

VARIA ANATOLICA XIX

**SOCIÉTÉS HUMAINES ET
CHANGEMENT CLIMATIQUE
À LA FIN DU TROISIÈME MILLÉNAIRE :
UNE CRISE A-T-ELLE EU LIEU EN
HAUTE MÉSOPOTAMIE ?**

**Actes du Colloque de Lyon,
5-8 décembre 2005**

édités par
Catherine KUZUCUOĞLU et Catherine MARRO

INSTITUT FRANÇAIS D'ÉTUDES ANATOLIENNES-GEORGES DUMEZIL

**DE BOCCARD Édition-Diffusion
11, rue de Médicis
75006 Paris**

2007

Photo de couverture :
La vallée de Birecik engloutie sous les eaux de l'Euphrate.
En arrière-plan : la colline de Zeugma
(© F. Dessène)

Secrétaire aux publications : Aksel Tibet

*Ce volume a été composé par les soins de
l'Institut Français d'Études Anatoliennes-Georges Dumézil
et AS&64 Ltd. Şti. Çatalçeşme Sk. No: 15/1, 34410 Cağaloğlu, Istanbul, Turquie,
et imprimé par Acar Basım ve Cilt San. Tic. A.Ş.*

© 2007, Institut Français d'Études Anatoliennes-Georges Dumezil – Istanbul

La loi du 11 mars 1957 n'autorisant, aux termes des alinéas 2 et 3 de l'article 41, d'une part, que les "copies ou reproductions strictement réservées à l'usage privé du copiste et non destinées à une utilisation collective" et, d'autre part, que les analyses et les courtes citations dans un but d'exemple et d'illustration, "toute représentation ou reproduction intégrale, ou partielle, faite sans le consentement de l'auteur ou des ses ayants droit ou ayants cause, est illicite" (alinéa 1^{er} de l'article 40).

Cette représentation ou reproduction, par quelque procédé que ce soit, constituerait donc une contrefaçon sanctionnée par les articles 425 et suivants du Code Pénal.

ISBN 2-906053-94-5

Francesca BALOSSÌ*, Gian-Maria DI NOCERA*, Marcella FRANGIPANE*

THE CONTRIBUTION OF A SMALL SITE TO THE STUDY OF SETTLEMENT CHANGES ON THE TURKISH MIDDLE EUPHRATES BETWEEN THE THIRD AND SECOND MILLENNIUM B.C: PRELIMINARY STRATIGRAPHIC DATA FROM ZEYTİNLİ BAHÇE HÖYÜK (URFA)

Résumé

Les données préliminaires exposées ici concernent la séquence du Troisième au Deuxième Millénaires av. J.-C. des fouilles de Zeytinli Bahçe Höyük (Birecik, Urfa) dans leur état d'avancement actuel. L'objectif de cet article est de documenter les périodes de continuité et discontinuité dans l'occupation du site et de contribuer ainsi à l'analyse de l'évolution du peuplement dans la région de l'Euphrate au Nord de Carchemish.

Bien que les auteurs soient conscients que l'information dont ils disposent est encore incomplète, la stratigraphie de Zeytinli Bahçe témoigne dès à présent d'une interruption nette dans sa séquence d'occupation après la fin du Bronze Ancien I. Cette interruption est suivie d'une ré-occupation plus réduite localisée sur la partie supérieure du tell pendant le Bronze Ancien IV (et probablement aussi le Bronze Ancien III). Cette occupation, qui est accessible aujourd'hui sur une superficie trop petite pour que la chronologie et les caractéristiques de l'habitat puissent être analysées de manière détaillée, est peut-être suivie par une brève interruption avant la construction d'un habitat fortifié au Bronze Moyen II, caractérisé par des murs d'enceinte monumentaux. Cet habitat est cependant de taille identique au précédent et pareillement situé sur la partie haute du tell. Une interruption bien plus conséquente eut lieu à la fin du Bronze Moyen II, marquant cette fois un véritable abandon du site, qui semble avoir été occupé à l'Âge du Fer de façon sporadique, avant une réinstallation à l'époque romaine et byzantine. À l'image des autres sites de la région de Birecik, aucune des périodes d'abandon marqué de Zeytinli Bahçe ne coïncide avec la "crise" de la fin du Troisième Millénaire attestée dans la partie méridionale du Moyen-Euphrate syrien.

De nombreuses crues, bien documentées, ainsi que l'érosion importante qui a détruit la partie occidentale du tell, ont pu contribuer à l'abandon du site avant le milieu du Troisième Millénaire et limiter sa réoccupation aux parties hautes du tell quelques siècles plus tard. Cependant, les changements dans l'organisation du site, avec la construction de ce qui semble être une forteresse imposante au début du Deuxième Millénaire av. J.-C. ainsi que l'évolution contrastée de l'habitat dans les parties nord et sud du Moyen-Euphrate à cette période cruciale, paraissent plutôt être liés à une nouvelle donne politique, comme en témoigne la croissance de grands centres urbains régionaux, plutôt qu'à une dégradation environnementale.

SETTLEMENT ABANDONMENT AND "COLLAPSE": A VIEW FROM A SMALL RURAL SITE (by M. Frangipane)

This paper is mainly based on the information that has been gathered so far on the occupational sequence in the small, but long-lived, settlement of Zeytinli Bahçe Höyük on the left bank of the Euphrates, 2 km south of Birecik (Urfa, Turkey), where we have carried out five excavation cam-

(*) University of Rome "La Sapienza", Italy.

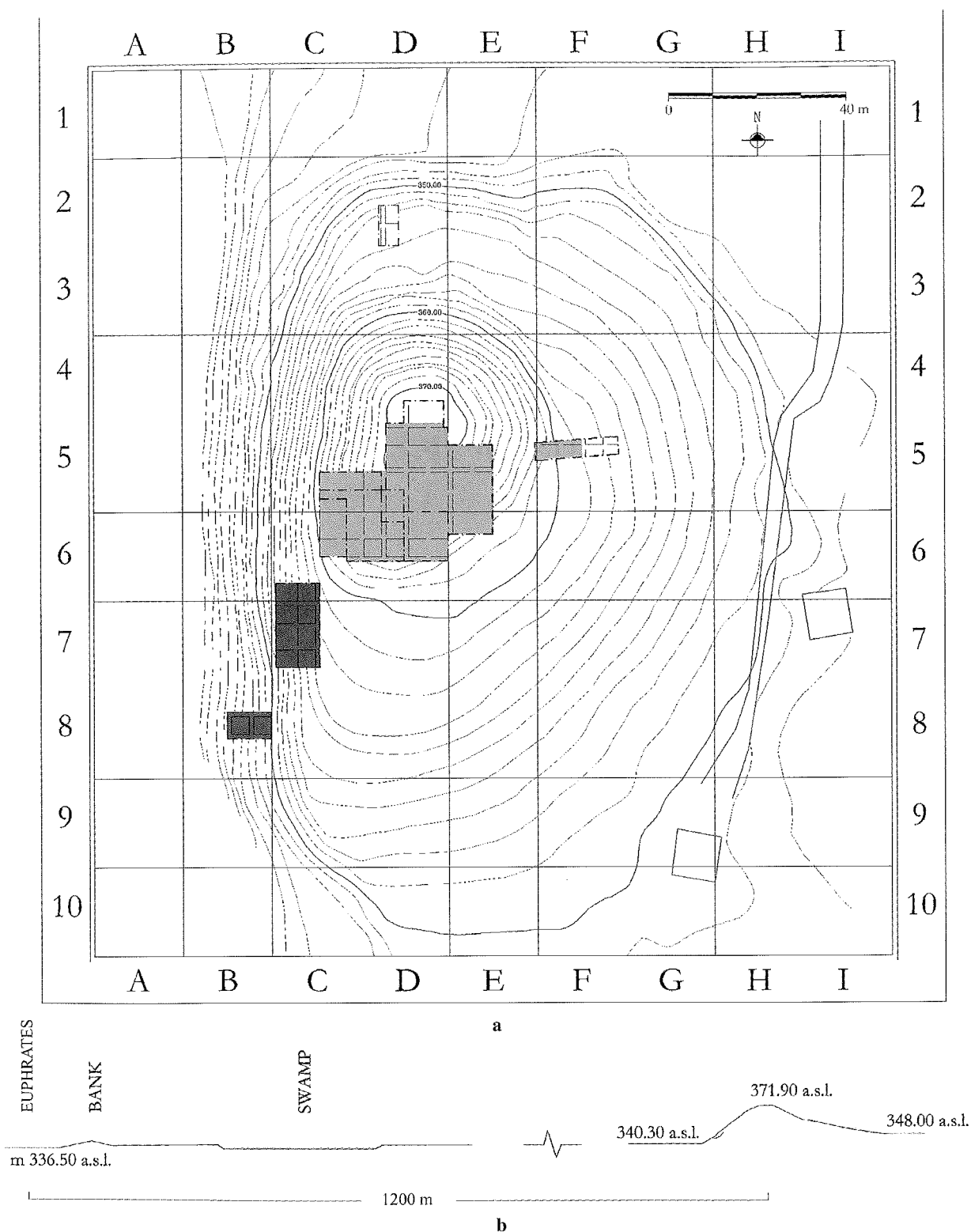


Fig. 1 : (a) Plan of Zeytinli Bahçe with the excavation trenches. The light grey shading indicates the areas with Early Bronze IV and/or Middle Bronze II occupation; the dark grey, the areas in which these layers are absent, but earlier Late Chalcolithic and Early Bronze I occupation is concentrated; (b) profile of the mound and the Euphrates alluvial plain to the West.

paigns as part of the Carchemish Dam Reservoir archaeological salvage project¹ (Fig. 1). Even though this is still only preliminary and – at least as far as the subject of this book is concerned – incomplete data, the inferences we may draw from the field investigation contribute to our knowledge of the history of a region that has not yet been thoroughly investigated, with recent findings only partially published. Our excavation strategy, considering that initially we were only given a short time to complete the work, was aimed at obtaining a general picture of the site sequence rather than conducting an extensive examination of specific levels. The contribution that Zeytinli Bahçe can give to the subject under discussion here therefore resides, above all, in an analysis of the continuity and discontinuity of the occupation of the site throughout its long life, combined with additional evidence on the peculiar character acquired by the settlement at the beginning of the Second Millennium B.C.

Before we try to interpret the few data at our disposal and attempt to use them in the debate on the crisis at the end of the Third Millennium B.C., we need to reconsider some general issues from both a methodological and a historical/processual perspective.

First of all, it must be emphasized that changes in settlement patterns, and even the abandonment of individual sites and desertion by communities, are not in themselves evidence of the “collapse” of a system, unless they lead to wholesale depopulation and are accompanied by other evidence of a concomitant radical political and/or economic crisis, followed by major structural changes in the overall system of relations. The idea of ‘collapse’, as various authors have emphasized it on many occasions, normally applies to centralized political systems and elite structures that create a coherent system of relations of structural dependency between sectors of society, productive units and settlements with different and specific functions in the territory². For the same reason, it is difficult to argue that environmental and climatic stresses are primary causes of collapse in sophisticatedly structured societies³, even though they can certainly have an influence in throwing certain production sectors or specific economic relations into crisis⁴; they cannot, alone, disrupt a whole complex system of political dominion and economic control over a given territory.

Responses to stress, whether environmental or political, or to other kinds of upheavals in a social and political system, often differ very widely whether in the case of elites or agricultural rural population and pastoralists, much as in the case of urban or village environments. These responses sometimes only indicate an apparent crisis, whereas in reality they may only have been the adoption of better and more effective ways of adapting to newly arising conditions.

The diversity of responses to stress and crises, apart from the varying society sectors and the degree to which each of them was affected by crises, also depends on how far the previous institutions, traditions and lifestyles were retained by the new centralized systems. In other words, economic and political centralization did not always completely do away with the pre-existing relations at the population level, and it was often precisely the survival of these relations and traditional modes of production that promoted effective and varied adaptive responses to new *stimuli* or new difficulties, giving rise to those “regeneration” phenomena that have been widely debated in recent years⁵. The history of the Middle and Upper Euphrates regions is a case in point.

The most evident example of the juxtaposition of a centralized political/economic system beside different pre-existing structures that had not been totally swept away by the new system was the spread of the Uruk social model in the northern regions. And the breaking down of this Uruk model was an equally eloquent example of collapse, at least in certain areas of Upper Mesopotamia and in particular in the Euphrates Valley, where all the evidence of centralization completely disappeared,

1) Frangipane and Bucak 2001 ; Frangipane *et al.* 2002 ; 2004. Since the water level of the dam will not reach the site, we are planning to resume the excavations for a further two or three campaigns in order to answer at least some of the important questions that the investigations have posed.

2) Tainter 1988 : 4-5 ; Yoffee 2005 ; Yoffee and Cowgill 1988 ; Schwartz, this volume.

3) Weiss *et al.* 1993.

4) Wilkinson 1997.

