

The Proto-Halaf period in Syria. New sites, new data

In: Paléorient. 2004, Vol. 30 N°1. pp. 47-68.

Abstract

This paper intends to give a brief factual account of some of the new fieldwork projects in Syria that are now documenting a short transitional stage between the Pre-Halaf and the Early Halaf. This stage, which for present purposes we have termed Proto-Halaf (about 6100-5950 cal. BC), appears to have been a crucial time, during which the basis was laid for the subsequent Halaf phenomenon. Evidence gathered so far suggests that the transition from Pre-Halaf to Early Halaf happened fairly rapidly, within the course of only a few generations. What we have termed the Proto-Halaf period refers largely to changes observed in the ceramic assemblages. These we shall present geographically by discussing previously excavated sites while also including new discoveries that are changing our insights with almost every fieldwork season. We hope to offer a framework for further work on this crucial stage in Mesopotamian prehistory.

Résumé

Cette contribution présente un rapide bilan des acquis obtenus lors de projets archéologiques récents qui se développent en Syrie et qui apportent de l'information sur la courte période de transition située entre le Pré-Halaf et le Halaf ancien. Cette période, ici nommée Proto-Halaf (autour de 6100-5950 cal. BC), semble avoir été cruciale pour la genèse du phénomène du Halaf : la transition du Pré-Halaf au Halaf ancien semble avoir été très rapide, le temps de quelques générations. Le terme Proto-Halaf fait essentiellement référence aux changements observés dans les assemblages céramiques. Présentés sur un plan spatial, anciennes fouilles et nouvelles découvertes, les résultats obtenus conduisent à changer nos points de vue. Cette note doit constituer une base pour les recherches à venir sur cette étape qui nous paraît cruciale.

Citer ce document / Cite this document :

Nieuwenhuysse Olivier, Cruells Walter. The Proto-Halaf period in Syria. New sites, new data. In: Paléorient. 2004, Vol. 30 N°1. pp. 47-68.

doi : 10.3406/paleo.2004.4772

http://www.persee.fr/web/revues/home/prescript/article/paleo_0153-9345_2004_num_30_1_4772

THE PROTO-HALAF PERIOD IN SYRIA. NEW SITES, NEW DATA

W. CRUELLS and O. NIEUWENHUYSE

Abstract : *This paper intends to give a brief, factual account of some of the new fieldwork projects in Syria that are now documenting a short transitional stage between the Pre-Halaf and the Early Halaf. This stage, which for present purposes we have termed Proto-Halaf (about 6 100-5 950 cal. BC), appears to have been a crucial time, during which the basis was laid for the subsequent Halaf phenomenon. Evidence gathered so far suggests that the transition from Pre-Halaf to Early Halaf happened fairly rapidly, within the course of only a few generations. What we have termed the Proto-Halaf period refers largely to changes observed in the ceramic assemblages. These we shall present geographically by discussing previously excavated sites while also including new discoveries that are changing our insights with almost every fieldwork season. We hope to offer a framework for further work on this crucial stage in Mesopotamian prehistory.*

Résumé : *Cette contribution présente un rapide bilan des acquis obtenus lors de projets archéologiques récents qui se développent en Syrie et qui apportent de l'information sur la courte période de transition située entre le Pré-Halaf et le Halaf ancien. Cette période, ici nommée Proto-Halaf (autour de 6 100-5 950 cal. BC), semble avoir été cruciale pour la genèse du phénomène du Halaf : la transition du Pré-Halaf au Halaf ancien semble avoir été très rapide, le temps de quelques générations. Le terme Proto-Halaf fait essentiellement référence aux changements observés dans les assemblages céramiques. Présentés sur un plan spatial, anciennes fouilles et nouvelles découvertes, les résultats obtenus conduisent à changer nos points de vue. Cette note doit constituer une base pour les recherches à venir sur cette étape qui nous paraît cruciale.*

Key-Words : *Late Neolithic, Proto-Halaf, Near East, Pottery, Cultural change.*

Mots Clefs : *Néolithique final, Proto-Halaf, Proche-Orient, Poterie, Change culturel.*

INTRODUCTION

The Halaf culture first captured the interest of archaeologists at the beginning of the last century, when Von Oppenheim retrieved an abundant and varied collection of a characteristic, painted Fine Ware from below his Iron Age excavations at Tell Halaf¹. Since then the investigation of the Halaf culture in Syria, and in a wider sense the Late Neolithic period as a whole (*ca* 6 900-5 300 cal. BC), has alternated between advances and long periods of little interest². Scholars were often more interested in the incipient stages of the Neo-

lithic 'Revolution' rather than in its outcomes. Recently, however, progress has accelerated. A number of regional surveys, new excavations and renewed emphasis on meticulous archaeological analyses have made it clear that the Late Neolithic was a formative stage in the prehistory of the ancient Near East. The introduction of pottery production, the earliest sealing practices, new architectural forms, the earliest evidence of the use of metal, the establishment of pastoralism and the gradual rise of large, sedentary villages are among the features often ascribed to later stages of Mesopotamian prehistory, but they trace their roots to the Late Neolithic³.

1. OPPENHEIM, 1943.

2. CAMPBELL, 1992 : 1.

3. AKKERMANS, 1993 ; AKKERMANS and SCHWARTZ, 2003 ; MOLIST, 1998 ; MOLIST et STORDEUR, 1999 ; MOLIST, 2001 ; MOLIST (ed.), in prep.

As has recently become clear, the Halaf did not come out of the blue. Whereas earlier models frequently involved prehistoric migrations or sudden shifts in social complexity⁴, today most scholars would accept that the Halaf arose from a gradual, localized evolution. A short-lived transitional stage has been shown to precede the Halaf, at least in Syria, south-eastern Turkey and northern Iraq⁵.

This exciting discovery made it possible, for the first time, to begin the investigation of the intervening stages between the Pre-Halaf and the Early Halaf. Although much remains to be investigated, the evidence gathered so far suggests that the transition from Pre-Halaf to Early Halaf took place fairly rapidly, within the course of only a few generations. Currently dated to about 6100-5950 cal. BC, this period appears to have been a crucial time, during which the basis was laid for the subsequent Halaf phenomenon.

This paper intends to give a brief, factual account of some of the ongoing fieldwork projects⁶. Although modern political boundaries mean little in prehistory, we shall concentrate on Syria since this is where most of the recent work is going on. Evidently, this review can hardly be considered to be definite. New discoveries are changing our insights almost every fieldwork season. Yet, to those who are not too familiar with the details, an overview is perhaps useful. To avoid confusion with other "transitional" periods in Mesopotamian terminology, we shall refer to this particular stage with the term *Proto-Halaf* in this paper. We shall start with a definition of the term. We shall then briefly present the newly excavated sites in Syria and some of the major ceramic categories, and conclude with outlining some directions for further research.

DEFINING THE PROTO-HALAF PERIOD

How do we define the Proto-Halaf period? It might be argued quite reasonably that terms such as "Proto" or "Incipient" are to be avoided because they are inherently teleologi-

cal, implying that one phenomena will inevitably lead to the next. On the other hand, we hesitate introducing terminologies based on a single site (such as "Tell Halula culture" or "Tell Sabi Abyad 7-4 phase"), because of the dangers of reducing much meaningful regional variation to a single "type site". For the same reason, regional terminologies such as "Balikh IIIA" or "Hassuna III" risk losing out of sight what constitutes the main characteristic of this stage, which is that it happened over such a large geographical space. We feel the evidence gathered so far merits the suggestion that the stage we discuss here was, in fact, the start of the Halaf proper. For want of a better terminology, we shall in this paper use the term "Proto-Halaf", while using site-based or regional terms when dealing with regional developments⁷.

