqueraient d'être détruits à l'avenir. La quasi totalité du sommet a été relevé (fig. 2-3). Ce relevé fait nettement apparaître le tracé d'un rempart qui ceinture cette zone. La liaison avec les parties basses du site sera cartographiée dans une prochaine mission.

Prospection géophysique (Y. Bière, M.-O. Rousset)

Pour cette prospection, l'UMR Archéorient de la Maison de l'Orient et de la Méditerranée a mis à notre disposition un magnétomètre de marque Geometrics modèle G858, à pompage optique. Pour le déchargement des données, le logiciel Magmap a été utilisé. Pour le traitement de celles-ci, l'emploi de Wumap et de Surfer a été nécessaire.

La campagne de cette année fait suite à celle de 2008 durant laquelle le tell fut principalement prospecté. La méthode magnétique ayant été jugée efficace durant cette étude (voir rapport de

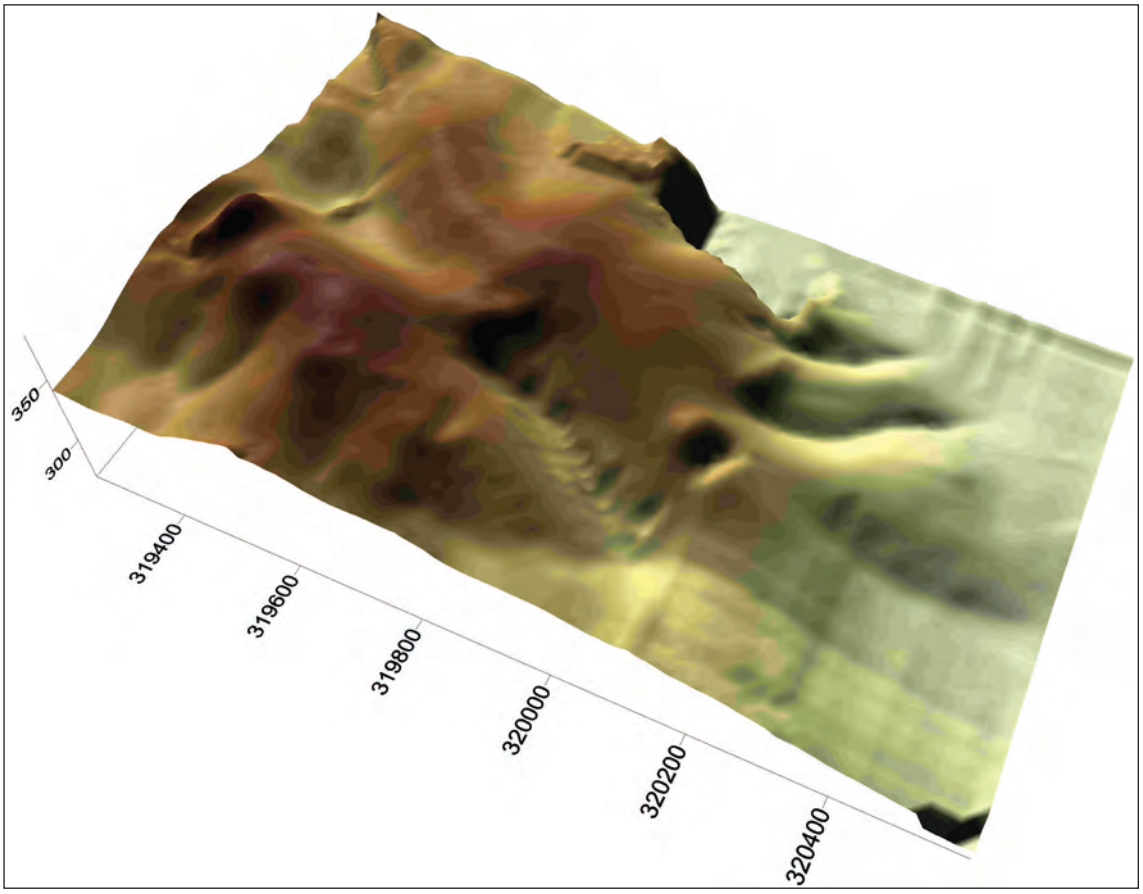

Fig. 3: MNT du sommet de la montagne (vue du sud-est).

prospection 2008), il a été décidé d'étendre la prospection à la zone située à environ 1 km au nord du tell durant la campagne 2009. Une surface d'environ 13 hectares a été prospectée (soit 64 blocs de 50 m2). Ils s'ajoutent aux 14 hectares étudiés en 2008.

La carte magnétique (fig. 4) montre divers éléments géologiques, comme l'oued qui traverse la prospection d'ouest en est et son lit entaillé dans la dalle calcaire. Des traces de labours, orientées nord-est/sud-ouest, sont visibles sur la partie est de la prospection. Tous ces éléments se superposent aux vestiges archéologiques et rendent difficile la lecture des données magnétiques. L'organisation générale de ce secteur dépend en grande partie du relief : le rempart byzantin suit, comme l'on pouvait s'y attendre, le tracé visible sur les photographies aériennes. La prospection magnétique a mis en évidence au moins deux tours rectangulaires. La partie enclose est totalement, voire densément construite, selon une trame régulière, orientée nord-sud, est-ouest et non par rapport au tracé du rempart. Cet habitat n'est pas forcément contemporain du rempart. On se souviendra que la prospection pédestre a mis en évidence dans ce secteur l'occupation de l'époque ayyoubide, liée à l'utilisation de cavités sous roche. Ce réseau en apparence régulier résulte de la superposition de plusieurs phases de constructions, entre le Ve et le XIIIe siècle, antérieures à la destruction du rempart.

Cette partie est séparée de la partie basse par une large terrasse de 100 – 150 m de largeur qui ceinture la ville au nord-est. Des constructions plus ou moins jointives sont dispersées et s'adaptent au relief : de plan rectangulaire ou trapézoïdal, elles comprennent de grands enclos et des bâtiments sur un ou plusieurs côtés de la cour. Ce type de plan rappelle fortement les habitations byzantines en milieu rural, observées dans le Massif calcaire et la steppe de Syrie du Nord. Elles pourraient correspondrent à la phase byzantine signalée par la céramique. Dans la partie est, des bâtiments

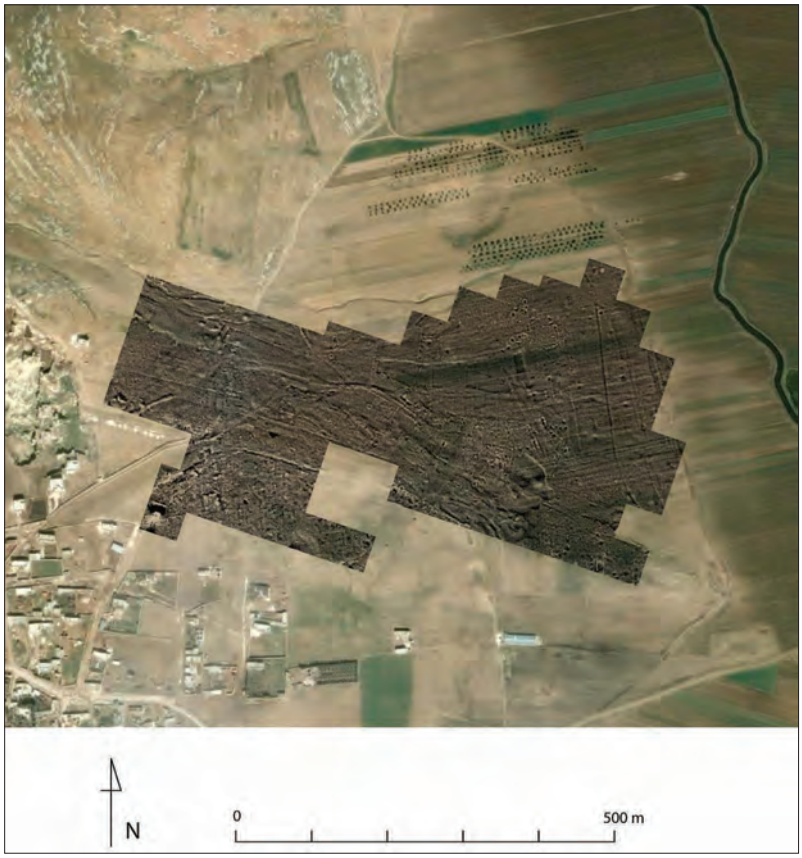

Fig. 4: Interprétation de la prospection géophysique. (Qinnasrin 09. Prospection géophysique réalisée dans le secteur Nord).

plus complexes se superposent à ces constructions. La fouille du secteur B a montré une occupation résidentielle du début de l'époque islamique à cet endroit.

En contrebas de ce secteur, c'est à dire dans la partie la plus proche de la rivière mais en deçà des cultures, la carte géomagnétique montre deux groupes de fours de potiers, répartis de part et d'autre de ce qui apparaît comme un bassin rectangulaire de 25 x 15 m. La prospection pédestre effectuée en 2008 avait montré que certains de ces fours produisaient des imitations de sigillées tardives en pâte commune.

La zone nord-est présente plusieurs lignes parallèles, dont l'avant dernière correspond à la piste actuelle. Il pourrait s'agir de limites de parcellaire ou de voies plus anciennes dont le tracé aurait suivi le retrait des terres cultivables avec l'assèchement des marais environnants le site au sud-est.

La prospection pédestre (M. Rochette, M.-O. Rousset)

La prospection pédestre conduite en 2008 a été terminée durant cette campagne. Elle porte sur les secteurs du site non recouverts par les constructions actuelles ou par les cultures pour identifier les structures visibles en surface et les dater par du ramassage de céramique. 12 nouvelles zones ont été définies à partir des images aériennes Google Earth et du plan topographique. Nous avons essayé au maximum d'individualiser des ensembles sur le terrain à partir des reliefs du terrain, de la nature du sol, de la présence ou non de fragments architecturaux (briques cuites, tuiles, fragments de mortier, pierres taillées ou calibrées...). Chaque secteur prospecté a été déterminé selon ces critères ou arbitrairement, pour prélever un échantillonage de matériel dans les secteurs sans caractère particulier (pour vérifier l'étendue du site dans des secteurs complètement labourés par exemple).

Les secteurs prospectés cette année se situent essentiellement à la périphérie du site. Les résultats de ce travail complètent ceux obtenus lors de la mission précédente.

La prospection des zones cultivées, entre le site et le Qwayq a mis en évidence plusieurs petits sites (100 – 150 m de diamètre), à proximité de l'eau. Durant ces premières phases d'occupation, de grosses fermes sont localisées à proximité du Quwayq : les secteurs P36, P42 et

P96. Bien que de petite taille, le secteur P96, situé sur une petite proéminence plus ou moins circulaire, a été occupé sur une longue durée, de l'époque hellénistique à l'époque mamelouke. À l'époque classique, il s'agit de villae dépendant de la cité voisine ; à l'époque islamique, il pourrait s'agir de fermes de sédentaires ou d'emplacements de semi-sédentaires qui viennent faire paître leurs troupeaux après les récoltes.

Fig. 5: localisation des secteurs prospectés.

Des précisions importantes ont été obtenues sur la nature de l'occupation de la montagne. L'implantation la plus ancienne observée dans cette partie du site pourrait correspondre à un établissement de nature essentiellement funéraire (voir le rapport de Christine Kepinski plus loin), ce qui explique la trouvaille d'un sceau cylindre en surface cette année encore. La datation des vestiges qui subsistent sous forme de tell sur le sommet doit donc en conséquence être attribuée aux périodes plus tardives représentées par la céramique, c'est à dire dans une fourchette chronologique large s'étendant du VIe au IXe siècle. À deux reprises, des trous de pillards ont mis au jour des parties de murs (fig.6). L'un, en P86 est situé sur le trajet de l'enceinte, tandis que l'autre suit une limite de parcelle actuelle, au nord du secteur P78. Les deux sont construits en moellons de pierre de taille moyenne, calibrés et grossièrement équarris, liés au mortier de terre. Ils sont des témoins supplémentaires de l'hétérogénéité des maçonneries : pierre calcaire taillée, brique crue, moellons de pierre, cailloutis.

Deux secteurs correspondent à des implantations hors-les-murs à l'époque byzantine. Il s'agit dans les deux cas de buttes isolées, l'une à l'ouest (P99), l'autre au nord (P91) de l'enceinte de la ville byzantine. La présence de tesselles de mosaïque multicolores, de placages de marbre, de tuiles, briques, etc. atteste des bâtiments assez importants, comme en P63. Pourrait-il s'agir de certains des monastères mentionnés dans les textes à propos de Qinnasrin ?

Observation de coupes dans la cour de l'école (M.-O. Rousset, M. Rochette)

Durant la première partie de la mission, le creusement des fondations de nouveaux bâtiments dans la cour de l'école municipale a été l'occasion d'observer des coupes dans un secteur à l'extérieur de l'emprise du rempart byzantin, du côté ouest (fig. 7). Les parois des excavations ont pu être nettoyées et une partie des coupes relevées avec un prélèvement de matériel pour dater les différents niveaux.

Fig. 7: Coupes relevées dans la cour de l'école.

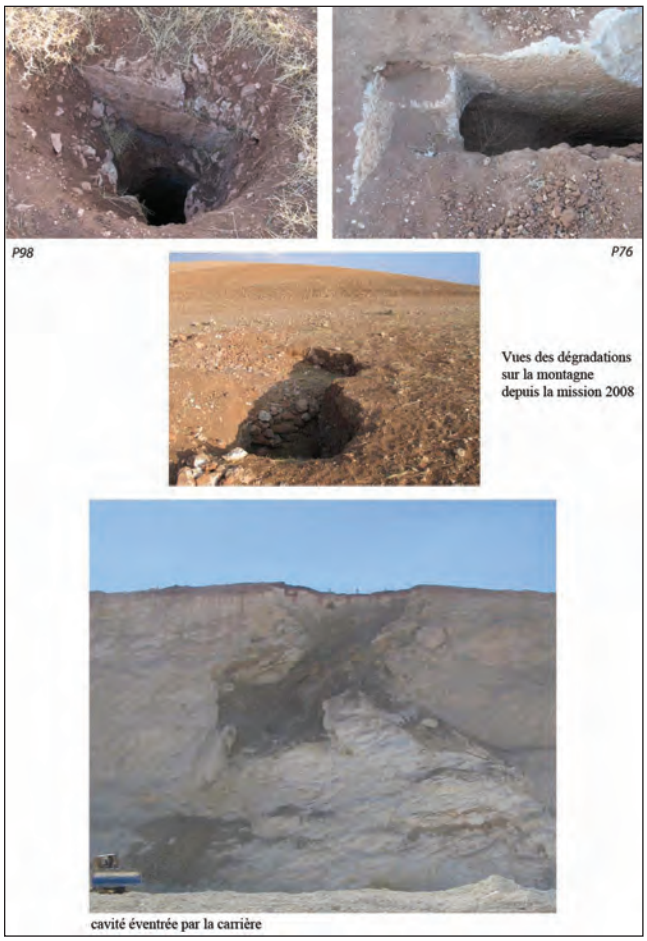

Fig. 6: dégradations dûes aux fouilles clandestines, sur le sommet de la montagne.

La roche naturelle présente un pendage marqué, du nord-ouest vers le sud-est, donc dans la continuité de la pente de la montagne. Plusieurs fosses sont apparues, dans la coupe ouest, directement sur la roche. Le matériel récolté, même fragmentaire, montre une occupation d'époque romaine. Ce niveau est recouvert par plusieurs couches brunes plus ou moins sombres, dont certaines présentent des traces d'activités domestiques évidentes : vestiges fauniques, céramiques d'époque byzantine, charbons, fragments de briques... Il semblerait que l'on soit en présence d'une zone de rejet comme il en existe plusieurs, repérées en prospection autour de la ville.

Ces observations montrent que cette partie du site, à l'ouest de la ville byzantine, n'a pas été construite mais a tout de même été occupée durant les époques classiques. Elles attestent également que l'occupation islamique du site ne s'est pas étendue jusque-là et confirment qu'il y a eu un glissement de l'implantation humaine, du sud-ouest vers le nord-est.

Fig. 8: rempart de la ville byzantine conservé à l'intérieur des maisons.

Fig. 9: Inscription qui devait surmonter une porte du rempart byzantin.

Fig. 10: Vue générale du sondage A.

Inventaire des blocs architecturaux (A. Mohammad, A. Othman)

Les nombreux éléments architecturaux épars dans le village sont suffisament abondants et bien conservés pour donner lieu à une interprétation pertinente de leur répartition. Le travail effectué en 2008 a déjà permi la localisation d'une église. La recension de ces objets, avec dessin, photographie, description et localisation précise s'est poursuivie cette année dans la partie ouest du village. 115 maisons ou parcelles ont été visitées. Parmi les éléments les plus notables, signalons la présence, en partie en élévation, du rempart byzantin dans les maisons à l'est de l'école (fig. 8) et une inscription sur un linteau, qui signale une porte dans la partie nord-ouest du rempart (fig. 9).

Sondage A (M. Bovagne)

La question de la permanence de l'artisanat entre la période byzantine et le début de l'Islam est particulièrement pertinente dans le quartier nord. D'après les résultats des prospections, cette zone se serait développée à partir du Ve s. De nombreuses scories de matière vitreuse, observées en surface, pourraient être des résidus d'une industrie de fabrication de verre primaire ou de fours artisanaux. L'implantation du sondage A avait pour but de dater et de définir la nature exacte de cette activité artisanale. Il s'agissait de déterminer dans quelle mesure celle-ci a pu se poursuivre durant l'époque islamique ou si la céramique de cette période retrouvée correspondait à une réaffectation de ce quartier à un usage résidentiel.

Le sondage, de 12 x 5 m, pour une profondeur maximale de 1,30 m a été implanté sur une anomalie de la carte géomagnétique qui semblait révéler la présence d'une structure courbe (fig. 10).

Fig. 12: Vue générale du secteur B depuis le sud-ouest.

Fig. 11: intaille romaine réutilisée au début de l'époque abbasside.

Sous la surface est apparu assez rapidement le creusement d'une très grande fosse comblée de plusieurs couches cendreuses. Le mobilier céramique de ce remplissage (constitué d'au moins 4 comblements cendreux distincts) a été daté des époques omeyyade et abbasside. Plusieurs objets remarquables ont été retrouvés dans ces niveaux : une cuillère à kohl, un cabochon à intaille sans doute romain, réutilisé à l'époque islamique et une épingle en bronze. L'intaille porte une inscription inversée qui montre que l'objet a été réutilisé comme sceau, au nom de Sulayman b. Abd Allah (fig. 11).

Le comblement final contre les parois de la structure se compose de pierres et d'énormes scories de verre. Il pourrait laisser penser qu'il s'agit d'une fosse à combustion pour la fabrication de verre primaire. Cette fosse a été installée dans des niveaux de démolition byzantins. Sous un premier niveau de démolition est apparue une couche de destruction avec de nombreuses briques cuites qui accuse un pendage est-ouest. Sous cette démolition a été mise au jour une structure de brique crue qui s'apparente plutôt à un sol. Un alignement de petits blocs calcaire grossiers limite cette zone vers l'ouest. Il s'agit là probablement de la fondation d'un mur de terre crue d'environ 0,70 m de largeur.

D'après les observations des scories, il pourrait s'agir de résidus d'atelier de fabrication de fritte pour les glaçures ou de verre primaire. Aucun atelier de fabrication de verre primaire n'est connu, pour l'instant, en Syrie. La présence de telles structures à Qinnasrin met en valeur l'importance économique de la ville depuis l'antiquité ainsi qu'un aspect particulier de l'exploitation

de la soude végétale dans la steppe toute proche. En effet, les cendres végétales utilisées dans la fabrication du savon d'Alep, le sont aussi dans la fabrication du verre, comme l'attestent les analyses effectuées sur les verres omeyyades et abbassides de Hadir.

Sondage B (M. Rochette)

Le second sondage (sondage B, fig. 12) a été implanté dans le secteur Nord également, sur un bâtiment repéré en prospection, à quelques centaines mètres à l'est du sondage A. Cet édifice, perceptible seulement par le relief topographique, a fait l'objet de fouilles clandestines qui ont en partie détruit les sols. De nombreux éléments de pavage de pierre, en calcaire, ont été trouvés en surface. Il s'agissait de définir l'étendue des dégradations et de déterminer si la destruction des sols était dûe aux fouilles clandestines ou aux labours. L'un des buts était également d'évaluer le potentiel des niveaux archéologiques en présence.

L'enlèvement de la couche de surface, épaisse d'une trentaine de centimètres et contenant du mobilier fragmenté varié d'époque byzantine, omeyyade, abbasside et ayyoubide déjà repéré lors des prospections de 2008, a permis de mettre au jour une ou plusieurs grandes fosses coalescentes, aux comblements multiples caractérisés par la présence en grand nombre d'éléments de démolition estimés des époques byzantine, omeyyade et abbassside. Dans l'angle sud-est du sondage, un mur large de 0,60 m, dégagé sur 1,90 m de long, a également été décapé. Il présente un axe nord-est/sud-ouest, et une construction en moellons de calcaire équarris liés par un mortier gris cendreux. Ses parements conservent des enduits gris de part et d'autre.

Dans l'angle nord-est, une petite sépulture a été reconnue et fouillée. Elle s'inscrit dans une couche limoneuse de couleur brun-gris mêlée de nombreuses poches de mortier et de calcaire blanc (mobilier céramique estimé des périodes byzantine, omeyyade et abasside). Les ossements d'un jeune immature prennent place dans une fosse de plan ovale (0,56 x 0,32 m, 0,10 m de profondeur). Ils feront l'objet d'une étude anthopologique par Dr. Rania Ali ; on retient à ce jour que le corps est disposé dans la fosse sur le côté, la tête au nord-ouest. La fosse est comblée par un sédiment granuleux brun rougeâtre mêlé de graviers.

On note la présence, dans la couche de démolition, d'un fût de colonne complet en calcaire jaune clair mesurant 0,29 m de diamètre et 1,67 m de long.

La phases d'occupation la plus ancienne, est marquée par la présence de murs en grand appareil et pierres de taille dont certaines sont ici en remploi (fragments de chapiteau, blocs avec encoches, etc). Cet ensemble bâti aménage un petit espace quadrangulaire dont la fonction n'a pas été déterminée. La stratigraphie du comblement de cet espace met en avant un comblement terminal daté par le mobilier céramique de la période abbasside.

À l'ouest, une mosaïque a été mise au jour (fig. 13). Cette mosaïque assez bien conservée présente deux panneaux, dont les motifs sont archéologiquement complets. Au nord, le premier panneau (1,27 x 2,42 m conservé), présente un décor en écaille sur fond blanc avec de petites palmes triangulaires colorées (vert, rose, rouge, gris, noir). L'ensemble est délimité par un bandeau. Au sud, le second panneau (2,16 x 2,80 m), reprend la même gamme chromatique avec un motif plus complexe. Un bandeau borde des décors circulaires limités par des motifs de tresse et accueillant une croix droite. L'altération de la surface de la mosaïque a permis de mettre en évidence ses niveaux de préparation : mortier de pose et sol de galet. La limite nette et la légère remontée de mortier à l'ouest laissent à penser que cette mosaïque était cantonnée par un mur, prélevé à une date inconnue. Au nord-ouest de cette tranchée, une deuxième mosaïque dont la conservation est très fragmentaire, a été dégagée. Constituée de tesselles blanches, plus grossières que celles de la précédente, cette mosaïque s'installe sur un lit de pose en mortier rose.

Fig. 13: Les deux panneaux de mosaïque vus depuis l'ouest.

Un nouvel état d'occupation du secteur semble caractérisé par la mise en place d'un pavement en dalles quadrangulaires de calcaire reposant sur le sol mosaïqué. Ce sol est conservé très partiellement sur 1,05 x 0,72 m et semble se poursuivre sous un important niveau de démolition, sans doute ancien. Celui-ci est caractérisé par plusieurs litages : limon dans le niveau supérieur, amas de tuiles dans le niveau médian, nombreux pavés dans le niveau inférieur.

Sans doute au Moyen-Age, et probablement dans une phase à peu près contemporaine de ce dallage, le bâtiment byzantin n'est plus en fonction dans son état initial et de nouveaux murs sont érigés, prenant parfois appui sur ceux antérieurs. Cette phase est caractérisée par une construction en briques et mortier gris dont la mise en place a endommagé le tapis de la mosaïque.

Dans l'angle nord-est du sondage, on retient un état d'abandon et un niveau de démolition dans lequel prennent place plusieurs sépultures disposées en fosse.

Le manque de temps n'a pas permis d'explorer la totalité des zones ouvertes dans le sondage qui sera poursuivi au cours de la prochaine campagne. Par ailleurs l'emprise limitée de la zone de fouille n'a pas permis de cerner au mieux l'organisation spatiale des bâtiments, ni de déterminer pleinement leur fonction. Ce sondage a néanmoins permis de mettre en évidence le relatif bon état de conservation des structures. Une bonne compréhension de l'ensemble sera possible avec une fouille extensive.

Etude des céramiques de l'âge du Bronze (C. Kepinski)

Au cours de la prospection entreprise en 2008, un ramassage des tessons avait permis de collecter une centaine de lots de céramique dont un tiers environ a révélé l'existence d'une occupation du site et de ses environs durant l'âge du Bronze. Le matériel de cette période toutefois est largement minoritaire et se trouve essentiellement au sommet de la butte nord de Qinnasrin et sur deux petits sites implantés le long du Quwayq (P36 et P42). Par ailleurs un sceau-cylin-

dre du Bronze Moyen a été ramassé à proximité d'une zone englobant plusieurs tombes à puits, aujourd'hui pillées, qui furent creusées dans la roche friable du lit d'un ancien oued. Une étude plus approfondie des témoins de cette première occupation du site s'imposait.

Tous les lots de céramique renfermant des tessons du Bronze ont été examinés. Ils appartiennent tous au Bronze Moyen. Les pâtes sont beige ou rouge, à dégraissant mixte avec des particules minérales essentiellement calcaire, de calibre moyen, souvent visibles en surface. Certains tessons portent une barbotine. Les décors sont rares et ne comprennent que des lignes horizontales ou ondulées incisées, sur la lèvre ou l'épaule. Aucune des catégories du Bronze Ancien et notamment du BA IV, période la plus répandue dans la région, n'est attestée ailleurs que dans la zone des tombes. On note bien souvent des tessons exposés depuis longtemps et portant des traces d'usure importantes. On en trouve quelques uns au pied du tell sud suggérant une implantation ancienne à cet endroit recouverte par de nombreux niveaux hellénistiques, romains, byzantins, omeyyades et abbassides. Au centre du site les tessons anciens demeurent extrêmement rares. Sur la butte nord au contraire ils représentent de 50% à 75%, voire plus, des périodes attestées dans plusieurs lots (P66, 67, 68, 69, 71, 72, 74, 78, 81, 400) et 100% dans quelques cas (P70, 76, 77). Il est important de noter que ces trois derniers lots se situent sur les flancs de la butte naturelle nord, dans la zone des tombes. Par ailleurs aucune vaisselle de cuisine et aucun tesson de jarre de stockage n'ont été ramassés. Etant donné l'altitude (373,50 m, soit environ 100 m au-dessus de la plaine) de cette butte et son éloignement du cours du Quwayq (2300 m) et de ses terres alluviales, une occupation permanente semble peu probable durant l'âge du Bronze.

Le cas du lot P77 est particulier car il correspond au tamisage de la terre extraite lors du pillage d'une tombe. Elle renfermait des tessons de vases brisés et plusieurs collages ont permis de préciser certaines formes. Le matériel collecté fragmentairement permet de restituer un assemblage fort intéressant qui comprend des pâtes (notamment une pâte fine à dégraissant minéral) et des formes bien attestées au Bronze Ancien et d'autres bien connues au Bronze Moyen. Le matériel de cette tombe pourrait bien dater de la transition entre la fin du troisième et le second millénaire. Il s'agit d'une période encore mal connue, représentée souvent par des lots mal stratifiés, malgré quelques cas plus sûr comme un sol renfermant plusieurs vases entiers, dégagé à Tell Banat. La terre extraite de la tombe P77 comprend des tessons et des pots qui ont plusieurs parallèles avec le matériel de ce sol (Porter 1995, DM 8, fig. 14, 16 : 1, 2, 17 : 1, 2, 19 : 1, 20 : 3). La tombe P70 de même que le lot P42 présentent quelques critères qui pourraient illustrer également la période de transition, mais dans une moindre mesure (céramique fine à dégraissant minéral, lignes incisées horizontales ou ondulées sur une lèvre ou sur une panse) d'autant que certains de ces traits descriptifs demeurent durant tout le Bronze Moyen.