5) Schwartz 2006 ; Schwartz, Nichols 2006.

such as the seats of public power (temples, palaces), administrative tools (*cretulae*⁶), and the mass-produced bowls for food redistribution. The aftermath of this collapse, which must have mainly affected the centres of political and economic/administrative power, was the more or less smooth and gradual revival of traditional lifestyles, variously generalized according to the area concerned, and probably the emergence of new kinship or clan-based power structures. To the North of the Euphrates, the crisis was more pronounced, partly because of the complex relations that existed within the Eastern Anatolian environment and with the nomadic population of Transcaucasian origin who took advantage of the power *vacuum* that had been created. To the South of the Taurus, on the contrary, as is well evidenced at Zeytinli Bahçe, the rural populations continued as before after absorbing into their material culture the Uruk features which came to form part of the local assemblages, gradually evolving for a long time thereafter⁷.

However, everywhere the new power was manifested through new emblems, among which the most common was the symbolic value now attributed to burials as an expression of social relations and ranks, and the symbolic – and probably also real – value of metal. Monumental tombs, rich funerary gifts, and major developments in metallurgy were the features of this new society, which began to emerge in EBA I in the northern stretch of the Euphrates valley (Arslantepe, Hassek Höyük⁸) and which developed increasingly in the course of the Early Bronze Age in the Turkish Middle Euphrates (Birecik cemetery, Titriş, Gre Vrike⁹); and in the second half of the Third Millennium in the Syrian Middle Euphrates and the surrounding area (Jerablus Tahtani, Tell Banat, Umm el-Marra¹⁰). These communities, despite a certain tendency in some areas towards urbanization, as evidenced from the expansion and urban planning of several settlements such as Titriş, must have retained what was basically a tribal and clan-based structure (the symbolic relevance of tombs and metals is a trait typical of this kind of societies, as is also evidenced in other environments) with fragmentation into small politically independent units¹¹. The Euphrates groups had a very different organisational and socio-political system from the communities living in the Khabur area, where urbanization and political centralization were prominent.

The different trajectories of the two zones, East and West, during the course of the Third Millennium must have been influenced by the earlier structures of the communities established in these areas as early as the Late Chalcolithic period. These differences were themselves due to the radically diverse conditions that the environment offered to the productive economy: high agricultural productivity in the Khabur region, where it is presumed that the population adopted a highly sedentary way of life with a tendency to group together in increasingly more urbanized centres, while there was greater instability in agriculture and integration with other forms of subsistence in the Euphrates region, which presumably led to the emergence of smaller and more flexible communities, wholly consistent with a clan-based social structure.

The far-reaching crisis that certainly overwhelmed the Khabur communities at the end of the Third Millennium B.C., as well as the different, and far less intense and less prolonged, signs of crisis in the Euphrates zone, were probably related to the differences in the structure of the two societies. The fact that the agricultural areas of the eastern and central Jezireh were brought under the domination of the Akkadian empire would have further emphasised their highly centralised structure, also in economic terms. Conversely, the communities of the Euphrates – because of both their more varied and flexible economy and their less centralised political structure, which left more scope for autonomy to the rural communities and the ordinary population – proved to be more adaptable to the changes and the new conditions as they arose at various times.

6) We shall use the Latin term *cretula* here to indicate all the types of clay sealings or clay sealed objects. This term has been proposed for general use in international literature to prevent the terminological confusion that still exists regarding these materials (Frangipane, Ferioli *et al.* in print).

7) Frangipane in print.

8) Frangipane *et al.* 2001 ; Behm Blanke 1984.

9) Sertok, Ergeç 1999 ; Algaze *et al.* 1996 ; Ökse 2006.

10) Peltenburg *et al.* 1995 ; Peltenburg 1999 ; Porter 1995 ; 2002 ; Schwartz *et al.* 2006.

11) Cooper 2006 : 30-34 ; Frangipane in print ; Stein 2004 : 72.

At Zeytinli Bahçe no interruption in the settlement has been identified, nor has there been found any evidence of a substantial break in the continuity of its development, between the end of the Late Uruk and the beginning of the Early Bronze I period. Indeed, this transition was characterised by marked continuity in pottery production (which in Late Uruk had already absorbed and adapted the typical features of the Uruk pottery to meet local requirements), and a similar continuity was also found in the patterns of animal husbandry¹², indicating continuity in lifestyle and in the subsistence economy. The life of the village seems to have continued without any upheavals until the end of Early Bronze I (EB IB), with very gradual changes in the pottery, the domestic architecture and urban layout of the village, which became increasingly more planned and regular at the end of the period¹³, and in the pattern of animal breeding, which increasingly gave greater weight to pig farming¹⁴. It was only after the end of this period that the settlement seems to have been abandoned for a long period of time, throughout Early Bronze II and perhaps most of Early Bronze III. In a rural village, as Zeytinli Bahçe probably was, therefore, there was no abandonment or dramatic break in the life of the population coinciding with what was certainly the collapse of a centralized political/economic system of the Uruk type that had become firmly established in the northern areas of Greater Mesopotamia at the end of the Fourth Millennium.

What remains to be explained is why the settlement was abandoned in the second quarter of the Third Millennium when no evidence has been found in the region of any collapse or crisis in the system. In this case it is possible that some environmental factor may have been responsible, such as the periodic rise in the level of the Euphrates and the frequent flooding of the plains that occurred during the latter half of the Fourth and the first quarter of the Third Millennium B.C. This is evidenced from numerous alluvial layers that interrupt the stratification of the settlements throughout this period both at Zeytinli Bahçe (Fig. 2) and in other sites in the zone¹⁵. It may have been the possible increased frequency of this flooding and the resultant gradual erosion of the settlement (Fig. 1, 3), together with the flooding of the fields, that prompted its people to transfer the village elsewhere. However, the interruption seems to have lasted too long and to have been too final for this to be the whole explanation, particularly since flooding had started a long time before, ever since the second half of the Fourth Millennium. We therefore believe that there must also have been political/organisational explanations at a time when new trends seemed to be emerging towards a form of urban settlement, at least in a number of centres in the Urfa plain, and at all events a tendency to strengthen the power structures. To address this issue we would need to have a fuller understanding of the situation in the areas further away from the river. In any case, even if the abandonment of Zeytinli Bahçe can be explained by factors of this kind, it would not necessarily point to a general crisis, but at most suggest territorial adjustments to meet changed conditions. The particular abandonment of certain sites, particularly non-urban sites, may not be therefore – as is evident in our case – a necessary indication of some general crisis in the socio-political and territorial system, and still less an indication of a “collapse”, as evidenced from the variations in the timing of the abandonment of different sites in the valley.

The history of Zeytinli Bahçe resumed at the end of the Third Millennium B.C. (Early Bronze IV)¹⁶ in the shape of a much smaller settlement located on the upper part of the mound, as we shall be showing shortly (Fig. 1), whose nature has yet to be defined. It may have been abandoned again, which is of greater relevance to the issue addressed in this book, at the end of EB IV, although there is no clear stratigraphic evidence of this. If the site was abandoned, it was certainly only for a short period (corresponding to the short and ill-defined Middle Bronze I phase in this region) after which a completely new settlement pattern was established at Zeytinli Bahçe in Middle Bronze II. The new settlement, which comprised a fortified building complex with defence walls and towers, stood on

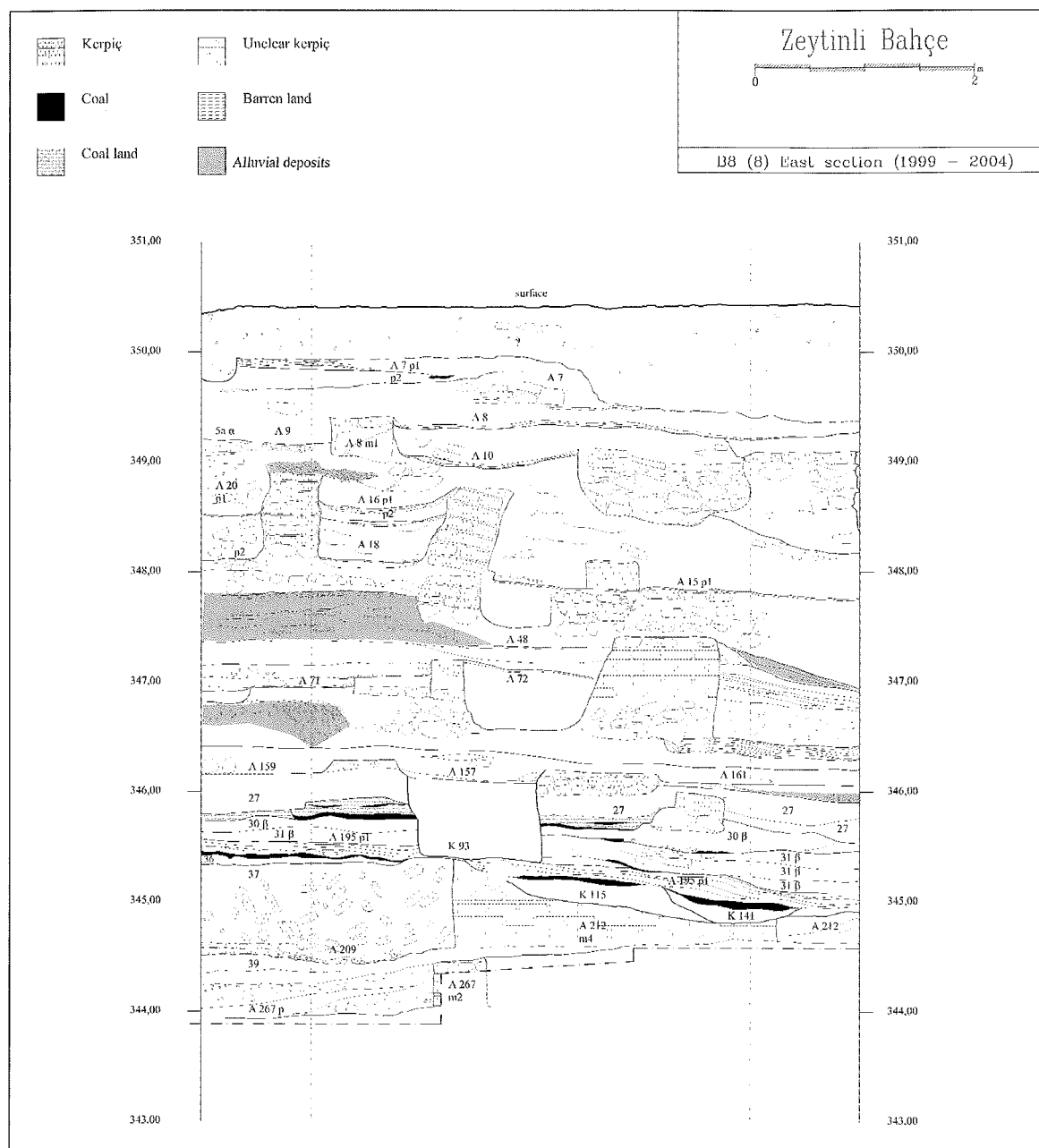
12) Siracusano in Frangipane *et al.* 2004 : fig. 33.

13) Frangipane in Frangipane *et al.* 2004 : figs.13-18.

14) Siracusano in Frangipane *et al.* 2004 : fig. 33.

15) Marro *et al.* 2000.

16) We cannot yet exclude the possibility that the reoccupation of the upper part of the mound actually occurred in Early Bronze III.



the same area as the EB IV occupation, which at all rates indicates a kind of cultural continuity, at least in the settlement sequence, as will be shown later. The Early Bronze IV and the Middle Bronze Age, despite the short time interval between them, constitute the second phase in the history of the site connected with a regional system displaying a higher degree of urbanization and centralization. Further more, the limited dimensions of the settlement, combined with the fortified character of the second phase, suggest that Zeytinli Bahçe may have had a different function from the one it had previously fulfilled, perhaps as a kind of satellite site, or at least one that was subordinate to a large centre like Carchemish.



Fig. 3 : View of the site of Zeytinli Bahçe from the West.

At the end of Middle Bronze II the site was once again abandoned, putting an end to the sequence of the pre-classical phases of Zeytinli Bahçe, if one excludes a few episodic occupations during the Iron Age¹⁷.

The data from Zeytinli Bahçe show that no real fracture occurred at the end of the Third Millennium, as we shall be seeking to show later on, but on the contrary indicate a significant division into two distinct and separate phases in the history of the site: firstly, Late Chalcolithic and Early Bronze I, when it was a rural site living through all the great events of those periods and reflecting them to a small degree; and secondly, the late Early Bronze and Middle Bronze Age, during which Zeytinli Bahçe seems to have become a minor outpost or the emanation of a large urban centre in a new era of the history of the Middle Euphrates region.

THE EARLY BRONZE AGE SEQUENCE AT ZEYTİNLİ BAHÇE HÖYÜK (by F. Balossi)

The Levels preceding the Final Early Bronze Age Period

The two earliest building levels uncovered at Zeytinli Bahçe are dated to the Late Chalcolithic 3 (3600-3500 B.C.) and evidence an entirely local culture, in line with that known from other sites in the region first among which the neighbouring Hacinebi¹⁸, and characterized by the presence of a mostly chaff-tempered pottery, with the typical *Casseroles* and *Hammerhead bowls*. The architecture is fairly well preserved and in both levels evidences a series of rooms opening onto a cobbled courtyard, clearly domestic in character¹⁹. Some of the walls of these rooms are still standing 1m high, they are well plastered and indicate a series of changes and modifications over time such as the suppression of doors and the adding of dividing walls between the rooms.