An important point to be made here is that what we term "Proto-Halaf" (or "Transitional") refers solely to the changes in the ceramic assemblages. Future studies must investigate the extent to which the changes in the pottery articulated with wider social practices. Contrary to what is often thought, however, there appears to have been considerable continuity in other aspects of society, including the architecture and spatial organization of the village, sealing practices and ritual⁸. At Tell Sabi Abyad, the Proto-Halaf phase starts with the introduction of a small proportion of a wholly new kind of pottery: finely made, mineral-tempered Fine Ware bearing a complex, intricate style of decoration⁹. The proportion of Fine Ware rose rapidly, until eventually it replaced most of the other categories (table 1). Alongside this major shift in the composition of the ceramic assemblage, there were modifications in technology, vessel shape and decorative style. Gradually these led from the rough, relatively simple shapes and designs from the Pre-Halaf era to the intricately painted, complex shapes that are so characteristic of the Halaf. Although Tell Sabi Abyad thus far offers the best context, it is important to underline that similar processes can be observed at sites such as Tell Halula¹⁰ and Chagar Bazar¹¹.

During the Proto-Halaf stage, the Fine Ware pottery from these sites bears strong resemblances to the Hassuna and

4. DAVIDSON, 1977 ; MELLAART, 1975 ; WATSON and LEBLANC, 1973.

5. AKKERMANS, 1989, 1993, 1997 ; CAMPBELL, 1992, 1998a ; CRUELLS *et al.*, 2004 ; CRUELLS, in prep. a and b ; LE MIÈRE and PICON, 1999 ; NIEUWENHUYSE, 2000 ; NIEUWENHUYSE *et al.*, 2002.

6. This study would never have been possible without the whole-hearted support and generous assistance of the DGAM at Damascus and specially Dr. Tammam Fakouch, General Director and Dr. M. el-Maqdissi, Director of Excavations. We wish to thank to T. Odaka for his help by providing data on the El Rouj Basin to complete table 2. Also we would like to thank M. Molist for his useful comments and suggestions. Any mistakes remain entirely our own.

7. We would like to point out that the transition from the late Pre-Halaf to the Early Halaf (*ca* 6100 cal BC), here defined as "Proto-Halaf", must not be confused with the earlier so-called "transitional" stage between the late PPNB and the earliest Pottery Neolithic (*ca* 6900 cal BC) as sometimes used at several southeastern anatolian sites.

8. AKKERMANS and SCHWARTZ, 2003.

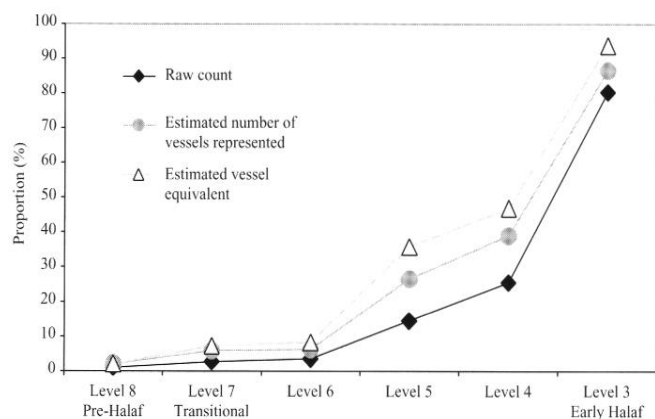
9. AKKERMANS, 1989 ; LE MIÈRE and NIEUWENHUYSE, 1996 ; NIEUWENHUYSE, 1997 ; VAN AS *et al.*, 1998.

10. CRUELLS, in prep. b.

11. CRUELLS, in prep. a.



Table 1 : Tell Sabi Abyad (1996-1999 campaigns). The rising proportion of Fine Ware through time using different quantification methods. Transitional period : levels 7-4.



Samarra cultures known from northern and central Iraq. So where does this place the Proto-Halaf in terms of the traditional culture-historical chronology? The new discoveries lead to a strong upswing in chronology building. For long, Mallowan's tripartite division of the Halaf period, based on his 1933 excavations at Arpachiyah in northern Iraq¹², was the major frame of reference. For instance, Mallowan's framework was applied with little modification to the sequence excavated at Tell Aqab in northeastern Syria¹³. But Mallowan's scheme does not always fit the evidence easily. Recently scholars have pointed to the considerable overlap between Mallowan's stage indicators, arguing for a simplification¹⁴. Others have doubted the applicability of the Arpachiyah sequence beyond northern Iraq¹⁵. Regional chronologies and terminologies have come to the fore in many parts of the country, for instance in the Balikh¹⁶, the Rouj Basin¹⁷, the Euphrates¹⁸ and in the Khabur¹⁹. The relative chronologies are backed up by a rapidly increasing body of radiocarbon absolute dates²⁰.

It would lead far beyond the scope of this paper to discuss the terrifying complexity of Halaf chronology at length. Table 2 provides some of the regional chronologies currently in use.

Mallowan's basic scheme has been, after 70 years, modified and expanded. Excavations in Syria have added, firstly, a Halaf-'Ubaid Transitional stage at the end of the period²¹, and, more recently, an earlier stage of the Halaf at the beginning of the period. This earliest Halaf is thought to precede the traditional Early Halaf from Tell Arpachiyah²². This earliest Halaf, in its turn, is preceded by the transitional stage between the later Pre-Halaf and the Early Halaf : the Proto-Halaf stage that is under discussion in this paper²³. If all these stages are taken into consideration, the Halaf period might in theory be divided into six major phases (table 2). Rather than representing distinct cultural entities, the Hassuna and Samarra "influences" in Syria – however these should be defined – form part of a continuous development, the transitional stage between the Pre-Halaf and the Early Halaf.

THE SITES : OLD AND NEW

Looking back, it now appears that the ceramic evidence of the Proto-Halaf stage had already been excavated here and there, but at the time it could not be fitted into a chronological frame. Investigators had already noticed the existence of Samarra sherds in the basal levels of some Halafian sites, including Sakje-Geuzi in Turkey²⁴ and Tell Chagar Bazar in Syria²⁵. At present, in addition to Tell Sabi Abyad the Proto-Halaf stage has been securely attested in Syria at Tell Halula, Chagar Bazar, Tell Boueid II, Tell Baghouz, Tell el-Kerkh, and in survey work. It has also been found in the northern Jezireh just across the Syrian-Iraqi border and recently at several south-eastern Anatolian sites, among them Mezraa Teleilat, Domuz-tepe, Kazane Hoyuk, Boz Tepe and Hakemi Use (fig. 1).

TELL SABI ABYAD

Tell Sabi Abyad, located in the upper Balikh valley of northern Syria, thus far remains the only excavated site in the Near East where the transition from Pre-Halaf to Early Halaf

12. MALLOWAN and ROSE, 1935.

13. DAVIDSON, 1977.

14. CAMPBELL, 1992.

15. AKKERMANS, 1993.

16. *Ibid.* : 14.

17. IWASAKI and TSUNEKI, 2003 : 3-7.

18. CRUELLES *et al.*, 2004 : 261-283.

19. *Ibid.* : 10.

20. New C¹⁴ dates for the Proto-Halaf layers of Chagar Bazar Proto-Halaf are forthcoming (CRUELLES, in prep. a).

21. DAVIDSON, 1977 ; DAVIDSON and WATKINS, 1981.

22. AKKERMANS, 1989, 1993 ; CAMPBELL, 1992.

23. AKKERMANS (ed.), 1996 ; NIEUWENHUYSE, 1995, 1996 ; LE MIÈRE and NIEUWENHUYSE, 1996 ; CRUELLES *et al.*, 2004 : 261-283 ; CRUELLES, in prep. a and b.

24. GARSTANG, 1908.

25. MALLOWAN, 1936.

Table 2 : Current Late Neolithic and Halaf chronologies in Syria and northern Iraq. Shaded areas represent occupation of sites.