L'occupation la plus ancienne du site de Qinnasrin remonterait à la fin du troisième millénaire et le matériel de la tombe P77 en est le meilleur témoin. Le site aurait donc été utilisé comme lieu de sépulture pour des défunts ayant habité dans les environs, en l'occurrence sur le tell P42 ou bien pour des nomades. Il est probable que la butte nord de Qinnasrin continue au Bronze Moyen et durant deux à trois siècles, à servir de cimetière tandis qu'une petite implantation est envisageable au sud. La présence de sceaux-cylindres parmi le matériel funéraire conforterait plutôt l'hypothèse d'un cimetière isolé utilisé par des groupes humains de passage car toutes les petites implantations des environs semblent plutôt correspondre à des établissements villageois. Cette hypothèse par ailleurs constituerait une pièce importante à verser au dossier ouvert depuis des années sur la transition entre le Bronze Ancien et le Bronze Moyen, période de grande instabilité qui s'accompagne de l'abandon ou de la rétraction de nombreux sites archéologiques des environs, de déplacements et de redistribution des zones d'occupation. Il va de soi que ces conclusions sont empreintes de la part d'aléatoire inhérente à tout matériel de surface et que seules des fouilles pourront valider ou non les hypothèses émises sur l'occupation de Qinnasrin à l'âge du Bronze.

Conclusion

La mission 2009 s'est avérée très fructueuse à la fois du point de vue de la collecte d'objets et des résultats scientifiques. L'évolution de la ville de Qinnasrin se dessine peu à peu. Le point le plus remarquable est celui de l'occupation de la colline qui surplombe la ville. Les murs de la fortification que nous avons mise en évidence à cet endroit enclosent plusieurs tells très prégnants dans le paysage. Nous pensions jusque-là qu'ils dataient de l'âge du Bronze, la céramique de cette période étant très abondante sur la montagne. L'étude de ce matériel a montré que cette céramique n'était pas liée à une installation humaine mais plutôt à une occupation funéraire. Les autres périodes représentées par la céramique étant les périodes byzantine à abbasside et les tessons des Ve – VIe siècle étant connectés en priorité avec les cavités sous dalle recoupées par l'installation de la forteresse, il semble par conséquent légitime d'attribuer cette dernière au début de l'époque islamique. Il pourrait s'agir là de la première implantation musulmane en Syrie du Nord, dominant la cité de Chalcis.

Notes:

(1) La mission 2009 s'est déroulée du 26 septembre au 31 octobre, avec une présence sur le terrain du 28 septembre au 28 octobre. Je tiens à remercier la Direction Générale des Antiquités et Musées de Syrie et son directeur général monsieur le Docteur Bassam Jamous, monsieur le Directeur des fouilles et recherches archéologiques Michel al-Maqdissi et ses assistant messieurs Nazir Awad et Haytham Hasan pour leur soutien à cette mission et l'aide qu'ils nous ont apportée, notamment pour le co-financement des salaires des ouvriers. Merci également aux Dr. Tha'er Yartah et Youssef Kanjou pour leur aide et leur écoute attentive à Alep, ainsi qu'à Monsieur Muhammad Dello de l'université d'Alep et de la Direction des Antiquités du Musée d'Alep, pour le prêt d'un tachéomètre Sokkia. Nous avons logé à al-'Iss dans la maison que nous a aimablement louée monsieur Abou Ibrahim.

GROUND PENETRATING RADAR (GPR) SURVEYS CONDUCTED IN RAPHANEAE IN 2009

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1. The 5th Campaign of Work of the Syrian-German Cooperation Project Raphaneae

In the course of the 5th campaign of work of the Syrian-German cooperation project Raphaneae (Gschwind et al. 2009, 235 f.) the successful large scale Ground Penetrating Radar (GPR) survey begun in 2007 (Gschwind & Hasan 2008, 206-216 figs. 4-11; Gschwind et al. 2009a, figs. 2-6. 8) was continued. In addition to that, data were recorded for the calculation of densified Digital Terrain Models (DTMs) of two large areas in the 'central ruins'. As in earlier campaigns, all surface finds collected in the course of the work were registered and handed over to Hama Museum.

The work was carried out by the German team under the direction of Dr. Markus Gschwind in cooperation with the Syrian team directed by Mr. Jamal Ramadan from the 4th to 22nd of October 2009. The German team consisted of the geophysicist Dr. Sirri S. Seren and his assistant Erol Bayırlı, both of the Central Institute for Meteorology and Geodynamics (ZAMG) Vienna, and the surveyor Dr. Manfred Stephani from Munich. Haytham Hasan, deputy director of the Services of Excavations and Archaeological Studies of the Direction General of Antiquities and Museum (DGAM) Damascus, and Ibrahim Abbas of the Masyaf branch of the Direction of Antiquities and Museums were designated as members of the Syrian team. The fieldwork was carried out with the help of at times up to seven local workers.

As in 2007 and 2008, the Ground Penetrating Radar (GPR) system «Noggin» produced by Sensors & Software Inc. was employed for the geophysical survey. All measurements were taken with a 250 MHz transducer using a standard measurement grid of 5 cm by 50 cm. Data processing as well as georeferencing were carried out on site with the software «APRadar», developed by ZAMG, Vienna. The 2009 Ground Penetrating Radar (GPR) survey covered a total area of 33,852 m2 and recorded a total of 1,365,000 traces.

2. The Aim of the work

In 2007 and 2008 the geophysical survey work had concentrated on the legionary fortress (Figs. 1. 2), as the results of the 2005 and 2006 surveys had indicated that the permanent garrisoning of a legion initiated urban development at Raphaneae (Gschwind & Hasan 2008, 206-214 figs. 2-11; Gschwind et al. 2009, 275-277 fig. 67). In addition to this, first structural remains of an early Roman civilian occupation, as well as buildings of the Late Roman, Early Byzantine and Medieval city of Raphaneae, could be identified (Gschwind & Hasan 2008, 213 f. figs. 8. 11; Gschwind et al. 2009a, figs. 5. 6).

The centre of the civilian city of Raphaneae probably developed in the area north of the eastern part of the legionary fortress. Until today large limestone ashlars as well as mounds of building debris, which remain standing to a considerable height, can be seen on the surface in this area, the so-called 'central ruins' (Figs. 2. 3. 7). Even in the early Imperial period this area housed the most extensive part of the canabae legionis, the civil settlement attached to the legionary fortress. Surface finds furthermore indicate that this part of the site was continuously occupied well into medieval times, suggesting that this area may have been the centre of the civilian occupation at Raphaneae for centuries.

As such, the geophysical survey work of the 5th campaign of work of the Syrian-German cooperation project aimed for a better understand of the urbanistic structure and development of the 'central ruins' as well as their relation with the legionary fortress.

3. Results of the Ground Penetrating Radar (GPR) survey

As in the preceding years the selection and laying out of survey areas was heavily influenced by modern land use (Figs. 2. 4. 5. 7. 8). In the 'central ruins', major restrictions arose from destructive terracing and the plantation of olive groves, both carried out before 2005. Nevertheless two extensive and largely contiguous areas could be explored in the 'central ruins' by GPR in 2009 (Areas A–E_G–J and Area L–P_V–Y). In addition, test areas were surveyed by GPR in the very north of the city (Area F), west of the 'central ruins' (Area K) as well as in the centre of the legionary fortress (Area Q–U).

3.1 Test measurements north, west and south of the 'central ruins'

The GPR test measurements in the very north of the city (Area F), west of the 'central ruins' (Area K) and in the centre of the legionary fortress (Area Q–U) aimed for an assessment of the preservation conditions in these parts of the ancient settlement areas of Raphaneae (Fig. 2). The GPR survey in the very north of the city (Area F) identified a single structure that may represent the foundations of a monument such as a nymphaeum. The dense concentration of roof tiles and pot shards among surface finds not only proves that this area was part of the settlement area from the Early Roman to Early Byzantine Periods (Gschwind et al. 2009, 275 fig. 67; Gschwind & Hasan 2010, figs. 2. 3). It also poses the question whether the practically complete lack of stone structures is a result of modern land use, or whether buildings that existed in this area were completely dismantled during the Early Islamic, Middle Byzantine or Medieval period for strategic reasons, such as to clear the area in front of the city walls.

The fields between the 'central ruins' and the northwest corner of the legionary fortress are well prepared and intensively used for agricultural cultivation. In the whole area only one field, Area K, appeared to be generally untouched and was surveyed by GPR. Nonetheless, the visualisation of the GPR data suggests that no structures built of stone remain in this area (Fig. 2).

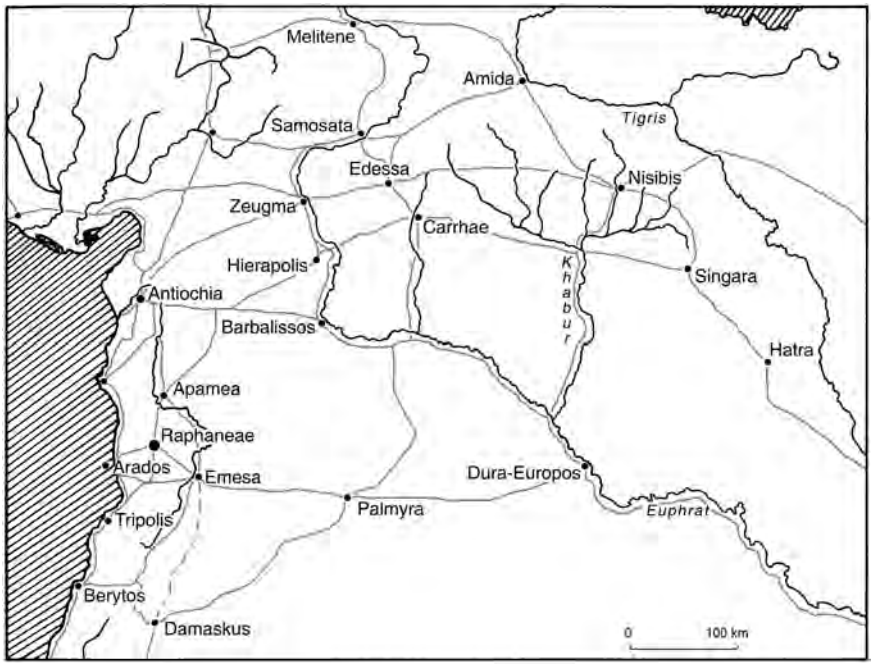

Fig. 1: The position of Raphaneae in the road network of Roman Syria (DAI Damascus, drawing by M. Gschwind & S. Fontana).

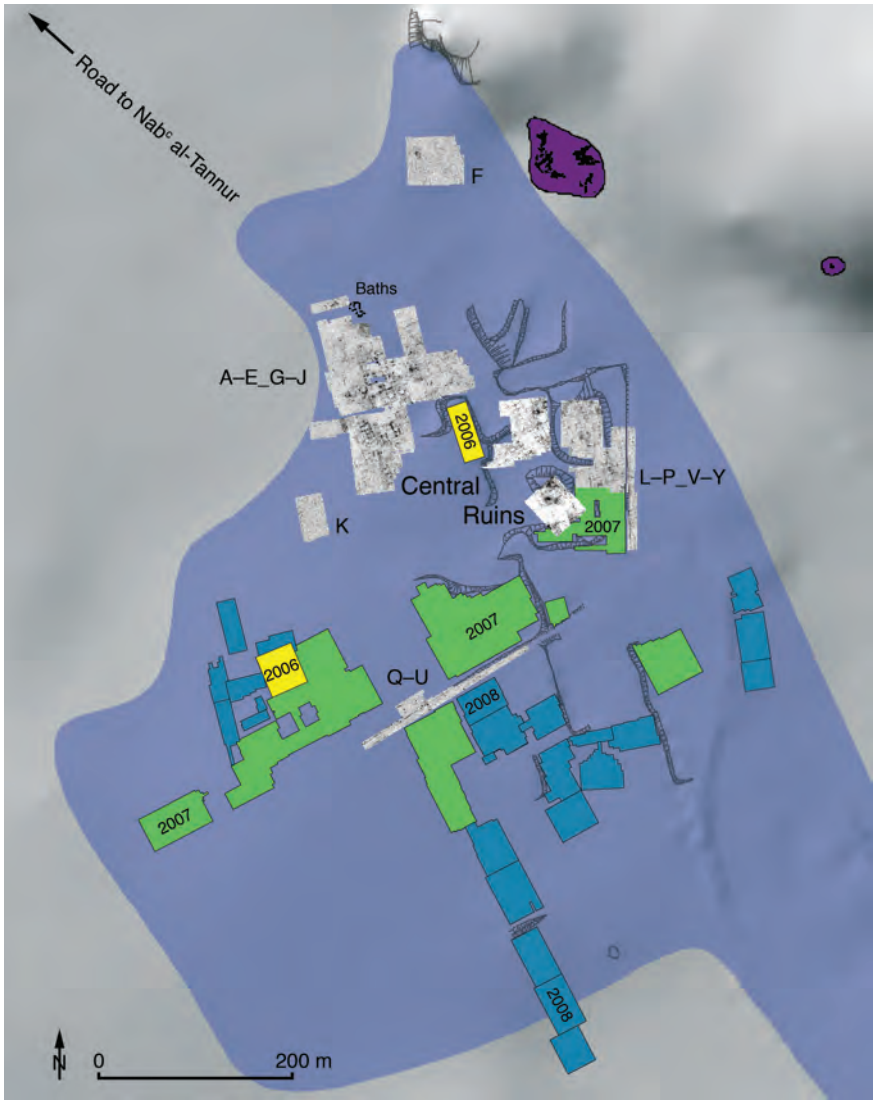

Fig. 2: Raphaneae. Location of the Ground Penetrating Radar (GPR) survey areas within the settlement area as recorded in 2005 and 2006 by surface observations (DAI Damascus, M. Gschwind using GPR visualiations by S. S. Seren and plans by W. Hübner, Th. Kerraschk & N. Koch).

GPR measurements in the very east of Area L–P_V–Y revealed the survival of ancient masonry below the asphalt road west of the westernmost houses of Bacrin (Fig. 4). This very promising result encouraged us to conduct further test measurements in Area Q–U, another key area of the site of Raphaneae covered by the modern Bacrin-Nisaf road which cuts through the very centre of the legionary fortress of Raphaneae. Regrettably, the visualisation of the GPR data collected in Area Q–U shows that all archaeological remains were destroyed when the Bacrin-Nisaf road was built (Fig. 2).

Fig. 3: Raphaneae 2009, Dr. Sirri S. Seren, Erol Bayırlı and Yamen al-Banna surveying Area A–E_G–J with GPR. The big limestone ashlars visible on the surface belong to a window of the north front of the large residential complex in the centre of Area A–E_G–J. They were already recorded in 2005 (DAI Damascus, potograph M. Gschwind).

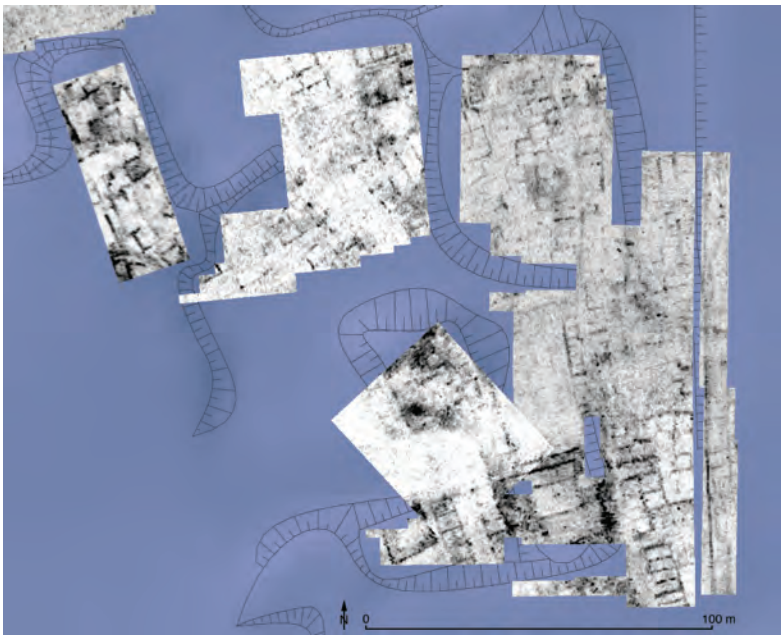

Fig. 4: Raphaneae. Visualisation of the results of the GPR surveys in the southeast of the 'central ruins' (Area L–P_V–Y surveyed in 2009, adjacent Area 5 surveyed in 2007 and nearby Area 7 surveyed in 2006). GPR data recorded in 2009: depth 0.8-1.6 m; GPR data recorded in 2006 and 2007: depth 1.0-1.5 m (DAI Damascus, M. Gschwind using GPR visualisations by S. S. Seren & A. Hinterleitner and plans by W. Hübner, Th. Kerraschk & N. Koch).

3.2 The urban road system of the 'central ruins' and its origins

The aim of the GPR survey in Area L–P_V–Y was to gain an understanding of the area just north of the legionary fortress by connecting an area in the very east of the 'central ruins', surveyed by GPR in 2007, with the area of the GPR test measurements conducted in the 'central ruins' in 2006 (Figs. 2. 4; cf. Gschwind & Hasan 2008, 213 f. fig. 11). In addition to that, the survey intended to provide information about the state of preservation of archaeological structures in this area.

The visualisation of the GPR data collected in Area L–P_V–Y shows that the improvement of fields for agricultural land use caused the complete removal of archaeological structures only in small areas (Fig. 4). In most of the fields, as well as below the asphalt road in the very east of

the surveyed area, the walls of massive stone buildings survive. In contrast to earlier assumptions based on the scattered traces of buildings still visible on the surface, the streets of the civil city of Raphaneae were not laid out according to a regular grid. The identified buildings do, however, largely appear to align with streets, one of which runs from north to south through the eastern part of the surveyed area. In its southern part, which was already surveyed by GPR in 2007, large taberna type shops aligned to it could be identified (Fig. 4; cf. Gschwind & Hasan 2008, 213 fig. 11). Further north the street was narrowed down to an alleyway by housing that probably developed during the later history of the site. This narrower, curving alleyway possibly followed the course of the Roman public road, which ran from Antioch via Apamea to Raphaneae, where it proceeded through the city and the legionary fortress, to continue towards Tripolis.

The buildings in the northwest of Area L–P_V–Y show a different alignment (Fig. 4). Seen in the context of the orientation of structures and buildings in the northeast and north of Area A–E_G–J this suggests the existence of a second main street that ran through the 'central ruins' in a northwest-southeast direction. Continued towards the northwest, the hypothetical course of this street would have led to the spring Nabc al-Tannur and the Tall and settlement area next to it (Fig. 2; Gschwind et al. 2009, 244-249 figs. 3. 10-20; Gschwind & Hasan 2010). Extended towards southeast the line of this street intersects the course of the main north-south thoroughfare situated just north of its intersection with the northern limit of the legionary fortress, as it can be seen from the results of the GPR surveys carried out in 2008 in the very northwest of the fortress (Gschwind & Hasan 2009a, fig. 3). The fact that the three lines cross at an almost joint intersection provides a good basis to suggest that the north gate of the legionary fortress was located in this area, as it indicates that the two main streets of the 'central ruins' initially ran from the north gate of the legionary fortress and the canabae legionis developed along their axes. This overall arrangement, which must date back to the time immediately after the arrival of a legion at Raphaneae, remained in use throughout the entire history of the city.

The area providing the key for the understanding of this arrangement, however, was later remodelled fundamentally, as no traces of the north gate, the fortifications next to it or of the Y junction in front of it could be revealed by the GPR survey work carried out in the 'central ruins' (Fig. 4). This rearrangement certainly postdates the final withdrawal of the legion, which probably occurred in the 230s AD (Gschwind et al. 2009, 281 f. fig. 68), and therefore provides interesting new data on the development of the physical remains of the legionary fortress such as its fortifications and internal buildings after the relocation of legio III Gallica. The results of the 2007 GPR survey southeast of Area L–P_V–Y show that the north gate was dismantled and the area completely remodelled by the development of a complex of monumental stone buildings, which remained in use largely unmodified by successive occupation according to the results of the GPR surveys (Fig. 4). Given the fact that the GPR surveys of 2007 and 2008 were targeting the legionary fortress, it is remarkable that no remains of the fortifications could be identified although internal structures survive to a large extend in the western part of the fortress. One possible explanation for this observation is that the fortress fortifications were dismantled, partly to clear space for new building projects such as the one in the area of the north gate, and partly as a source of building material for new constructions, as the fortifications probably were built of large well-dressed limestone ashlars.

3.3 The northwest of the 'central ruins': a residential area of the urban elite

In the course of the 2005 surface survey structural remains of a set of baths could be detected in the northwest of the 'central ruins' (Figs. 2. 5. 8; Gschwind et al. 2009, 253 f. figs. 10. 26. 27). South of it walls built of large limestone ashlars can be seen on the ground at several points (Fig. 2). These indicate the presence of substantial buildings in this area, provisionally identified

as ‘major structure’ in previous a report (Gschwind et al. 2009, 251–253 figs. 10. 22-25). The 2009 GPR survey of Area A–E_G–J aimed to deliver a detailed understanding of the structure and the nature of the ‘major structure’ as well as a better comprehension of its urbanistic context.

A major step towards the latter is the identification of the main street that crosses the ‘central ruins’ in a north-westerly direction and connects the area with the settlement at Nabc al-Tannur (Fig. 2). Both the set of baths and a building partially revealed in the northwesternmost sub-area of Area A–E_G–J follow the alignment of this main street (Fig. 5). In view of these new results the location of the baths and the buildings north of them does not need further explanation. The orientation of the structures further south, however, is of interest as the visualisation of the results of the GPR surveys carried out in Area A–E_G–J show that the ‘major structure’ comprises parts of two large building complexes, which differ slightly in their orientation (Figs. 5. 8; cf. Gschwind et al. 2009, 251 fig. 22).

Altogether, the results of the GPR survey of Area A–E_G–J suggest that there are three separate building complexes south of the set of baths (Fig. 5). All of these differ slightly from each other in orientation. The two in the centre of Area A–E_G–J comprise the area preliminarily referred to as ‘major structure’. Both building complexes are composed of groups of rooms that are arranged around a central courtyard. The ground plan of the northern complex is only partly visible in the GPR plan. The southern building complex appears to be better preserved, as the GPR picture largely shows its complete plan. Covering an area of 56 m by more than 70 m, this southern building complex is remarkably large.

The ground plans of both buildings show similar symmetrical arrangements with large rooms north and south of inner courtyards (Fig. 5). The eastern and western wings of the buildings are composed of rows of smaller rooms. The ground plans of both buildings are distinctly reminiscent of the arrangements of rich urban residences excavated at Apamea such as the ‘Maison aux consoles’ (Balty 1984, 19–57 figs. 1. 2; Balty 1997, 288-295 figs. 11. 12; Gschwind & Hasan 2010, figs. 5. 6). As such we can conclude that the ruins in the northwest of the ‘central ruins’ so far referred to as ‘major structure’ belong to the first residences of the urban elite of Raphaneae known to date. Surface finds of imported Later Roman table wares such as African Red Slip Ware imported from north Tunisian pottery production centres indicate that the rich residences were occupied well into the Early Byzantine period (Gschwind & Hasan 2010, fig. 3). A small fragment of a round marble table top is also noteworthy in this context (Fig. 6). A product of an unknown eastern Mediterranean workshop, it presumably formed a part of the luxurious furniture of one of the rich urban residences revealed by GPR in Area A–E_G–J (Gschwind & Hasan 2010, figs. 5; 7; 8, 1).

Finally it has to be stated that the results of the GPR surveys carried out in 2009 allow for a better understanding of the beginnings of the extension of the settlement area of the Roman and Byzantine city of Raphaneae as identified by the mapping of surface finds in 2005 and 2006 (Fig. 2; cf. Gschwind & Hasan 2008, 203-205 fig. 3; Gschwind et al. 2009, 249 f. fig. 10). The languet-shaped extension of the settlement area northwest of the ‘central ruins’ identified in 2005 can now easily be explained by the existence of the main street, which connected the north gate of the legionary fortress with the settlement area at Nabc al-Tannur.

4. A densified Digital Terrain Model (DTM) complementing the GPR survey

The lively surface of the ‘central ruins’, as it presents itself to the visitor today, is a product of several stages of human impact. The mounds and platforms visible on the ground consist of the debris of collapsed buildings of the Roman to Medieval city of Raphaneae. In addition to that, the local landowners prepared their plots in different ways to improve agricultural production, causing further changes to the relief, before the area was declared a protected archaeological zone.

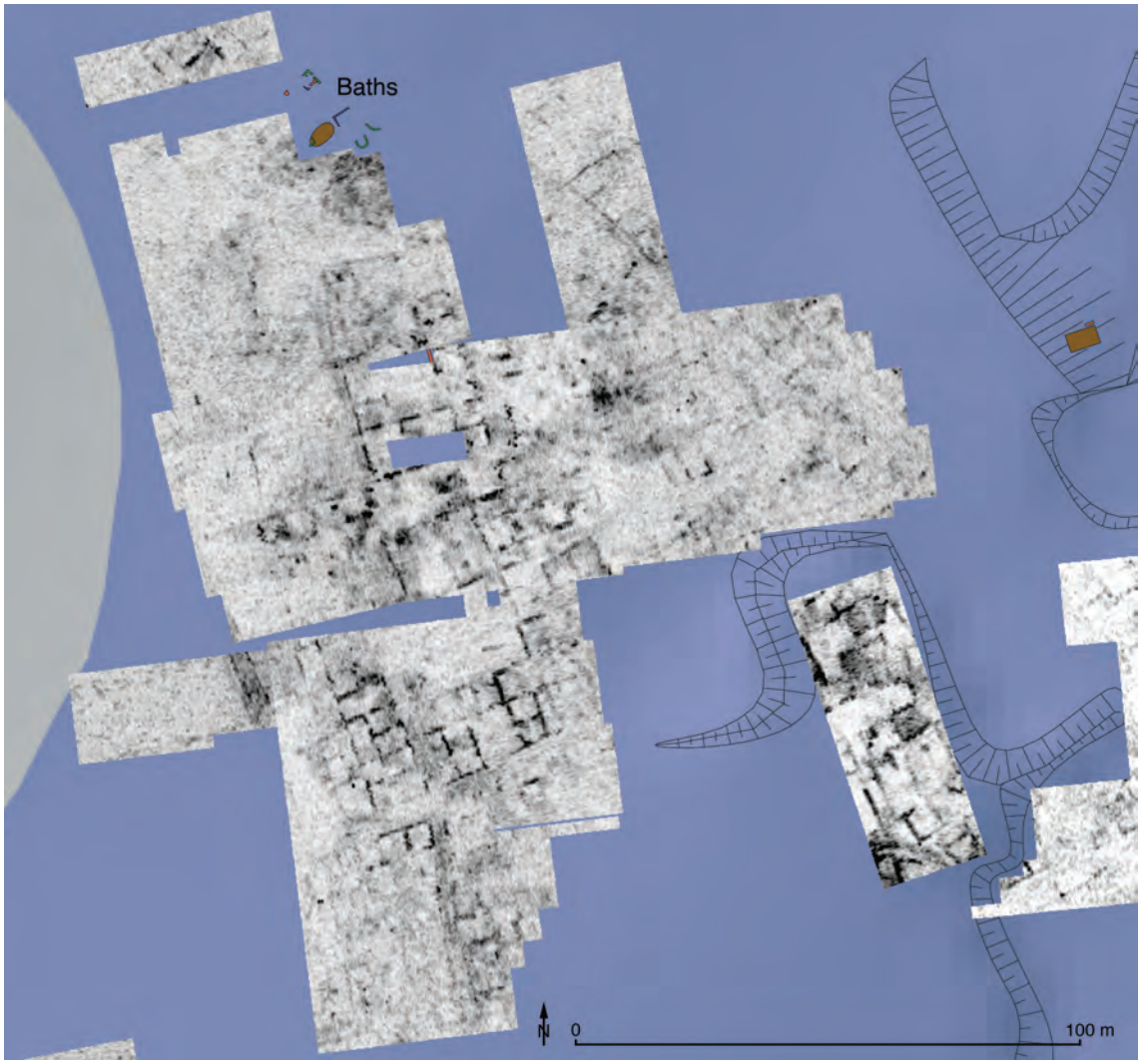

Fig. 5: Raphaneae. Visualisation of the results of the GPR surveys in the northwest of the 'central ruins' (Area A–E_G–J surveyed in 2009 and nearby Area 7 surveyed in 2006). GPR data recorded in 2009: depth 0.8-1.6 m; GPR data recorded in 2006: depth 1.0-1.5 m (DAI Damascus, M. Gschwind using GPR visualisations by S. S. Seren & A. Hinterleitner and plans by W. Hübner, Th. Kerraschk & N. Koch).