17) The sequence that has been ascertained by the excavations conducted so far confirms the absence of any late Bronze Age levels, as already observed in the Algaze survey (Algaze *et al.* 1994 : 45).

18) Pearce 2000 ; Pollock and Courtney 1995.

19) Frangipane and Balossi 2006 : fig. 5.

Sealing this Local Chalcolithic settlement, a layer characterized by postholes and small canals is attested, which suggests a period of temporary occupation where Late Chalcolithic local chaff-tempered pottery coexists with Middle Uruk materials. This may suggest that the arrival of southern influence at the site was preceded by a moment of abandonment or a crisis in the occupation of the settlement. When a more stable and sedentary occupation is re-established, ordinary mudbrick domestic structures are again built in this area of the site. Two levels of domestic structures were identified. Lastly, a fourth level, which marks the end of the Middle Uruk occupation at Zeytinli Bahçe, is represented by a peculiar, massive, cell plan building, very similar to the one found at Sheikh Hassan²⁰. A few *Bevelled-rim bowls*, Middle Uruk conical bowls with beaked rims, necked jars with reserved-slip decoration and straight spouts, together with the finding of a typical limestone eye-idol, have parallels, amongst others, at Hacinebi B2²¹, Tell Sheikh Hassan²² and Tell Brak TW13²³.

After the abandonment of the cell plan building there are again traces of a temporary occupation, with postholes and fireplaces, suggesting that the Mesopotamian groups may have abandoned the site at the end of the Middle Uruk period. The fluctuating character of the settlement, which had already been evidenced for the beginning of the Middle Uruk period, will be a common element throughout its whole occupation, as we will see below.

When occupation starts again, the area will be characterised by the superposition of three very similar levels of small and roughly built dwellings, with fireplaces and benches²⁴. The Late Uruk assemblage evidences a strong continuity with the Middle Uruk levels, comprising whitish *Reserved-Slip ware* with complex patterns, and fine wheel-thrown jars. Such a continuity also characterizes the passage into the Early Bronze I period (especially noted in the evolution of the band-rimmed fine bowl²⁵).

The transition to the 10m-thick occupation sequence dated to the Early Bronze Age IA-B is very difficult to determine, since the architectural data too evidence a strong continuity. Changes throughout this long Early Bronze sequence are very slow and there is no stratigraphic break.

There are four EB IA levels excavated in trench B8 (2 m of deposits) and nine EB IB architectural levels in trench C6/C7 (6 m of deposits). The two trenches do not exactly meet in terms of height (B8 starts at a lower level compared to that reached by the excavation in C6/C7); we have not excavated the 4 meters needed to link the stratigraphy of the two deposits, but the continuity expressed by the finds testifies to a very long and homogeneous occupation, with domestic dwellings being constructed exactly one on top of the other, duplicating the pattern of the walls and the fireplaces (C6/C7). The EBA IB structures however, appear to be more imposing and carefully built than those of EB IA²⁶. This “standardisation” and duplication of structures suggests, at least for EB IB, a kind of “urban” arrangement of Zeytinli Bahçe, notwithstanding the small scale of the settlement, and confers a strong permanent character. The band-rimmed bowl is the most common shape of this period, together with large *Reserved-Slip* jars with low wide necks, fruitstands with large bands under the rim, and *cyma recta* bowls.

A Period of Interruption and Change in the Early Bronze Age IV Settlement

Covering the EB IB occupation in trench C6/C7 are Late Byzantine/Medieval levels. This part of the mound, thus, was evidently abandoned after the end of EB I and not occupied again until very late in the life of Zeytinli Bahçe (Fig. 1).

20) Frangipane *et al.* 2004 : fig. 11-12 ; Frangipane in press.

21) Stein *et al.* 1997.

22) Boese 1995.

23) Oates 1985 : pl. XXV ; Emberling *et al.* 1999 ; Oates and Oates 1993.

24) Frangipane *et al.* 2002.

25) Jamieson 1993.

26) Frangipane *et al.* 2004 : 41, fig. 13-14.

Testimony of EB IV and MB periods is concentrated solely on the higher, central area of the mound (C5/C6-D6) and to the East of it, at its foot (F5)²⁷.

For the moment we do not have any clear documentation of an EB II-III occupation. The definition of an EB II material corpus in this area, however, is far from clear. In the Euphrates regions to the North, diagnostic of this phase (mainly its late part) is the Karababa painted ware, but Zeytinli Bahçe has yielded no evidence of it even from the surface collection. For the moment thus, it would appear that after the long and uninterrupted EB I sequence at Zeytinli Bahçe, there was a halt in the occupation of the site and that it was abandoned in the middle part of the Early Bronze Age. Occupation will then start again with the later phases of the Early Bronze Age.

Most important is the fact that, when occupation starts again, it evidences a totally different character. The settlement extends in fact no longer over the whole lower mound, but, as stated above, it seems to be restricted to the central, higher part of the mound, thus a much smaller area than before.

The new, smaller settlement is excavated for the moment only over a small area (approximately 65 m²). At least four levels of occupation dated to the EB IV period have been identified, three of which are characterized by the presence of mud brick structures with stone foundations and a fourth one by an external working area, possibly linked with food processing and/or preparation (Fig. 4). Eight rounded and plastered fireplaces with a cobble bed have been found, with various traces of rebuilding. All these rest on a same external surface and are, at times, protected by roughly arranged stones, which might have been the basis for some kind of "wind-break". Next to one of the fireplaces, a small conical pit, lined with cobbles, might have been used as a jar stand. Of the other three architectonic structures identified, only the latest in sequence is fairly well preserved and evidences a possible monocellular structure with plastered floor. Unfortunately, only half of this has been unearthed, being covered by the basement of a later MB structure. The other structures are badly disturbed by later occupation levels and thus neither a clear plan, nor a functional interpretation of these can be given. A water canal, very densely lined with cobbles, is also found in this area. Lastly, a very interesting pit has been found, in the filling of which was about a hundred fragments of *cretulae* (clay sealings), many of which carry seal impressions. A preliminary look at the ceramics from this pit might suggest a slightly different context to that of the other excavated levels (either chronological or functional differences)²⁸.

Amongst the pottery materials, common in these levels are the fine, thin-walled, mineral tempered, corrugated goblets and cups, also common in the Middle Euphrates and in western Syria, jars with cylindrical necks in *Euphrates-Banded ware*, and cooking jars with triangular lugs at the rim (Fig. 5). Gray spiral burnished ware is also found. Comparable materials are evident in many Middle Euphrates sites, amongst which Kurban Höyük²⁹, Tell Banat³⁰, Sweyhat³¹, and Selenkahiye³², but also those to the East (Balikh and Khabur), as testified by the site of Tell Chuera³³. Apparently absent, for the moment, are pottery productions attested on some of these sites, such as "Syrian bottles" and *Combed-Wash* ware. Though these are preliminary findings, the shapes of these ceramics lead us to conjecture that these excavated levels should be dated to a fairly late phase of the Early Bronze Age³⁴.

Apart from the extension difference of the EB IV occupation in respect with the Early Bronze I, the specificity of the EB IV settlement stands out in many other features. Not only is the occupation much smaller, but there does not appear to be a duplication of identical structures in the superimposed levels as there was in EB I; there is rather an untidy or irregular framework, with distinct

27) Frangipane, Di Nocera, Siracusano in print ; Frangipane and Balossi 2005.

28) Giorgia Francozzi pers. comm.

29) Algaze 1990.

30) Porter and McClellan 1998 ; Porter 1999.

31) Zettler 1997.

32) Van Loon 2001.

33) Pruß 2000.

34) We expressly avoid attributing the materials to period IVA or IVB because of the preliminary state of the analysis.

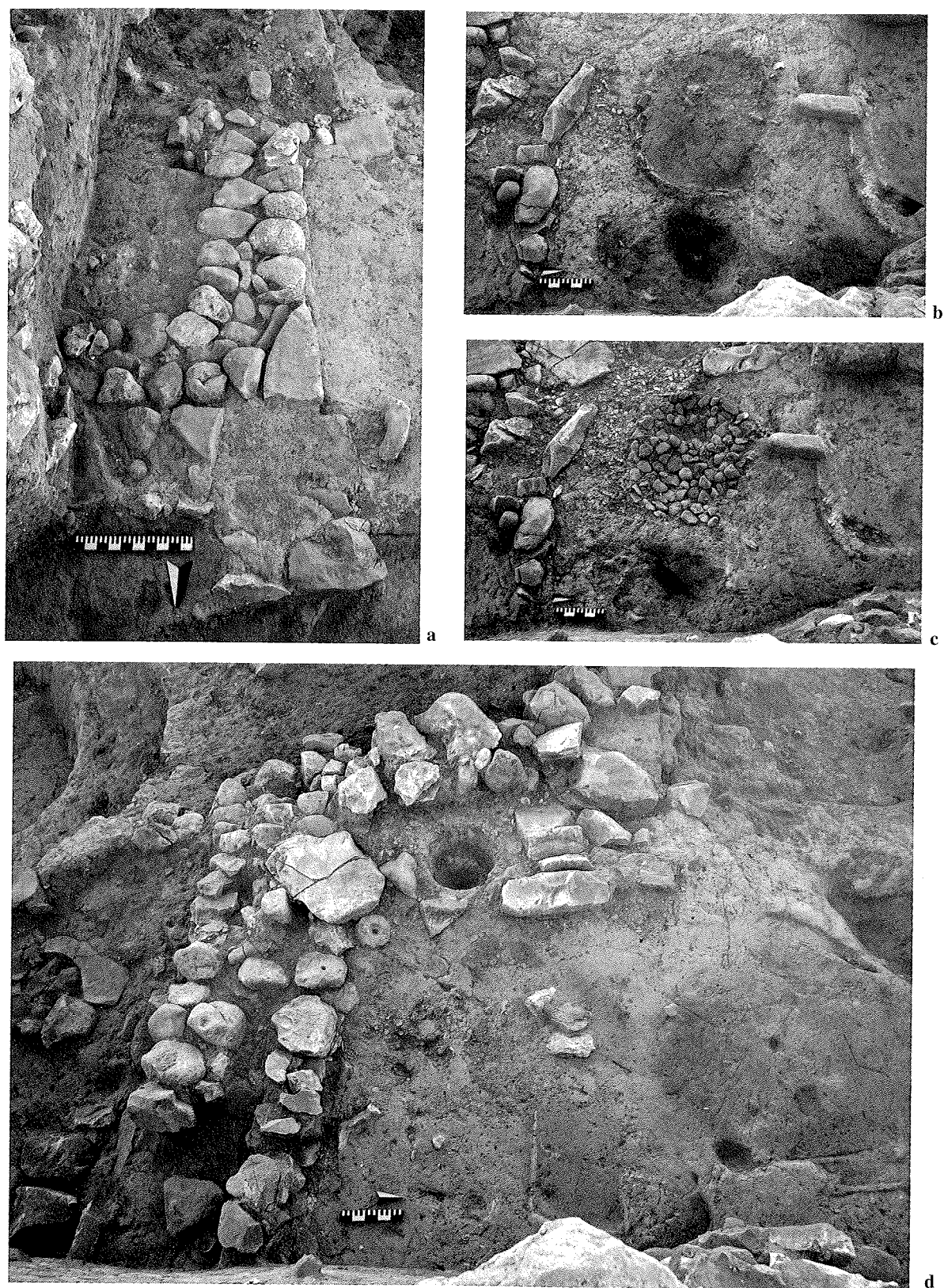


Fig. 4 : Architectural remains of the Early Bronze Age IV at Zeytinli Bahçe (trench C5/6). Domestic structures and open air activity area with fireplaces.