Cultural phase	Pre-Halaf	Proto-Halaf	Early Halaf	Traditional Early Halaf	Middle Halaf	Late Halaf	Post-Halaf
Cal. BC	6300	6100	5950	5850	5700	5550	5300
West Syria Tell el-Kerkh	Rouj 2c		Rouj 2d		Rouj 3		
Euphrates basin Tell Halula	HL-III	HL-IV	HL-V		HL-VI	HL-VII	HL-VIII
Balikh valley Tell Sabi Abyad	Balikh IIC levels 11-8	Balikh IIIA levels 7-4	Balikh IIIB Levels 3-1	Balikh IIIC northeast mound	-	-	-
Upper Khabur Tell Chagar Bazar	-	CB-I	CB-II		CB-III	CB-IV	CB-V
Tell Aqab	-	-	-	Early Halaf	Middle Halaf	Late Halaf	HUT
Tell Boueid II	-	-	-	-	-	-	-
North Iraqi Jezireh NJP 72 Khirbet Garsour Arpachiyah	Hassuna I-II	Hassuna III	Halaf Ia	Halaf Ib	Halaf IIa	Halaf IIb	HUT
				Early Halaf	Middle Halaf	Late Halaf	

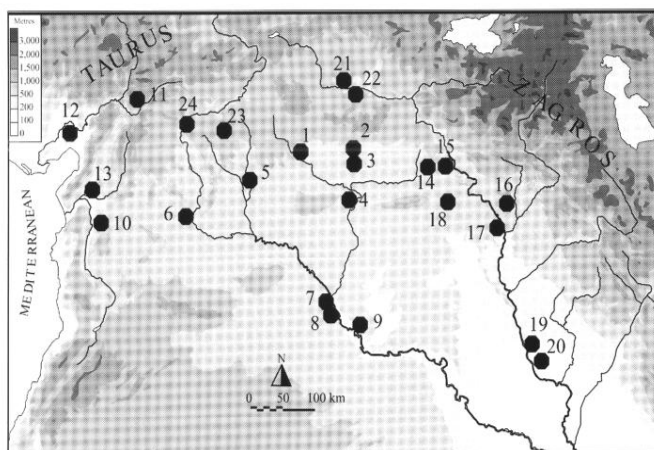


Fig. 1 : The location of sites mentioned in the text. 1. Halaf. 2. Chagar Bazar. 3. Aqab. 4. Boueid II. 5. Sabi Abyad. 6. Halula. 7. Bouqras. 8. Masaikh. 9. Baghouz. 10. el-Kerkh. 11. Domuztepe. 12. Sakje-Geuzi. 13. Amuq. 14. NJP 72. 15. Khirbet-Garsour. 16. Arpachiyah. 17. Hassuna. 18. Yarim Tepe I. 19. Samarra. 20. Sawwan. 21. Boz Tepe. 22. Hakemi Use. 23. Kazane Höyük. 24. Mezraa-Teleilat (made by M. SAUVAGE ; adapted by O. NIEUWENHUYSE).

is excavated in a long, unbroken sequence. Excavations by the National Museum of Antiquities Leiden have been carried out on various locations of the 4 ha mound, but for present purposes those on the southeastern slopes of the mound, designated “operation I”, are the most relevant. Thus far eleven major architectural phases have been identified here, termed

level 11 to 12²⁶. On the basis of changes in the ceramics, levels 11-8 are attributed to the Pre-Halaf era, whereas levels 3-1 belong to the earliest stages of the Halaf period²⁷. The intermediate levels, level 7-4, represent the Transitional period.²⁸ In addition to the work on the southeastern slopes, a series of trenches excavated from 2002 onwards on the northeastern slopes (“operation II”) have yielded well-preserved occupational layers dated to the later stages of the Transitional period, while sloping debris layers containing “late Transitional” pottery were excavated in 2001 on the southwestern parts of the mound.²⁹

26. AKKERMANS *et al.*, in prep.

27. For discussions of the pottery, see AKKERMANS, 1993 ; AKKERMANS (ed.), 1996 ; AKKERMANS and LE MIÈRE, 1992 ; LE MIÈRE and NIEUWENHUYSE, 1996 ; NIEUWENHUYSE, in prep.

28. Prior to the 1996 campaign the Transitional period at Tell Sabi Abyad comprised three occupational levels, levels 6-4 (AKKERMANS (ed.), 1996). The 1996-1999 fieldwork yielded an additional Transitional level, termed level 7. Levels 7-4 now comprise the Transitional period at Tell Sabi Abyad (AKKERMANS *et al.*, in prep.).

29. Operation I and II represent the southeastern and northeastern parts of Tell Sabi Abyad, respectively. The excavations in operation II have exposed strata closely comparable to levels 5-4 from operation I. Operation III represents the northwestern part, operation IV the western part, and operation V the southwestern part of Tell Sabi Abyad. These areas are mostly dated to the earliest stages of the Pottery Neolithic. In operation V, however, the topmost stratum contained ceramics comparable to what is termed level 4 in operation I (NIEUWENHUYSE, in prep.).

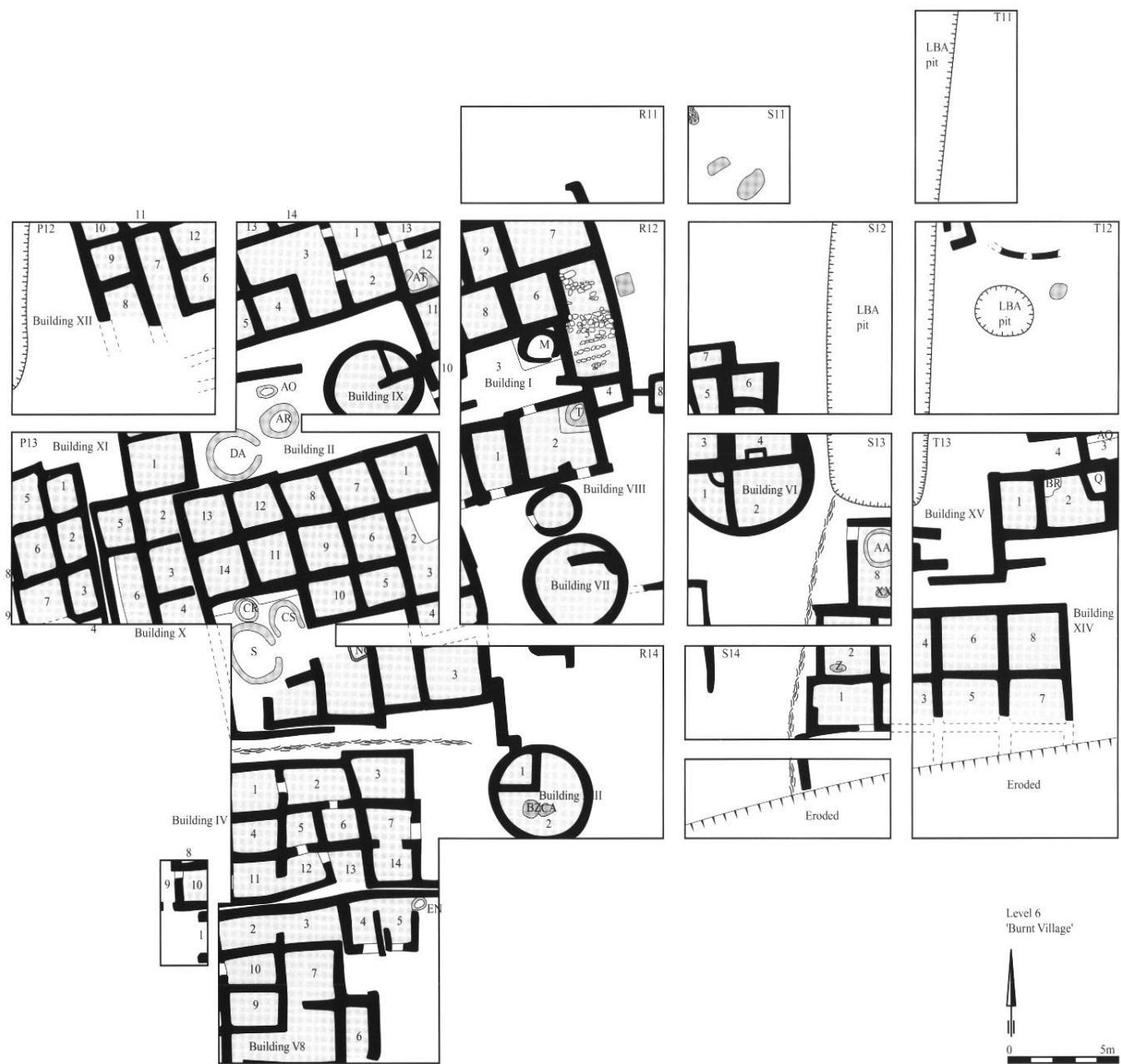


Fig. 2 : Tell Sabi Abyad. Plan of the level 6 Burnt Village.