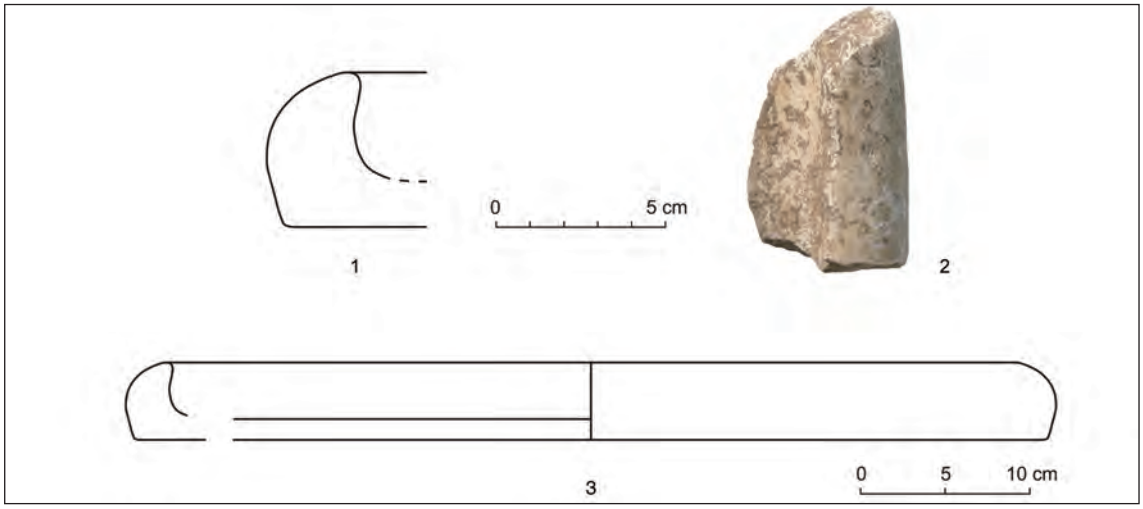

Fig. 6: Fragment of a round table top ‚profilé en bec de corbin'. Fine-grained white marble. 1 Section; 2 top-view; 3 reconstruction (1. 3 sdrawings M. Gschwind; 2 DAI Damascus, photograph M. Gschwind).

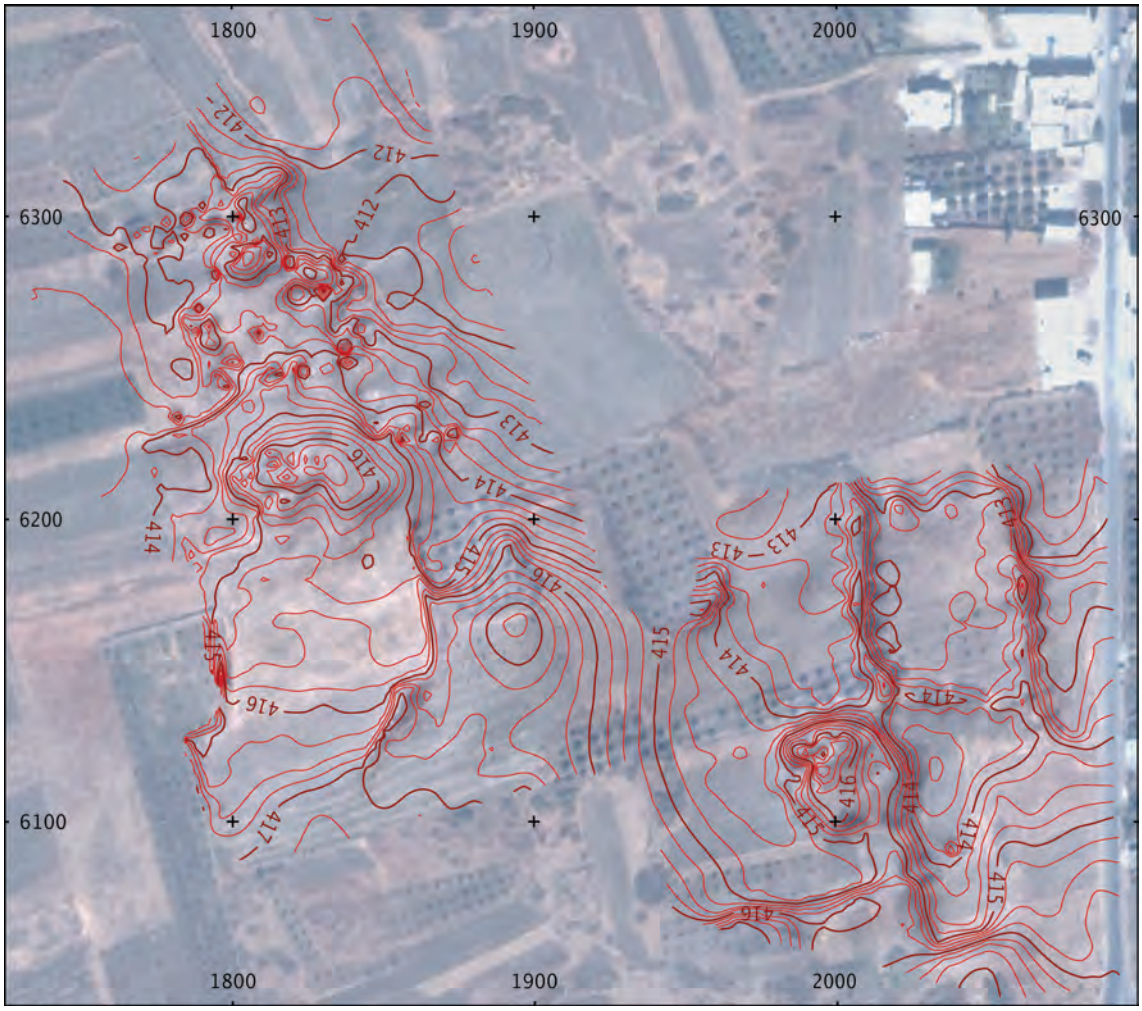

Fig. 7: Raphaneae, 'central ruins', satellite photo with contour lines of the densified Digital Terrain Model (DTM) surveyed in 2009 (M. Gschwind using visualisations of the densified DTM by M. Stephani and a satellite photo, which is copyrighted material of DigitalGlobe, Inc., All Rights Reserved).

As a result of these processes, differences of levels of up to 4 m occur within small distances in the 'central ruins' (Fig. 7). As the depth of the three-dimensional GPR data naturally relates to the surface, we complemented the GPR surveys carried out in 2009 with the recording of a densified Digital Terrain Model (DTM) covering the areas in the 'central ruins' surveyed by GPR (Fig. 7; cf. Stephani 2004, 226-231 figs. 5-7 pl. 36 a. b; 37 c. d).

On the one hand this very detailed Digital Terrain Model makes it possible to relate the GPR data to real altitudes. On the other hand, direct comparison of the visualisations of the DTM and the GPR data facilitates the appraisal of the state of preservation of the building structures detected by GPR and thus their archaeological interpretation (Figs. 7. 8).

5. Finds collected in the course of the geophysical survey

The geophysical survey areas had to be cleaned from thorn bush, thistles and larger stones. In the course of this cleaning work, several archaeological finds were collected, registered and finally handed over to the Museum of Hama.

The finds comprise two inscriptions (Fig. 9). The first is a small fragment of a well dressed limestone block on which a few letters and a part of the moulded border survive (Fig. 9, 1; Museum

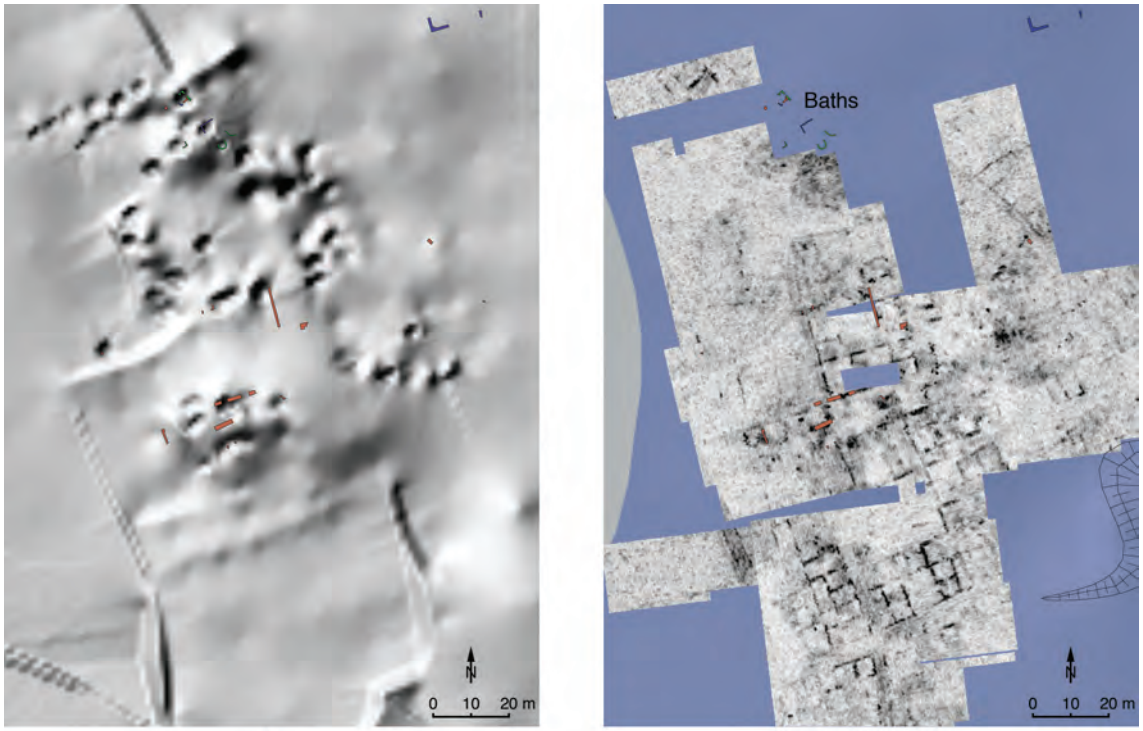

Fig. 8: Raphaneae 2009, 'central ruins' northwest, with structural remains visible on the surface as recorded in 2005. 1 Densified Digital Terrain Model (DTM) visualised as shadow relief; 2 visualisation of the GPR data of Area A–E_G–J, depth 0.8-1.6 m (M. Gschwind using visualisations of the DTM by M. Stephani and of GPR data by S. S. Seren as well as plans by W. Hübner, Th. Kerraschk & N. Koch).

Fig. 9: Raphaneae, inscriptions found in 2009. 1 Fragment of a well-dressed limestone block with a moulded border; 2 funerary basalt-stele of Libanias, fragmented (DAI Damascus, photographs M. Gschwind; fig. 9, 2 rectified by M. Stephani).

Hama, Find no. R09-167). The second is a fragmented funerary stele made of roughly worked basalt stone. On the latter the name of the defunct, Libanias, is roughly carved in Greek letters (Fig. 9, 2; Museum Hama, Find no. R09-171).

Fig. 10: Raphaneae, Roman and Byzantine coins found in 2005-2009. 1 Civic coin of Antioch on the Orontes; 2 Civic coin of Carrhae for Caracalla; 3. 4. Late Roman bronze coins; 5 Byzantine Anonymous Follis of Class C. Numbering according to the Appendix (DAI Damascus, photographs M. Gschwind).

The 2009 surface finds furthermore give reason to publish the five classifiable Roman and Byzantine coins collected in the course of the fieldwork carried out under the scope of the Syrian-German cooperation project Raphaneae to date, three of which were found in 2009 (cf. the Appendix by Hans Roland Baldus). They comprise civic bronze coins of Antioch on the Orontes (Fig. 10, 1; cf. Appendix no. 1) and of Carrhae (Fig. 10, 2; cf. Appendix no. 2). The latter was struck for Caracalla and – as Hans Roland Baldus pointed out – possibly found its way to Raphaneae with soldiers of legio III Gallica, who returned to their winter quarters after participation in Caracallas Parthian campaign (cf. Dabrowa 2000, 311 referring to an erased part of AE 1934, 276 = Hopkins & Rowell 1934, 218-220 fig. 9; for the circulation of Mesopotamian bronze coins in Syria cf. Butcher 2004, 151-168. 177). Two Late Roman coins (Fig. 10, 3. 4; cf. Appendix nos. 3. 4) and a Middle Byzantine Anonymous Follis of Class C (Fig. 10, 5; cf. Appendix no. 5), complete the small spectrum of Roman and Byzantine coins currently known from Raphaneae. Probably struck in the 40s of the 11th century AD (Grierson 1973, 634-639. 681-684 pl. 60, C.2-C.46; Gschwind & Hasan 2010, nn. 14-17), the Anonymous Follis (Fig. 10, 5) provides first archaeological evidence from Raphaneae that dates to the time of the Middle Byzantine reoccupation of northwest Syria (Gschwind & Hasan 2010, nn. 14-17; cf. Johnson 2006, 233-236), although it has to be taken into account that Anonymous Folles circulated in northern Syria well into the 12th century AD (Korn 2004, 199).

6. Conclusions

In conclusion it can be stated that the large-scale Ground Penetrating Radar (GPR) surveys carried out in 2009 significantly advanced our understanding of the structure and development of the ‘central ruins’ and thus a core area of the canabae legionis and later city of Raphaneae.

One key result of the 2009 campaign is the discovery of evidence for two main roads, which initially emerged from the north gate of the legionary fortress and led to different directions. As such it was not, as previously assumed, a regular grid of streets but the main axes of these two roads with their divergent directions that provided the orientations for the urban development at Raphaneae. One of the two streets probably can be identified with the Roman public road connecting Antioch via Apamea and Raphaneae with the coastal city of Tripolis (Figs. 1. 4). The other one headed for the settlement area at Nabc al-Tannur. It ran in a northwestward direction, crossed central areas of the canabae and later city of Raphaneae and provided an orientation for the set of baths discovered in the northwest of the ‘central ruins’ in 2005 (Figs. 2. 4. 5).

Another key result of the 2009 GPR surveys is the identification of the real nature of the structures in the northwest of the ‘central ruins’ so far referred to as ‘major structure’. These remains

actually form a part of two large individual buildings (Figs. 5), both of which were peristyle houses with arrangements very similar to high-status residences at Apamea, such as the ‚Maison aux consoles'. As such these two building complexes in the northwest of the 'central ruins' provide first insights into the luxurious private life of the Roman and Early Byzantine urban elite of Raphaneae (Figs. 5. 6. 8).

Finally, as in earlier years, the surface finds collected in the course of the 2009 GPR surveys provide an interesting surplus of information. Due to the space available for this contribution we can only present the two inscriptions found in 2009 (Fig. 9), a fragment of a marble table top (Fig. 6) and the five classifiable Roman and Byzantine coins collected in the course of the work at Raphaneae so far (Fig. 10; cf. Appendix).

Altogether the results of the fieldwork carried out by the Syrian-German cooperation project at Raphaneae in 2009 shed new light on several aspects of civil life at Raphaneae and provide first detailed insights on the development of Raphaneae from a small rural community based next to the spring of Nabc al-Tannur into one of the cities of Roman and Byzantine Syria.

Appendix: Raphaneae, classifiable Roman and Byzantine Coins, 2005-2009

by Hans Roland Baldus, AEK Munich

1. Roman Empire: Antioch/Syria

AE

1st/2nd cent., Antioch

SNG München 28, 679 ff.

Obv. (Head of Artemis ? r.)

Rev. Lyre; unclear legend (ET ... – ANTIOXE ?)

Museum Hama, Find no. R09-166

2. Roman Empire: Carrhae/Mesopotamia as Roman colony for Caracalla

AE

212-217, Carrhae

BMC Arabia etc. pp. 85 f. nos. 21 ff.

Obv. Head/bust r.; unclear legend

Rev. Turreted head of Tyche facing r., (possibly also small cornucopia); (C)OI MET AN(T)-ONIN(IANA ... ?); COI standing for COL(onia)

Museum Hama, Find no. R05-031

Note: BMC p. XC on the city's title at the time: Colonia Metropolis Antoniniana Aurelia Alexandriana. The coin appears to reflect military contacts between Raphaenae and Mesopotamia around AD 217 (Parthian Wars of Caracalla). Historically the most important issue on this list!

3. Roman Empire: Honorius or Theodosius II.

Centenionalis (AE 3)

408-423, eastern mint

Type: LRBC II 2224 f.; RIC X p. 272.

Obv. Diademed bust r., (star in left field); unclear legend

Rev. Two frontal depictions of emperors with lances/sceptres, holding a globe; unclear traces of legend (GLORIA ROMANORVM), (exergue: mint-mark)

Museum Hama, Find no. R09-149

4. Roman Empire: unknown ruler

Semicentenionalis (AE 4) ?

4th/5th cent., mint ?

Obv. Remains of bust r., legend: (... P) F AVG

Rev. Victory l.; unclear legend, exergue: characters of mint-mark

Fragment; clipped AE 3 ?

Museum Hama, Find no. R08-139

5. Byzantine Empire: Anonymous

Follis

11th cent. (after Grierson: 1042[?]-c.1050), Constantinople

Morrisson 1970, 600 nos. 86 ff.; Grierson 1973, 681-684 nos. C.1-C.48.

Obv. Half-figure of Christ, frontal, (between IC – XC with horizontal abbreviation marks above; +EMMA-NOVHΛ)

Rev. Greek crux gemmata between (IC) – XC / (NI)-KA with horizontal abbreviation marks above, double-strike at bottom right

Fragment

Museum Hama, Find no. R09-150

Lit.: Gschwind & Hasan 2010, nn. 14-17 fig. 4.

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SNG München 28 = Baldus Hans Roland, 2001, Sylloge Nummorum Graecorum. Deutschland. Staatliche Münzsammlung München. Heft 28. Syrien: Nicht-königliche Prägungen, Nr. 1-1066, München.

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PRELIMINARY REPORT ABOUT THE RESTORATION ACTIVITIES AT THE TEMPLE OF BA'AL IN EMAR 2009

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Restoring the temple of Ba'al

Preface

The efforts to preserve the historical buildings in the Archaeological Park Emar-Balis had so far been directed to the town wall and the corner towers of Barbalissos, built under emperor Justinian. Thanks to the financial support by the German Foreign Office, the securing measures that had been taken up in 2000 could be finalized in 2006 and 2007.

The aim for 2009 was to get started restoration work in the ruins of Emar, which have suffered badly from lootings and from continual erosion. Our first choice for restoration was the temple of Ba'al the contours of which were hardly recognizable anymore, as is illustrated by figures 2 – 4. The financial means were again granted by the department "Kulturerhalt" of the German Foreign Office. Our thanks go also out to the Syrian authorities who granted permission to undertake this restoration, above all Dr. Bassam Jamous, Director General of the Direction Générale des Antiquités et des Musées, Dr. Michel al-Maqdissi, Director of Excavations at the DGAM, and Elyas Boutros of the Restoration Department.

Findings of the excavation

For a better understanding of the restoration work it may be useful to show at first the original ground plan of the temple and the state of preservation at the outset of the restoring measures in September 2009.

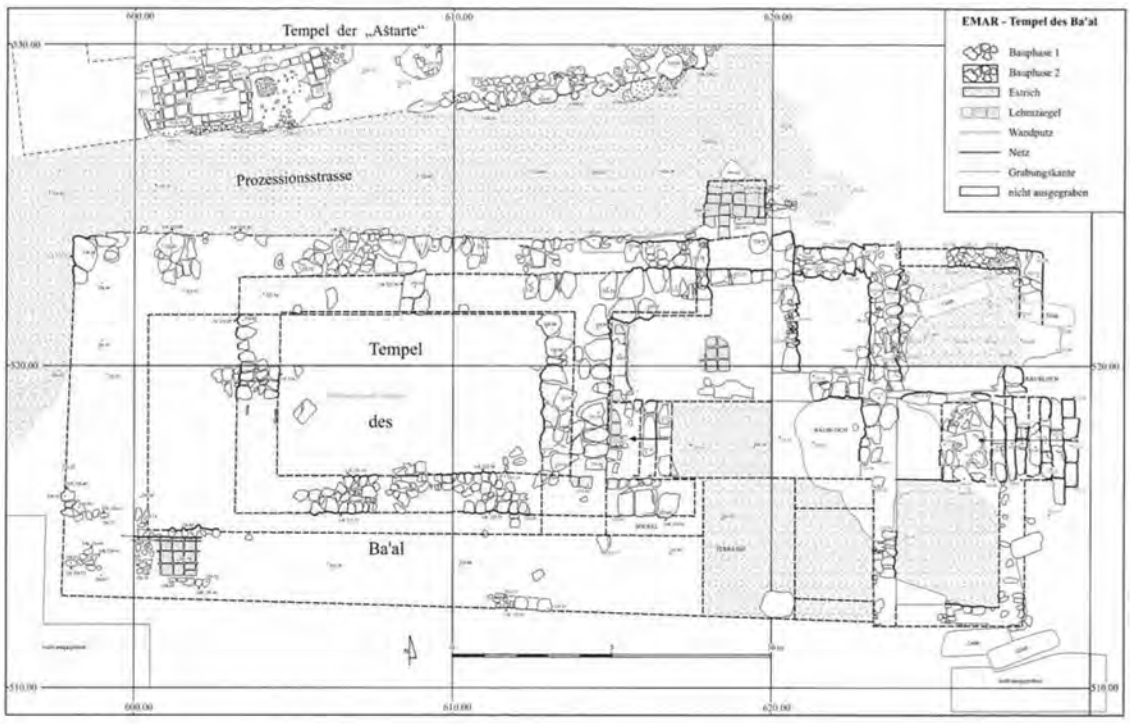

Fig. 1: Emar, temple of Ba'al, detailed plan 1998. From left to right: cella, terrace and stairs. Inside the cella, walls of a smaller predecessor were extant.

Before the Assad reservoir had begun to be flooded, a French mission had already exposed the cella, the sanctuary of the temple. Their attention aroused by the presence of a big gatelion in the courtyard in front of the temple, the Syrian-German team began in 1998 to excavate the outer walls, the terrace in front of the cella and the large access up to the temple.

Fig. 2: Emar, temple of Ba'al. View from NE to the corner of the terrace and the north wall adjoining to the right. The right jamb of the stairs shows at the left margin of the picture. The different materials used for the stone foundations are distinctly visible. On the outside they are built with strong conglomerate stones, the core is made of soft limestone. Both kinds of stone may be found in the immediate vicinity of Emar.

It was still possible to determine the function of all elements of the building, but due to many years of looting up to 1991 they were in a very bad state. The plan (fig. 1) shows in detail which stones were extant and could be documented.

Luckily, most of the corners of the building were either preserved or could be inferred with certainty so that we were in possession of the most important data needed to supplement the ground plan (see fig. 3). Furthermore, in the southwest corner of the cella the lowest course of the mud-brick superstructure was still visible (fig. 4) – indicating how high the stonefoundations of the outer walls must have risen.

The situation before work was begun

Ten years had passed since the excavation of the temple of Ba'al; at that time it had already been much destroyed by lootings, ever since, erosion had produced its effects. In several instances it turned out to be impossible to pinpoint again findings that had been documented ten years before. Figures 2-4 render an impression of the deplorable condition of the building. We were strengthened in our determination to try a partial restoration and preserve this exceptional building as a testimony of the Late Bronze Age culture in Syria.

While the lower-lying parts of the temple, the substructure of the terrace as well as the stairs still provided sufficient substance, the western part of the north wall and the complete south wall were badly preserved, the west wall not at all. The NW corner of the temple (fig. 3) and the surviving mud bricks to be seen in figure 4 are the only items to deserve positive mention.

Fig. 3: Emar, temple of Ba'al. The NW corner preserved in situ with the original ashlars.

Fig. 4: Emar, temple of Ba'al. View from the west to the southern outer wall. In the foreground the extant mud bricks. The walls beyond are older.

The Restoration

The restoration activities proper began on September 27 with first 18, later 24 workmen and two trained masons from the neighbouring village Samuma. Considering that the reconstruction of the temple was executed by the two masons and just three or four helpers, the number of workers seems very high. But the manpower was needed to collect the stones from the surroundings and to produce ca. 5000 mud bricks.

All stone foundations were built of unhewn stones, conglomerate stone for the outside, white limestone for the core. All stones were placed by hand and packed with mud thus corresponding by material and construction to the original walls. Lime or cement were not used at all.

Reconstruction was begun at the north wall, because its course was still laid out by stones in situ. The south wall and the wall dividing the cella from the outer room between the antae followed next, and lastly the retaining walls in front of the entrance to the temple (fig. 5).

Fig. 5: Emar, temple of Ba'al, reconstruction of the retaining wall in the southeast.

Fig. 6: Mud bricks, mud bricks, a complete one and two half ones out of one mold.

Fig. 7: Emar, south wall of the temple of Ba'al. Bonding mud bricks.

Fig. 8: Emar, temple area. The restored foundations of the temple of Ba'al.

The walls to the east of the temple had to be raised up to 2.50 m in order to reach the height of the foundations in the west. Thereby it became clearly visible how deep the temple had been built into the slope. The threshold of the cella and the floor could be ascertained at ca. 326.50 m, while the courtyard lay at a level of ca. 323.00 m.

Along with the restoration activities, the production of mud bricks was started; the bricks were formed in the original sizes of 37 x 37 cm and 18.5 x 37 cm. The planned production of 5000 mud bricks asked for a daily tankful of water and for, all in all, 11 tons of chaff. The mud came from the dumps of former excavations. Soon there appeared extensive fields of mud bricks, either spread out to dry in the sun (fig. 6) or, two days later, set up vertically.

On October 12 the stone foundations of the temple of Ba'al were ready to receive the mudbrick superstructure (fig. 7). Figure 8 highlights the contrast between the temple of Ba'al (left) and the temple of Ashtarte (right), that is still waiting to be restored in 2010.

The result

Even if we did not succeed this year to finalize all details of the restoration, we are convinced that the resulting structure will facilitate to imagine the layout and the size of the temple of Ba'al.

At first sight, the high-rising stone foundations and retaining walls (figs. 9-11) are disturbing, because they do not correspond to the usual image of restored mud-brick structures. As mentio-

Fig. 9: Em ar, temple of Ba'al. View from ENE after termination of the work.

Fig. 10: Emar, entrance to the temple of Ba'al from the southeast at the close of the campaign.

ned above, the topography is the cause for the height of the outer walls, which increases from west to east. But above all, the usual – and very much needed – mud coating is lacking, that ought to protect the walls against the effects of the weather.

We know from the excavations that a coating of lime and mud also covered the stones, and we are of course aiming at reconstructing the original state. But the 2009 campaign was too short to add this particular feature. It was just possible to protect the crown of the walls above the courses of mud bricks with a coating of mud.

Fig. 11: Emar, temple of Ba'al. Stairs and entrance to the cella with niched door jambs.

However, the stone foundations as they are look so attractive that one could wish to keep them in this way for the visitors to see – even if they do not necessarily correspond to the known examples. In any case the mud bricks must get their lime coating to make them weatherproof. Another urgent task for the future is the restoration of the two flights of stairs that have so far only partially been renewed (fig. 11). Finally, the cella will have to be filled up and provided with a new floor.

ARCHAEOLOGICAL ITALIAN MISSION IN BOSRA 2009: LASER SCANNING

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University of Bologna-Italy

The Archaeological Italian Mission in Bosra 2009(1), directed by Professor R. Farioli Campanati (University of Bologna, Archaeology Department) in collaboration with DGAM Syria (local Staff directed by Arch. Wafa Al Oude), was most of all dedicated to local topography.

We made a multi session of laser scanning with total station positioning with two main objectives: to collect new data about structural situation, after some restoration done during these last 10 years(2) and to upgrade and improve our archives for the project of archaeological park, including covering systems and new settlements(3).