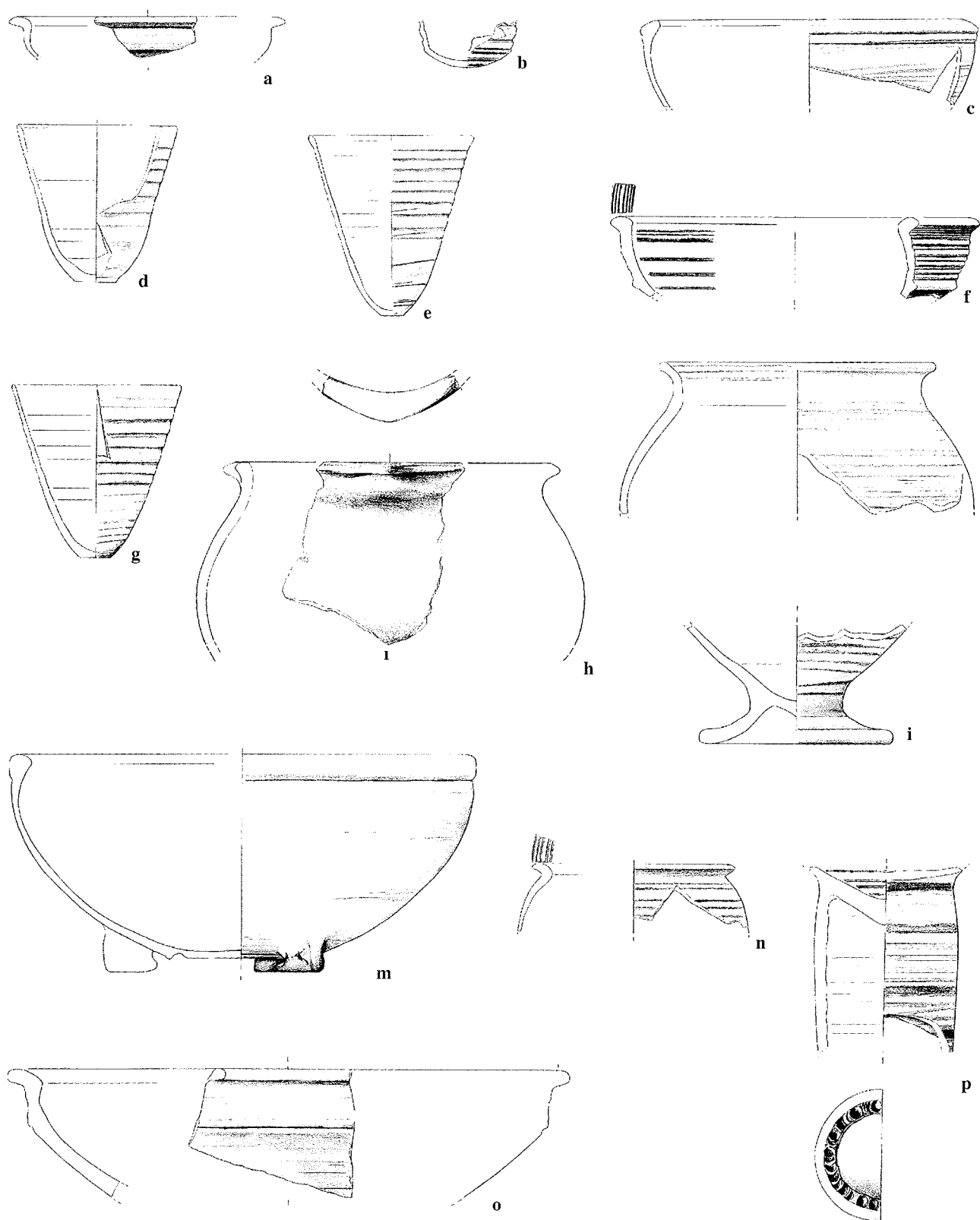


Fig. 5 : Pottery from the Early Bronze IV levels at Zeytinli Bahçe. Scale 1 : 3.

structures, whose function in each of the identified phases is possibly different. We are probably faced with a working/activity area, possibly set in the external limits of an undoubtedly small settlement.

As mentioned above, a more local and environmental cause, attributable to the frequent flooding of the Euphrates, could explain the move of the new, smaller, settlement to the highest point of the mound. Testimonies of alluvial deposits high up in the stratigraphy of the site in fact testify to the flooding of most of the lower mound even in periods following the Early Bronze I (Fig. 2).

Certainly peculiar, in respect to what is evidenced in other settlements of the Middle Euphrates region with the flourishing of fully-fledged urban polities (mid-Third Millennium B.C.), is the reduction in size of Zeytinli Bahçe at that time.

Following the hypothesis that the site of Carchemish had already grown in size and importance in this early period, a hypothesis that still needs to be confirmed, the smaller size of Zeytinli Bahçe could be attributed to the presence of this large urban settlement in the vicinity, which could have acted as a pole of attraction, thus causing the shrinking in size of smaller, rural communities³⁵.

The EB IV levels have been partly eroded by the Euphrates river and have thus been found directly below topsoil on the western slope of the tell: we do not know exactly what was directly overlying these in this area of the mound (Fig. 6). On the eastern side of the trench however, directly above these Early Bronze Age IV levels, a monumental structure dated probably to the beginning of the MB II period has come to light.

This sequence would suggest the absence of a MB I occupation, but, as will be discussed below, we cannot be certain that these levels have not been eroded away by the Euphrates or by the construction of the monumental Middle Bronze Age structure.

THE MIDDLE BRONZE AGE LEVELS (by G.M. Di Nocera)

The Middle Bronze Age occupation of Zeytinli Bahçe is concentrated in a very limited area of the site: the top and southeastern slope of the central, highest part of the mound (trenches D6, C5/6) (Fig. 1). To its monumental structure and its position is due the very peculiar conformation that Zeytinli Bahçe has acquired through time. In fact, the monumental structure which will be presented here becomes the base and, as it were, the foundation of the later Iron Age, Roman and Byzantine occupations in the small central point of the mound³⁶. This took the form of the building of a distinct second conical mound, above the original one.

The western slope of the cone is highly eroded (trenches C5-C6), but it is precisely in this area that the direct stratigraphic link between the Middle Bronze levels and the underlying phases of the Early Bronze Age has been evidenced (Fig. 6). Here, the stone foundations of the MB structures cover the EB IV architectonic remains. The temporal distinction between these two levels is signalled, apart from the stratigraphy and the finds, by a substantial change in architectonic techniques.



Fig. 6 : View of the central higher conical mound from the Southwest. The EBA IV levels (left) are visible just below and partially covered by the MB II fortification (right).

35) Akkermans and Schwartz 2003 : 233.

36) Alvaro *et al.* 2004.

The MB occupation is documented by an impressive structure that might be the forepart of a much larger fortified building. This “fortress-like structure”, denominated building VII, probably forms, as suggested above, the original nucleus of the central conical mound of Zeytinli Bahçe (Fig. 7, 8, 9)³⁷. The whole structure is built directly on a large stone platform base. Mudbrick walls are preserved to a width of 3 meters. Some of the foundation stones have been worked and their edges rounded and only rarely are they used as found. The mudbricks, mostly square in shape, are of the quite standard module commonly used in this period (40 x 40 x 15 cm). Identified in the structure is a rectangular room (A80) delimited by 3 meter-thick walls and with two entrances, a very narrow passage to the West and a second entrance, only slightly wider, to the South (Fig. 9b). On the floor of this second entrance, blank “sealings” have been discovered, whilst, just next to the first step exiting the room, but partly covered by the floor plaster and thus probably belonging to the foundation of this two-steps entrance, a stone with enigmatic incised signs, still to be investigated, has been recovered (Fig. 9c). The presence of foundation stones with “*graffiti*” in buildings with particular functions, even though rare, is not new³⁸. The incisions have been intentionally made, using a sharp double pointed instrument, as can be clearly seen from the marks left on the stone.

On the eastern side of room A80 a wide passage-way leads towards the centre of the cone and might possibly represent the main entrance to the MB palace/citadel. This is, in fact, what we might call a small street, along both sides of which runs a wide plastered bench, and bordered by the high walls of the structure.

This MB building has been totally destroyed by a sudden and violent fire, and completely sealed by its own collapsed walls and wooden beams.

The northwestern slope of the mound has been so much eroded that it is possible to evaluate neither the original extension of the monumental MB structure nor that occupied by the underlying EB levels. The contraction of the site, though, which took place after the end of EB I, and led to a “retreat” to the highest point of the mound was now further consolidated with the enclosing of the settlement within a fortification.

As has been already noted, the central, conical part of the mound has been occupied at least from the end of the Third Millennium; later, this area served as a base for building the fortified acropolis. Whether this area was fortified also during the Early Bronze Age is still not possible to say, as the contexts attested so far have a domestic character, but the possibility should not as yet be excluded.

The pottery from this monumental area is composed of small jars with high, flaring necks, generally with a buff surface and often with a burnished-pattern of parallel horizontal bands (Figs. 10c-f, 11a). These kinds of vessels have evident parallels in the MB levels of Lidar Höyük and such shapes are attributed in particular to the most recent phases of the period³⁹. At Tilbeshar, these shapes are illustrated amongst those of Middle Bronze II⁴⁰. Further comparisons are also evident with the Middle Bronze Age levels of Horum⁴¹ and Şaraga Höyük⁴². The materials found associated with the monumental building at Şaraga have been generically ascribed by the excavator to the Middle Bronze Age, but some published examples, apart from evidencing strong similarities with those found *in situ* in the fortified structure of Zeytinli Bahçe, seem to be related to phases 4 and 5 of Lidar and may belong to Middle Bronze II⁴³.

37) Characteristic of this period is the common appearance of fortified settlements: Kaschau 1999 ; Matthiae 2006.

38) An emblematic case, similar in character, even though of a later period, was found in the temple of ‘Ain Dara, a mound located 70 km north-west of Aleppo : Zimansky 2002 : 187, Fig. 13. A slightly earlier example of enigmatic incisions on clay cylinders is found at Umm el-Marra : Schwartz *et al.* 2006, pg. 624 : Fig. 25.

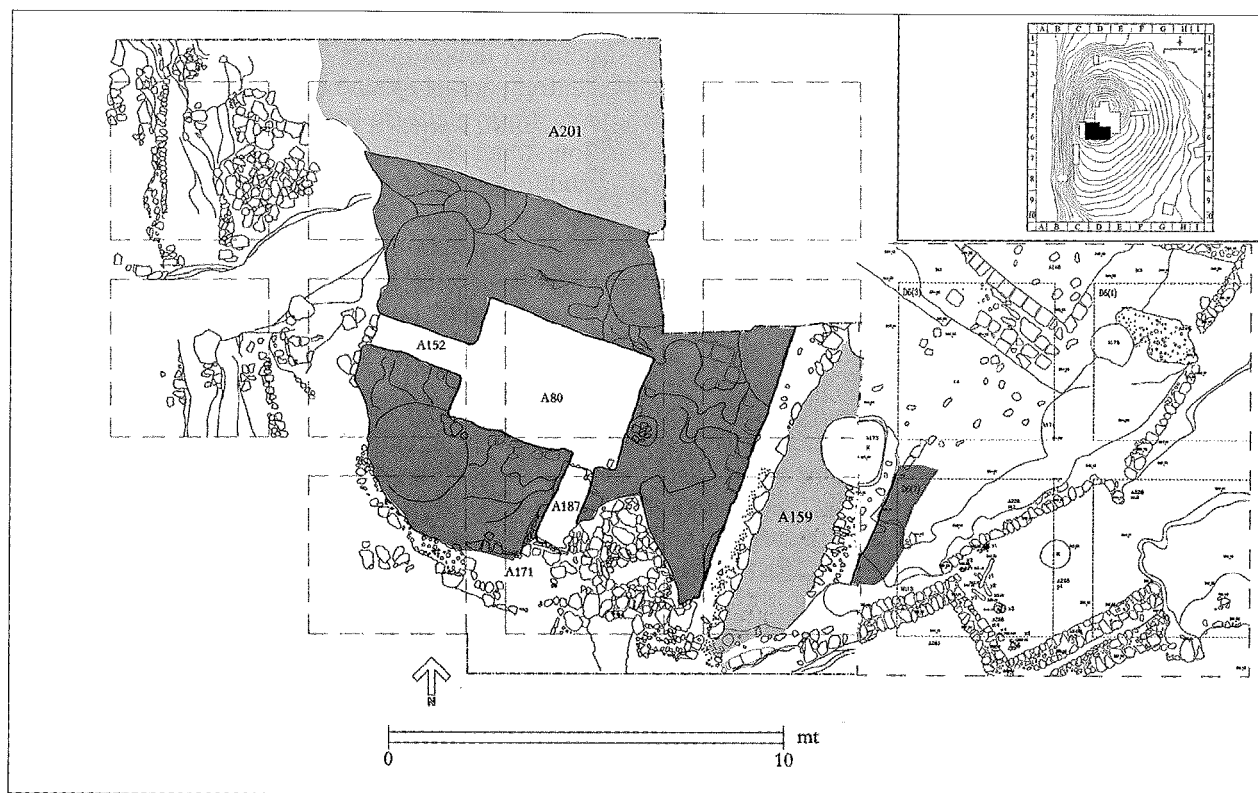
39) Kaschau 1999 : 46, type N11.

40) Kepinski-Lecomte and Ergeç 1999 : 250, Fig. 4: 2.

41) At Horum, this type of small jar is compared by Marro with the materials from Phases 4 and 5 of Lidar : Marro *et al.* 2000 : 265, fig. VII, 10.

42) Levels belonging to both Middle Bronze I and Middle Bronze II have also been found at Şavi Höyük, though over limited areas, but similarities between the published materials and those of Zeytinli Bahçe are not so evident : Dittmann 2003 ; Dittmann *et al.* 2002.

43) Sertok and Kulakoğlu 2001 : 472 ; for the comparison Kaschau 1999 : 46, 50 Types N11a and K/F 6a ; Sertok and Kulakoğlu 2002 : 366, Fig. 6,1-12.