The architecture includes both rectilinear and circular buildings. As at Tell Halula and other sites, *tholoi* have appeared as early as the Pre-Halaf phase³⁰. No doubt the best known of the Transitional period levels is level 6, exposed over an area of 1,382 m², which was laid to ashes at around 6 000 BC in a massive conflagration³¹ (fig. 2). The large, multi-roomed rectilinear buildings are currently interpreted as communal storehouses for a much larger population than was

permanently resident at the site³². The site appears to have been the focal point in a semi-pastoral society.

The sequence excavated on the southeast part of the mound forms the basis for defining the Transitional period at Tell Sabi Abyad. The gradual rise of the Halaf can be followed in detail³³. Three distinct Fine Wares are found : *Standard Fine Ware*, *Orange Fine Ware*, and a very small proportion of what has been called *Fine Painted Ware* (fig. 3). All three categories

30. *Ibid.* : 25.

31. AKKERMANS and VERHOEVEN, 1995 ; VERHOEVEN, 1999, 2000.

32. AKKERMANS and DUISTERMAAT, 1997 ; VERHOEVEN, 1999.

33. NIEUWENHUYSE, in prep.

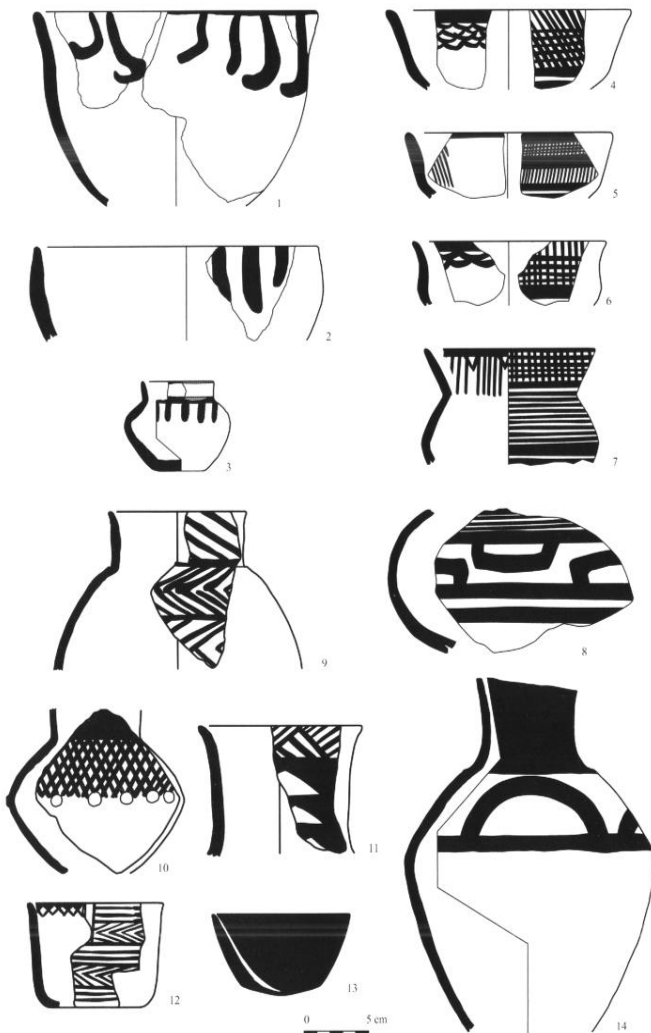


Fig. 3 : Proto-Halaf ceramics from Tell Sabi Abyad. 1-3 : bitumen-painted Standard Ware. 4-8 : Standard Fine Ware. 9-13 : Orange Fine Ware. 14 : Dark-Faced Burnished Ware.

bear relationships in various degrees to Hassuna and Samarra pottery known from northern and central Iraq. Whereas the Orange Fine Ware and Fine Painted Ware were restricted to the Transitional period, the Standard Fine Ware gradually increased in importance in the course of time, until by the time of level 3 it had replaced most of the other pottery groups. More importantly, however, the Transitional ceramic assemblage constituted more than just a “Fine Ware” component dominating a plain “Coarse Ware” bulk. A fascinating mixture of technological groups and decorative styles occurs during this period. In addition to the bulk of plant-tempered *Standard Ware*, *Grey-Black Ware*, *Mineral Coarse Ware* and non-local *Dark-Faced Burnished Ware* are found. Moreover, in sharp contrast to what is sometimes thought, the Standard Ware was not always plain and coarse, but was often decorated, showing a wide variety of decorative styles.

TELL HALULA

Tell Halula is situated on the Syrian Euphrates, about 130 km northeast of Aleppo, just on the edge of the area recently flooded by the Tishrin Dam. Explorations by the Spanish Archaeological Mission have shown Halula to be a large (8 ha) site that was occupied during most of the Neolithic from the middle PPNB onwards³⁴. The Proto-Halaf stage has been termed Halula phase *HL-IV*.

Remains dated to the Proto-Halaf period were recovered from various soundings distributed over the site. A first sounding opened on the southwestern slopes in 1992 (sounding 1B in sector 1) yielded a series of stratified open areas occupied during the Pre-Halaf and Proto-Halaf periods³⁵. The best information, however, comes from the new soundings opened in 2000 and 2002 in what is also termed sector 1 but on the northwestern slopes of the mound (trenches S-38 to S-45) with an extent of 375 m². Here a continuous succession of occupational layers was observed that covers the time from the later Pre-Halaf until the end of the Halaf period, comprising large open areas alternating with strata containing architecture.

The Proto-Halaf stage was first excavated in trench S-38, where a succession of architectural phases was identified, including a large rectangular building with a stone foundation (fig. 4). This sounding confirms an unbroken sequence from the late Pre-Halaf (phase HL-III) to the Proto-Halaf (phase HL-IV) period. Later, soundings S-43 and S-44 yielded several domestic structures dated to the Proto-Halaf, mostly comprising large pits and hearths, situated in open areas. In addition, and also related to open areas, trench 44/3 yielded a large circular building or “tholos” from the Proto-Halaf period, reaching 6.5 m in diameter³⁶.

The Halula Proto-Halaf ceramic assemblage includes a large variety of wares. *Fine Wares*, either plain or decorated in the Samarra style, make their first appearance at this stage (fig. 5 : 1-8). We may note the complete absence so far of Orange Fine Ware, known from sites west of the Euphrates.

34. MOLIST (ed.), 1996, in prep.; MOLIST, 1998, 2001; MOLIST et STORDEUR, 1999; CRUELLS, in prep. b. For a detailed discussion of the Pre-Halaf pottery see FAURA, 1996 and FAURA and LE MIFÈRE, 1999. Tell Halula and Chagar Bazar archaeological works form part of the project BHA 00-091 *Espacio social y territorio en el Neolítico del Próximo Oriente. Estudio de Tell Halula, Akarçay Tepe, Tell Amarna y Chagar Bazar* of the Spanish Ministry of Science and Technology, directed by prof. Miquel Molist.

35. FAURA, 1996a, b; MOLIST et STORDEUR, 1999; CRUELLS, 1996, 2001; in prep. b. No radiocarbon dates are actually available but new series including Proto-Halaf are underway.