The work has been done by the Mission with Akanthos S.r.l, an Italian Society working on archaeology, specialized on digital topography, using a Laser Scanner Leica HDS 2500 (Akanthos) and a Total Station Leica 1205 (University of Bologna, Arcaheology Dept.)(4).

The methodology we decided to apply has been the following: photo survey, positioning of topographical reference, main bases than polygonal line (supporting the scanning session), positioning of the florescent targets, first general scanning, peculiar scanning of architectonical elements of great interest. Than we moved following the main parts of the structures.

The first session was dedicated to the Church of the Saints Sergios, Bacchos and Leontios(5). The around area, quite free of modern buildings, let us working with an easy ray of action (fig.1).

In fact we decided to begin from the outside walls, to build the perimeter of the structure, attaching our laser scanning bases to topographical points, building a polygonal line to

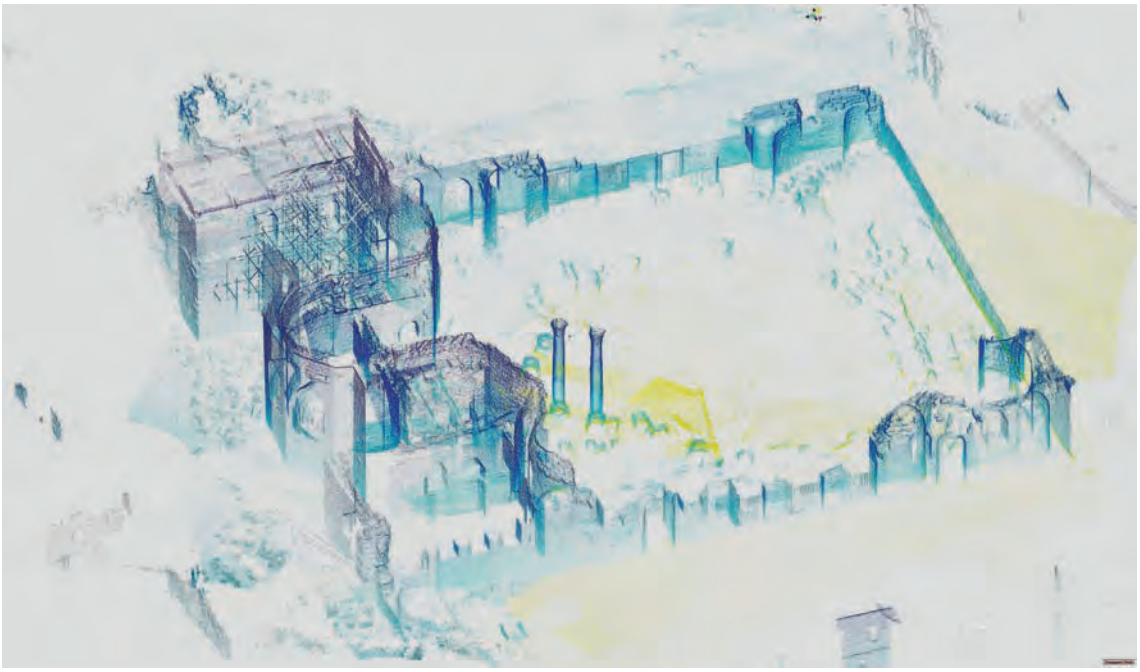

Fig. 1: Bosra, Church of the Saints Sergios, Bacchos and Leontios: snap-shot, point cloud imagine (by Akanthos).

which refer our scanning details. We begun from the South side walls, than we moved to the façade (West walls), than on the North side and at least to the East side to complete the apse zone (fig.2).

After this phase, we introduce inside the polygonal topographic support line and scanned all the small rooms at the side of the apse, beginning from the North side, including in the scanning of all the ceilings still surviving on site.

Fig. 3:Bosra, Church of the Saints Sergios, Bacchos and Leontios: point cloud of capital (by Akanthos).

The second session was dedicated to the Basilica of Bahira[6], were we begun from the façade (fig.3), than the perimeter walls and the inner part (fig.4). The South external wall has been only partially scanned because of the modern big buildings against its structure, but the upper part has been perfectly included in the scanning (fig.5).

The third phase has been the scanning of the decorated exedra on the North-west side of Bahira Complex (fig.6).

Fig. 2: Bosra, Church of the Saints Sergios, Bacchos and Leontios 2009: view from the apse.

Fig. 4: Bosra, Basilica of Bahira 2009, Doctors Monti and Urbini scanning the inner part of the basilica.

Fig. 5: Bosra, Basilica of Bahira 2009: panorama from South-East.

These great work is now giving the chance to draw plan-views and sections of all the buildings, ”cutting” the structures following our necessity of studies: architectonical analysis, archaeological investigations, restoring and conservation projects.

Actually Akanthos Staff is preparing rendering and tri-dimensional vision of the Church, while the new measurements of all the top levels of the building are used to complete the project of the covering system for the apse zone to preserve the Mediaeval paintings[7].

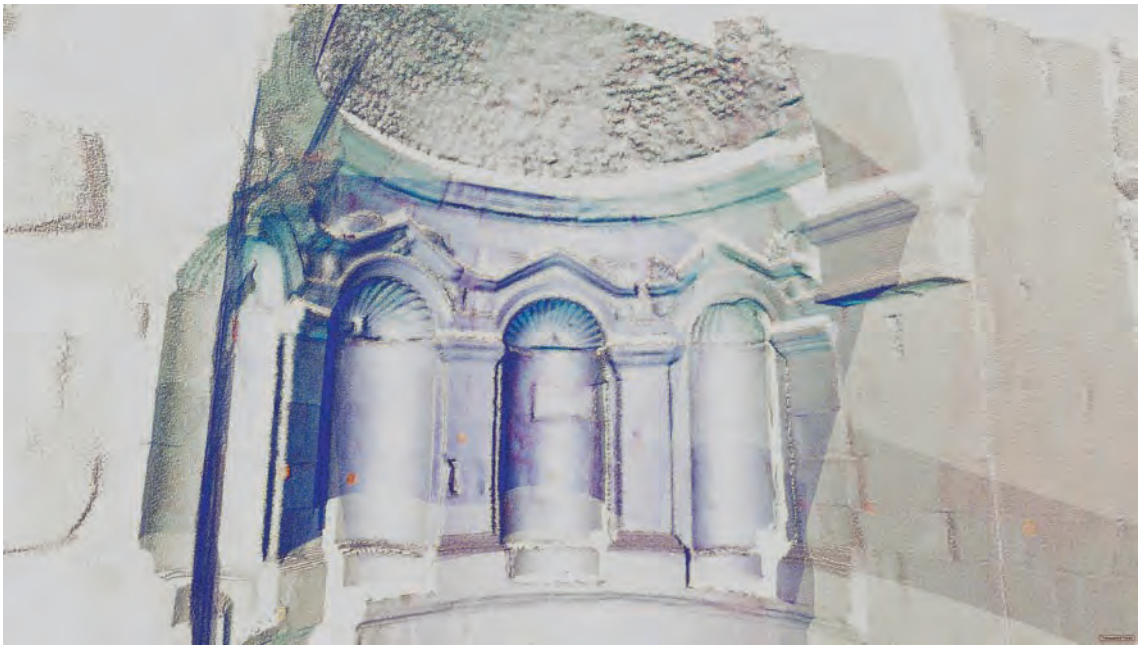

Fig. 6: Bosra, Bahira Complex: the decorated exedra: snap-shot, point cloud imagine (by Akanthos).

Thanks to the 3D documentation the Mission is studying all the sections of the building to make a virtual reconstruction of the Church and of the Basilica of Bahira Complex.

Notes

(1) Team 2009: Director Prof. R. Farioli Campanati (University of Bologna, Archaeology Dept.); vice Director Prof. S. Minguzzi (University of Udine, Arcaheolgy Dept.), technical Coordinator Giovanna Bucci Ph.D (University of Bologna, Archaeology Dept.), Assistant Rachele Carrino Ph.D. (University of Bologna, Archaeology Dept.), Laser scanner Responsibles Dr. M. Monti and Dr. L. Urbini (Akanthos S.r.l Italy).

(2) See on bibliography: Farioli 1997, 1999, 2009.

(3) Farioli 2010, Sampaolesi 2010.

(4) Monti, Urbini 2010.

(5) About the Church and all the excavations of the Italian Mission see: Bucci, Carrino, Farioli

(6) About studies and excavations see Bucci 2004, 20091, 20092 and Farioli 1997, 1999, 2004.

(7) About Medieval paintings see Farioli and for the project see Sampaolesi.

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THE MOST RECENT RESEARCHES IN THE TETRACONCH CHURCH OF BOSTRA, DEDICATED TO THE SAINTS SERGIOS, BACCHOS AND LEONTIUS

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.1-The portico around the Church (fig.1).

In 1977, after the clear of the area around the Church performed by the Director of the Department of Bosra, Soleiman Al-Muqdad, we brought to light the perimeter walls of the building (FARIOLI 1981, 4-76, figs.8, 9). It came to light the outdoor apse ("a ") set against the end of the northern boundary with the head in alignment with the annex "a", which went toward apse with a West stylobate well built (later stolen, but documented by photographs and drawings), which made me hypotize it was referring to a portico (W M4 70/5c.a.), a hypothesis subsequently confirmed, after the demolition of a modern house built against the outer end of the south side, and thank to the discovery of another apse ("d "), exactly in pendant with the wall in alignment with the presbytery complex.

Moreover, it also retained a base of leaf, certainly the end of the hypotized colonnade of the portico, of which we found- re-used in modern buildings - many capitals actually disappeared (farioli campanati, in «F.R.»145/8,1993/4, 97,ss., fig.23; ead., in "Actes du Coll, "La Syrie de Byzance à l'Islam", Lyon 1990, Damas 1992,174-177, figs. 1,2)

The presence of the lateral porches as in martyrion of Abu Mina in Egypt (P. GROSSMANN, in «XXXVIII CARB» 1981-125-247, fig.7) could be in reference, as in many other cases to the reception of pilgrims and thus the function of sanctuary of the Church dedicated to Saints Martyrs Sergios, Bacchos and Leontius (FARIOLI CAMPANATI, in «Akten CIAC XIII» (Bonn 1991) 1995 II, 741-745, ill.), as documented in the nineteenth century the inscription on the door read by Waddington's central front.

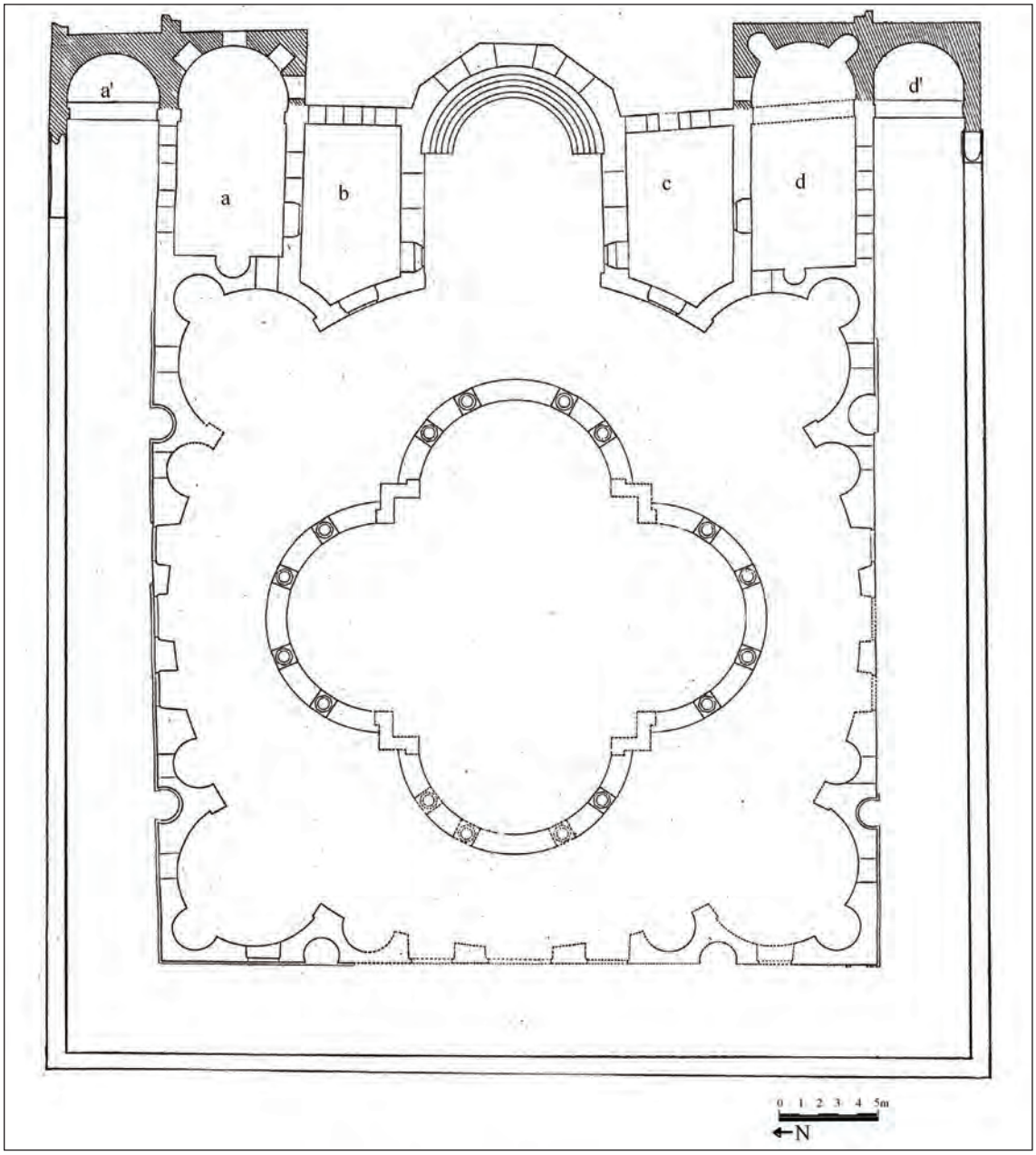

Fig. 1: Bosra, Church of the Saints Sergios, Bacchos and Leontios: planview with portico.

Fig. 2: Bosra, Church of the Saints Sergios, Bacchos and Leontios: panorama with rendering of Sampaolesi project on the presbytery.

The harmonious architectural layout of the church therefore introduces the articulated presbytery complex (fig.2) with perfectly symmetrical rooms. This vocation of symmetry is observed also by both external apses (a and d') terminals of the arcades along the sides. The presence of the colonnade, acts to mark the alternation of flood walls, niches, windows and triple doors, should also involve the facade with monumental character corresponding to the enacting internal tetraconch with double casing (farioli campanati 2009)

Fig. 3: Bosra, Church of the Saints Sergios, Bacchos and Leontios: frontal view of Sampaolesi project.

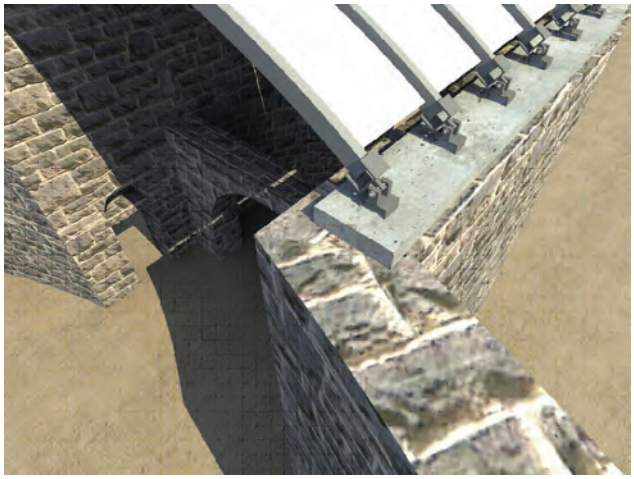

Fig. 4: Bosra, Church of the Saints Sergios, Bacchos and Leontios: Sampaolesi project, rendering of technical solutions.

Recent investigations on the Church aimed at verifying the existence of the porch confirming my original hypothesis of a "wraparound portico". Screening tests performed on 2003 in front of the facade of the building the Church (C. Jaquet, in «FR (1997/2000), 2004. 317-325), then on 2004 outside the perimeter walls (Carrino 2009), continued during 2008 with the work of the R. Carrino (on the South side) and G. Bucci (on the West side) with extensive excavation outside. The foundation of the portico are attested on the 3 sides: North, East, West. All the reports are on publishing on Felix Ravenna CLVI-CLX.

2- In 2009, other surveys conducted by Akanthos team (Drs. Michelangelo Monti and Lorenzo Urbini) made a 3D laser scanning (Cirex) with support of Total Station (Leica TCR 1205) (Drs. Giovanna Bucci and Rachele Carrino) on the church and on the complex with the Roman basilica, then Christianized, which is considered part of the convent of Monk Bahira *, the teacher of Mohammed.
3- Finally we are making a project with Massimiliano Sampaolesi (Giovanna Izzo Restauri, Naples), for conservation and protection of medieval paintings (FARIOLI Campania, «FR» 1993 / 4, cit., 114-120, figg.17-20) that partially decorate the walls of the presbitery of the Church of the Saints Sergios, Bacchus and Leontius (figs.3-4). The project concerns a protective cover over the structured environment. This would be an intervention that would give an optimal outcome. The covering system has an excellent eco-compatibility with local landscape. We presented the draft of the project to the DGAM on 2009 and it was appreciated by competent authorities: now we need a sponsor.

*About excavations and findings in the Complex of Bahira see g.bucci, in "Atti del Coll. int: Ideologia e cultura artistica…"(Bologna-Ravenna, nov. 2007), Bologna 2009,cit., 133-139; ead.,in «Hortus Artium Medievalium» 15,1, 2009 (Council of int. Center Late Antiquity and Middle Ages , Porec' 2008), 31-38

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RAPPORT SOMMAIRE SUR LES ERMITAGES DANS LA RÉGION DE L' HERMON «HINÉ-DERBOL»[1]

Fadia ABOU SEKEH

DGAM-Syria

I- Introduction

Les deux villages de Hiné et de Derbol occupent les pentes d'une petite colline de 1060 m d'altitude sur les contreforts orientaux de l'Hermon, à 47 km au sud-ouest de Damas (fig. 1).

Les sources écrites nous fournissent des indications sur l'existence des monastères dans la région. Ainsi, pour l'Hermon, la lettre adressée par les supérieurs de plusieurs de ces monastères à Jacques Baradeh au VIe siècle mentionne divers couvents que nous avons recherchés. Pour Hiné, on trouve les signatures de Romana, du couvent de Mar David ; de Sebat, du couvent appelé Poumeh de dîba (Bouche du Loup); d'Abraham, du couvent de Beth Salma; de Georges, du couvent de Mar Qrouq ; de Thomas, du couvent de Mar Élie, de Jean, du couvent de Beth Mart Mariam d'Haina (actuellement Hiné). Pour le village de Durbel (aujourd'hui Derbol) on trouve la signature de Halphaï, prêtre et abbé de son couvent. Enfin la signature du supérieur Zénodore, pour le couvent de Beth Thima (localité identifiable à l'actuel village de Beitima)[2].

Cette intéressante documentation nous permet de préciser la localisation des monastères dans cette région. Après avoir pris en 2009 le chemin de Hiné en compagnie de Maurice Hana, gardien des antiquités à Hiné, nous avons trouvé des lieux dont les noms ont permis d'identifier les monastères (fig. 2): d'el-Deir (fig. 3), de Gel el-Deir (fig. 4), Wadi el-Rhban et Mgaret el-Rhban. Les deux premiers ne sont connus que par leur toponyme (Deir/ monastère), ce sont aujourd'hui des espaces cultivés, tandis que les deux autres, qui sont des complexes rupestres curieuses, sont bien conservés. Ainsi, nous sommes revenus en 2010 avec le Dr. Antoine Souleiman, consultant scientifique, et avec Ghassan Abd el A'ziz, restaurateur à la DGAM, afin de réaliser quelques relevés architecturaux et de faire des estampages des inscriptions et des décorations dans les deux ensembles.

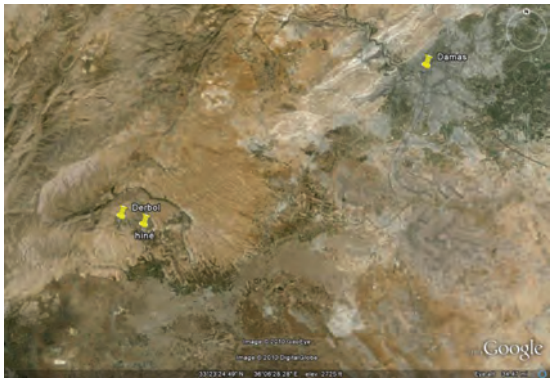


Fig. 1 : Localisation des villages de Hiné et de Derbol.

Fig. 2 : Localisation des ermitages et des monastères.


Fig. 3 : El-Deir (monastère).


Fig. 4 : Gel el-Deir.

II-Présentation des données

Le premier complexe monacal Wadi el-Rhban :

Wadi el-Rhban est situé au nord- ouest de Hiné, et au sud- est de Derbol. Son toponyme (littéralement, vallée des moines), est couramment utilisé dans cette région, en souvenir des moines qui auraient vécu ici (fig. 5).

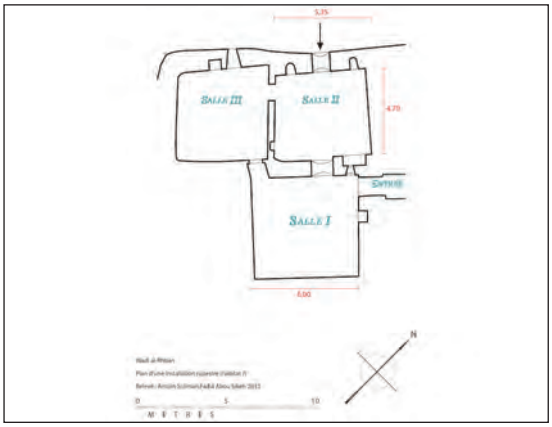

Fig. 5 : Wadi el-Rhban - Vue générale.

Le complexe rupestre se compose pour l'essentiel de six grottes aménagées, dominant le fond de la vallée, dans lesquelles se trouvaient des l'habitat, une cellule et des tombeaux.

1. L'habitat-A (fig. 6, Pl. I) :

Creusé dans une proéminence rocheuse, cet habitat comprend trois salles entièrement taillées, utilisées actuellement comme lieu de stockage.

La salle I est presque carrée. L'entrée principale, placée sur la façade septentrionale, se compose de deux portes superposées, dont on se demande quelle était leur fonction. L'accès par la porte du haut se faisait par une échelle en bois, dont quelques traces sont encore visibles. La paroi



Pl. I : Wadi el-Rhban : L'habitat A.

Fig. 6 : Wadi el-Rhban : Habitat A.

Fig 7: Wadi el-Rhban : Habitat A-Entrée de la Salle I.

Fig 8: Wadi el-Rhban: Habitat A-Salle I - La paroi orientale.

Fig 9 : Wadi el-Rhban : Habitat A - Salle II - La paroi orientale.

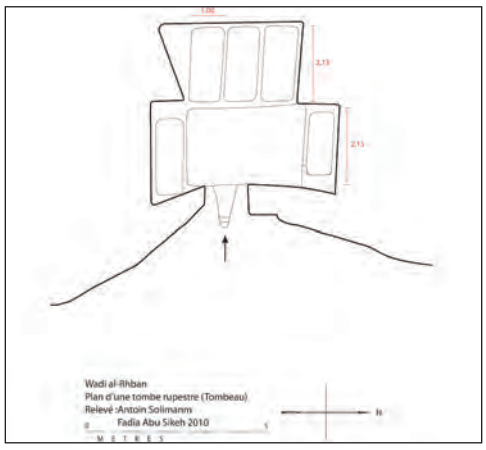
Fig. 10 : Wadi el-Rhban : Habitat A - Salle II - La paroi septentrionale.

orientale a aussi deux passages: l'un taillé en forme de fer à cheval donne accès à la salle II, l'autre à la salle III (fig. 7-8).

La salle II est de forme carrée; elle est dans un état de conservation moyen. La paroi orientale a une porte placée au milieu ainsi que deux fenêtres, qui ouvrent sur la vallée. Au-dessus de la porte, on distingue des éléments décoratifs, des croix, ainsi qu'une inscription cachée sous de la suie, ce qui en empêche la lecture (fig. 9-10).

Fig. 11 : Wadi el-Rhban : Habitat A - Salle III - La paroi orientale.

Fig. 13 : Wadi el-Rhban : Tombeau B.



Pl. II : Wadi el-Rhban : Tombeau B.

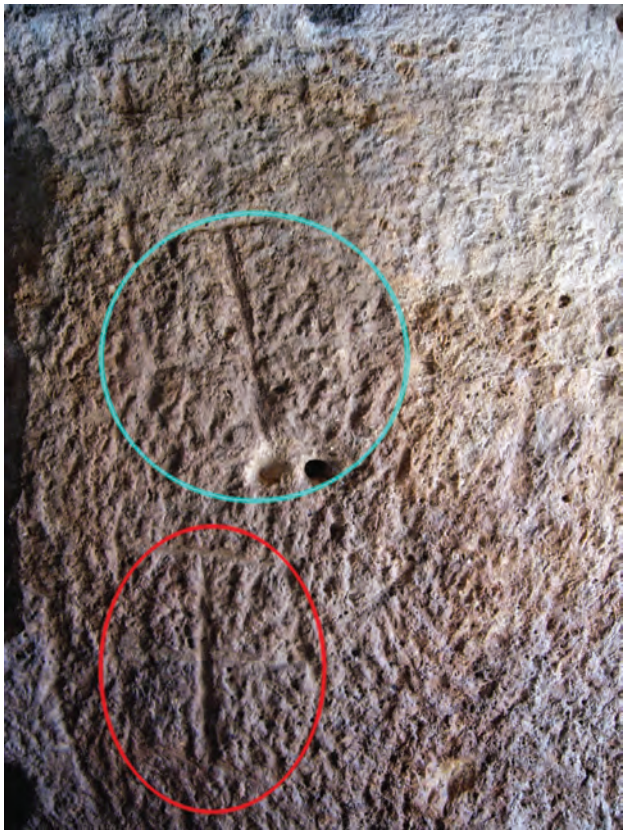


Fig. 12 : Wadi el-Rhban : Cellule D - lLa paroi méridionale.

La salle III de plan carrée, et surélevée d'une marche, communique avec les autres salles par deux portes : la première mène à la salle I, et la seconde conduit à la salle II. Une petite fenêtre ouvre sur la vallée, et apporte un peu de lumière à la pièce (fig. 11).

2. Cellule D (fig. 12):

Il s'agit d'une pièce quadrangulaire, occupée actuellement par une lapinière. Elle se caractérise par la présence de croix gravées sur la paroi méridionale à côté de la porte.

La forme de cette pièce, sa taille et son isolement nous laissent à penser qu'un anachorète y demeurait, ou qu'elle a pu être utilisée par des moines comme lieu privilégié de prière, durant les jours de jeûne et de pénitence observés suivant l'usage des moines syriens avant Pâques et les fêtes principales.

3. Tombeau B (fig. 13, Pl. II) :

Situé au sud de l'habitat A, il se compose de cinq tombes disposées dans trois arcosolia. Trois tombes dans l'arcosolium ouest, situé au fond du tombeau, et une tombe dans chacun des arcosolia situés de part et d'autre de la porte. La disposition des lieux est celle observée dans le rite romano-byzantin(3).

Fig. 14a Wadi el-Rhban : Arcosolium du tombeau C.

Fig. 14b Wadi el-Rhban : L'entrée du tombeau C.

Fig. 15 : Wadi el-Rhban : Tombeau E.

Fig. 16 : Wadi el-Rhban : Installation F.

4. Tombeau C (fig. 14 a-b) :

Ce tombeau est pratiquement inaccessible en raison de son utilisation actuelle comme lieu de stockage. Il est relativement petit par rapport au tombeau B. Il comporte six tombes à arcosolium toutes orientées vers le centre.

5. Tombeau E(fig. 15) :

Ce tombeau est inaccessible, car il rempli d'eaux pluviales.

6. Installation F (fig.16) :

Située en hauteur, cette installation est inaccessible, à moins d'escalader la paroi, ce qui nécessiterait des équipements particuliers (cordes, éclairage etc.).

Wadi el-Rhban et les complexes monastiques de Syrie.