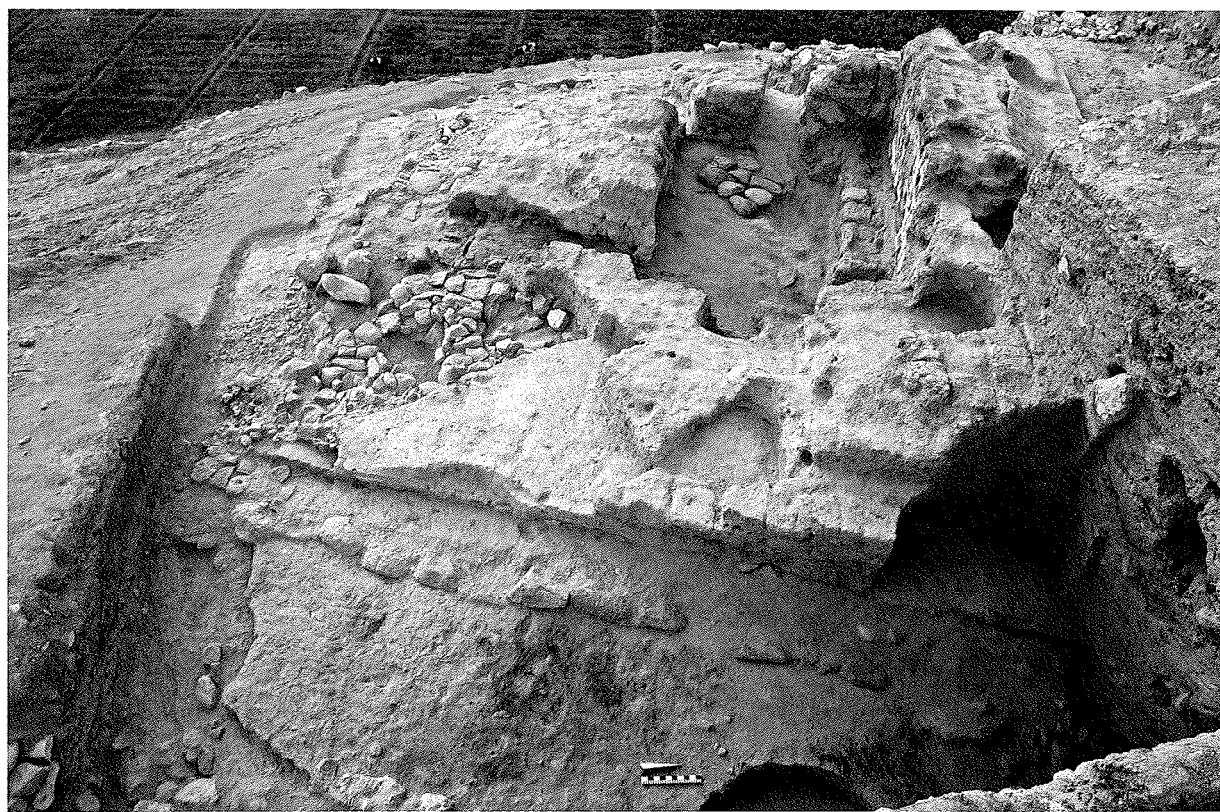


a

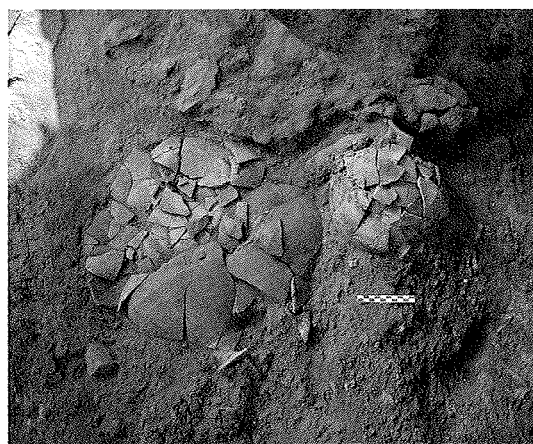


b

Fig. 7 : The Middle Bronze II fortified structure in trench D6.



a



b



c

Fig. 8 : The Middle Bronze II fortified structure : (a) the tower (room A80) and the entrance to the interior of the fortification ; (b) *in situ* ceramic materials in room A80 ; (c) bench along the northern wall of room A80.

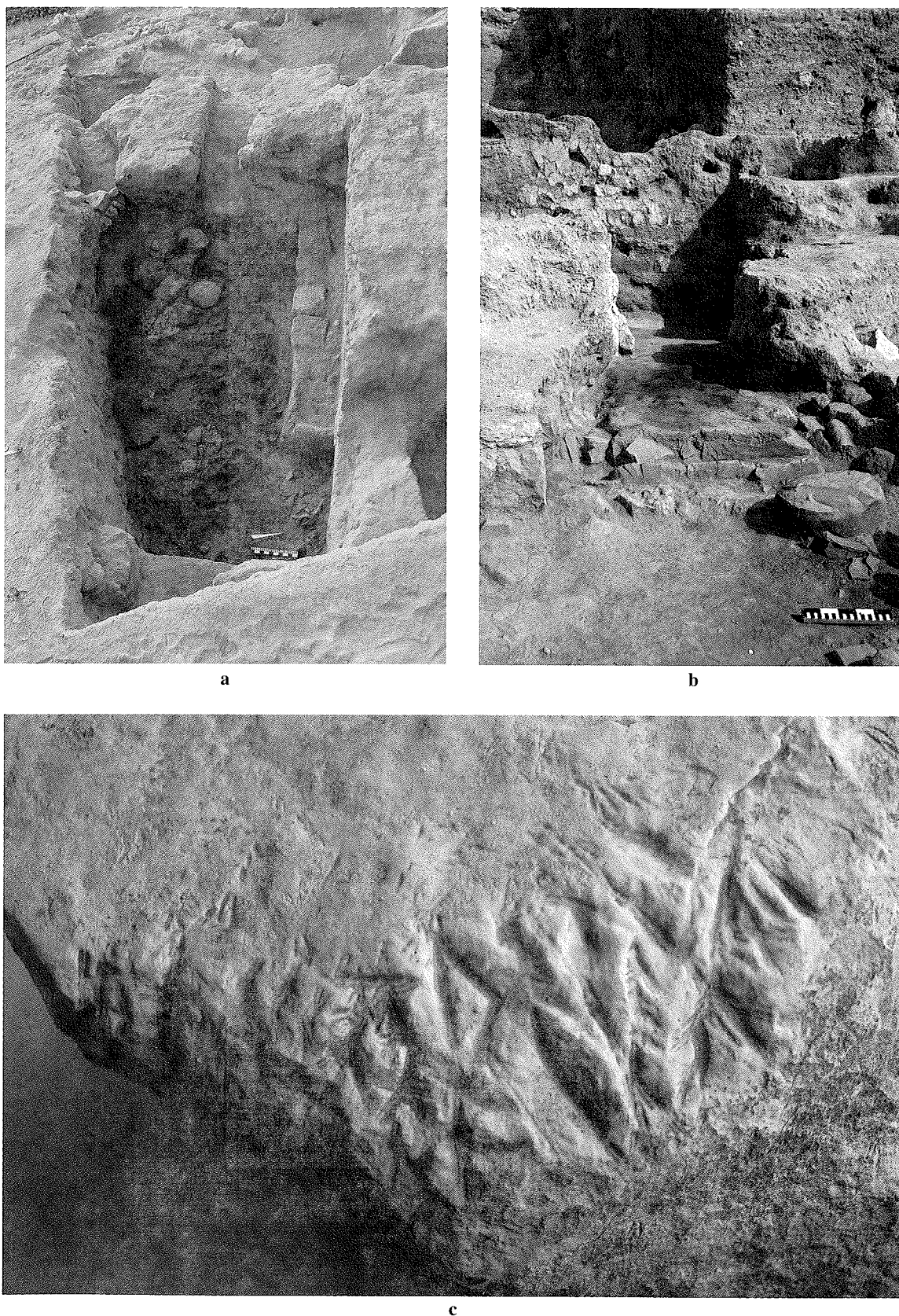


Fig. 9 : (a) The interior of the fortified tower (room A80) of MB II fortress, with the materials *in situ* ; (b) view of the southern entrance to the tower room from the exterior ; (c) stone block with incisions found in the threshold of the southern entrance to the tower.

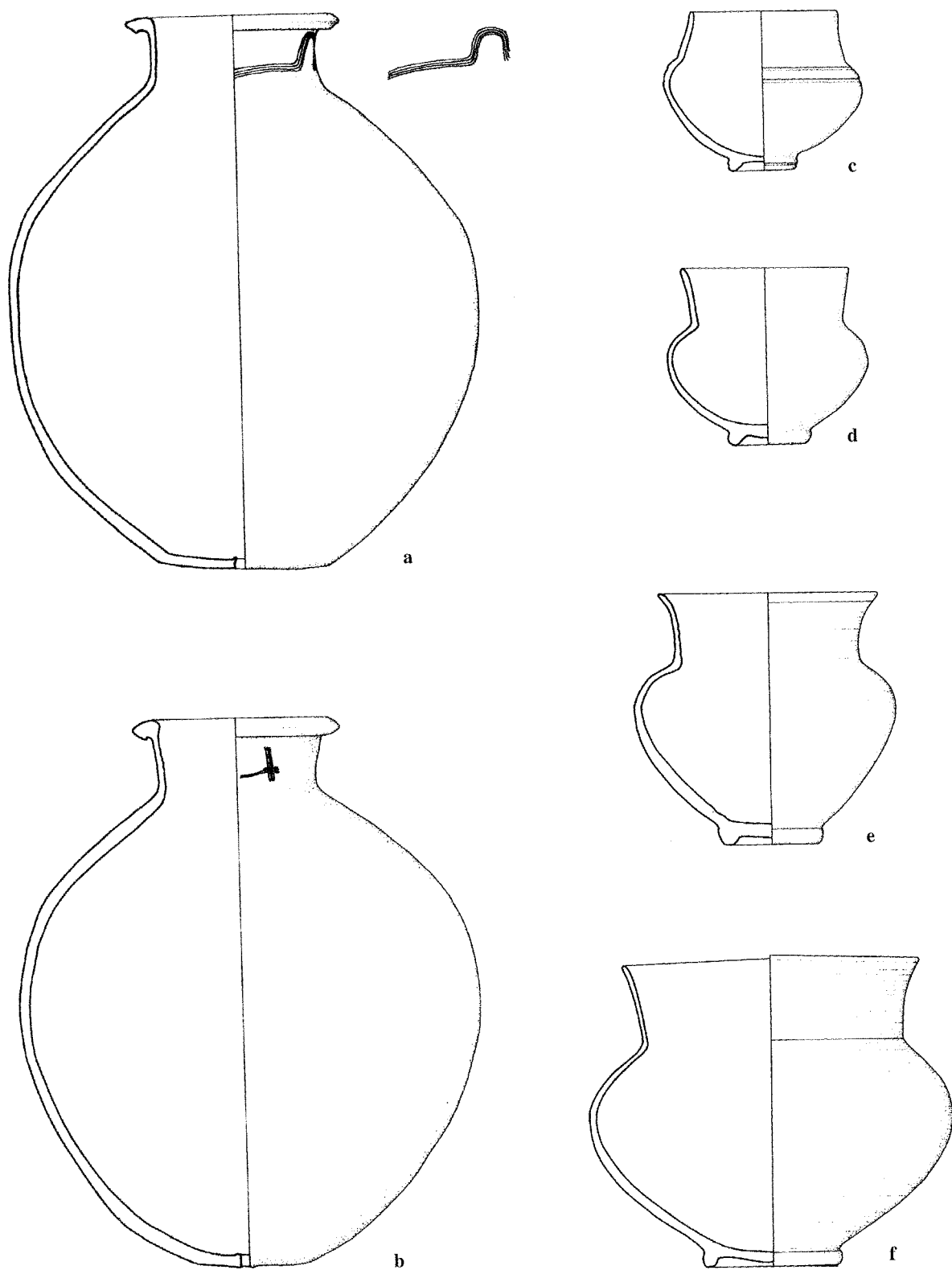
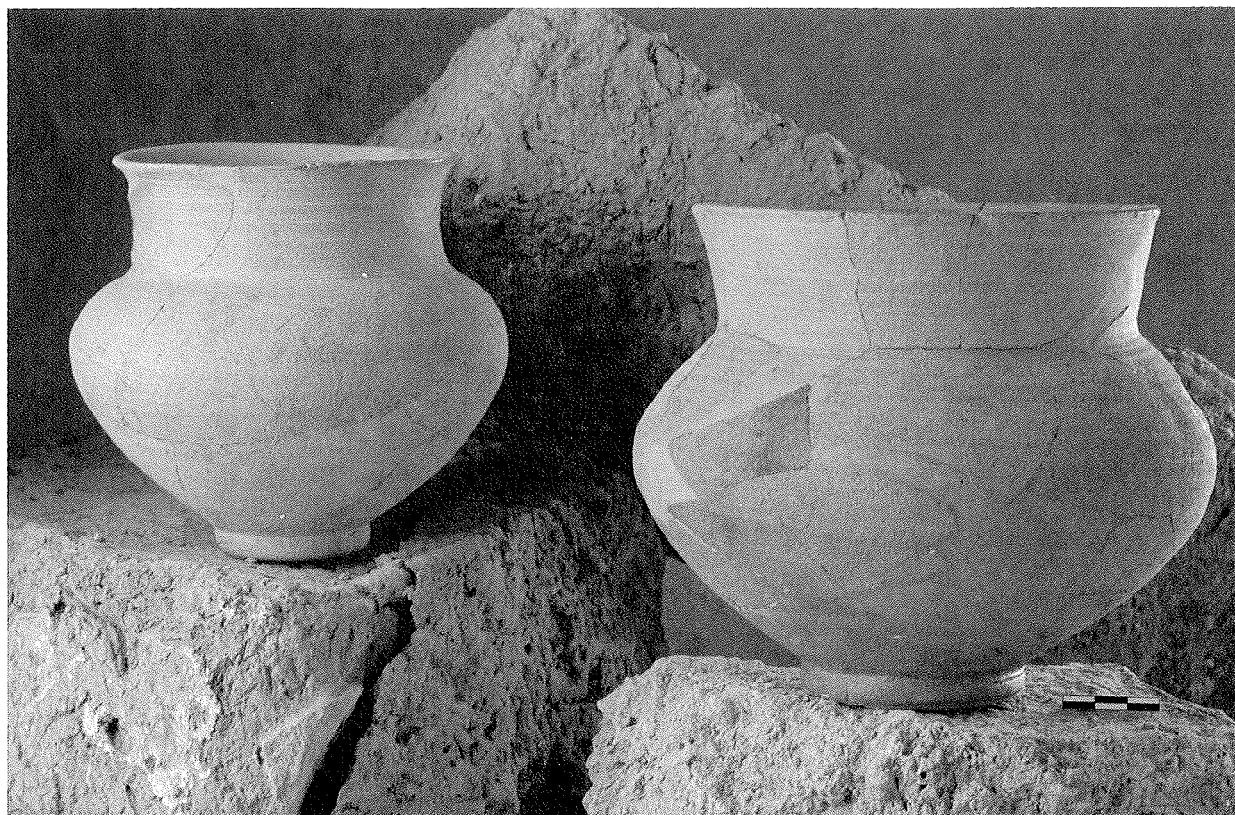
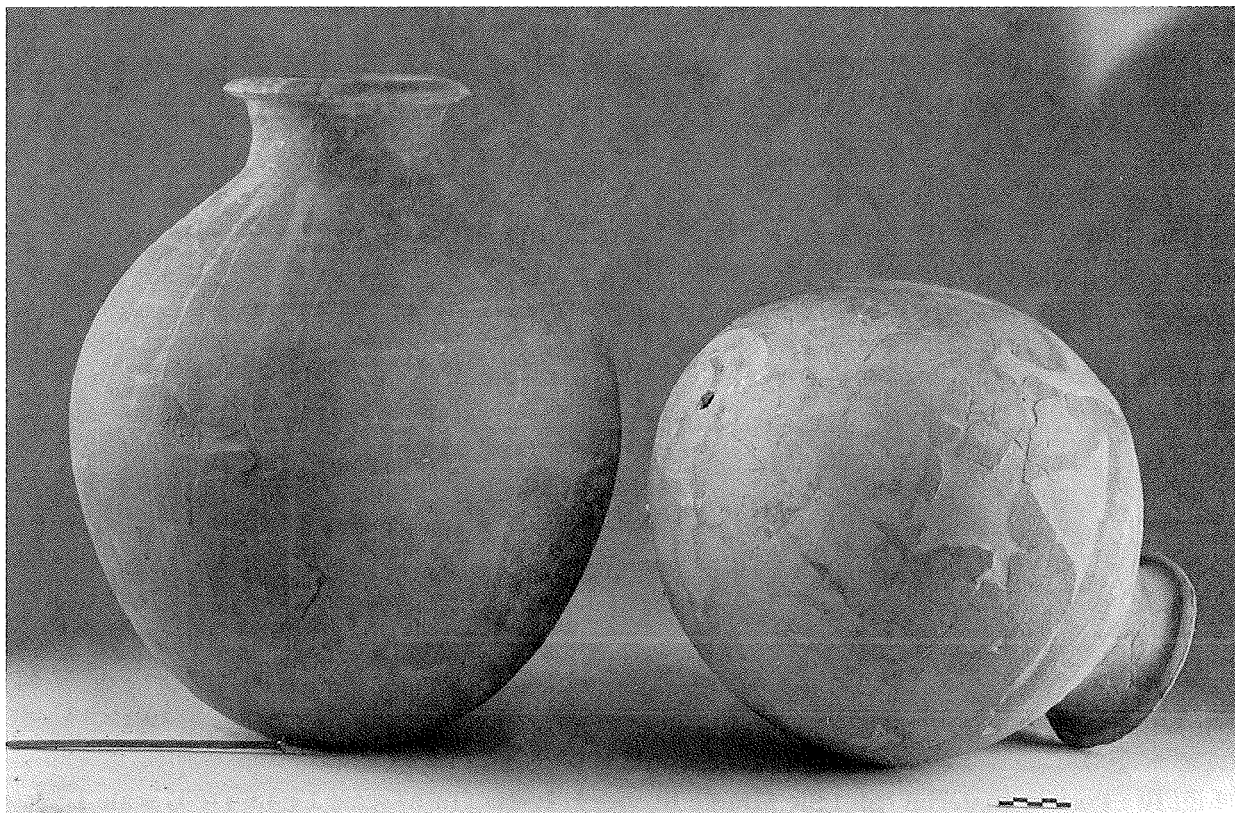