36. CRUELLS, in prep. a; MOLIST (ed.), in prep.

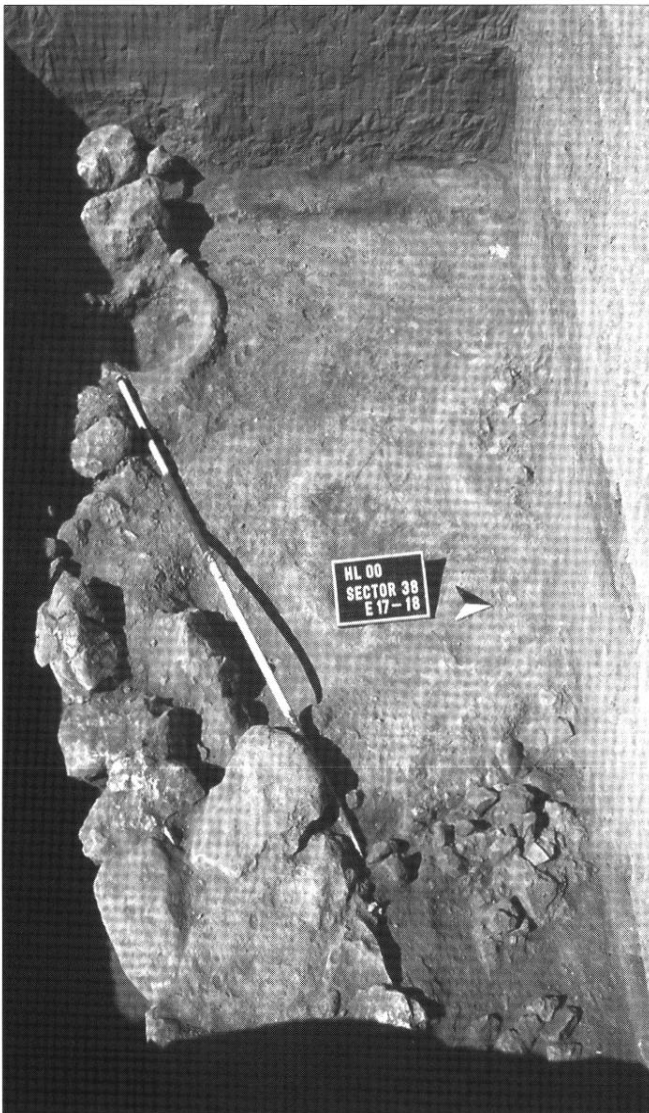


Fig. 4 : Tell Halula. The excavations of a large, rectangular building with a stone foundation and associated open fire place, dated to the Proto-Halaf period (structures E17 and E18 in trench S/38).

Other categories continued from the previous stage, including *Simple and Burnished Coarse Wares*, either with mineral or with plant inclusions (fig. 5 : 9). Also continuing from the Pre-Halaf stage were pottery with incised and/or impressed decoration (fig. 5 : 13), burnished *Red Slip Ware* (fig. 5 : 11), *Early Painted Wares*, decorated with red slipped bands (fig. 5 : 12) as well as the characteristic “*Husking trays*” (see table 3). In lesser quantities *Dark-Faced Burnished Ware* (fig. 5 : 10), *Pattern-Burnished Ware* and *Grey-Black Ware* are found. As at Sabi Abyad, the Fine Wares were made of a well-levigated clay, fired mostly in oxidizing circumstances and sometimes having a light slip on the exterior surface. Design motifs are mostly geometrical, but the characteristic so-called “dancing

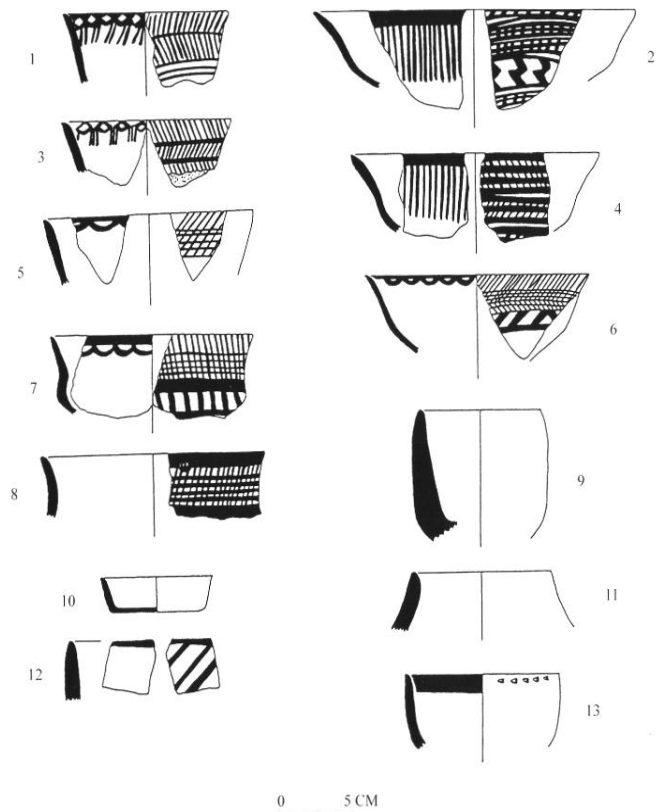


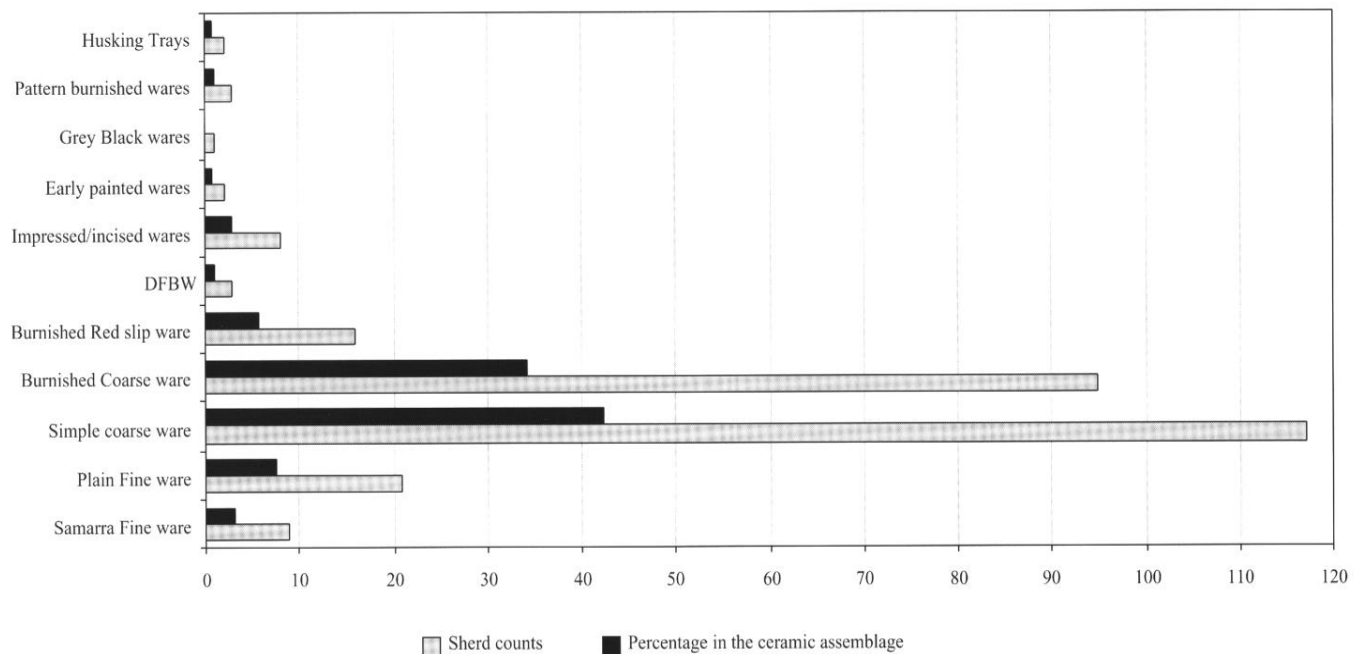
Fig. 5 : Proto-Halaf ceramics from Tell Halula. 1-8 : *Painted Fine Ware*. 9 : *Simple Coarse ware*. 10 : *Dark Faced Burnished Ware*. 11 : *Red Slipped Ware*. 12 : *Early Painted Ware*. 13 *Incised Red Slipped Ware*.

ladies” are sometimes found along the interior rim. Shapes are dominated by straight sided bowls (60 %), concave sided bowls (17 %), sinuous sided bowls (5 %), jars with short or high neck (10 %), simple closed bowls (4 %) and closed bowls with short neck (1,5 %). The majority of the vessels have flat bases, but two pedestal bases were also found.