À présent que nous avons exposé les caractéristiques de Wadi el-Rhban, il convient de s'interroger sur son identification en le comparant à d'autres complexes monacaux de Syrie. Les ensembles troglodytiques identifiés comme des complexes monacaux présentent : des cellules de moines, des tombeaux et des habitats communs. Quelques informations sur ces complexes nous sont fournies par les inventaires des pères franciscains, informations malheureusement souvent lacunaires, que nous n'avons pas toujours pu compléter par des observations de terrain. D'autres données proviennent de la prospection menée par A. Gonzales et son équipe dans le Wadi Sajour.

Dans les inventaires publiés par les pères franciscains (Pena, Castellana, Fernadez) se trouvent quatre ermitages :

L'ermitage de Moughor el-Mou'allaque[4] est situé à l'est des ruines de Kefert 'Aqab dans le Jebel Wastani au nord de la Syrie. Il se compose de quatre grottes taillées dans la paroi rocheuse. Elles communiquent entre elles par des marches creusées dans le roc. Aucun détail n'est fourni sur l'agencement intérieur.

L'ermitage de Harbanouch[5] (dans la première colline du Jebel Baricha, au nord de la Syrie). Parmi les grottes qui composent cet ermitage, une est particulièrement intéressante. Il s'agit de la grotte creusée dans le flanc de la montagne, à une dizaine de mètres au-dessus du sol. Elle communique avec l'extérieur par une petite fenêtre, grâce à laquelle l'ermite recevait un peu de lumière. Nous ne possédons pas d'autre détail sur ses aménagements intérieurs.

Deir Wadi Habis[6] dans le Jebel Al-A'la à l'est de Harem (au nord-ouest de la Syrie). Cet ensemble comporte des cavités taillées sur trois niveaux, et datées des Ve et VIe siècles.

Le complexe monastique de Milis[7] dans le Jebel Al-A'la est situé également à l'est de Harem. Il comprend lui aussi quatre grottes séparées et aménagées, que les pères franciscains classent parmi les ermitages.

Pour les pères franciscains ces ermitages décrit ci-dessus sont quasiment identiques, car ils répondent au même modèle présentant : des marches d'accès aux grottes, une situation élevée et une fenêtre ouvrant sur l'extérieur.

Des travaux menés par A. Gonzales en retiendra :

Wadi Sajour[8], où se trouve une densité importante de grottes artificielles contenant de grands complexes d'habitats dont un ensemble monacal, la présence d'éléments chrétiens (sous la forme de croix gravées) et un ensemble troglodytique identifié comme un monastère comprenant des cellules. Une inscription en grec découverte par l'équipe espagnole indique que le complexe a été fondé par Alexandre dans la seconde moitié du IVe siècle.

Bien que ces cinq complexes présentent des différences sur le plan de leur organisation (cellules isolées, cellules multiples associées ou non à des tombeaux et à des habitats) ils possèdent plusieurs points communs avec Wadi Rhban comme : l'absence de lieu de culte, l'absence de plan préétabli pour distribuer les espaces, la présence de symboles chrétiens sous la forme de croix gravées sur leurs parois, enfin leurs proximités avec une agglomération.

Le deuxième complexe monacal : Mgharet el-Rhban

Ce complexe rupestre est situé au nord- est de Derbol. Son toponyme Mgharet el-Rhban est couramment utilisé dans cette région, il signifie la grotte des moines. C'est une cavité isolée creu-

Fig. 17 : Mgharet el-Rhban : Vue générale.

Fig. 18 : Mgharet el-Rhban : Premier niveau souterrain.

Fig. 19 : Mgharet el-Rhban : L'oratoire.

Fig. 20 : Mgharet el-Rhban : Linteau fragmentaire.

sée dans une paroi rocheuse (fig. 17), comprenant deux niveaux. Le premier niveau en partie souterrain est inaccessible car il est obturé par des blocs de pierres (fig. 18). Il est surmonté d'un vaste ensemble composé de trois salles (Pl. III).

1- La salle centrale (fig. 20) :

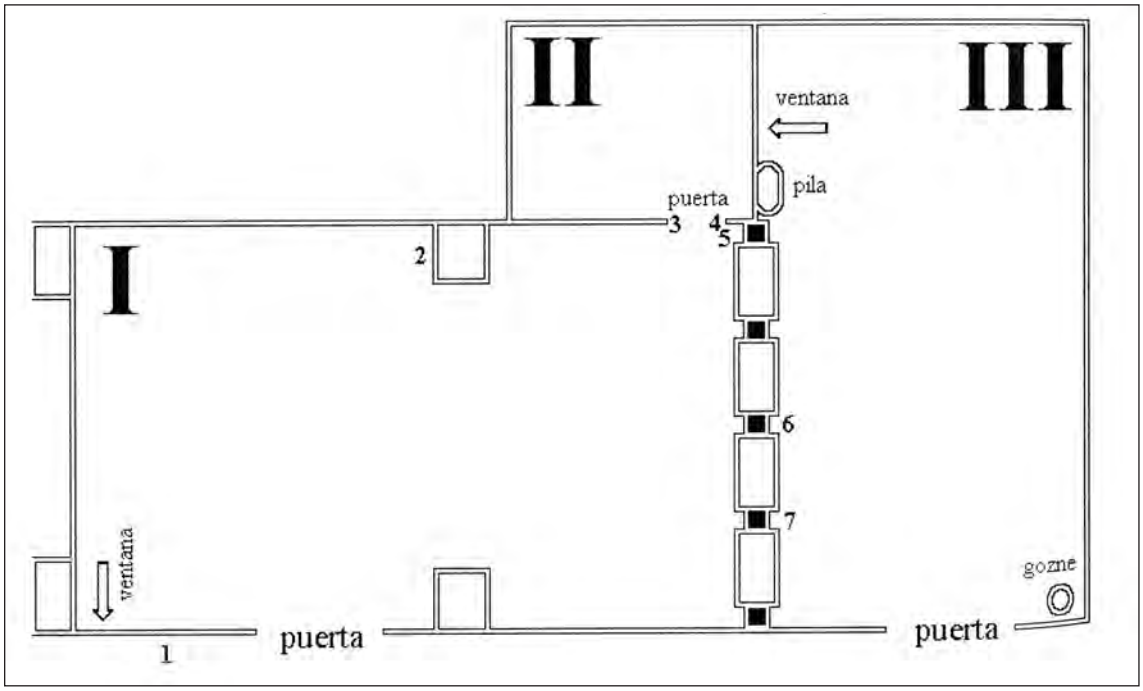
De forme carrée, cette salle est très abîmée. Bien que ses parois soient presque entièrement détruites, les quelques traces qui subsistent au niveau du plafond nous permettent d'en estimer les limites. On peut observer au pied de la cavité un linteau, cassé en deux fragments, orné d'une croix inscrite dans un cercle.

Fig. 21 : Mgharet el-Rhban : salle C.

Cette salle centrale distribuait à l'ouest une pièce et à l'est un oratoire.

2- La salle C (fig. 21) :

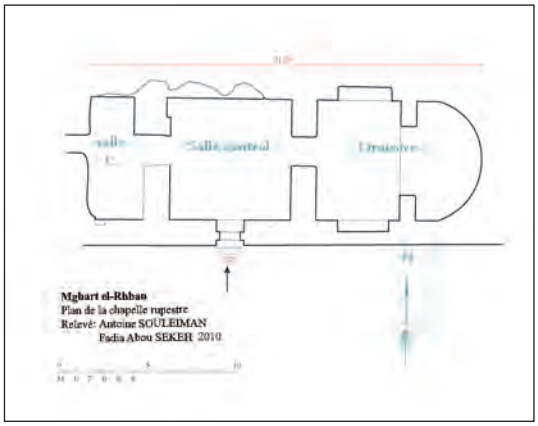
Cette salle de plan rectangulaire est en mauvais état de conservation. Ses parois sont elles aussi presque entièrement détruites, mais on peu déterminer son emprise grâce aux traces laissées par les parois au niveau du plafond. Au fond de la salle à l'ouest, un couloir étroit et sinueux, de 18 m débouche sur la paroi extérieure à l'ouest.



Pl. IV: Tell Magaratyn : Complexe rupestre de d'après A. GONZALEZ BLANCO, 1998.

3- L'oratoire (fig. 19) :

À l'extrémité orientale du complexe, l'oratoire, entièrement creusé dans le roc, se compose de deux parties distinctes, séparées par un arc en forme de fer à cheval: une nef barlongue prolongée par une abside en bon état de conservation. Dans la nef, deux niches rectangulaires occupent les parois nord et sud. Elles présentent des traces de rainures qui suggèrent la présence d'étagères en bois destinées au rangement de livres sacrés. Dans le plafond, des anneaux taillés dans la pierre servaient à suspendre des lampes.

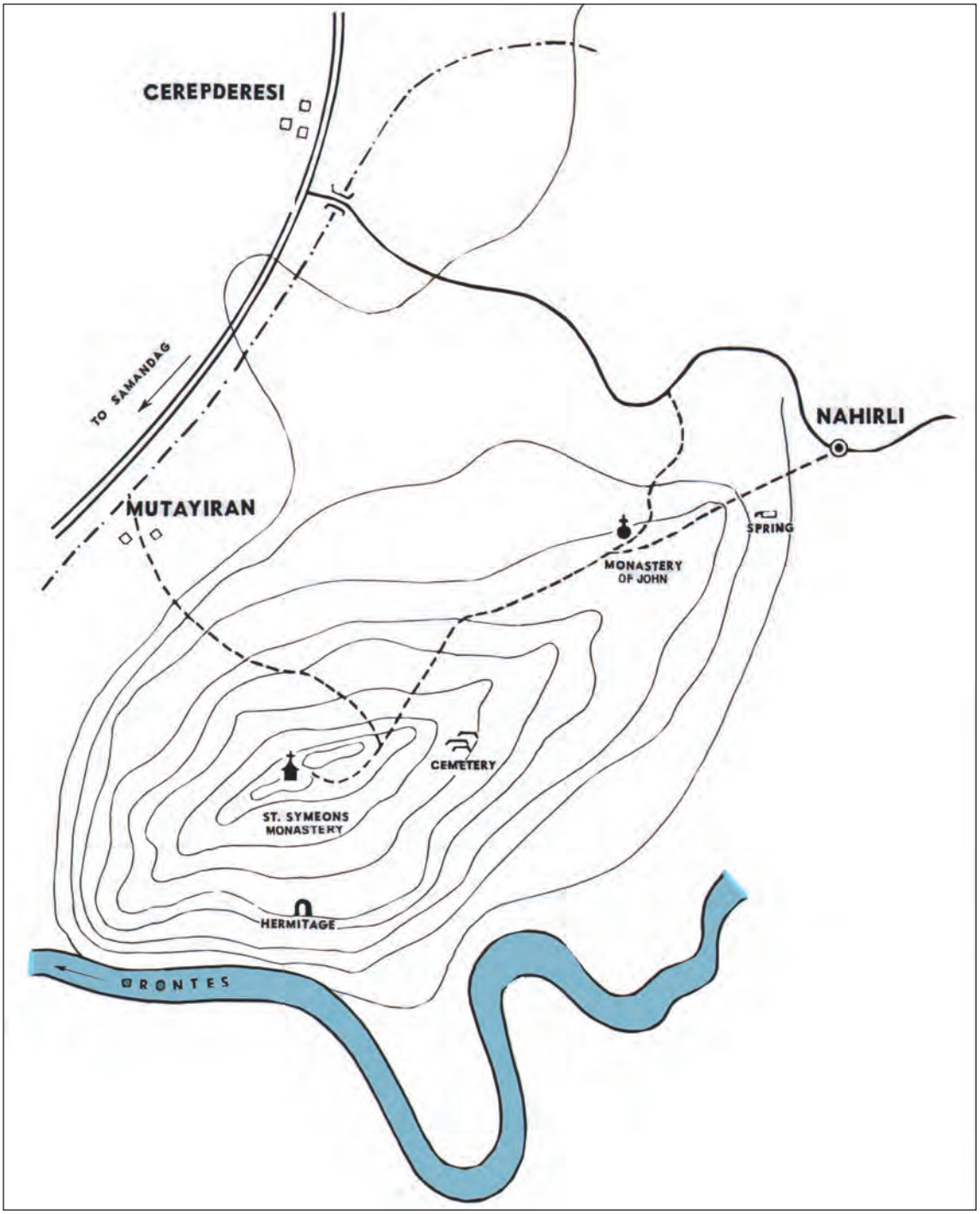


Pl. III : Mgharet el-Rhban : Niveau supérieur.

Dans cet ensemble, des éléments plaident en faveur d'un lieu consacré à la vie spirituelle. Son éloignement par rapport aux deux villages Derbol et de Hiné, l'isolement des salles en hauteur et la présence d'un oratoire.

Plusieurs autres sites du Proche-Orient présentent des similitudes avec Magharet el-Rhban, ils nous permettent de mieux comprendre les pratiques monacales liées à ce type d'aménagement. Il s'agit de Magarartyn (Syrie), de Wadi Qassab (Syrie du Nord), d'el-Mu'allaqah (Nord-ouest de la Jordanie), de l'ermitage de Saint-Jean de Hesychast (Palestine).

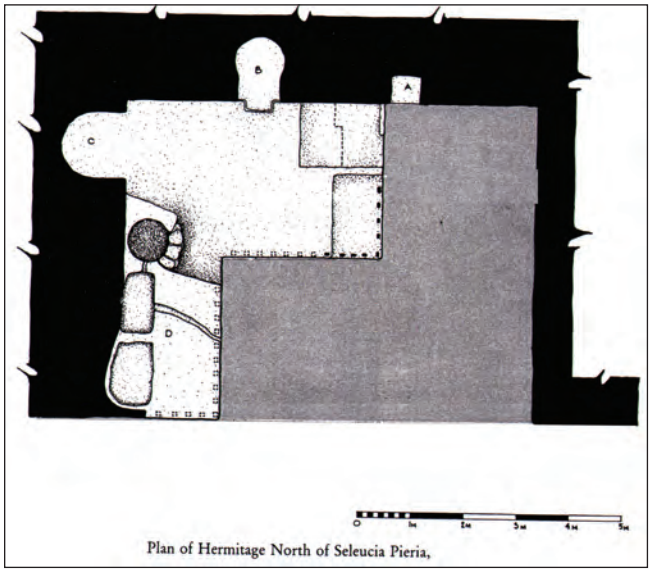
Magârartyn se compose de deux cavités principales (I et III) taillées dans la roche qui forment un ensemble bien qu'accessible par deux entrées (Pl. IV). Trois éléments indiquent qu'il s'agit très vraisemblablement d'un lieu de culte : la position élevée, la présence de sépultures, un bassin identifié à un fonds baptismal par A. Gonzales. Enfin la disposition des lieux tripartite rappelle le rite byzantin. La présence de deux portes signifierait la séparation



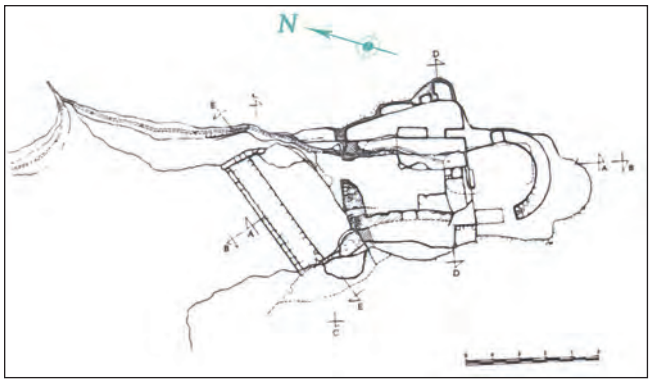
Pl . V : Localisation de l'ermitage saint Siméon le stylite (le jeune), d' après DJOBADZE, 1998.

de deux groupes différents, le mur d'arcosolia formant une sorte d'iconostase. La dernière pièce (II), a pu servir à un ermite, elle était éclairée par une petite fenêtre ouverte sur la pièce orientale (III).

Wadi Qassab, est situé aux environs de Séleucie de Piérie, près du monastère de Saint-Siméon le Stylite (le jeune) (Pl. V). Ce complexe comprenait une église (aujourd'hui entièrement détruite) ainsi que des cavités taillées dans le roc. La plus grande d'entre elles comprend une tribune avec des niches (Pl. VI).



Pl. VI : L'ermitage de Wadi Qassab, d'aprés DJOBADZE 1998.



Pl. VII : Oratoire de l'ermitage de Saint-Jean HESYCHAST, d'après PATRICH 1993.

El-Mu'allaqah se trouve dans le Wadi Jebara en Transjordanie[9]. Il est composé de grottes-tombes, de colombiers rupestres et d'un habitat troglodytique. Ce complexe est organisé selon le modèle des Laura Sabaïtes.

L'ermitage Saint-Jean de Hesychast est situé au cœur de la Laura de Saint-Saba dans le mont Cidron en Palestine (fondé par Saba dans la deuxième moitié du Ve siècle.). Il se compose de trois cavités taillées dans le rocher, réparties sur plusieurs niveaux. Un oratoire occupe le niveau supérieur (Pl. VII). En dessous, une salle présente des éléments d'habitation (un espace logeable et une citerne attenante). Le premier niveau renfermait quant à lui une salle de stockage (Pl. VIII).

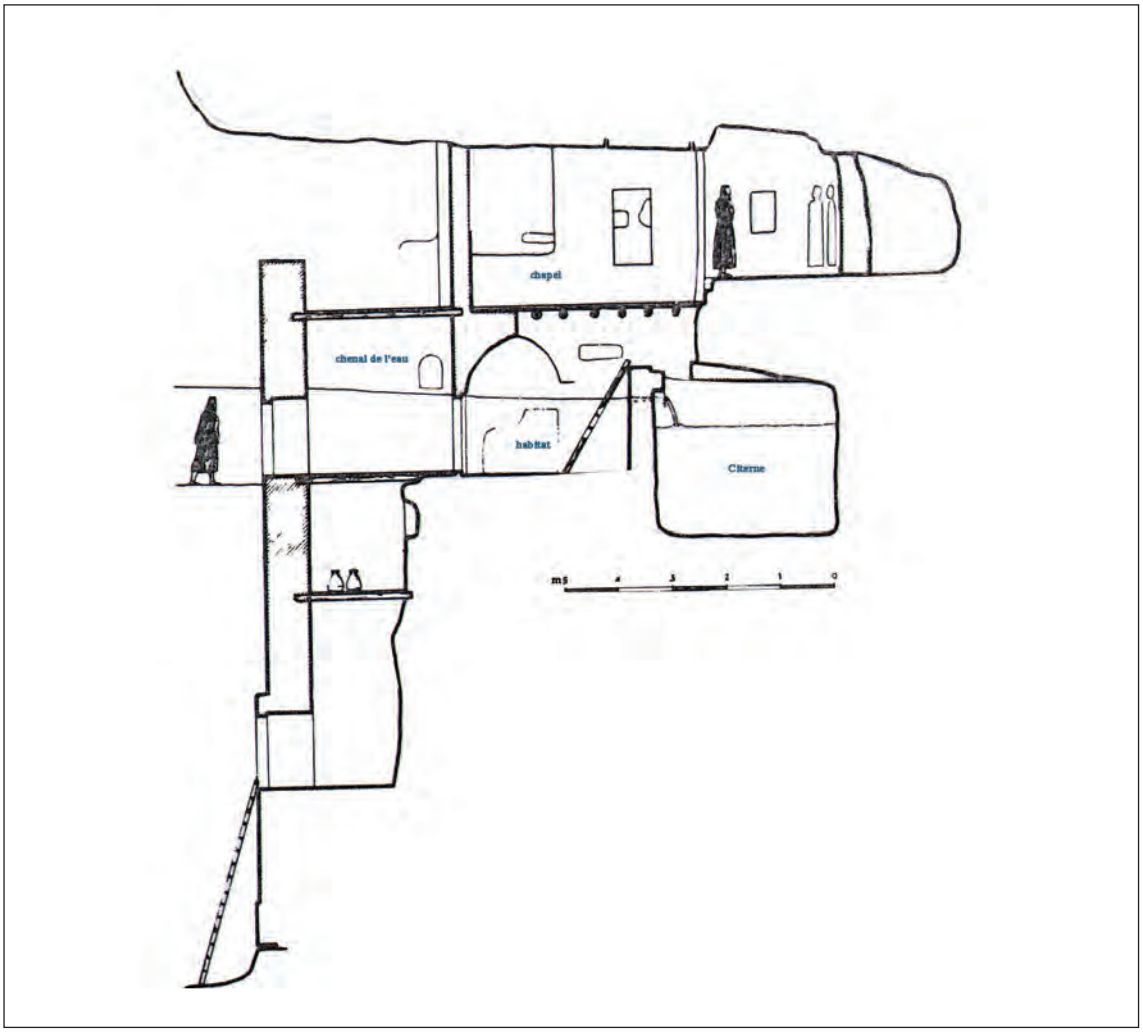
En raison de sa similitude typologique avec le modèle sabaïte (église au niveau supérieur, espaces d'habitation et salle de stockage dans les niveaux inférieurs), on peut penser que l'ermitage de Mgharet al-Rhban remonte au VIe siècle.

III- Conclusion

Les recherches portant sur l'histoire du monachisme syrien se sont principalement concentrées sur le lieu de son essor, c'est-à-dire le nord de la Syrie et l'Osrhoène, une région particulièrement riche en vestiges archéologiques. Aussi l'intérêt des historiens et des archéologues, principalement tourné vers le nord de la Syrie, a contribué à tenir dans l'ombre l'histoire du mouvement monastique de la région de Damas, notamment de la région montagneuse de l'Hermon.

Dans ce contexte, la présence des deux complexes monastiques de Wadi al-Rhban et de Mgharet el-Rhban, apportent un précieux témoignage sur l'origine et la variété de la pratique de la vie monastique de cette région. Alors que Wadi el-Rhban est un exemple très rare de l'existence du cénobitisme pour le sud syrien, Mgharet el-Rhban atteste de la continuité et de l'ampleur du mouvement monastique sabaïte dans cette région au VIe siècle.

Afin de mieux cerner la pratique monacale et ainsi de mieux comprendre la vie spirituelle dans ces complexes, un relevé topographique et architectural de ces deux sites est programmé au printemps 2011.



Pl. VIII : Ermitage de Saint-Jean HESYCHAST d'après PATRICH 1993.

Liste des abréviations

AAAS = Annales Archéologiques Arabes Syriennes
BAH = Bibliothèque Historique et Archéologique
IGLS = Inscription Grecque et Latines de Syrie

Notes:

(1) Nous tenons à remercier la Direction Générale des Antiquités et des Musées et son directeur général le Dr. Bassam Jamous ainsi que le Dr. Michel Al-Maqdissi, Directeur du service des fouilles et des études archéologiques, Dr. Antoine SOULEIMAN Pauline Piraud Fournet, Mathilde Gelin, Justine Gaborit et Cyril Yovithitch.

(2) Lettre des archimanrdrites d'Arabie, 1897.

(3) TOUEIR 1970; AL-MAQDISSI 1986- 1987 ; BADAWI 2010.

(4) PENA, CASTELLANA, FERNANDEZ, 1999, p. 95.

(5) PENA, CASTELLANA , FERNANDEZ, 1987, p. 108.

(6) PENA, CASTELLANA, FERNANDEZ, 1990, p. 208.

(7) Idbi, p. 217.

(8) Gonzàlez Blanco, 1998, p400- 409.

(9) VILLENEUVE, 2003, pp. 116-

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AL-MARQAB RESEARCH PROJECT OF THE SYRO-HUNGARIAN ARCHAEOLOGICAL MISSION (A BRIEF REPORT ON THE ACTIVITIES OF 2009)

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Catholic University of Hungary, DGAM-Syria

Introduction

The joint Syro-Hungarian Archaeological Mission (SHAM) has launched a large scale research program in al-Marqab citadel in the autumn of 2007. Since then SHAM completed six fieldwork seasons the last three having taken place in the winter, spring and summer of the year 2009. The mission is directed by Edmond el-Ajji (DGAM) and Balázs Major PhD (Catholic University of Hungary) and had a number of Syrian and Hungarian experts and students working in 2009 in the field of: archaeology(1), art- and building history(2), archaeozoology(3), ceramics(4), fresco research and conservation(5), conservation and restoration of archaeological finds(6), architectural documentation(7), architectural photogrammetry(8), geophysical survey and GIS databases(9), geological studies(10), earthquake studies and dendrochronology(11), geoarchaeology(12), conservation and restoration of buildings(13).

An important aim of the research program of the SHAM is to provide training opportunity for Syrian and Hungarian students of different fields and our special thanks go to the Archaeological department of Damascus University for sending 17 students under the leadership of archaeologists Dr Jamāl Tammūm and Dr Ibtisām Dayyūb. Many thanks go to the other 10 volunteering Syrian students and to the 17 Hungarian students and 4 other Hungarian volunteers for helping the work of the Mission. Our thanks go to Dr Bassām Jāmūs, Dr Michel Maqdissi and Ilyās Butrus for their staunch support and interest and to Marwān Hasan director of the Department of Antiquities in Tartūs. Last but not least we would like to thank our local workers the villagers of the region for their helpful cooperation and kind hospitality in the year 2009 as usual.

Fig. 1: General view of al-Marqab from the south. (B. Major).

«The study was supported by the Hungarian National Science Foundation OKR77885.»

I. Location and Historical Background

Qal'at al-Marqab (al-Marqab Citadel; crusader Margat) in the coastal region of the Syrian Arab Republic is one of the largest and most important medieval castles of the Levant. Its importance is partly due to its significant strategic location. The site is perched on top of a 380 m high volcanic mountain about 2 km inland from the coast, overlooking the town of Bānyās and guarding the coastal route. It also has commanding views of the fertile plains towards Latakia in the northeast, and it dominates the Jabal Ansāriyya ranges to the east. (Figure 1.)

Compared to most of the other castles of the region, al-Marqab is one of the youngest. The first castle is reported to have been built by the local inhabitants of the area in H. 454 (1062/63)[14]. After a brief period of Byzantine occupation starting around 1104[15], it was taken by the Franks (crusaders) from the local tribes in 1117/18[16]. The castle seems to have reverted to Muslim hands in the 1130s[17], was recaptured by Renaud II Mazoir in 1140[18], and then became the seat of the Mazoir family. The Mazoirs were one of the highest-ranking baronial families in the crusader principality of Antioch and were responsible for the building of most of the earliest surviving structures in the castle. In 1187 February the first, the Mazoirs transferred al-Marqab and all their landed properties to the Order of St. John (Hospitallers)[19].

The importance of the castle to the Hospitallers is clearly reflected in the fact that its acquisition resulted in the immediate reorganization of the regional administration[20]: the Hospitaller castellan of al-Marqab became one of the highest ranking officers in the hierarchy of the order in the Latin East[21] and the castle became the administrative centre of the northern estates of the Hospitallers[22]. The importance of al-Marqab is further enhanced by the fact that contrary to cus-

tom, the famous general chapter of 1204/06 was held at al-Marqab[23]. The castle also served as the residence of the bishop of Valenia (Bānyās) after the bypassing troops of Saladin destroyed the seat of the diocese the town of Bānyās in 1188[24].

After a number of futile siege attempts by the Muslim forces in 1204/5, possibly in 1231[25], in 1269/70[26], and subsequently in 1281 and 1282[27], al-Marqab was finally taken by Sultan Qalāwūn on 25 May 1285 after a siege lasting for five weeks[28]. Realizing the importance of the site al-Marqab was not only spared but large sums were spent by the Mamluks on its refortification which resulted in some magnificent additions to the castle. After the complete expulsion of the Franks (crusaders), the castle started losing its importance, and its diminishing role in the Mamluk and Ottoman periods is reflected in the reduced scale of later building activities.

Besides the relatively scarce military activity, earthquakes were another considerable factor in the building history of the castle[29]. Of the major earthquakes we suspect the ones in 1202[30] and in 1404[31] as being the strongest. Amongst the later earthquakes, the ones of 1752 and 1759 are very likely to have affected al-Marqab, and the ones of 1796 and 1822 are explicitly described to have caused serious damage to the castle[32].