Fig. 10 : Pottery material from the Middle Bronze II levels ; (a-b) scale 1 : 4,5 ; (c-f) scale 1 : 3.

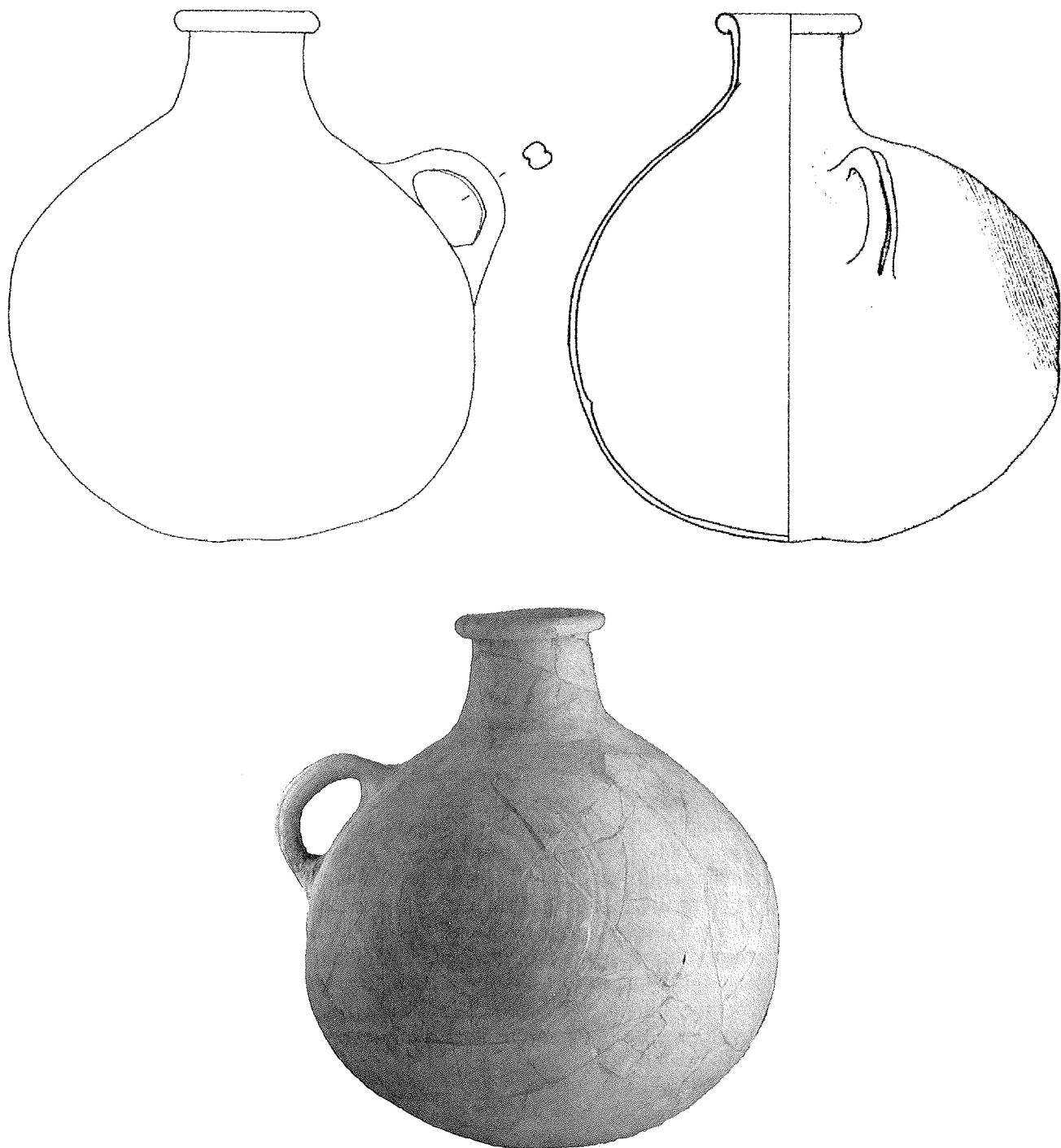


a



b

Fig. 11 : Pottery material from the Middle Bronze II levels.



**Fig. 12 : Globular jar, possibly used for transporting wine,
found in the MB II fortified structure. Scale 1 : 5.**

Other typical shapes are ovoid jars with cylindrical necks (Fig. 10a-b, 11b). In some cases potter's marks are attested. These are comb-incised, with multiple incised lines, and appear in two different motifs: a "hook-like" and a "cross-like" shape. The jars with such marks have a small opening at the base and may have therefore had a special function. A distinct shape is that of a globular jar with a single twin-handle and cylindrical neck (Fig. 12). This vase has been moulded with a particular technique. Very clear signs of wheel turning on the vessel's sides, together with numerous and deep potter's fingerprints on the interior, suggest that the pot was built in different stages, with a preliminary moulding of the two sides by the wheel and a rather coarse finish by hand. The vessel's neck has, furthermore, been added subsequently to the body. The profile of this vase is quite understandingly extremely irregular. This very characteristic, single-handled shape, manufactured with an atypical, quite recognisable technique, is known from many sites along the Middle Euphrates, in particular from the MB levels of Tilbeşar⁴⁴ and the Middle Bronze II and III of Lidar⁴⁵, from Kurban III⁴⁶, from Carchemish⁴⁷, from Horum⁴⁸ but also from sites along the Syrian Middle Euphrates: Haradum⁴⁹ Mari-palace⁵⁰ Tall Munbāqa⁵¹, and Kültepe, to the North, where, in levels II and Ib of the Karum of Kanish, analogous shapes appear, initially monochrome, and later decorated with corrugations, incisions, or painted concentric circles, which seem to repeat the effect left by the wheel on the walls of the pot⁵². The peculiar characteristics of this shape and its distribution within the region, suggest that it might have been a vessel for the transportation of liquids, and most probably of wine. According to texts of the beginning of the Second Millennium B.C. from Mari, the region of Carchemish, together with that of Yamhad, were excellent wine producers, and Carchemish, with its territory, was the main centre of redistribution of this important product⁵³. Even though no traces of the contents are visible in the vessel from Zeytinli Bahçe, the hypothesis that it was used for the transportation of liquids is certainly most plausible.

Amongst the most typical shapes are bowls with an inverted and thickened rim, obtained by folding the rim against the external surface, and small jars with external ridges. Incised decorations are mostly combed and generally follow two patterns: the first is formed by simple parallel bands, whilst the second has bands alternating with wavy lines. Common is the pattern-burnished decoration obtained by creating simple parallel or criss-crossing lines, also typical of the late Early Bronze Age.

The deep sounding on the eastern flank of the central cone (F5) has evidenced Middle Bronze levels, contemporary to those of building VII. The excavation has brought to light various terrace walls that, following the topography of the mound, probably separated the acropolis from an external occupation. This extra-mural occupation cannot have extended over a vast area, since no testimony of it has been found to the South, Southwest, nor the North of the mound. In this small, eastern area of the mound, MB domestic and activity structures have been identified. Of particular interest is a potter's area, recognisable by the presence of clay wastes, deformed ceramic fragments and traces of a furnace (not yet excavated). This confirms the presence of specialised activities at the site. Also to be signalled is an infant burial with a small conical necked jar. The findings of this trench signify that occupation at Zeytinli Bahçe during the Middle Bronze Age extended just outside the fortified area, to the East. Still not totally clear, because of the limited data today available, are the characteristics of the settlement at the beginning of the Second Millennium; exposed areas are still too limited. What we do know for the moment is that the site was separated in two distinct parts: a

44) Kepinski-Lecomte and Ergeç 1998 ; 1999 : 250, fig. 4,1.

45) Kaschau 1999 : 50-51, Type K/F6a.

46) Algaze 1990 : pl. 116.

47) Woolley 1921 : pl. 27, d3.

48) The twin-handle fragment found at Horum is dated by Marro to a transitional EBA-MBA period (Marro 2000 : 263, fig. VI,11), but it seems to be a long-lived type. A flask of this type is also attested at Horum in later MB contexts (Marro, pers. comm.).

49) Kepinski-Lecomte 1992: 218, fig.76, 1-2.

50) Parrot 1959 : 117, fig. 84, 856.

51) Werner 1998 : 72, fig. 81.

52) Emre 1995 : 178-179, pl. VI : 1a ; Özgüç 2003 : 148-149, fig.105.