CHAGAR BAZAR

Chagar Bazar is located about 20 km south of Amuda, on the main road from Qamishly to Aleppo. The 12 ha mound rises some 21 m above the surrounding plains. Max Mallowan excavated at Chagar Bazar from 1935 to 1937, having first surveyed the Upper Khabur region in 1934³⁷. Mallowan’s excavations are most notable for his huge “Prehistoric Pit” which measured 25 by 20 m with a depth of nearly 15 m, and which yielded a long occupational sequence of Halaf and 3rd millennium BC levels. If not entirely according to today’s standards for archaeological fieldwork, his pioneering exca-

37. MALLOWAN, 1936, 1937.

Table 3 : Tell Halula. The composition of the diagnostic sherds (rims 75 % and bases 25 %) from trench S-43.

vations made a substantial contribution to the initial archaeological exploration of the northern Mesopotamian steppes.

In 1999 a new programme of investigations began³⁸. Among the project's goals are the reconstruction of the occupational sequence and establishing the nature of the prehistoric occupation at the site. Two soundings, termed Sounding E and Locus 5, yielded remains from the Proto-Halaf period³⁹. Sounding E, measuring 1.5 m × 2 m, was opened inside Mallowan's "Prehistoric Pit"⁴⁰. Sounding E gained a depth of over 9 m, and reached virgin soil (fig. 6). The excavated sequence comprised fifty-four distinct layers, and included occupational floors, pits, and fragments of walls⁴¹. The sequence was provisionally divided into four chronological phases, starting from the Proto-Halaf period (CB-I) up to the Late Halaf (CB-IV) (table 2). The Proto-Halaf layers (CB-I) from this sounding represent the earliest occupation attested thus far at Chagar Bazar. Three pits dug into virgin soil and a fragment of a *pisé* wall could be excavated. Sounding "Locus 5", measuring 3.5 by 1 m, was opened on the northwestern

slopes of the mound some 100 m away from Mallowan's pit, with the aim of establishing the extent of the earliest occupation. Covered below a thick erosion layer, a series of superimposed occupational levels with mud floors and open fires were dated to the Proto-Halaf stage. Virgin soil was reached at some 2 m below the actual level of the surrounding plains.

The pottery assemblage from these soundings neatly fits with the Proto-Halaf pottery as found at the other sites although Chagar Bazar represents a late stage of the period. Several distinct ceramic categories were defined, on the basis of fabric composition and surface treatment⁴² (table 4) : *Fine Painted Ware* (fig. 7 : 1-8), a category that shows clear relationships with Samarra pottery in terms of its design (about 2.39 % of the bulk), and *Plain Fine Ware* (2.19 %) resemble the Standard Fine ware from Sabi Abyad ; *Mineral Coarse Ware* and *Vegetal Coarse Ware* (fig. 7 : 11-12) are quite common, the latter often carrying a red slip over a burnished surface (termed *Burnished Red Slip Ware*) ; *Dark-Faced Burnished Ware* and "Husking Trays" (fig. 7 : 10) are also present, albeit in very limited proportions (less than 1 % of the bulk) ; to complete the picture, the *Orange Fine Ware* represents about 1.5 % of the total (fig. 7 : 9) ; typical shapes include small curvilinear bowls, concave or vertical-sided bowls, jars with a high neck, closed bowls with a short neck and plates.

38. The project at Tell Chagar Bazar is a joint effort involving the British School of Archaeology in Iraq (Dr. A. McMahon), the University of Liège (Prof. Ö. Tunca) and the Syrian DGAM (Mr. A. Bagdo of the Hasseke Department of Antiquities). A team from the Universitat Autònoma de Barcelona (W. Cruells) is investigating the prehistoric levels.

39. Some radiocarbon dates from the Proto-Halaf layers are forthcoming (CRUELLS, in prep. a).

40. MALLOWAN, 1936 : 7-11 and fig. 2.

41. *Ibid.* : 10.

42. *Ibid.*

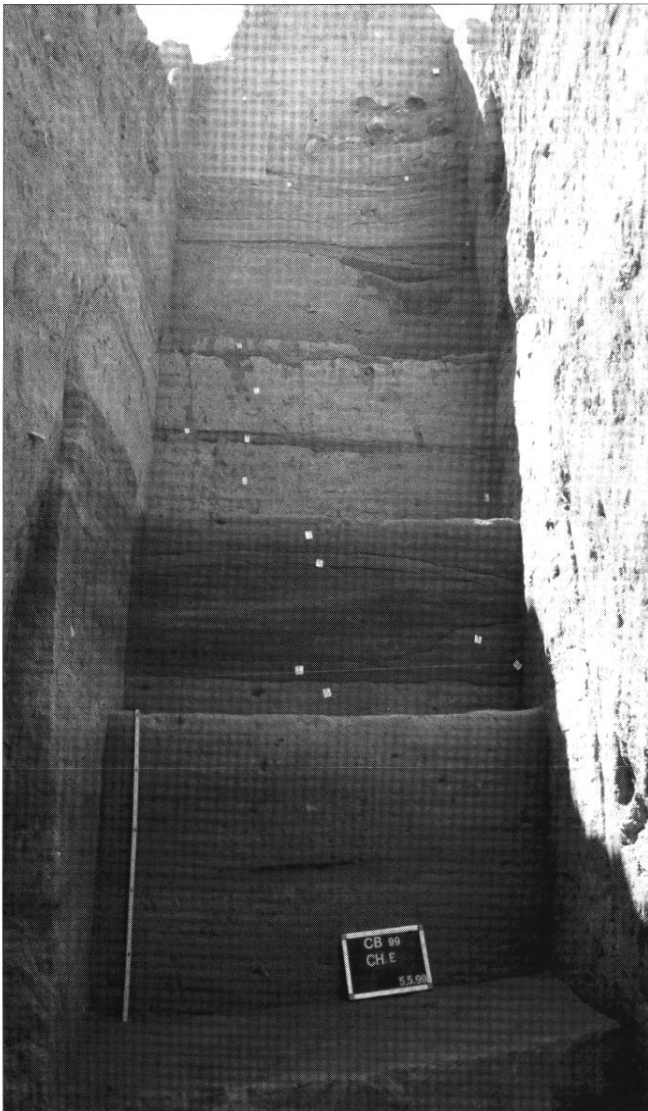


Fig. 6 : Tell Chagar Bazar. The excavations in Sounding E, inside Mallowan's "prehistoric pit".

TELL BOUEID II

Tell Boueid II, situated on the right bank of the Middle Khabur river opposite the Halaf site of Umm Qseir, was discovered by Dr. Antoine Suleiman, of the Syrian DGAM, in the course of his excavations at nearby Tell Boueid I⁴³. The small, inconspicuous mound, less than a metre high, is barely visible even if you stand on it. With a surface of less than 0.5 ha, Tell Boueid II is an example of a small, short-lived Proto-Halaf village. Excavations in 1997 and 1998 attested a single building level⁴⁴ (fig. 8). On the basis of the excavated ceramics Tell

43. SULEIMAN, 1995 ; SULEIMAN and NIEUWENHUYSE, 1999a, b and 2002 ; NIEUWENHUYSE 1999a, b.

44. SULEIMAN, 2002.



Fig. 7 : Proto-Halaf ceramics from Tell Chagar Bazar. 1-8 : Painted Fine Ware. 9 : Orange Fine Ware. 10 : Husking Tray. 11-12 : Coarse ware.