II. Excavations and Architectural Analysis

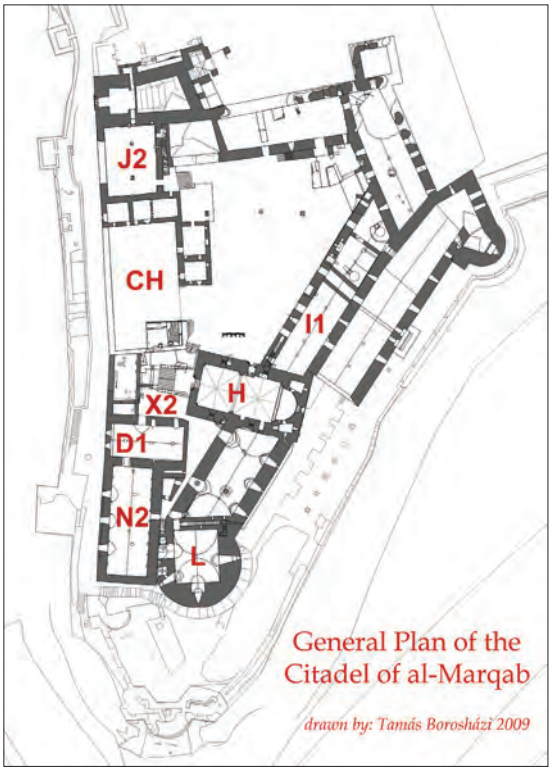
Excavation areas in al-Marqab are demarcated by aim to detect the demolished buildings and reconstruct the building history of the site. They are also essential for our identification of the functions of the individual buildings and to enhance our knowledge of the material culture and technological knowledge of the former inhabitants of the castle. Excavation trenches and soundings are also decided by the needs of the DGAM for their job of conservation and architectural restoration. The year of 2009 saw the SHAM working on more than 30 different excavation areas (Plan 1-2.) of which the following ones were the most important. (Plan 3.)

II.1. Area CH – the Chapter Houses[33]

Great Halls were essential parts of medieval European castles and the Chapter Halls in the castles of the military orders like the Hospitallers were of even greater importance. As we know that the chapter general, the most important meeting of the Hospitallers was held in Margat in 1204/06, the castle had to possess a hall large enough to accommodate the several dozens of participants. For this reason previous attempts[34] to identify the ribbed cross-vaulted hall J2 beside the Inner Gate House Complex with the Chapter Hall of the castle were disregarded, and a more probable site was chosen by the SHAM for the possible site of the Chapter House. This area immediately south of J2 on the western façade of the inner castle shows the clear outline of a large building measuring 18.6 x 37.2 m (Figure 2) with its northernmost window (Figure 3) and walled-up southern doorway still in situ.

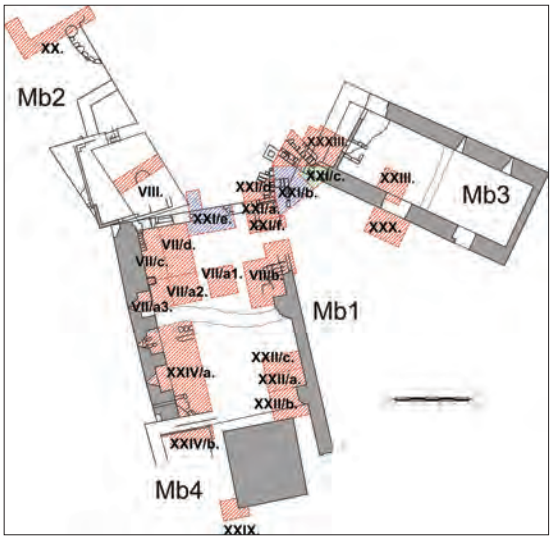
Consecutive excavations in 2007, 2008 and 2009 have found clear proofs that the area was the site of the largest and most grandiose hall in al-Marqab citadel and thus the most likely site for the Chapter House. Excavation trenches in 2007 and 2009 also detected the foundations of an earlier structure of similar function, which must have been the first Chapter House of the castle. Archaeological research complemented with art historical and lapidary studies summing up the results in the season of 2009 enabled us to make theoretical reconstructions of the vanished buildings[35].

Plan. 1: The citadel area of al-Marqab with the excavation trenches of 2009 indicated in red. (T. Borosházi).



Plan. 3: The citadel area of al-Marqab with the buildings featuring in the text lettered. (T. Borosházi).

II.1.1. The first Chapter House had an internal area of 12.5 x 34.3 m. Its architectural reconstruction was based on the lapidary research detecting and identifying a number of carved stone fragments scattered in the area of the citadel and the suburb belonging to two closely related groups of architectural elements. The first were moulded frames and pilasters of window frames, the second moulded elements of a huge arcade and capitals also belonging to it. (Figure 4 and 5) Using the architectural rules and parallels of the age, the arcade was estimated to have been spanning a width of 8 m with a height of its arches being 5.5 m. Such a graceful structure could only have supported a wooden ceiling and was used to divide the Chapter House into two naves with an estimated internal height of 12.5 m. (Figure 6) This Chapter House would fit very well both in its structure and in its dimension with the middle-sized French Great Halls of the second half of the 12th century and has a clear parallel to the great hall of Blois[36]. The fragile arcades without side supports might have been destroyed by the earthquake of 1202, which is known to have resulted in east-west movements and which thus struck at this early structure from the most vulnerable side[37]. Its remains were soon systematically cleared to make place for the second Chapter House of even greater dimensions.



Plan. 2: The excavation trenches of the suburb area of al-Marqab in 2009. (T. Borosházi).

Fig. 2: The site of the Chapter Houses with conjectured dimensions indicated in red lines. (B. Major).

Fig. 3: The western façade of the second Chapter House with in situ window. (B. Major).

II.1.2. The second Chapter House as revealed by the excavations (Figure 7) was a rectangular hall with an internal area of 15.8 x 34.3 m divided up into three aisles with five sections, each covered by cross-vaulted bays supported by two rows of rectangular pillars of 1 x 1 m. The interior height

of the second Chapter House estimated with the help of wall texture research and lapidary studies was around 12 m. (Figure 8) The western façade of the hall overlooking the Mediterranean can be reconstructed from the architectural remains and parallels with fairly good certainty. (Figure 9) If the first Chapter House was really destroyed by the earthquake of 1202, its successor must have been constructed soon afterwards in all possibility as a preparation for the chapter general taking place sometime between 1204 and 1206. This would also give a reasonable explanation for the hasty nature of the work executed.

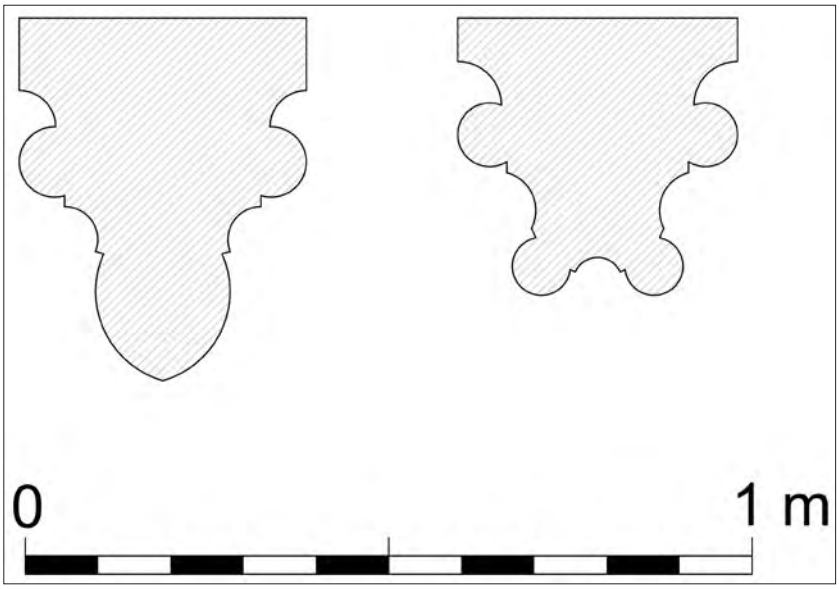


Fig. 4: Section of arch and window frame of the first Chapter House. (G. Buzás).


Fig. 5: Reconstruction drawing of window of the first Chapter House. (G. Buzás).

The second Chapter House seems to have been used for some time after the Muslim takeover but - as evidenced by a tethering hole carved into one of its pillars, crossbow heads, and carbonized floral remains of olive pits and wheat - it was then utilized for less distinguished purposes.

The pillars and the vaulting of the later Chapter House still seem to have been standing at the time when the English traveller Pococke visited the site and wrote about seeing to the west of the chapel "… a large saloon arched over, and supported by pillars in a very magnificent manner, which might be a refectory for the priests."[38] As the Chapter House is right to the northwest of the chapel and was supported by pillars, the above quoted text could easily refer to it. The building inscriptions on the Ottoman palace constructed over the remains of the Chapter House however tell

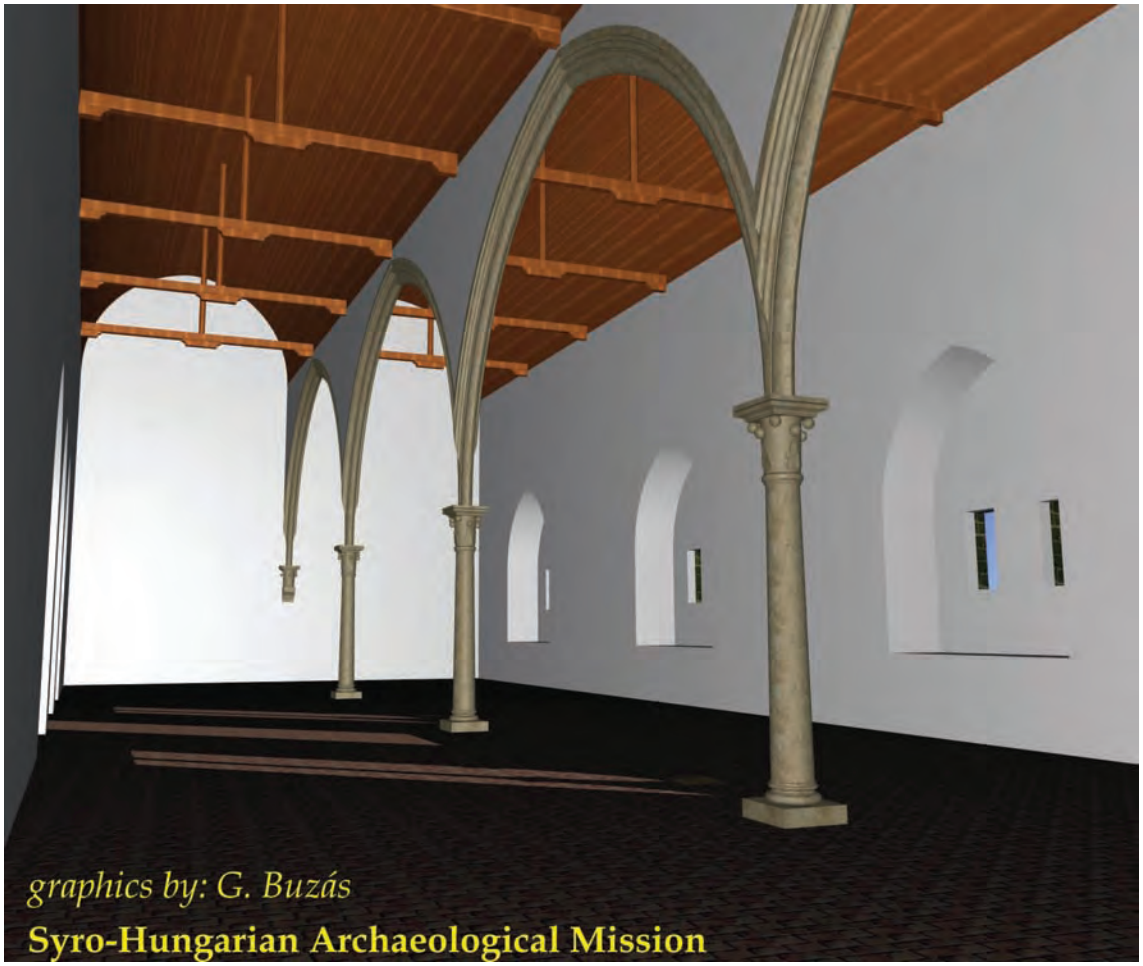


Fig. 6: Interior reconstruction drawing of the first Chapter House. (G. Buzás).

Fig. 7: Area of the second Chapter House after initial excavations in 2007. (B. Major).

that by the end of the same century the medieval structures have been gone. It is very likely that it was the famous earthquake of 1752[39] that destroyed the Chapter House. Afterwards, an Ottoman palace with an internal courtyard was constructed over its levelled remains. The most characteristic finds from the thick Ottoman occupation layers were unglazed sherds and a great number of clay pipes.

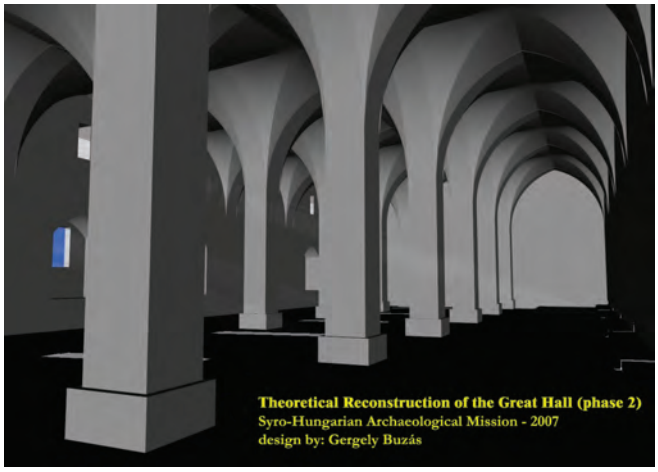


Fig. 8: Interior reconstruction drawing of second Chapter House. (G. Buzás).

Fig. 9: Reconstruction drawing of the western façade of the second Great Hall. (G. Buzás).

II.2. Building D1 – the Kitchen

Barrel-vaulted building D1 measuring 17.1 x 8 m, and lying to the south-east of the castle chapel and opposite to the Chapter House was suspected by the SHAM to have been the main kitchen of the castle, as this is the sole building in the inner castle which possesses a chimney. It also has two other large ventilation shafts on its vault which could have also played a similar role. Excavations commenced in 2008 and concluded in 2009 have unearthed two important infrastructural elements of the kitchen. (Figure 10.) One was a stone-lined and plastered water conduit running through the room beneath its floor, which was possibly used to get rid of sewage water. (Figure 11.)

The remains of the other structure emerged in the eastern part of the kitchen area and belonged to a huge oven complex. This construction was made up of four individual circular ovens with diameters varying between 1 and 1.3 m, all of which shared a common chimney shaft formed by a double wall of a single line of ashlars built at their entrance. The 0.38 m wide shaft between the chimney walls channelled the smoke up to the ventilation shaft of the vault. (Figure 12.) Although little remained of the several times rebuilt ovens, they seem to have been similar in general makeup to the much larger oven in Qal'at al-Husn (Crac des Chevaliers). Another parallel to Qal'at al-Husn was the discovery of three huge jars set in plaster along the eastern wall of the kitchen opposite the openings of the ovens. The elevated platform formed around them also continued a rectangular plastered basin, that could have functioned as a hutch and could have been used to prepare bread for the ovens. Pottery retrieved in large quantities from the debris covering the remains of the oven area was mostly simple kitchenware including cooking pots and soup bowls.

II.3. Building N2 – the Refectory

The large rectangular hall (25.6 x 9.2 m) attached to the kitchen from the south and sharing a common doorway with it was identified by the SHAM as the main refectory of the

castle. It is a hall with a considerable internal height exceeding 7 m and a row of basalt consoles at an average height of 3 m that clearly supported a wooden mezzanine floor. This floor divided the refectory horizontally into two rooms. (Figure 13.) Excavations in July-August 2009 have revealed the traces of further divisions on the ground of the hall, which was separated into three areas by two division walls. Excavations also revealed in the northernmost area of the refectory 26 huge container jar bases (Figure 14.) which clearly indicate the repository function of this area. The removal of the debris also resulted in the finding of a large plastered platform that could have been the base of a wooden pillar supporting the wooden mezzanine floor, and also the stone base of the wooden staircase that connected the kitchen with this repository area. Just like in many parts of the castle, the architectural remains and the stratigraphy of the refectory revealed several modifications in its plan and a number of destruction layers. It seems likely that originally the hall contained two large dining areas situated above each other, (Figure 15.) with the lower one having wooden shelves supported by putlogs inserted into its eastern walls. In this case the upper room could have been the refectory of the knights and the ground-floor one the refectory of the lower ranking brothers of the Order. Later the lower room was divided into three segments by walls and the northern one was used as a storage area partially filled with huge ceramic jars. At a later stage all the installations of the lower room were wiped out, which was followed by two destruction periods with thick

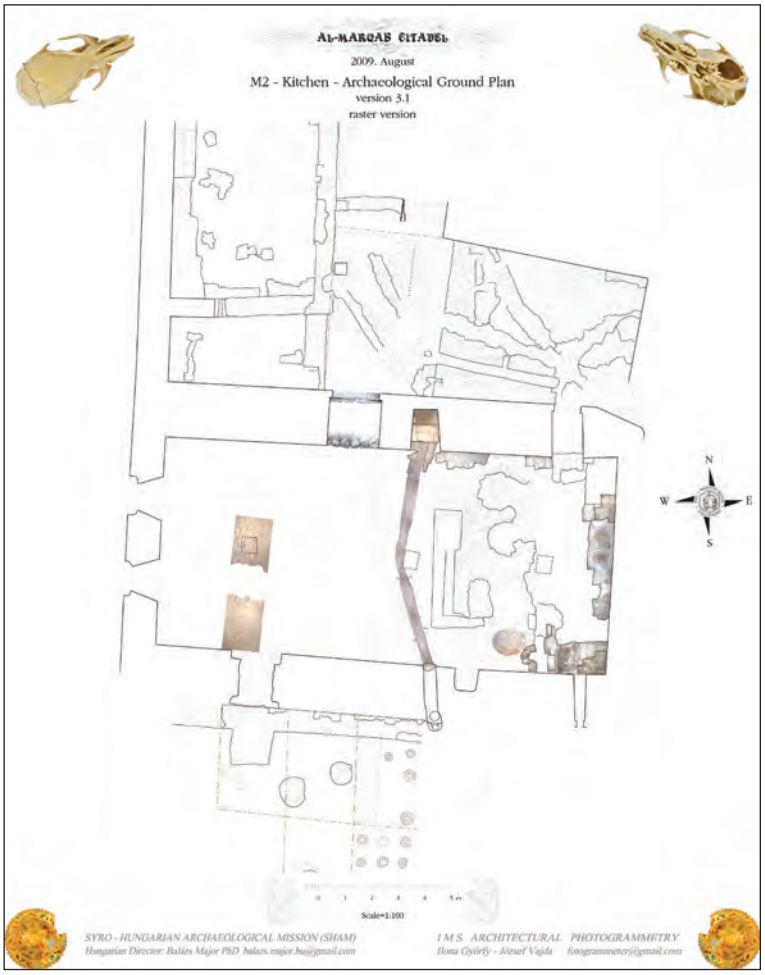


Fig. 10: Photogrammetry plan of excavated areas in D1 (in the centre), in X2 (upper part) and in N2 (lower part). (J. Vajda & I. Györfy).

Fig. 11: Excavated drain in the kitchen. (B. Major).

Fig. 12: The excavated ovens with storage jars in the background. (É. Galambos).

Fig. 13: Reconstruction drawing of the interior of the refectory with wooden mezzanine floor. (G. Buzás).

Fig. 14: Detail of the floor of the refectory with storage jar remains. (B. Major).

burned layers. Given the circular shape and the unusual width of the ventilation shafts on the floor of the refectory enabling movement with the vault N1 below, it is very probable that vault N1 was the cellar of the refectory. The wide circular shafts enable the inhabitants to pull up barrels from below.

II.4. Buildings MB1-4.

The summer season of 2009 saw the SHAM extending its excavations into the suburb area of al-Marqab. Works started on the northernmost tip of the mountain plateau, where the largest medieval building remains are to be found. Being also the highest point of the castle mountain, this is the most probable place of the first fortifications, which were doubtless on a limited scale and thus were positioned on the highest point. This area also possesses the best views of the mountain overlooking the most fertile agricultural lands: the plains of Jabala and Latakia. The wall fragment built of roughly cut limestone ashlars beneath the large medieval building on the northernmost corner could very well be the remain of the curtain wall of the first castle constructed by locals. (Figure 16.) The approximately 20 m long and 3.5 m wide cistern identified and partly excavated behind this wall is a later addition, and given its size and shape might date from the time of the brief Byzantine conquest. The medieval construction built over both was a large barrel-vaulted hall measuring 14 x 9 m, with at least three entrances. (Figures 17-19.) This large hall seems to have been the central element of at least three buildings that seem to have been set around a courtyard. (Figure 20.) Dating of layers was helped by finding a number of well preserved coins. (Figure 21-22.)

III. Fresco Research (Chapel – Building H)

The chapel of al-Marqab is one of the largest such constructions in the Near East and its importance was further enhanced by the 1979 discovery of a set of frescos in its “northern sacristy” room depicting the Pentecost scene

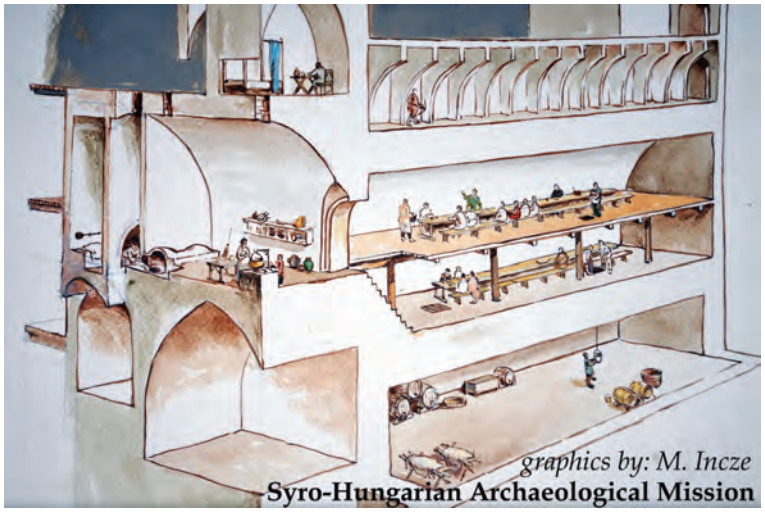


Fig. 15: Reconstruction painting sketch of the kitchen, refectory, cellar and adjacent rooms. (M. Incze).

Fig. 16: Western façade of building MB1 after cleaning with the possible remains of the first fortification built of white ashlars. (B. Major).

Fig. 17: Interior of building MB1 before excavation. (B. Major).

and the Nativity. A fresco research program and an iconographical study right after the discovery came to the conclusion that the medieval decoration program commenced from the "northern sacristy" room and was extended towards the apse, however it was never finished and the nave of the chapel was never painted[40]. Work of the SHAM starting in 2007 on the chapel and involving archaeological research, architectural studies, fresco research and conservation supported by laboratory analyses headed by the Hungarian Academy of Fine Arts has changed this picture considerably[41].

III.1. Experts of SHAM have discovered in 2007 large painted surfaces in the nave of the chapel which are being continuously cleaned, conserved and studied ever since. The frescos are unique not only because of their extent and relatively good state of preservation, but also because they are clearly the works of an European painter and their iconography is also rather unusual. The fresco panel covering about 6m2 on the southern wall of the first bay of the nave adjacent to the apse, depicts a hell scene on three levels. (Figure 23.) In the uppermost level sinners are tortured in a dead forest, everyone hanged up according to his sins. Additional torture is provided in some cases with large stones bonded to the sinners and by snakes biting the

Fig. 18: Interior of building MB1 after cleaning the area for excavation. (B. Major).

Fig. 19: Interior of building MB1 after comleting the excavation of 2009. (B. Major).

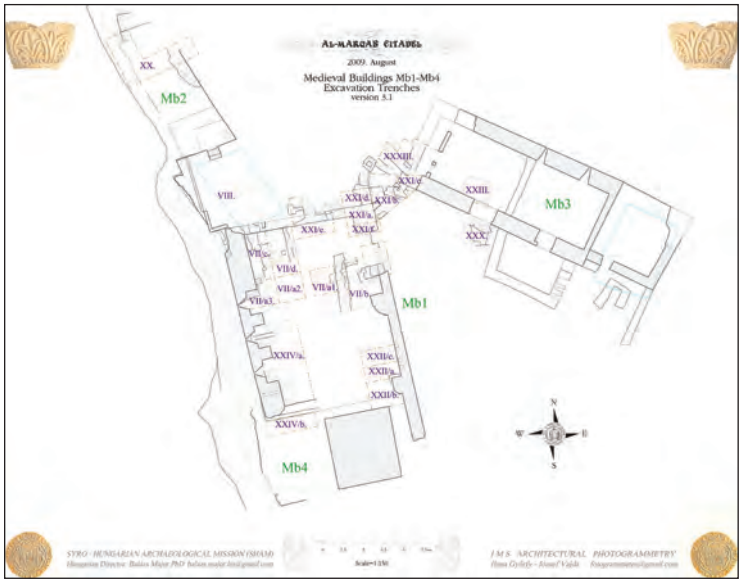


Fig. 20: Photogrammetry plan of buildings MB1-4. (J. Vajda & I. Györfy)

organs with which they committed their sins. (Figure 24.) The middle row contains two main scenes. The first one depicts a huge wheel with blades on which people with bonded hands are hanged. The second scene is a Latin bishop boiled in a huge container with four devils around him. The bottom row of the fresco panel is much damaged, but the outlines of a person possibly on a spike with two demons around him are discernible. The opposite, northern wall of the bay has revealed an even larger fresco of heaven and some decorative pattern with red palmettes at the basement of the walls.

III.2. A detailed research of the apse concluded that the apse was painted with frescos at least in two consecutive phases below the zone of the window. The first group of paintings were made up of geometric motifs while the second group was drapery-like painting of coat-of-arms combining a cross + eagle (first phase) (Figure 25.) and a cross + orange and pale yellow vertical stripes (possible later phase) all arranged in lozenge shapes. There are slight indications that this area of the apse was repainted at a third time as well showing a very intensive painting activity in the chapel of al-Marqab. (Figure 26.) Recent research in the summer of 2009 have found clear traces of a set of figural frescos in the window zone of the apse where further research is hoped to decide its precise subject.

Fig. 21: Silver coin of Tripoli issued by Bohemond VII (1261-1287) after its finding in excavation area of MB3. (B. Major).

Fig. 22: The silver coin of Tripoli after being cleaned. (B. Major).

III.3. Experts of the SHAM give special attention to the frescos of the "northern sacristy" which are amongst the finest fresco remains in the chapel and are in need of consolidation, conservation and restoration. Thorough research has found out that the frescos of the "northern sacristy" were the last to be painted in the chapel, and everything in the apse and the nave preceded their existence. The "northern sacristy" was in fact a private oratory of a high ranking person , probably the bishop of Valenia (Bānyās). Laboratory analyses also revealed that besides the water seepage and high humidity there are more than 20 bacteria types that are damaging the frescos[42]. Built on the data collected appropriate materials are being prepared for the cleaning and conservation of the frescos.

Fig. 23: The recently discovered fresco in the castle chapel depicting hell. (É. Galambos).

Fig. 24: Detail of the hell scene depicting hanged sinner with folded eyes eaten by snakes. (B. Major).

IV. Water Management

Built on the site of an extinct volcano al-Marqab was a site where life could only be sustained with rainwater. The water-management study project of the SHAM is aiming to excavate, document and if possible rehabilitate the medieval canalization systems and study other elements of water-connected infrastructure. The excavation of courtyard X2 in the summer of 2009 have given an additional proof of the well-planned and highly developed system of canalization in the citadel. (Figure 27.)

Excavations and architectural analyses between 2007 and 2009 have proven the existence of a number of medieval bathhouses[43] and excavation of the room in the haunch of the vault of the main tower (building L) in the summer of 2009 have found a little bathroom on the third floor of the donjon as well. In the floor of the room was a huge water storage jar inserted with an outflow drain higher up in the wall. The rare installation was the private bathroom of the owner of the room, possibly the head of the chancellery. (Figure 28.)

Fig. 25: Reconstruction drawing of earliest heraldic decorative pattern in the apse of the chapel. (É. Galambos).