53) Michel 1996 : 387-388 ; Milano 1994 : 432 ; Cooper 1997 : 335-341.

fortified structure or citadel on the high mound and a domestic and activity area just next to it, at the eastern base of the cone.

Chronology of these structures is given by the ceramic assemblage, which appears to be globally coherent with the MB II contexts of the region. Only a few fragments, amongst those analysed for the moment, could be dated to an earlier period, as for example those with burnished decoration. As for the radiocarbon datings of Zeytinli Bağçe, the maximum overlapping interval of five charcoal samples out of five from the floor of Room A80, is 2028-1980 BC calibrated⁵⁴. Such dates, if compared with those of Lidar and other sites, which set the Middle Bronze Age II between 1900 and 1750 B.C.⁵⁵, would appear to antedate the Middle Bronze levels of Zeytinli Bağçe by at least one century. The radiocarbon datings carried out at Zeytinli Bağçe have been obtained from wooden beams found *in situ*, that might be reused structural elements from an earlier, yet unidentified, building phase. A phase clearly attributable to the Middle Bronze I has not yet been identified in the site⁵⁶.

The radical change that, as we have seen, marked the passage from the late EB domestic occupation/activity area to the MB fortification, were we to rule out the possibility of a complete destruction of a MB I settlement by erosion or the foundation of the overlying MB II structure, might suggest a moment of abandonment of the site during this phase.

This phenomenon of change is observed in other sites of the Carchemish region in the course of the Middle Bronze Age. This is clearly attested at Lidar Höyük, farther from this area, but the only multi-stratified site that can be used as a reference for this period. This settlement has imposing fortification walls, which seem to have been built in a mature phase of the Middle Bronze Age. Middle Bronze I in this site is poorly identified⁵⁷. At Şaraga Höyük, a MBA monumental building shows a remarkable architectural change compared with the ordinary dwellings of the late Early Bronze Age⁵⁸.

Even though we have no clear testimony of the duration of the time interval between the last EBA and the MB II occupation at Zeytinli Bağçe, it must have been rather short. Or else, it is possible that the elements that so far were considered as typical of the Middle Bronze II should in fact be brought back to an earlier date, or that the Middle Bronze I is, at least in this region, limited to a very short period of time around the very beginning of the Second Millennium B.C. This would justify the early date of the Middle Bronze II structure at Zeytinli Bağçe. Even though one were to prove the very short duration of the Middle Bronze I period, we would still have to admit that there is no trace of its presence at Zeytinli Bağçe: apart from the absence of pottery, neither the stratigraphy, nor the architecture, essential to the definition of cultural periods, testify to an occupation phase between the late Early Bronze Age and the Middle Bronze II fortress.

The character of the Middle Bronze II settlements of the region suggests that this period sees the development of fortified centres of minor importance, like Zeytinli Bağçe, with a fairly strong cultural cohesion and probably all rotating around a larger regional centre, which could have been, in the case of our site, Carchemish. This centre probably exercised some control over the other sites, which nevertheless still maintained a certain autonomy.

We would thus be witnessing a function change for Zeytinli Bağçe in the area at the beginning of the Second Millennium B.C.; it might have become a kind of satellite or outpost for the neighbouring urban town of Carchemish, in a period of flourishing long-distance trade and exchange of goods. From a cooperative regional economic system, with autonomous but interrelated sites, historically typical of the area, we might be switching to a more centralised system.

54) The datings were carried out by Prof. Gilberto Calderoni, ¹⁴C Date Laboratory, Department of Earth Sciences, University of Rome "La Sapienza".

55) Görsdorf *et al.* 2002.

56) We have to stress that, though, on the one hand, the archaeological dating of the most distinctive pottery shapes found at our site clearly points to Middle Bronze II, on the other hand, the limited repertoire at our disposal so far, together with the still unclear distinction between the two Middle Bronze phases in our region, make us cautious in ascribing with certainty the Zeytinli Bağçe Middle Bronze levels to this precise phase within the period. Only new and more extensive excavations, by offering a richer and wider pottery assemblage, will allow us to be able to satisfactorily solve this problem.

57) Kaschau 1999.

58) Sertok and Kulakoğlu 2001 : 478.

CONCLUDING REMARKS

The site of Zeytinli Bahçe, thanks to its small and rural character and its very long occupation, provides us with important, even though still preliminary, data in the evaluation and analysis of possible phenomena of regional crises, as debated in this colloquium. Such a site, in fact, enables us to observe the events from an unusual point of view in archaeological research, by observing the changes in the behaviour and function of minor sites, as a consequence of major events of which others were the protagonists. These changes, certainly less pronounced and perceptible than in the main centres of political power and decision-making, still wholly reflect the importance and structural significance of the events, since, when evident, they indicate the involvement of the whole population.

Within the long and relatively continuous cultural development of Zeytinli Bahçe, there are three moments of major change that have been brought to light, which are tentatively interpreted here: 1) the probable abandonment of the village during Early Bronze II (and possibly also partly during Early Bronze III); 2) the re-occupation of the site in Early Bronze IV (or slightly earlier) at the end of the Third Millennium B.C.; an occupation characterized by different features and a reduced extension in comparison with the preceding settlement; 3) the possible modification of the site's function, even though not yet totally understood, at the beginning of the Second millennium B.C., after a possible short interruption in the settlement's occupation corresponding to Middle Bronze I. A major transformation in the nature and role of the site, probably also related to its new function within the surrounding territory, is evident in the changed settlement-pattern of Middle Bronze II.

The abandonment of the Early Bronze II settlement, even though it could be partly explained by the difficulties due to the strong fluctuations in the flow regimes of the Euphrates and the consequent flooding of riverside settlements, as other contemporary sites excavated in the Turkish Middle Euphrates region also testify, might also be linked to a regional scene of tensions and political conflicts. Conflicts may have originated in the region between emerging centres controlling small autonomous and fragmented political units, in a period characterised by a general trend towards urbanization⁵⁹. Tensions may have also arisen with the neighbouring Jezireh, which is located in a very different political environment, a region probably expanding, strongly urbanised and relying economically on intensive agriculture. The development of large competitive centres must have implied new boundary definitions and "boundary reconstruction"⁶⁰, with possible negative effects on minor sites suffering from this territorial stress.

We do not yet thoroughly know the characteristics of the late Third Millennium B.C. occupation at Zeytinli Bahçe (EB IV), since traces of domestic and activity areas have only been found in a small zone in the upper part of the mound, where investigations were furthermore obstructed by the presence of an overlying MB II fortification. Possibly, the EB IV settlement was a rural village of small importance, born of the normal fluctuations of settlement locations in this area of the river valley. Daily life and subsistence economy appear to differ markedly from that of the EB I period, as could be expected after a long occupation gap, as confirmed by the animal breeding patterns: instead of the characteristic emphasis given to pig rearing in EB I, there is now a significant presence of cattle, together with sheep and goats⁶¹. Interesting, but possibly out of keeping with the rural character of the site, is the presence of a pit with numerous *cretulae* with seal impressions, which might indicate that administrative activities were taking place at the site, or that the site had some role in the commercial network of the region, anticipating somehow its future function at the beginning of the Second Millennium B.C.

The new and possibly short abandonment suggested by the small gap in the stratigraphy of the higher part of the mound, between the EB IV occupation level and the construction of the fortification, the destruction of which appears to be dated to the Middle Bronze II, can be linked, as is the previous abandonment in Early Bronze II, with phenomena of major political readjustment in the

59) See Titriş (Algaze *et al.* 1996).

60) Eisenstadt 1988.

61) Siracusano pers. comm.; Siracusano in Frangipane.



Fig. 13 : View of Zeytinli Bahçe in the Euphrates valley from the Urfa-Gaziantep road.

region. These may have caused stress on small rural sites, whether they were involved in conflicts between large expanding entities in the definition of their territories or deserted as a result of a process of urban migration⁶². It is evident that the main protagonist of the new regional setting at the beginning of the Second Millennium B.C. must have been Carchemish, as has been already pointed out by many scholars⁶³, even though the lack of data from this site makes it impossible to fully understand the characters, evolution and role of this city. After all, the well-known crisis perceptible in the Khabur region and its surrounding territories at the end of the Akkadian empire, probably contributed to stimulate the development of new large centres to the West, bringing about an alteration of the existing territorial equilibrium. The substantial urban growth and political centralization at the beginning of the Second Millennium B.C., at least at a local level, appear to be a phenomenon with a totally new impact on the region, which had been, with alternating events and fluctuating attempts at urbanization, dominated by essentially tribal social structures and politically fragmented organisation during most of the Third Millennium.

Hence the possible crisis between the end of the Third and the beginning of Second Millennium B.C. in the Middle Euphrates valley was in no way comparable to that of the central and eastern Jezireh, but probably represented the re-organisation of the regional political scene in accordance with the far-reaching changes undergone in the degree of centralization and urbanization. This is attested by the variability in the timing and modes of this crisis (or apparent absence of one) in the different sites of the Middle Euphrates, north and south of Carchemish. This is demonstrated also by the limited length of the breaks or reduction episodes in the occupation of the majority of sites and,

62) Peltenburg, this volume.

63) Algaze 1999 : 555 ; Peltenburg, this volume.

most important, by the cultural continuity perceptible from the Third to the Second Millennium B.C. in many of these sites⁶⁴, as at Zeytinli Bahçe, suggesting the continuity in traditions and daily habits of the population.

The later building of the MB II imposing fortified complex on the summit of the small mound of Zeytinli Bahçe, from which the gaze dominates the entire valley (Fig. 13), could be the result of the stability achieved by the new political order, which radically changed the organisation and the social and political structure of the Middle Euphrates communities. Large urban settlements, able now to control vast territories and to coordinate the economic and production activities of the rural communities, probably also in Middle Euphrates region, possibly spurred the foundation of outposts with the function of controlling the territory and/or the trade routes. The finding of storage jars, possibly used for valuable goods like wine, in the room of the MB II fortress tower, could be the confirmation of the change in function of Zeytinli Bahçe in the economy of the region, where the development of new outposts to the North of Carchemish may have been connected with routes in the direction of the Anatolian mountains, rich in primary resources.

Unlike what has been observed in the Khabur region, the “crisis” evidenced at the end of the Third Millennium by a discontinuity in the occupation sequence of some of the sites in the Middle Euphrates valley, whether it be on the Turkish or the Syrian side, cannot in our opinion be called a “collapse”, since it is not the result of the downfall of a large-scale, centralized territorial system. Rather, it seems to correspond to the readjustment of an equilibrium during the foundation process of new centralized political systems, though territorially less extended than those in the eastern regions, which had a long tradition of urban development.

BIBLIOGRAPHY

- Akkermans, P.M.M.G. and G. Schwartz
 – 2003 : *The Archaeology of Syria. From Complex Hunter-Gatherers to Early Urban Societies (ca. 16,000-300 B.C.)*. Cambridge World Archaeology. Cambridge University Press, Cambridge.
- Algaze, G. (ed.)
 – 1990 : *Town and country in southeastern Anatolia*, Vol. II. *The stratigraphic sequence at Kurban Höyük*. Oriental Institute Publications 110, Chicago.
- 1999 : “Trends in the archaeological development of the Upper Euphrates Basin of South-eastern Anatolia during the Late Chalcolithic and Early Bronze Ages”, in G. del Olmo Lete and J.-L. Montero Fenollós (eds.), *Archaeology of the Upper Syrian Euphrates, the Tishrin Dam area*, Aula Orientalis-Supplementa 15, Editorial AUSA, Barcelona : 535-572.
- Algaze, G., R. Breuninger and J. Kelly
 – 1996 : “Late EBA urban structure at Titriş Höyük, Southeastern Turkey : the 1995 season”. *Anatolica* 22 : 129-143.
- Algaze, G., T. Matney, D. Schlee and J. Knudstad
 – 1994 : “The Tigris-Euphrates Archaeological Reconnaissance Project, Final report of the Birecik and Carchemish Dam survey areas”. *Anatolica* 20 : 1-96.
- Alvaro, C., F. Balossi and J. Vroom
 – 2004 : “Zeytinli Bahçe. A Medieval Fortified Settlement”. *Anatolia Antiqua* XII : 191-213.
- Behm-Blanke, M. (eds.)
 – 1984 : “Hasek Höyük. Vorläufiger Bericht über die Ausgrabungen den Jahren 1978-1980”. *Istanbul Mitteilungen* 34 : 11-94.
- Boese, J.
 – 1995 : *Ausgrabungen in Tell Sheikh Hassan, Vorläufige Berichte über die Grabungskampagnen 1984-1990 und 1992-1994*. University of Saarbrücken Press, Saarbrücken.
- Cooper, L.
 – 1997 : *The Middle Bronze Age of the Euphrates Valley, Syria : Chronology, Regional Interaction and Cultural Exchange*. PhD thesis. University of Toronto, University Microfilm International.

64) Cooper 2006 : 26-29.

– 2006 : “The Demise and Regeneration of Bronze Age Urban Centers in the Euphrates Valley of Syria”, in G. M. Schwartz, J. J. Nichols (eds.), *After Collapse. The Regeneration of Complex Societies*, The University of Arizona Press, Tucson : 18-37.

Dittmann, R.

– 2003 : “Excavations at Şavi Höyük 2000-2001”. 24. *Kazı Sonuçları Toplantısı*. Ankara : 247-258.