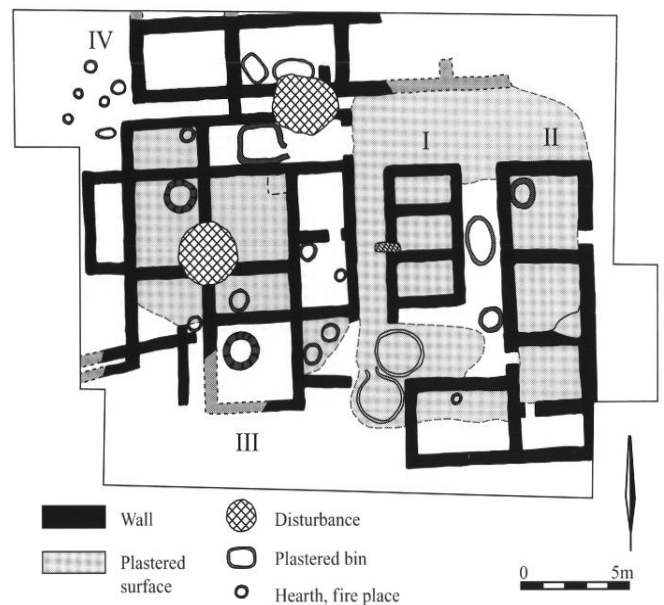
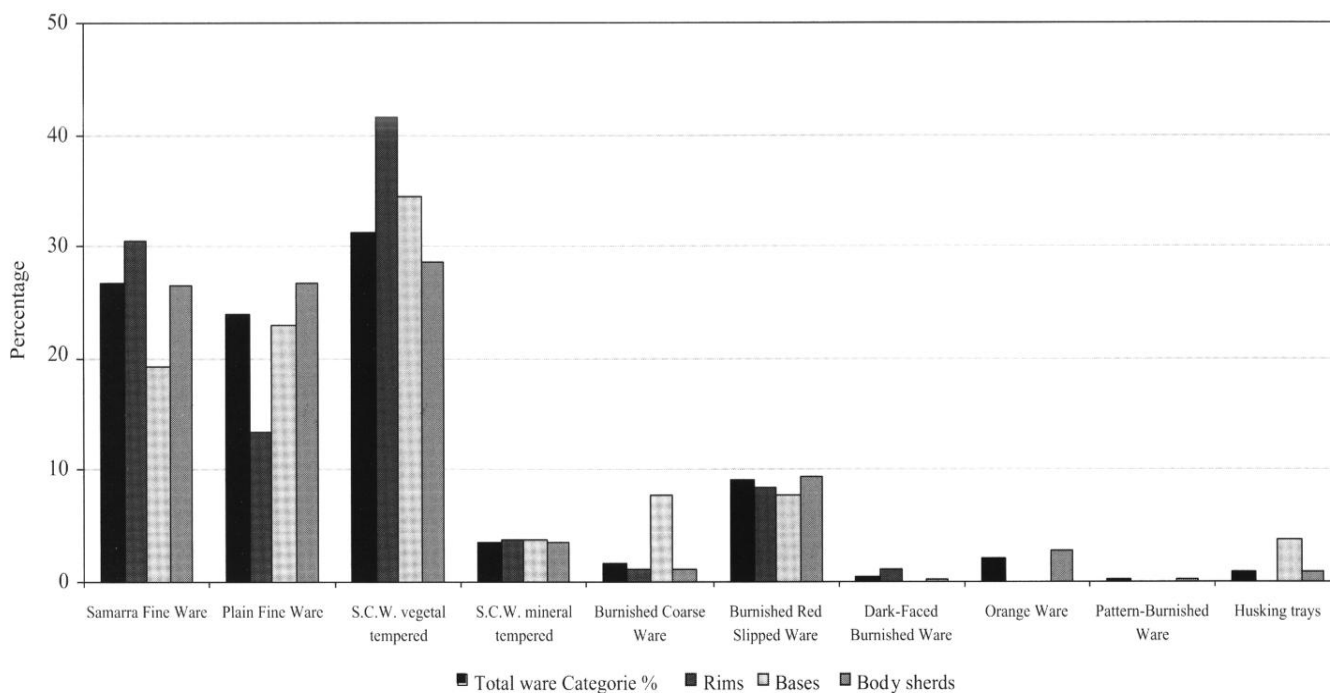


Fig. 8 : Tell Boueid II. Plan of the excavated architecture.

Table 4 : Chagar Bazar. The composition of ceramic assemblage from Locus 5.

Boueid II is currently dated to the end of the Pre-Halaf era (termed Proto-Hassuna in this region) and the beginning of the Proto-Halaf period, about 6 100 cal. BC. Boueid II may have been more or less contemporary with the level 6 Burnt Village at Tell Sabi Abyad⁴⁵. The site must have been inhabited for a short period of time, perhaps no longer than a few generations. The village lay out comprises a range of rectilinear buildings. No round buildings (tholoi) were attested⁴⁶.

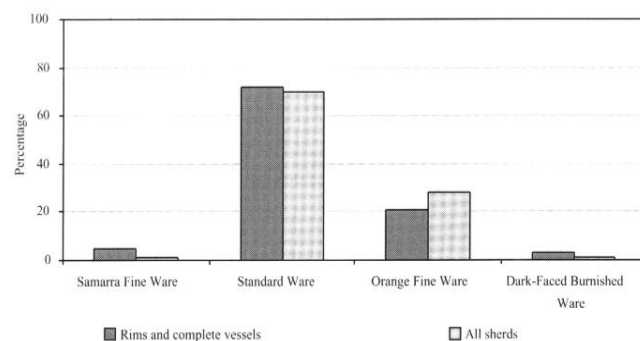
The single-period occupation level at Tell Boueid II yielded four distinct ceramic wares, termed *Standard Ware*, *Samarra Fine Ware*⁴⁷, *Orange Fine ware* and *Dark-Faced Burnished Ware*⁴⁸ (table 5 and fig. 9). Noteworthy is the large proportion of Orange Fine Ware, which includes about 21 % of the bulk. It is interesting to note that among the bulk of the plant-tempered Standard Ware some coarse vessel shapes that are common at other sites are conspicuously absent, in particular large storage jars and husking trays. The absence of large storage jars seems to have been compensated for by producing these shapes in white

45. NIEUWENHUYSE *et al.*, 2002 : 65-67. No radiocarbon samples were collected at Tell Boueid II.

46. *Ibid.* : 43.

47. The Samarra Fine Ware from Boueid is comparable to the Standard Fine Ware from Tell Sabi Abyad in terms of ceramic technology and decoration (NIEUWENHUYSE *et al.*, 2002).

48. *Ibid.* : 47.

Table 5 : Tell Boueid II. The composition of the ceramic assemblage.

ware⁴⁹. The absence of husking trays remains difficult to explain ; their role was perhaps taken over by other vessel shapes.

TELL BAGHOUZ

The small (0.6 ha) mound of Tell Baghouz is situated on the edge of the flood plain and at the foot of a high cliff overlooking the left bank of the Euphrates near the Syrian-Iraqi border. The mound occupies a rather isolated position, with no contemporaneous sites known in the immediate environ-

49. SULEIMAN and NIEUWENHUYSE (eds), 2002 : 14-16.



Fig. 9 : Proto-Halaf ceramics from Tell Boueid II. 1-5 : Orange Fine Ware. 6 : Standard Ware with appliqué. 7 : Dark-Faced Burnished Ware. 8 : Samarra Fine Ware.

ment. In the 1930s Du Mesnil du Buisson opened a series of trenches and found that the mound belonged to a single cultural horizon, the Samarra period⁵⁰. Superimposed on bedrock, two or three occupational levels were distinguished, and some architectural features were recognized⁵¹. The excavated pottery was homogeneous, however, and was judged to be similar to the material collected in the previous year on the surface of the mound⁵². The excavations document little or no ceramic evolution, and the site was probably short-lived⁵³.

Tell Baghouz represents an important 'type site' for the Samarra culture. In 1944 Braidwood and his team compiled what was known of the pottery from Tell Baghouz and for the

very first time provided a well-documented definition of what constituted Samarra pottery⁵⁴. Still widely used today, this definition has become the "ideal" Samarra ware with which later discoveries are compared⁵⁵. Recently a small sample of sherds from Baghouz, preserved in the Louvre, has been re-investigated with respect to the ceramic technology⁵⁶. This attested the presence of two main ceramic categories, termed *Samarra Fine Ware* and *Orange Fine Ware*, and showed that, in technological terms at least, the pottery from Tell Baghouz is comparable to that of Tell Sabi Abyad and other Proto-Halaf (or Transitional) sites in Syria.

TELL EL-KERKH

The excavations at Tell 'Ain el-Kerkh, situated in the Rouj basin in western Syria, have been yielding ceramics that show that this region, too, participated in the Proto-Halaf phenomenon to some degree⁵⁷. The majority of the pottery from Tell 'Ain el-Kerkh consists of locally-made *Dark-Faced Burnished Wares*. However, a small proportion of so-called *Fine Painted Ware* comparable to the Standard Fine Ware from Tell Sabi Abyad originated from the Rouj 2c period. This phase is thought to precede the appearance of the Early Halaf⁵⁸. Fine Painted Ware comprises less than 1 % of the ceramic assemblage as a whole, however, which otherwise remains largely unaffected until the start of the Halaf period proper⁵⁹. The Rouj basin may have been on the outskirts of the transformations that changed local pottery production elsewhere in northern Syria.