V. Ceramics

The majority of the archaeological objects found by the excavations in al-Marqab is made up of ceramic sherds, the most representative samples of which are restored by specialized experts. Amongst the large amount of simple pottery there was a distinctive group of soup bowls found with one or two strokes of simple slip-painted stripe over them. (Figure 29.) Quite characteristic are the lead-glazed common wares, fragments of frying pans (Figure 30.) and cooking pots (Figure 31.) especially in the kitchen area. Besides the usual monochrome glazed wares a large part of the medieval glazed pottery is constituted of glazed slip-painted wares (with decorative lines mostly of yellowish and orange colour) (Figure 32-34.) and sgraffiato wares. (Figure 35.) The high number of unglazed and glazed oil lamps is apparent at the site, (Figure 36.) which is logical if we consider the importance the Hospitallers attached to the oil lamps in their headquarters and travelling equipment[44]. Most of

Fig. 26: Reconstruction drawing of the chapel interior with all the firmly proven decorative patterns indicated. (G. Buzás).

Fig. 27: The southern part of X2 after the excavations of 2009 showing several medieval drains redrawn with yellow. (B. Major).

Fig. 28: The bathroom in the apartment of L3. (B. Major).

Fig. 29: Soup bowl with slip painted mark. (B. Major).

the pottery found at the site seems to have been brought from local production centres of the region, however a number of imported wares were also found from the Muslim held interior. Such were the numerous fragments of wares with molded decoration; (Figure 37-39.) soft-paste wares with turquoise glaze, soft-paste wares painted in black and blue under transparent glaze; (Figure 40.) and sherds of celadon wares. There were also a number of pottery "grenades" found. Striking was the lack of hand-made geometrically painted ware of which only a few sherds were found.

Fig. 30: Lead-glazed frying pan. (B. Major).

VI. Other Fields

Experts of the SHAM were involved in the year 2009 in a number of researches other than the above mentioned ones. Archaeozoological studies[45] continued on animal bones which strengthened the formerly reached conclusions namely that most of the meat consumed in the medieval castle was of sheep and goats even under crusader rule. Pig bones were an extremely rare exception, together with wild animal remains. This latter fits very well with the rules of the Hospitallers that explicitly forbade hunting[46]. Most bones recovered from excavations belonged to young animals and to parts that were considered to be the finest, which gives us a general impression of well being in the castle.

Fig. 31: Cooking pot. (B. Major).

Fig. 32: Assembled fragments of a slip-painted ware. (B. Major).

The study of earthquake effects combined with building history research came to the conclusion that most of the castle we see today was completed by the time of the earthquake of 1202, which besides underlining the impor-

Fig. 33: The slip-painted plate after completion of its form. (Zs. Herceg).

Fig. 34: The slip-painted plate after restoration done by Zs. Herceg. (B. Major).

Fig. 35: Sgraffiato plate after completion and restoration done by Zs. Herceg. (B. Major).

Fig. 36: Green glazed oil lamp. (É. Galambos).

Fig. 37: Ceramic flask with molded decoration when found during excavation. (B. Major).

Fig. 38: The ceramic flask after being assembled by P. Véninger. (É. Galambos).

tance of the site also reflects the organizational and technological skills of the owners at the end of the 12th century.

This latter is further attested by the remains of a circular stone structure found over vault I1 during the excavation of 2007, which was identified by the SHAM as being the basement of a huge

Fig. 39: The ceramic flask after restoration. (B. Major).

Fig. 40: Bottom sherd of soft-paste ware painted in black and blue under transparent glaze. (B. Major).

wooden crane. (Figure 41.) Since then scattered elements of another similar structure were found in secondary positions. These cranes were quite widespread in 13th century Europe and the circular bases excavated by the SHAM have clear parallels to medieval European ones[47]. With the recently excavated examples of al-Marqab we can conclude that the similar, but larger stone structure in the Crac des Chevaliers was of identical function and as such was very possibly the base of a huge wooden crane. Cranes were essential for delivering material especially the large artillery projectiles for the trebuchets operating on top of the vaults. (Figure 42.)

Ongoing laboratory research of the SHAM involves samples taken from frescos and pigmented plasters of the Crac des Chevaliers which is hoped to produce comparative data on both painting techniques and the composition of medieval paints in the two main castles of the Syrian coastal region[48]. Laboratory analyses of mortar samples taken from different buildings of al-Marqab is hoped to yield precious information on construction techniques and periodization[49], while the study of charcoal samples can provide data on the medieval flora and its use in the region of al-Marqab.

Results of the archaeological and architectural research are summed up and visualized in a 3D modelling project under construction. (Figure 43.)

Fig. 41: The stone constructed base of the wooden crane over building I1 after excavation. (B. Major).

Fig. 42: Reconstruction painting sketch of the wooden crane operating on top of I1 on the left hand side of the picture. (M. Incze).

Notes:

1- Archaeologists of the Mission in 2009 were: Balázs Major (Catholic University of Hungary), Maysam Youssif (DGAM), Wafa Rustum (DGAM), Péter Langó (Archaeological Institute of the Hungarian Academy of Sciences), Katalin Boruzs (National Museum of Hungary), Adrián Berta and Zita Hrabák (Szeged University), Zsolt Vágner, father Tony Eid from Lebanon, Pavle Dugonjic and Anita Ivankovic (Zagreb University - Croatia)

2- Gergely Buzás (National Museum of Hungary)

3- István Kováts (National Museum of Hungary)

4- Ibrahīm Shaddūd (DGAM), Anita Ivankovic (Zagreb University), Balázs Major (Catholic University of Hungary)

5- prof. Kornélia Forrai (Academy of Fine Arts of Hungary), Éva Galambos DLA (Academy of Fine Arts of Hungary), Gabriella Sári (Academy of Fine Arts of Hungary), Nada Sarkis (DGAM), Anna Selmeczi and Péter Gedeon

6- Péter Véninger (Museum of Fine Arts of Hungary), Zsuzsanna Herceg (Academy of Fine Arts of Hungary)

7- Architects: Tamás Borosházi, Balázs Tombor, Endre Mindszenti-Varga, Krisztina Duray, Dávid Prekup, Diána Tölgyesi

8- Architects: József Vajda and Ilona Győrfi

9- Gábor Bertók PhD (Directorate of the Museums of Baranya County)

10- Péter Solt (Geological Institute of Hungary)

11- prof. Miklós Kázmér (Eötövs Loránd University of Hungary)

12- Lisa Shillito (University of Reading - UK)

13- Construction engineer Balázs Vásárhelyi PhD (Budapest University of Technology and Economics – Department of Construction Materials and Engineering Geology); isolation engineer Péter Tóth PhD (Company for Quality Control and Innovation in Building - Hungary)

14- Yāqūt, Mu‘jam al-Buldān, V/127. As H. 454 started on 15 January 1062 and lasted until the 3rd of January 1063 of the Christian era, the building date is most likely the year 1062. The attribution of the construction works to Rashīd (al-Dīn Sinān) leader of the Nizārī Ismā‘ilī community (1162-1193) by al-Dimashqī is incorrect (al-Dimashqī, Nukhbat al-Dahr 208; trans. de Slane, Palestine under the Muslims, 504).

15- Anna Comnena, Alexiad, 365.

16- Ibn ‘Abdazzāhir, Tashrīf, 85-86.

17- Deschamps 1973: 260-61.

18- Cafari Caschifelone, De liberatione civitatum orientis, RHC. Occ. V/66-67.

19- Cartulaire I. no. 809; Mayer 1993: 176. The conventional dating placed the time of the donation a year earlier, cf., for example, Deschamps 1973: 263.

20- Riley-Smith 1967: 431.

21- Burgtorf 2006: 222-23.

22- Burgtorf 2007: 27-28; Riley-Smith 1967: 460, 465.

23- Burgtorf 2006: 220-21; 236.

24- Wilbrand von Oldenburg, Itinerarium, 212. The bishops seem to have stayed in the castle until its fall in 1285 (Rey 1883: 335.) and their appointment was controlled by the Hospitallers. Riley-Smith 1967: 413.

25- Ibn Wāsil, Mufarrij al-kurūb, III/165; IV/311.

26- Ibn ‘Abdazzāhir, Tashrīf, 77.

27- Ibn al-Furāt, Ta’rīkh, VII/195; Annales de Terre Sainte 457. Another siege is listed for 1282. Riley-Smith 1967: 137, n. 2.

28- Ibn ‘Abdazzāhir, Tashrīf, 77-81; Abu’l-Fidā’, Mukhtasar, II/355.

29- For a concise catalogue, see Sbeinati 2005.

30- Mayer 1972: 303; 306–8 n. 1.

31- Sbeinati 2005: 392.

32- Ibid., 396-403.

33- For detailed report see: Buzás (forthcoming).

34- Deschamps 1973: 279-280; Mesqui 2004: II/8.

35- Project was directed by Gergely Buzás (National Museum of Hungary).

36- Mesqui 1993: 78-79.

37- Kázmér & Major (forthcoming).

38- Pococke 17: 200.

39- Plassard & Kogoj 1962: 8; Sbeinati 2005: 396.

40- Folda 1982: 196-210; 2005: 34.

41- For detailed account see: Galambos & Major (forthcoming).

42- Laboratory analyses of the bacteria was done by Dr. Gyula Vágvölgyi associate professor and head of the Department of Microbiology at the University of Szeged (Hungary).

43- For detailed account see: Buzás & Major (forthcoming).

44- Statutes, p. 21, no. 3.; p. 32, no. 3-4; p. Statute no. 7. on p. 22 instructs the knight leaving the Hospitaller headquarters the following way: „Also let them carry with them a light, and in whatsoever house they shall be lodged (herbergié), let them cause the light to burn before them.”

45- For detailed account see: Kováts (forthcoming).

46- “Hunting and hawking are forbidden both this side the sea and beyond.“ Statutes, p. 64, no. 41.

47- Matheus 2001: 345; Ring.

48- Done by Éva Galambos DLA (Academy of Fine Arts of Hungary); Attila L. Tóth PhD, CSc (Research Institute for Technical Physics and Materials Science of the Hungarian Academy of Sciences); István Sajó (Chemical Research Center of the Hungarian Academy of Sciences)

49- Salem G. Nehme PhD and Miklós Márton (Budapest University of Technology and Economics – Department of Construction Materials and Engineering Geology)

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ARCHAEOLOGICAL STUDY OF SALADIN CASTLE THIRD CAMPAIGN 2009 (14TH OF OCTOBER – 12TH OF NOVEMBER 2009)

Benjamin MICHAUDEL

French Institute of the Near East, CNRS

The Syrian-French joint mission «Archaeological Study of Saladin Castle» took place between the 14th of October and the 12th of November 2009. Doctor Jamal Haydar, Director of Antiquities and Museums of Lattakia led it for the Syrian side, and Benjamin Michaudel, Doctor in Archaeology and scholar in the French Institute of the Near East, led it for the French side.

The French team was composed of:

Benjamin Michaudel, French Doctor in Archaeology, archaeologist (IFPO)

Philippe Sablayrolles, French geometer-topographer

Nicolas Prouteau, French Doctor in History

Cyril Yovitchitch, French Doctor in Archaeology, archaeologist

The Syrian team was composed of:

Doctor Jamal Haydar, director of Antiquities and Museums of Lattaquié

Abdallah Zacharia, director of Saladin Castle

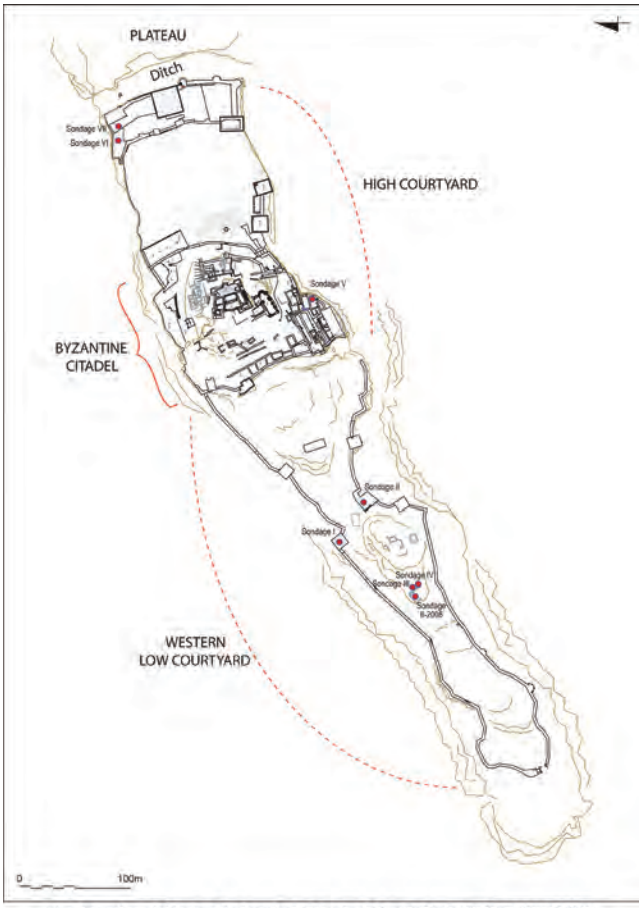
Mayssam Youssef, archaeologist of the Directorate of Antiquities and Museums of Jabala

Wafa Rostom, archaeologist of the Directorate of Antiquities and Museums of Masyaf

Yamen Dabbour, archaeologist of the Directorate of Antiquities and Museums of Damascus

The archaeological works done during the joint mission have been divided between three kinds of operations, executed simultaneously between the 14th of October and the 12th of November 2009.

I. Excavations (sondages)



Joint Syrian-French Mission "Archaeological Study of Saladin Castle" (IFPO-CNRS-DGAMS)
Location of the Excavations (sondages) of the Third Campaign 2009
(Relevés : Ph. Dangles, L. Decock, C. Devais, R. El-Hoyek, D. El-Khoury, N. Faucherre, P. Lebel, J. Mesqui, B. Michaudel, C. Yovitchitch)
(Dessins : Ph. Dangles, J. Mesqui, C. Yovitchitch)
(Dessin final : J. Mesqui) (www.castelflorient.fr)

Eight sondages have been achieved between the 14th of October and the 12th of November 2009 (cf. General Plan) :

Yamen Dabbour directed the sondage I along the eastern door inside the northern gate-tower of the low courtyard.

Benjamin Michaudel directed the sondage II along the northern door inside the southern gate-tower of the low courtyard.

Mayssam Youssef directed the sondage III in the upper area located to the east of the chapel discovered in 2008 in the western low courtyard.

Mayssam Youssef directed the sondage IV to the south of the sondage III.

Nicolas Prouteau directed the sondage V in the eastern room of the industrial area (south of the Byzantine castle).

Yamen Dabbour directed the sondage VI in the Ayyubid or Mamluk building located to the north-east of the high courtyard between the two Byzantine walls.

Mayssam Youssef and Yamen Dabbour directed the sondage VII in the room located to the north of the corridor linked to the Crusader gate-tower, at the eastern end of the castle overhanging the eastern ditch.

Mayssam Youssef directed the sondage in the western chapel of the low courtyard (sondage II – area B during the 2008 mission).

Wafa Rostom directed the operations of cleaning, of restoration and of classification of the archaeological objects.

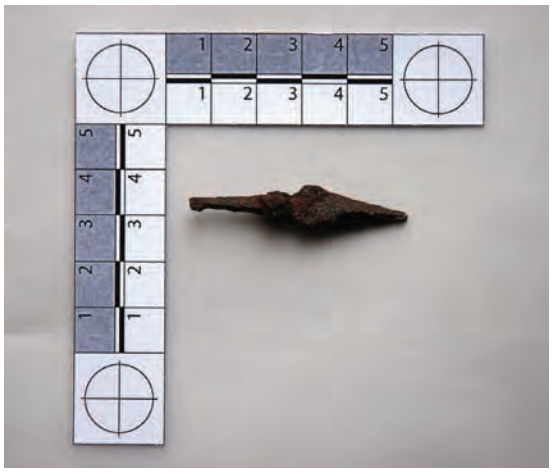
These sondages had three main objectives:

The improvement of the knowledge about the medieval life in Saladin castle: the sondages III, IV and V were specifically located in industrial and domestic areas.

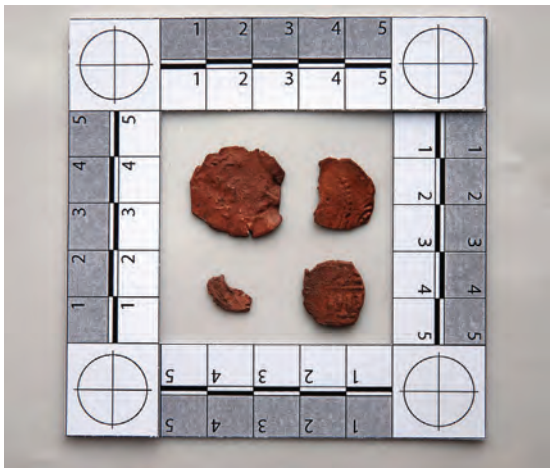
The dating of the gate-towers of the western low courtyard as they were the main passageways between the north and the south of the castle before the digging of the eastern ditch (sondages I and II)

Beginning of sondage I

End of sondage I



Arrowhead US 105



Coins US 107

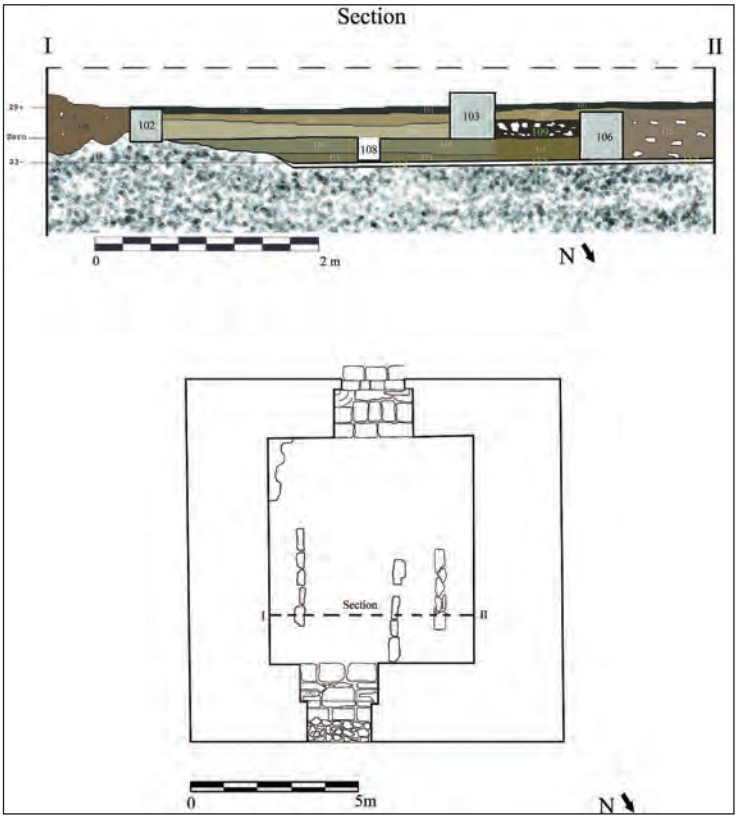
The dating of the northern buildings of the low courtyard: indeed, this area is complex in terms of relative chronology and of succession of the occupation and construction layers between the Byzantines, the Crusaders, the Ayyubids and the Mamluks (sondages VI and VII). The archaeological study of this area will reveal the Byzantine foundations of this area, the real extent of the Crusader fortifications and the scale of the Ayyubid and Mamluk reconstructions.

Sondage I

The sondage It was located inside the northern gate-tower of the low courtyard, along the eastern door. It has been carried out between the 16th and the 27th of October 2009, in order to reveal the successive floors and the floor contemporaneous with the building of the tower, allowing the dating and the attribution of construction phases of the tower (cf. Sondage I (1)).

The sondage revealed several floor levels, among which the floor contemporaneous to the construction of the tower, i.e. the Crusader level, covered during the Ayyubid and Mamluk periods by higher floors. This floor, made of lime mortar with ashes and charcoal, has been laid on the bedrock during the same construction phase than the one of the tower, that is during the Crusader occupation of the castle. Later, but still during the Crusader occupation, the passage inside the gate-tower has been narrowed to the south and to the north with the elevation of platforms (cf. Sondage I (2)).

During the Ayyubid and/or Mamluk periods, the height of the Crusader floor has been raised twice during two successive construction phases, maybe in order to compensate the wear of the floors with the intensive use of the passage. Between these two phases, the passage has been narrowed again with the elevation of a new platform.



Plan and section of sondage I

A great deal of shards of potteries and objects made of metal have been found, like several nails and arrowheads belonging to a destruction layer maybe linked to the siege of the castle by Saladin in 1188 (cf. Sondage I (3)). Several Ayyubid and Mamluk coins have also been found (cf. Sondage I (4)). The analysis of the shards of potteries, of the objects and of the coins discovered in these sondages will allow the setting of a precise chronology for the construction phases of the gate-tower.

Sondage II

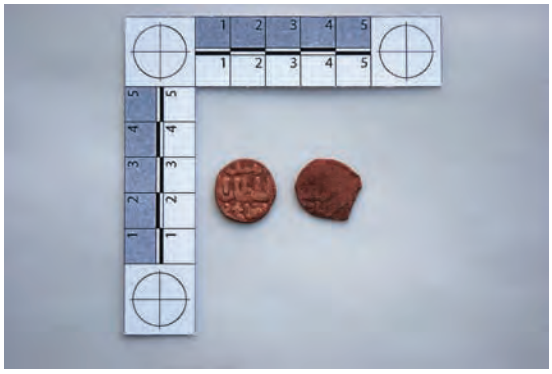
The sondage II was located inside the southern gate-tower of the low courtyard, along the northern gate. It has been carried out between the 19th and the 21st of October 2009, in order to reveal the floor contemporaneous with the building of the tower, allowing the dating and the attribution of construction phases of the tower (cf. Sondage II (1)).

The sondage revealed the medieval floor of the tower under a destruction layer. The medieval floor appears like a thin layer made of mortar lime laid down on the natural bedrock. The irregularities of the natural bedrock have been filled in with a strong lime mortar. The immediate layer above the medieval floor is a thin layer mixing lime mortar and clayey earth corresponding to the utilisation/circulation layer of the floor (cf. Sondage II (2)).

The absence of archaeological material within the medieval floor is due to the thin thickness of the layer and to the homogeneity of the materials. The numerous shards of potteries and objects found within the circulation layer give a good terminus ante quem for the construction of the tower: indeed, the first analyses of the shards of potteries and of two dirhams struck during the reign of the Mamluk sultan al-Salih Hajji II (1382 and 1389) confirm the recurrent use of the gate-tower during the Mamluk period until the end of the 14th century (cf. Sondage II (3)).

Beginning of the sondage II

End of the sondage II



Mamluk coins US 203

Nails and arrowheads US 203

Sondage III

The sondage III was located to the east of the church discovered in 2008. It has been carried out between the 28th of October and the 11th of November 2009. in order to reveal buildings built at the time of the use of the church and during the latter occupations (cf. Sondage III (1)).

The sondage revealed the maximum extent of the rectangular room which had been partly excavated in 2008 (sondage II-B). This large room knew at least four main occupation phases. The lower one, reached at the end of the excavation (US 312) is the primitive floor of the room and is also in continuity with the southern room (sondage IV) as it passes under the threshold made of reused blocks between the two rooms. This floor has yet to be excavated. The immediate upper floor (US 307) corresponds to a period of use of the room as a dwelling with a small oven located to the east of the room. The first observations of the objects and of the shards of potteries within this floor reveal an occupation between the end of the 12th century and the beginning of the 13th century, probably just after the Crusader occupation (cf. Sondage III (2)).

The immediate upper floor (US 305) corresponds to a later occupation phase, probably during the Ayyubid period (13th c.) as revealed by the potteries and the coin found. Lastly, the top floor (US 304) corresponds to a Mamluk occupation (cf. Sondage III (3)).

Sondage IV

The sondage IV was located to the south of the sondage III. It has been carried out between the 24th of October and the 11th of November 2009, in order to reveal the southern extent of the the room excavated in the sondage III (cf. Sondage IV (1)).

Beginning of the sondage III

End of the sondage III

Coin US 305

Potteries US 305

Beginning of the sondage IV

Door between the sondages III and IV

Intermediary state of the sondage IV

Potteries US 402

The sondage revealed a rectangular room with walls made of crude blocks linked to the northern room through a door built with reused blocks, notably for the threshold. The same stratigraphy than for the sondage III has been observed and the floor US 405 corresponds to the floor US 305, with a possible use during the Ayyubid period (13th century). Several shards of potteries have been found within the floor but their analysis has yet to be done in order to confirm the Ayyubid occupation. The shards of potteries found in the upper layers confirm the later use of the room as a dwelling during the Mamluk period (cf. Sondage IV (2)).

The sondage has been stopped at the upper level of US 406 which revealed an alignment of cut stones passing through the room and attach with the walls. Therefore this level corresponds to a previous occupation layer probably contemporaneous with the foundation of the chapel (cf. Sondage IV (3)).

Sondage V

The sondage V was located inside the eastern room of the "industrial area" located to the south of the Byzantine castle. It has been carried out between the 27th of October and the 8th of November 2009, in order to provide information concerning the functions and occupation phases of this part of the castle. Indeed, this area located below the Byzantine palace is usually considered as the "food production area" with the presence of millstones for the processing of flour and oil, of an oven for the bulgur and of silos for the storage of grain (cf. Sondage V (1)).

The main questions concern the date of creation of this "industrial area". It seems that this area existed during the Byzantine period and was linked to the upper palace. It was modified and reused during the subsequent occupations, and notably during the Ayyubid-Mamluk period as indicated by the reuse of stones with mouldings from the near Crusader church and of well cut stones for some masonries of this area.

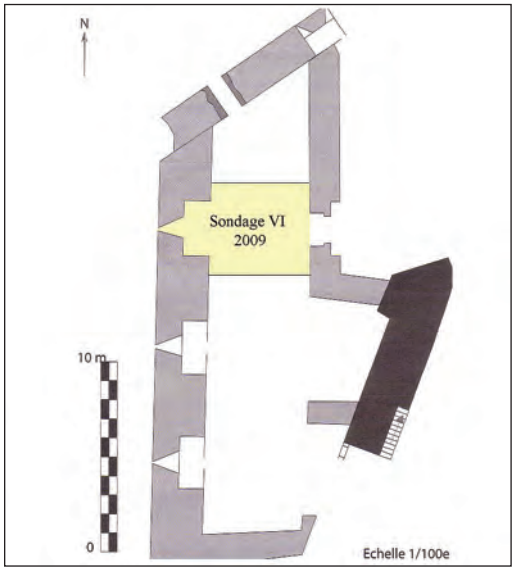
North-western view of the oven

Vertical view of the oven

Potteries US 510

Potteries US 512

A large circular oven has been excavated in the eastern corner of the room, with an inner diameter of more than 3 m. It seems to possess only one main cooking chamber, without any lower furnace, which indicated that it was used with embers (cf. Sondage V (2)). The first analysis of the shards of potteries found inside and in front of the oven indicates its building during the 13th century, i.e. during late Ayyubid or early Mamluk periods, within a room built earlier (cf. Sondage V (3)). The oven has been destroyed during the Mamluk period as confirmed by the destruction of the inner pavement of the oven at an unknown time. The sondage will be extended to the whole room during the next mission in 2010.



Location of the sondage VI

Sondage VI

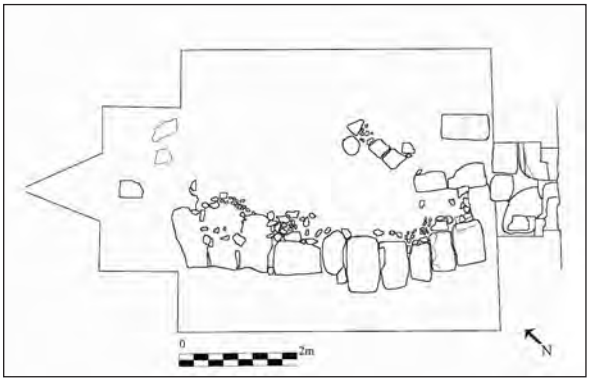
The sondage VI was located in the building between the two eastern Byzantine in the north-eastern part of the upper courtyard. It has been carried out between the 28th of October and the 3rd of November 2009, in order to reveal the occupation layers of the room (cf. Sondage VI (1)).