Dittmann R., S. Huh, T. Mitschang, E. Müller, U. Röttger, C. Schmidt and D. Wicke

– 2002 : “Report on the first campaign of excavations at Şavi Höyük”, in N. Tuna, J. Öztürk, J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs. Activities in 2000*, Middle East Technical University (METU), Ankara : 211-240.

Eisenstadt, S. N.

– 1988 : “Beyond Collapse.”, in N. Yoffee and G.L. Cowgill (eds.), *The Collapse of Ancient States and Civilizations*, University of Arizona Press, Tucson : 236-43.

Emberling, G., J. Cheng, T.E. Larsen, H. Pittman, T. Skuldboel, J. Weber, and H.T. Wright

– 1999 : “Excavations at Tell Brak 1998 : Preliminary Report”. *Iraq LXI* :1-41.

Emre, K.

– 1995 : “Pilgrim-Flasks from level I of the karum Kanish”. *Bulletin of the Middle Eastern Culture Center at Japan*, 7 : 173-200.

Frangipane, M.

– in print : “The Establishment of a Middle/Upper Euphrates EB I Culture from the Fragmentation of the Uruk World. New Data from Zeytinli Bağe Höyük (Urfa, Turkey)”, in E. Peltenburg, (ed.), *The Carchemish Region in the 3rd Millennium B.C.* Oxbow, Oxford.

Frangipane, M., C. Alvaro, F. Balossi Restelli, and G. Siracusano

– 2002 : “The 2000 Campaign at Zeytinli Bağe Höyük”, in N. Tuna, J. Öztürk, and J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs. Activities in 2000*, Middle East Technical University, Centre for Research and Assessment of the Historic Environment (TAÇDAM), Ankara : 57-99.

Frangipane, M. and F. Balossi

– 2005 : “Scavi di salvataggio a Zeytinli Bağe Höyük”, in A. Tangianu (ed.), *Dall’Eufrate al Mediterraneo. Ricerche delle Missioni Archeologiche Italiane in Turchia*, Istituto Italiano di Cultura di Ankara, Ankara : 29-40.

– 2006 : “Excavation and Study Campaign at Zeytinli Bağe, 2004”. *Kazı Sonuçları Toplantısı* 27 : 391-400.

Frangipane, M., F. Balossi, G.M. Di Nocera, A. Palmieri, and G. Siracusano

– 2004 : “The 2001 Excavation Campaign at Zeytinli Bağe Höyük: Preliminary Results”, in N. Tuna, J. Greenhalg, and J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs. Activities in 2001*, Middle East Technical University, Centre for Research and Assessment of the Historic Environment (TAÇDAM), Ankara : 20-56.

Frangipane, M. and E. Bucak

– 2001 : “Excavations and researches at Zeytinli Bağe Höyük, 1999”, in N. Tuna, J. Öztürk, and J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs. Activities in 1999*, Middle East Technical University, Centre for Research and Assessment of the Historic Environment (TAÇDAM), Ankara : 84-131.

Frangipane, M., P. Ferioli, E. Fiandra, R. Laurito and H. Pittman

– in print : *Arslantepe Cretulae. An Early Centralised Administrative System Before Writing. ‘ARSLANTEPE’* vol.V. Università di Roma La Sapienza, Roma.

Frangipane, M., G.M. Di Nocera, A. Hauptmann, P. Morbidelli, A.M. Palmieri, L. Sadori, M. Schultz and T. Schmidt-Schultz

– 2001 : “New Symbols of a New Power in a ‘Royal’ Tomb from 3000 B.C. Arslantepe, Malatya (Turkey)”. *Paléorient* 27/2 : 105-139.

Frangipane M., G.M. Di Nocera and G. Siracusano

– in print : “The Investigations at Zeytinli Bağe Höyük (Urfa), the 2002 Campaign”, in N. Tuna, J. Öztürk, J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs. Activities in 2002*, Middle East Technical University (METU), Ankara.

Görsdorf J., H. Hauptmann and G. Kaschau

– 2002 : “14-Datierungen zur Schichtabfolge des Lidar Höyük, Südost-Türkei”. *Berliner Beiträge zur Archäometrie*, Band 19 : 63-70.

- Jamieson, A.S.
 – “The Euphrates Valley and Early Bronze Age Ceramic Traditions”. *Abr-Nahrain* 31 : 39-92.
- Kaschau G.
 – 1999: “*Lidar Höyük. Die Keramik der mittleren Bronzezeit*”. Verlag Philipp von Zabern, Mainz am Rhein.
- Kepinski-Lecomte, C.
 – 1992 : *Haradum I. Une ville nouvelle sur le Moyen-Euphrates, (XVIII^e-XVII^e)*. Editions Recherche sur les Civilisations, Paris.
- Kepinski-Lecomte, C. and R. Ergeç
 – 1998 : “Les céramiques de la prospection de Tilbeshar au Bronze Ancien et Bronze Moyen”. *Anatolia Antiqua* VI : 155-172.
- 1999 : “Tilbeshar 1998”. *Anatolia Antiqua* VII : 245-251.
- Matthiae, P.
 – 2006 : “The Archaic Palace at Ebla : A Royal Building between Early Bronze Age IVB and Middle Bronze Age I”, in S. Gitin, J.E. Wright and J.P. Dessel (eds.), *Confronting the Past. Archaeological and Historical Essays on Ancient Israel in Honor of William G. Dever*, Eisenbrauns, Winona Lake.
- Marro, C., A. Tibet and F. Bulgan
 – 2000 : “Fouilles de sauvetage de Horum Höyük (province de Gaziantep): quatrième rapport préliminaire”, *Anatolia Antiqua* VIII : 257-278.
- Michel C.
 – 1996 : “Le commerce dans les textes de Mari”, in J.-M. Durand (ed.), *Amurru I. Mari, Ebla et les Hourrites. Dix ans de travaux*. Éditions Recherche sur la Civilisation, Paris : 385-426.
- Milano L.
 – 1994 : “Vino e birra in oriente, confini geografici e confini culturali”, in L. Milano (ed.), *Drinking in Ancient Societies. History and Culture of Drinks in the Ancient Near East*. Rome May 17-19, 1990, Sargon srl, Padova : 421-440.
- Oates, J.
 – 1985 : “Tell Brak: Uruk pottery from the 1984 season”. *Iraq* XLVII : 175-186.
- Oates, D. and J. Oates
 – 1993 : “Excavations at Tell Brak 1992-93”. *Iraq* LV : 155-199.
- Ökse, A. T.
 – 2006 : “Gre Virike (Period I) - Early Bronze Age Ritual Facilities on the Middle Euphrates River”. *Anatolica* 32 : 1-28.
- Özgüç T.
 – 2003 : *Kultepe, Kaniš/Neša*. The Middle Eastern Culture Center in Japan, İstanbul.
- Parrot A.
 – 1959 : *Le Palais*. Mission Archéologique de Mari II : Paris.
- Peltenburg, E.
 – 1999 : “The living and the ancestors: Early Bronze Age mortuary practices at Jerablus Tahtani”, in G. del Olmo Lete and J.-L. Montero Fenollós (eds.), *Archaeology of the Upper Syrian Euphrates : The Tishrin Dam Area*. Aula Orientalis-Supplementa 15, Editorial AUSA, Barcelona : 427-442.
- Peltenburg, E. J., S. Campbell, P. Croft, D. Lunt, M. Murray and M. Watt
 – 1995 : “Jerablus-Tahtani, Syria, 1992-4: Preliminary Report”. *Levant* 27 : 1-28.
- Pearce, J.
 – 2000 : “The Late Chalcolithic Sequence at Hacinebi, Turkey”, in C. Marro and H. Hauptmann (eds.), *Chronologies des Pays du Caucase et de l'Euphrate aux IV^e-III^e millénaires*, Institut Français d'Études Anatoliennes d'Istanbul, Paris : 115-143.
- Pollock, S. and C. Coursey
 – 1995 : “Ceramics from Hacinebi Tepe : Chronology and Connections”. *Anatolica* XXI : 101-141.
- Porter, A.
 – 1995 : “Tell Banat - Tomb 1”. *Damaszener Mitteilungen* 8 : 1-50.
- 1999 : “The Ceramic Horizon of the Early Bronze in the Upper Euphrates”, in G. del Olmo and J.-L. Montero-Fenollós (eds.), *Archaeology of the Upper Syrian Euphrates : The Tishrin Dam Area*, AUSA, Barcelona : 311-320.
- 2002 : “The dynamics of death : Pastoralism and the origins of a Third-Millennium city in Syria”. *Bulletin of the American Schools of Oriental Research* 325 : 1-36.
- Porter, A. and T. McClellan
 – 1998 : “The Third Millennium Settlement Complex at Tell Banat : Results of the 1994 Excavations”. *Damaszener Mitteilungen* 10 : 11-63.

- Pruß, A.
 – 2000 : “The Metallic Ware of Upper Mesopotamia : Definition, Chronology and Distribution”, in C. Marro and H. Hauptmann (eds.), *Chronologies des Pays du Caucase et de l’Euphrate aux IV^e-III^e millénaires*, Institut Français d’Etudes Anatoliennes d’Istanbul, De Boccard : 192-203.
- Schwartz, G.M.
 – 2006 : “From collapse to regeneration”, in G.M. Schwartz and J.J. Nichols (eds.), *After Collapse. The Regeneration of Complex Societies*. The University of Arizona Press, Tucson : 3-17.
- Schwartz, G. M., H. H. Curvers, S. S. Dunham, B. Stuart and J. A. Weber
 – 2006 : “A Third-Millennium B.C. Elite Mortuary Complex at Umm el-Marra, Syria : 2002 and 2004 Excavations”. *American Journal of Archaeology* 110 : 630-641.
- Schwartz, G.M. and J.J. Nichols (eds.)
 – 2006 : *After Collapse. The Regeneration of Complex Societies*. The University of Arizona Press, Tucson.
- Sertok, K. and F. Kulakoğlu F.
 – 2001 : “Results of the 1999 Season Excavations at Şaraga Höyük”, in N. Tuna, J. Öztürk, J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs. Activities in 1999*, Middle East Technical University (METU), Ankara : 453-486.
- 2002 : “Şaraga Höyük 2000”, in N. Tuna, J. Öztürk, J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs. Activities in 2000*, Middle East Technical University (METU), Ankara : 351-381.
- Sertok, K. and R. Ergeç
 – 1999 : “A new Early Bronze Age cemetery. Excavations near the Birecik Dam, SE Turkey. Preliminary report (1997-98)”. *Anatolica* 25 : 87-107.
- Stein, G.
 – 2004 : “Structural Parameters and Sociocultural Factors in the Economic Organization of North Mesopotamian Urbanism in the Third Millennium B.C.”, in G. Feinman and L. Nicholas (eds.), *Archaeological Perspectives on Political Economies*. University of Utah Press, Salt Lake City : 61-78.
- Stein, G., K. Boden, C. Edens, J. Pearce Edens, K. Keith, A. McMahon, and H. Özbal
 – 1997 : “Excavations at Hacinebi, Turkey - 1996: Preliminary report”. *Anatolica* XXIII : 111-171.
- Tainter J.
 – 1988 : *The Collapse of Complex Societies*, Cambridge University Press, Cambridge.
- Van Loon, M. N.
 2001 : *Selenkahiye : Final Report on the University of Chicago and University of Amsterdam Excavations in the Tabqa Reservoir, Northern Syria, 1967-1975*. Nederlands Historisch-Archaeologisch Instituut, Istanbul.
- Weiss, H., M.-A. Courty, W. Wetterstrom, F. Guichard, L. Senior, R. Meadow and A. Curnow
 – 1993 : “The genesis and collapse of third millennium North Mesopotamian civilization”. *Science* 261 : 995-1004.
- Werner, P. (ed.)
 – 1998 : *Tall Munbaqa. Bronzezeit in Syrien*. Hamburger Museum für Archäologie : Hamburg.
- Wilkinson, T.J.
 – 1997 : “Environmental fluctuations, agricultural production, and collapse : A view from Bronze Age Upper Mesopotamia”, in H. Dalfes, G. Kukla, H. Weiss (eds.), *Third Millennium B.C. Climate Change and Old World Collapse*. Springer-Verlag, Berlin : 67-106.
- Woolley, C. L.
 – 1921 : *Carchemish, Part II, The Town Defences*. London.
- Yoffee, N.
 – 2005 : *Myths of the Archaic State : Evolution of the Earliest Cities, States, and Civilizations*. Cambridge University Press, Cambridge.
- Yoffee, N. and G. Cowgill (eds.)
 – 1988 : *The Collapse of Ancient States and Civilizations*. University of Arizona Press, Tucson.
- Zettler, R. L.
 – 1997 : *Subsistence and Settlement in a Marginal Environment : Tell es-Sweyhat, 1989-1995 Preliminary Report*. Research Papers in Science and Archaeology 14. MASCA, Philadelphia.
- Zimansky, P.
 – 2002 : “The ‘Hittites’ at ‘Ain Dara”. In K.A. Yener, H.A. Jr. Hoffner (eds.), *Recent Developments in Hittite archaeology and History. Papers in Memory of Hans G. Güterbock*, Eisenbrauns, Winona Lake, Indiana : 177-191.