The excavation of the muddy remblai (regularly soaked by the heavy rains) has led to the discovery of a medieval canalization flowing from the south to the north. The first analysis of the architectural connections between this structure and the room revealed that the building of the canalization happened before the creation of the room, probably during the Crusader period as the room was certainly built during the Ayyubid occupation of the


Intermediary state of the sondage VI


Arrowhead US 601


Outside view of the location of the sondage VI



Plan of the sondage VI

castle as confirmed by the typologies of the loopholes, of the vaults and of the arches (cf. Sondage VI (1)). The analysis of the shards of ceramics collected in the upper remblais has yet to be done and will give strong information concerning the period of construction of the room, which is probably Ayyubid (cf. Sondage VI (3)).

The canalization will be opened during the next mission in 2010 in order to confirm or infirm the attribution of its building to the Crusader period.

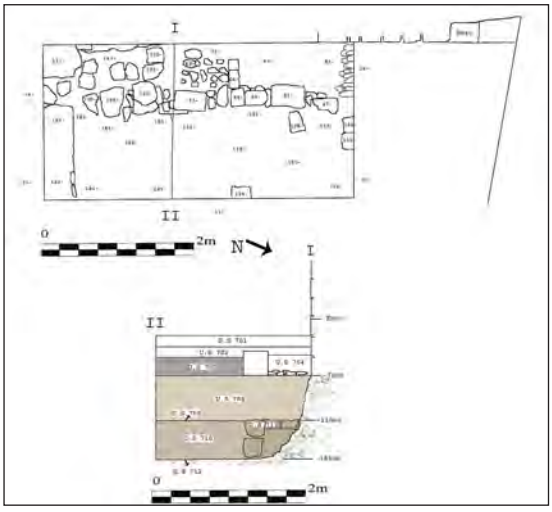
Sondage VII

The sondage VII was located in the room to the north of the corridor linked to the Crusader gate-tower, at the eastern end of the castle overhanging the large ditch. It has been carried out between the 2nd and the 12th of November 2009, in order to reveal the foundations of the Byzantine wall and the threshold of a large Byzantine gate (cf. Sondage VII (1)).

The threshold of the gate has been excavated, built over the natural bedrock, but it is preceded by a deep Mamluk remblai of 1m of thickness, containing notably Mamluk coins and potteries, covering a floor (US 709) over a Crusader or Ayyubid foundation laid over a thin limestone floor put against the natural bedrock. The analysis of the shards of ceramics of the foundation remblai under the floor US 709 should confirm its attribution to the Crusader or Ayyubid period (cf. Sondage VII (2 and 3)).

Beginning of the sondage VII

End of the sondage VII (detail)



Plan and section of the sondage VII

Mamluk coins US 708

The first observations of this complex stratigraphy reveal the existence of a natural depression in front of the Byzantine wall and door. A wooden ramp must have been used to reach the upper level of the Byzantine castle from the east. During the Crusader or Ayyubid period, a remblai has been put in order to get a higher floor for the use of the room. During the Mamluk period, the room may have been used as a rubbish dump for the potteries and the animal bones. The analyses of the potteries and objects will confirm or infirm these observations.

Sondage II-B

The sondage II-B was located inside the church excavated in 2008. It has been carried between the 24th and the 25th of October 2009, in order to reveal the natural bedrock in the western part of the church and to confirm the stratigraphy already observed in 2008.

II. Architectural analyses and topographical surveys

The architectural analyses consisted in the precise measurements of the Islamic bath located to the north of the Byzantine castle and the precise measurements of the medieval oven located to the east of the industrial area with a Total Station Leica TCR 407 and with a differential GPS Leica GPS 900. These works have been carried out by Philippe Sablayrolles and Cyril Yovitchitch.

The northern bath had been identified during the French architectural mission in 2002 and partially measured at that time, but some areas of the bath remained inaccessible because of the dense plant cover. The complete area of the bath has been cleaned during the 2009 mission and the inner and outer plan has been topographically measured with the Total Station (cf. Topographical Survey 1).


Architectural survey of the northern bath


Orthophotograph of an inner wall of the northern bath


Orthophotograph of an inner wall of the Mamluk bath


GPS survey of the oven (sondage V)

At the same time, orthophotography has been used: pictures have been taken of the inner and outer facades and have been rectified in order to provide an orthogonal projection of the inner and outer masonries of the bath. This technique will allow the execution precise and correct architectural and the 3D reconstruction of the bath (cf. Topographical Survey 2).

The Mamluk bath located to the east of the Ayyubid-Mamluk palace, which had been surveyed with the laser-scanner in 2008, has been surveyed with orthophotography during the 2009 mission in order to provide a precise 3D reconstruction of the bath with the exact reproduction of the inner and outer masonries (cf. Topographical Survey 3).

The differential GPS Leica GPS 900 has not only been used for the archaeological survey of the suburb of the castle during the 2009 mission, but helped to the correct setting of all the topographical stations set in the castle in 2007 and 2008 according to the international geographical reference system, with an accuracy to within one centimetre.

The differential GPS Leica GPS 900 has lastly been used for the topographical survey of the oven excavated in the area of the sondage V. Several points have been taken with the GPS, allowing a precise reconstruction of the plan of the medieval oven (cf. Topographical Survey 4).

III. Archaeological survey in the suburb and in the vicinity of Saladin Castle

The archaeological survey outside Saladin Castle has been done on two main areas during the 2009 mission and has been carried out by Philippe Sablayrolles, Nicolas Prouteau and Benjamin Michaudel.

The main survey concerned the suburb of Saladin Castle located to the east of the eastern ditch. This area has been surveyed during the 2007 and 2008 missions, permitting the identifica-

Cave dwelling

Column shaft

Medieval bridge

Medieval building

tion of around ten medieval buildings, of twenty cisterns dug in the bedrock and of three quarries. The differential GPS has been used during the 2009 mission in order to give a precise location for the numerous buildings and cisterns already identified, with an accuracy to within one centimetre. At the same time, new walls, buildings and cisterns have been identified and located (cf. Archaeological Survey 1).

A general plan of the medieval suburb will be available after the processing of the GPS data and will help to the organization of a strategy for the archaeological sondages and to the analysis of the military, economic and political relationships of this settlement with the castle during the medieval period.

A survey executed to the east of the suburb enabled the discovery of several medieval buildings linked to the suburb like a bridge and a mill, and of ancient structures like tombs, cave dwellings and archaeological settlements attested by the numerous shard of potteries and the remains of shafts and bases of columns (cf. Archaeological Survey 2).

ABSTRACTS

TELL AL-BAHAREYEH 2009 RESULTS OF THE EXCAVATION WORKS IN TELL AL-BAHAREYAEH SEASON OF 2009

Ghada SULAIMAN

DGAM-Syria

Translated: Hala MUSTAFA

The works of excavations continued in the west sector of the tell. The results show new rooms at the north-west part, skeletons buried in fetus case, in addition to collection of human and animal clay figurines and collection of the pottery fragments of various samples and colors.

Excavation works in the southern sector:

It was discovered the fourth layer, which contains two neighbored rooms. The first (fig. 1), walled in adobe, was destroyed and contains a hole for restoring the provisions, finding burned wheat seeds and remains of ash.

We find that the grounds of the holes are paved with matrix adobe of 15x20cm. The second room contains remains of the northern and western walls and a part of the paved ground (fig. 2). These two rooms dated back to the first half of the 6th millennium BC. In the second room, we found a clay bead, stone necklace, number of clay balls and part of animal figurine, in addition to pottery spindle (fig. 6), which was found near the eastern hole.

Excavation works in the western sector:

It was found rectangular basins with edges walled with adobes. These basins were used as stores for the grains (fig. 7), in the time we found broken middle size jars containing remains of wheat (fig. 9).

In this sector, we found bases of square and rectangular neighbored rooms. This period dated back to the first half of the 5th millennium BC.

The work began by digging in the west-southern part. It was discovered the third level, which dated to the first half of the 6th millennium BC. In this level, we found remains of three rooms expanding in this part of the tell. The three rooms, with matrix adobe (40x60cm) walls and limestone ground, are square and destroyed. The works showed that these rooms were destroyed

by ancient fire. In the beginning of the 5th millennium, the site was brought to life again and the settlement revived, when the people used some of the old bases during the restoration in the site.

Excavation works in the north sector:

It was worked to reveal the phase that belonged to the second half of the 5th millennium BC. It was discovered religious building expanding in the middle of the site. This building has rectangular entrance, supported with thick walls, connected with square room surrounded with double circular wall. The entrance is surrounded with remains of destroyed rooms (fig. 10). In the ground of the room, we found funeral jar containing skeleton of a baby and a necklace produced from black and white limestone.

In this phase, we show that the people used some of the old bases, which belonged to the first half of the 6th millennium BC. And works of restoration and debris expanded in the layers of the tell and they appeared clearly during the resettlement in the 5th millennium BC (fig. 11).

Studying of pottery:

It was discovered collection of pottery fragments, which belong to the second half of the 5th millennium BC. These fragments, of ½ cm and 1 cm thickness, are of various shining and soft black and red colors (fig. 14,15), and the planet material was found in the pasta. In addition, it was found pottery fragments which were colored after the process of baking, so the reddish-orange color was painted on the vessel after the baking. As for the pottery which belongs to the first half of the 5th millennium BC, it contains decorated pottery fragments in a decorated braids shape executed by press and other decorated fragments in hollow circles shape on the surface of the vessel.

The architecture in Tell al-Bahareyaeh:

It was discovered the third phase of settlement in the site, which belongs to 5200 BC. We found destroyed buildings in some parts. These buildings contain four square and rectangular rooms. Some rooms contain kilns and holes to restoring the grains. These rooms were constructed with walls of matrix adobe (40x60cm). As for the grounds, there was limestone layer in the fourth room and in the rectangular rooms, the grounds are paved with matrix adobes of 20x30cm.

Most important discoveries:

Part of bone bracelets (fig. 17)

Nail of clay

Bird-head of stone

Human figurine of baked clay (fig. 20)

Part of pottery spindle (fig. 24)

Stone necklace (fig. 25)

River shells for decoration

Bull-horn of black baked-clay

Clay stones for calculating (fig. 23)

TELL SHE'EER

Sulaiman ILYAS

University of Aleppo

Translated: Hala MUSTAFA

The fourth season 2009 in Tell She'eer site began 15/8/2009 and the excavations works ended 8/10/2009, under the direction of Dr. Sulaiman Ilyas, Lourda Shabo, Soud al-Hussain and Sulaiman Al-Nifo in addition to students from Damascus and Aleppo universities.

Plan of Work:

The objective of the work in this season was to continue the work in the sector A (II1-II2 squares) and opening new squares (II3, III2, III3) in order to know the origin of the building which was discovered during the latest season (figure 1).

In the sector B, the work continued in the II5 and II6 squares. New squares were opened (III5) in order to know the origin of the wide wall (the enclosure?), whose a part was discovered in 2007 in the sounding A (11 and 12 squares) (figure 2).

New sector was opened in the south-western side in order to continue the excavation in the later seasons in order to know the stratigraphy and periods of the settlement in the south-western side. The levels of the 6th millennium BD (Hassounah) are located in the western side and they are directly located on the virgin land, namely the human being settled in Tell She'eer site for the first time at the beginning of the 6th millennium BC.

The main objective of the excavation in Tell She'eer site was a methodological study of the 6th millennium periods in the site, but unfortunately the height of the tell and accumulation of the last levels of the mentioned period prevent that and we could not reach to the virgin land except in two small squares: the first in the west side (1.5mx2m) and the second (2.5mx5m) in the east. In the first square, there is the stratum, which is directly located on the virgin land and it belongs to Hassounah period during the 6th millennium BC, and in the second square, there is the stratum on the virgin land and it belongs to Uruk period.

RESULTS OF EXCAVATION IN THE BASALT ROUGH LANDS TO THE WEST OF SAA'SAA'

Mahmoud HAMMOUD, Ibrahim OMERI

DGAM-Syria

Translated: Ibrahim OMERI

These basalt rough lands are located to the west of Saa'saa' (about 50 km. south west of Damascus), extending between the villages of Dorin, al Maqrosa in the east, and Mazrae't Beit Jen, and Harfa in the west, about 6x5 km2 (about 3 thousand Hectares), not marked by complication of the relief, and have many small even lands arable.

This area was inhabited since the ancient ages, man built his houses in individual or assemblage system, depended the grazing and simple cultivation.

During the survey mission in department of Damascus countryside, we discovered three archaeological sites, A in the east, enclosed by stone wall its diameter around 600 m. B in the middle, about 250x250m. and C in the west, 200x200m.

Among these sites and to the south, there are hundreds of tombs, their type is special, the grave in the center, in high place in general, around which there is circular wall, sometime multiple, built by random stones, we call this kind (rejmy tomb).

To the south of that area about 1 km, we chose an area contains about 50 tombs from the same type, and excavated 25 ones, the results in general: some tombs are individuals, some others are in groups, most of them have one grave built by rough stones, the lengths about 200cm for the old people and about 130cm for children, the width is about 60-70cm, some graves built by big stones as dolmen, and covered by big slab, all these graves are empty, without any bones, only some pieces of ceramic dated to the period from the first millennium BC. until the Byzantine age.

There is no fixed orientation, some tombs are toward the north or south, or to the inclined sides, there is no information about the methods of burial or any rituals.

Circular or oval wall or walls built around the grave, by random rough stones, about 0.5-2m of height, in some tombs there are some additional details such as some halls for some rituals.

In general, this kind of tombs built since the fourth millennium BC. continued during the later periods until the Byzantine age, and reused for long periods may be until some decades.

PROSPECTIONS ARCHÉOLOGIQUES DANS LA RÉGION AUTOUR DE MISHIRFEH-QATNA (20052009-)

Michel AL-MAQDISSI

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Translated: Michel AL-MAQDISSI

Présentation de synthèse de la documentation issus de plusieurs campagnes de prospection menées par l'équipe syrienne de la Direction Générale des Antiquités et des Musées dans la région autour de Mishirfeh-Qatna.

Les résultats obtenus prouvent la présence de neuf phases d'occupation :

Est Homs 0 : Pré Bronze
Est Homs I : Bronze ancien III et Bronze ancien IV
Est Homs II : Bronze moyen I-II
Est Homs III : Bronze récent I-II
Est Homs IV : Fer II
Est Homs V : Fer III
Est Homs VI : Hellénistique.
Est Homs VII : Romaine
Est Homs VIII : Byzantine
Est Homs IX : Islamique

RAPPORT PRÉLIMINAIRE SUR LA DIXIÈME CAMPAGNE DE FOUILLES SYRIENNE À TELL TOUEINI

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Translated: Michel AL-MAQDISSI

Présentation de l'ensemble des données obtenues par les fouilles syriennes à Tell Toueini durant la dixième campagne de fouilles dans le chantier B.

Fouilles des niveaux du Bronze récent II-III, du Fer II et du Fer III avec des structures domestiques associées à un matériel céramique riche par plusieurs types de fabrication locale.

EXCAVATION AT TELL GINDARIS 2009

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Translated: Ammar ABDULRAHMAN

Tell Gindaris is located north-west Syria in the Umuq plain between Sam'an mountain in the east and Amanus mountain in the west. The top of the tell covers about 14 hec, and contains several levels dating from classical period tell at least early Bronze Age.

The excavation by Syrian mission carried out in the western mound of the tell, which called area "A". We have uncovered an area of 800 m² squares A1-A8 each one 10x10 m, with deep of 2.5m. The field work of 2009 concentrated on three squares A5, A7, A8. And we revealed in square A8 under the surface level the traces of building with mosaic floors and dates back to Byzantine period(early sixth century) . And due to recent destruction, we could only recognize three mosaic pieces, the first one is the bigger and measures 2X3m, with geometric pattern colored by white and black to form black squares with white background. The other two pieces is formed from only white stones but they were organized to show flower from 8 plates, and what rest from the second piece measures 2X1.75m. but the third is badly damaged and contain only white stones.

This structure is obviously important, and we try to define its function, especially when we relate it with the adjacent canalization system. So the most appropriate function is to be a bath (hammam), and not as we assume as a Villa.

Plenty of finds has been discovered such as: two censer from limestone, and candleholder from metal with four legs, coins and lamps, also some colored beads.

Level two return back to the roman period and have been recognized structures of temporary residence represented by poor architecture. It has been noticed the available of big amount of stone weight and pottery such as dishes and jars.

The third level has no structure traces but we refer it to the Hellenistic period, according to the pottery and coins that has been discovered on the floor.

JABAL YOONAN IN BLOODAN 2009

Ibrahim OMERI

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Translated: Ibrahim OMERI

On the summit of Jabal Yoonan in Bloodan, there are remains of three destroyed buildings, some researchers visited this site and described the remains and considered them a temple from the Roman age.

Syrian excavation expedition worked in the site in 2009, reveal some details of these buildings, the western one (A) 17.5x10.5 m, it may be a military terrace for observation, or religious one for sacrifices. The Middle one (B) 20x18 m, its function is not clear cause of the strong collapse, but it may be another military building, cause of some arch stones that found among the ruins belong to arches or to barrel ceiling, or this part of ruins belongs to the ground floor of a big and high temple!

The eastern building (C) 20x20 m, the ruins indicate to big building built by reusing the stones from the two last buildings, may be in the Byzantine period as a monastery with many halls and rooms.

The most important discovery in the site is the findings: 18 coins, most of them dated to the Byzantine period, only one silver coin dated to Alexander the great, 32 arrow-spear heads from the Hellenistic, Roman, and Byzantine periods, and a huge quantities of small iron nails, in addition to pottery head of small statue, and some other metal findings.

RESULTS OF THE ARCHAEOLOGICAL SURVEY AT THE SOUTH OF AL-GHAB

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Translated: Hala MUSTAFA

General introduction:

Al-Ghab is a an extending plain that forms an extension of the lower concave of Orontes, which becomes narrower toward the south, and it is connected with the band of the Red Sea crack. It is surrounded by al-Zaweyah mountain from the east and series of the coastal mountains from the west. During the Paleocene Age, the north of al-Ghab was affected with volcanic activity, which led to forming the basalt sill of Qarqur, which was directly responsible of formation of the swamps in al-Ghab plain in general.

Nature of the region played a big role in creating the civilizations, whether of the full existence of the springs, whose banks contain most of the sites of the third sector and existence of the water canals, which pass through the two plain sectors as canal of Orontes and the canals formed from the mountain springs, or of existence of fertile soil for farming. In addition, this region has strategic importance. It formed a part of the old road, which connected north of Syria with the south, as well as it has the Roman pavement, which was built during the epoch of Sptimos Seferos at the ends of the second century AD and formed an important artery for connecting between regions at north of Syria and internal regions as Homs, Palmyra and Damascus.

The studied region of survey in 2006-2007 is located at the south of al-Ghab plain, at the western-north of Hamah city. According to geomorphologic criteria, the region of survey was divided into three sectors: one mountain sectors and two plain sectors. The first plain sector extending from Salhab town till <Enan village had important geomorphologic changes after process of dryness of al-Ghab plain and cutting the channel of the Orontes, when all the swamps disappeared and many river canals were turned away of their origin canal or they disappeared. In contrast of this sector, the second plain sector is distinguished with relatively keeping its origin Geomorphology.

In this survey, it was registered 36 archaeological sites. It is considered a big number if it is compared with area of the small region of the survey. This indicates to the historical and archaeo-

logical importance of this region. The registered sites belong to different periods extending from the Old Bronze age to the Islamic period. The sites of the mountain sector are attributed to the Byzantine period, while the sites of the two plain sectors belong to different historical periods and the importance differs from a period and another.

The first Sector:

It is located at the northern plain side of the survey region. It is extended between Tell Salhab at the south toward <Ennab to the north, and from the coastal mountain series at the west to al-Sqailbeyeh city and al->Asharneh town at the east.

It contains 12 archaeological sites distributing in forms of archaeological tells and plain sites, which belong to different periods. After the field survey, it shows:

Lack of the Islamic archaeological sites inside the plain and muchness of them at the sides.

Large quantity of the Hellenistic and Roman periods inside the plain.

Lack of the Bronze and Iron periods sites inside the plain and muchness of them at the sides.

The second Sector:

It is located at the south side of the survey region, in plain region extending between Tell Salhab at the north toward al-Hazzaneh at the south and from the coastal mountain series at the west toward Tell Seken al-Qa>adeh at the east. This sector is distinguished by its relative keeping of its original geomorphology. It contains 8 archaeological sites. Studying of the pottery fragments indicates that these sites belong to different historical periods and the most important are the Bronze and Hellenistic periods.

The third Sector:

It forms the western side of the survey region. It is a mountain region extending between <Ennab town at the north and Her al-Massel at the south.

It contains 17 archaeological sites, which most has the Byzantine characteristic. Big quantity of the stones of the Byzantine building stones was reused in the buildings of the Islamic period, along with keeping some Byzantine buildings on its origin position.

Summary:

Thirty six sites were defined and they belong to different historical periods extending from the Old Bronze age to the Islamic period. These sites are distributed in plain and mountain regions. It is considered a big number if it is compared with area of the small region of the survey. Through definition the geomorphology of the region and distribution of the water canals, the region was distributed into three sectors, which each has its specialties. The first plain sector is distinguished for the important geomorphologic changes that were occurred after process of dryness of al-Ghab plain in the middle of the last century when all the swamps became dry and many river canals had disappeared or were turned away of their origin canal in order to flow in the new channel of the Orontes. The reason, which made us, in the beginning of the survey process, watching a distribution of the archaeological sites in this sector without any connection, was the result of the origin morphologic changes after the process of dryness. So we could make a general definition of the old morphology and clarifying the distribution of the archaeological sites according to that.

In contrast of this sector, the second plain sector is distinguished for its relative keeping of the origin morphology.

In general, the archaeological sites in these two sectors belong to different historical periods and each differs in its importance, while the sites of the mountain sector are attributed to the Byzantine period.

The density of the archaeological sites in the region of survey and diversity of their historical periods reflect the big archaeological and historical importance of the region.

MAR ELYAN AL-SHEKH CONVENT (2001-2009)

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Translated: Hala MUSTAFA

Mar Elyan al-Shekh Convent is located in the west of Al-Qaryaten at about 2 km, and in the northern east of Palmyra.

The convent was named according to the name of the saint Mar Elyan, who is mentioned in many resources including songs of the saint Afram the Syriac, who was one of the students of Mar Elyan.

At the beginning of 2001, two surveys were occurred. The first is an archaeological survey, in which pottery, glass and coin fragments were collected and the second is geophysical, which gave us helpful results that showed unexpected matters, which proved existence of buildings inside the convent.

The results of excavations showed six levels belonging to the Roman and Byzantine age and the Islamic age which contains Abbasid, Ayyoubid, Mamlukean and Ottoman periods.

The Roman age:

It was showed big bases of stone, which were reused during the Byzantine age. The most important findings, which belong to the same age, are bronze coins, big wall and some architectural elements, which were reused in the later ages (marble columns and lintels).

The Byzantine age:

It was showed an entrance of a church with bases of stone. The same stones, which belong to the Roman age were reused. It seems that the Roman wall was reused as an entrance for a church during the Byzantine age.

The most important findings: Grave of Mar Elyan, Byzantine coins, church wall with a cross, a door of cedar wood, glass fragments and a cover for munitions.

The Islamic age:

The Abbasid period: (double alter church), bronze coins and pottery fragments and vessels.

The Ayyoubid period: The church, which belongs to the Abbasid period, was reused. And the most important findings are the bronze coins and the pottery fragments and vessels.

The Mamlukean period: It was showed a graveyard for the monks and it is represented with individual graves. The most important findings are the graves in forms of pottery lamps which belong to the same period, bronze crosses, glass fragments, metallic vessels and tools and bronze coins which were found in big quantity, in addition to complete objects of pottery, and a script into Arabic belongs to the 14th century AD and indicates to the monks of the convent.

The Ottoman period:

It was discovered a church located under the bases of the church, which belong to 1938 AD (which was about to fall), and it is the same place, in which the grave of Mar Elyan exists. And it was reused as a church many times during the 16th, 17th, and 18th centuries.

In the square of the convent, it was discovered many adobe rooms with bases of stones which were specialized for serving the convent (votive rooms), in addition to a building which was specialized for the farming works (cells for conservation of grains, basins for grinding the grains with the tools and special rooms for conservation of the foods (provision rooms) inside big jars.

The most important findings: different size jars, pottery and glass plates, pottery lamps, glass fragments and basalt tools for grinding the grains.

KHERBET AL MATAROON (2009) NEW THERMA FROM THE LATE BYZANTINE AND EARLY UMAYYAD PERIOD NEW DETAILS FROM THE CHURCH

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Translated: Ibrahim OMERI

The therma

In the fourth session, the excavation works focused on the eastern part of the site near the eastern gate, where we expected to find a bath, and indeed we discovered a therma from the late Byzantine and early Umayyad period. the works reveal the remains of the Calidarium (the hot, interior part of the bath) (8x20 m), with subterranean heating net, the first heating unit with four square columns built by brick, surrounded from the four sides by brick walls provided with niches or passages to passing the smoke to heat the floors and walls. Above the west part, there is a rectangular basin for hot water Alveus, and above the eastern part, there is another semi-circular basin. To the south of this area there are traces for another heating unit. To the west of the Calidarium, there are some parts of Tepidarium (the warm, middle part of the bath) (13x20 m), we will continue the work in which in the next session.

If we have a look on the general plan of this area, we find the pool at the northern part, and the big room (14x20 m) (that was called previously the armament room) with its main entrance opened to the pool, we can consider it as a Palestra (the cool, outside public space) for sitting and meeting, is preceded by northern courtyard overlooks the pool, and by western vestibule or lobby (3x20 m) overlooks the channel flows from the pool to outside of the site, and may be there is another courtyard to the south.

The church

It located outside the site to the west, some parts were visible from the middle nave and the pilasters of the Apes, and some traces indicate to basilica style, its gate in the west preceded by narthex.

Some soundings were achieved in many places reveal some details in the Apes, terrace in front of which, and a part of fresco on the pilasters of the Apes.

The works reveal the north Aisle and a gate in middle of the north wall, that mean the main gate may be in this wall, not in the west wall as it was expected..

the width of the northern Aisle is 493 cm, if the southern Aisle would be the same, that mean the width of the church is 21.55 m without the extension of the portico of the gate, and the length is 26.14 m without the extension of the Apes.

RAPPORT PRÉLIMINAIRE SUR LES TRAVAUX ARCHÉOLOGIQUES À DAMAS 2009

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Translated: Houmam SAAD

Les travaux archéologique en 2009 à Damas ont divise en deux parties; fouilles urgents et fouilles programmées, ou les résultats sont très importantes et on a mis en évidence certaine questions historique et archéologique de la ville, Nous détaillerons dans ce rapport, les nombreuses découvertes faites au cours de l année 2009.

I- FOUILLES URGENTS.

1- Le temple JOPETER de Damas; Pendant les travaux de restaurations dans une maison près de la mosquée des Omeyyades, on a trouve quatre colonnes in situ cacher au mur Oust sous l enduit, puis on a réalise des sondage devant chaque colonne, ce que nos permet trouver les socles et une inscription grecque sur la face d une socle présente une dédicace à Zeus datée 150-151 a p .J.C.

2- Une tombe romaine; Hors de rempart de cote sud- ouest près de l hôpital AL-MOJTAHED on a découvert une tombe lors de travaux la nouvelle réserve. La tombe compose d une porte de Basilte décore, une chambre funéraire est munie de six arcosolia (deux de chaque coté) et deux fosses individuelle dans le sol. Des matériels trouvés certaines Balsamaires et céramiques Exemples daté IIe- IIIe siècle a p. J.- C.

II- FOUILLES PROGRAMMÉES.

1- Le rempart; Deux sondage ont été ouvert au Nord de rempart près de Bab Toma. Ces sondages ont permis d atteindre à 5.20 m, le niveau originel sur lequel reposent les fondations de la muraille. Il semble bien que l on ait affaire à une construction purement islamique utilisant à chaque fois des spolia d époque romaine (chapiteaux, colonnes) disposes sans ordre. Ces résultats mettre en évidence la présence d une muraille islamique dans ce secteur de rempart.

2- Tell AL-SMAKEH; Est située près de la rue droite, et certaine historiens ont indique que l acropole armien est place dans cet endroit, pour cela on a ouvert deux sondage dans lesquels on est arrivée au niveau romaine à 5.30 m puis le sol originel, on a rien trouvé concerne le niveau armien. Et on ne peut pas généralise la résultat, car on a besoin faire certaine sondages, pour cela les travaux archéologique dans la ville est continuée en 2010.