REGIONAL SURVEYS

In addition to these excavations, a number of recently conducted regional surveys attest the presence of Proto-Halaf sites. Notwithstanding the absence of reliable, well-stratified excavated contexts, these surveys provide a useful insight into the regional extent of the Proto-Halaf phenomenon and, more specifically, the distribution of ceramic traditions. Lyonnet's

50. DU MESNIL DU BUISSON, 1948.

51. *Ibid.* : 15-16.

52. BRAIDWOOD *et al.*, 1944 : 49.

53. But see BERNBECK, 1994 : 196-197.

54. BRAIDWOOD *et al.*, 1944.

55. BLACKHAM, 1996.

56. NIEUWENHUYSE, 1999 ; NIEUWENHUYSE *et al.*, 2001 ; ODAKA, 2003b.

57. TSUNEKI *et al.*, 1997, 1998, 1999, 2000.

58. ODAKA, 2003a : 80-81.

59. *Ibid.* : 57.

survey in the headwaters of the Khabur river has yielded a number of sites dated to the Proto-Halaf period⁶⁰. Akkermans' extensive survey work in the Balikh yielded a small number of "Transitional" period mounds⁶¹. In both surveys, the Proto-Halaf sites are mostly small and dispersed, and with virtually no exception they are found north of the present-day 220 mm-rainfall boundary. This pattern fits in well with the settlement organization attested for this period in the Sinjar steppes of northern Iraq⁶².

Although the vast extents of steppe between these two river systems have been subjected to some surveying⁶³, these projects have not included the sufficiently fine-tuned chronological precision that is needed to distinguish the Proto-Halaf period from the more general "Halaf". The entire stretch of the Syrian Euphrates valley, heavily surveyed over the years⁶⁴, has yielded no Proto-Halaf period sites apart from Tell Halula and Tell Baghouz. This certainly does not prove a complete absence of inhabitation during the Proto-Halaf period, as the excavations at Halula and Baghouz clearly show. More likely, the mercilessly shifting course of the river has obliterated most small, prehistoric mounds in this geologically turbulent zone⁶⁵. Future excavations may still yield unexpected discoveries, as the buried Halaf site at Tell Masaiikh proves⁶⁶.

INTRODUCING THE CERAMICS

Less than two decades ago, there were few convincing "missing links" between the Pre-Halaf and the Halaf⁶⁷. This situation has now changed. However, the picture remains far from clear, and this abbreviated review can hardly be consid-

ered to be definitive. First of all, the study of the ceramic assemblages from the Proto-Halaf period is actually "work in progress", and our insights are changing by the year. The new work obviously requires synthesis. One major obstacle is the lack of widely accepted agreement concerning ceramic terminology. Readers may find that different terms refer to similar wares or, more confusingly, similar terms embrace a large degree of technological and stylistic variation. Moreover, there is a persistent tendency to emphasize the uniqueness and homogeneity of each Late Neolithic culture-historical entity. The recent work, however, suggests a significant fluidity of cultural boundaries, at least in terms of ceramics; all of the groups discussed below show distributions that blur the existing culture-historical framework.

Evidently, a full discussion of the evidence gathered so far would lead beyond the scope of this review. Ceramic specialists have distinguished a range of distinct ceramic categories, termed *wares* or *series*. Some of these existed already prior to the Proto-Halaf period, but others were new to this period. For the purposes of this review, we shall restrict ourselves to presenting some of the major wares. Our use of the term 'ware' merits discussion. In classical archaeology this term often refers to a particular surface treatment or the style of decorating. Many investigators working on the Proto-Halaf period (as in Near Eastern prehistory in general) would emphasise instead the successive stages in the technological *chaîne opératoire*⁶⁸ needed to produce vessels of a particular type. Thus, a "ware" refers to a cluster of basic technical features: the clay selected and prepared by the potter, the shaping methods, surface finishing treatments and firing. Within the broad categories defined this way, divisions are made according to decoration.

THE STANDARD WARES

It seems logical to start with the category that constitutes the bulk of the ceramic assemblage in Syria and adjacent regions during the Pre-Halaf and most of the Proto-Halaf period, which is termed *Standard Ware* here. The use of the term "standard" simply points to the predominance of the pottery in the ceramic assemblage as a whole. Alternative terms include "Coarse Ware", "Proto-Hassuna" or, simply, "the Bulk"⁶⁹. In practice,

60. Out of 62 sites included in the Lyonnet survey 14 were dated to the Proto-Halaf period: KS 5, KS 7, KS 11bis, KS 27, KS 32, KS 38, KS 39, KS 41, KS 42, KS 45, KS 51, KS 59, KS 70 and KS 130 (LYONNET (éd.), 2000; NIEUWENHUYSE, 2000: 162-163).

61. The ceramics collected from the Balikh survey are currently being re-investigated. In addition to Tell Sabi Abyad (BS 189) the Proto-Halaf (Transitional) period is attested at the mounds of BS 147, BS 148, BS 168 and BS 235, BS 264 and BS 306 (AKKERMANS, 1993: 175-176; NIEUWENHUYSE, pers. com. February 2004).

62. CAMPBELL, 1992; WILKINSON and TUCKER, 1995.

63. EINWAG, 1993.

64. CAUVIN et MOLIST, 1987-1988; GEYER et MONCHAMBERT, 1987; KOHLMAYER, 1984, 1986; VAN LOON, 1967.

65. GEYER et BESANÇON, 1997.

66. MATHOT and FONTANA, in prep.

67. COPELAND et HOURS, 1987; WATKINS and CAMPBELL, 1987.

68. LEMONNIER, 1992.

69. CRUELLS, in prep. a; LE MIÈRE, 2001; LE MIÈRE et PICON, 1999.

Standard Ware is the portion that remains after all other identifiable wares have been set apart⁷⁰. It is important to note that, Standard Ware is not a single, homogeneous group. It is enormously varied in terms of decorative style, but also with respect to the ceramic technology and vessel shape. Statistical associations between these various aspects point to a number of fine-coarse divisions. This led some authors to present subgroups of the Standard Ware as distinct categories, for instance a “Red-Slipped and Burnished Ware”⁷¹. Yet, these divisions rarely suggest clear-cut, bounded categories⁷². At present, it would be reaching too far to materialize these statistical trends into discrete “wares”.

Technologically, the main defining feature of Standard Ware is the use of a predominantly plant-tempered clay. There is considerable variation in the size and the amount of these non-plastics, perhaps pointing to different tempering strategies. For instance, the “finer” plant inclusions might represent dung added to the clay, whereas the “coarser” ones might represent chopped straw⁷³. Burnishing was frequently applied as a surface finishing technique. The pottery on the whole appears to have been fired at low temperatures and during short intervals, as is suggested by the frequent dark cores. Surface colours are in the range of buff to brown⁷⁴. The Standard Ware vessel shape repertoire includes a large range of bowls, jars and pots in all sizes. On the whole, the shapes are less complex than is found with the Fine Wares. Vessels with a carinated body, for instance, are practically absent. A characteristic shape, the precise function of which remains a matter of debate, is a large oval “tray” with an interior surface that was corrugated with broad grooves or finger impressions (figs 3, 5, 7 and 9). Some authors feel that these “husking trays” were used to separate grains from the husks⁷⁵, but they may also have been portable ovens for baking bread⁷⁶. Once seen as *the* defining element of Hassuna pottery from northern Iraq, husking trays have now been attested in Late Neolithic assemblages across Syria and southeastern Anatolia.

The Standard Ware appears to have evolved from the very earliest ceramic assemblages attested in the northern Syrian

steppes at about 6 900 BC⁷⁷. In northern Syria it remained in production until the Early Halaf period, when it gradually faded into oblivion. However, during its long existence this category was not static. In Pre-Halaf times characteristic decorative techniques included red slipping, painting, appliqué, incising and impressing. Many of these styles bear affiliations to the so-called Proto-Hassuna assemblages known from northern Iraq. The design structures were always simple, and in contrast to the Standard Fine Wares multiple design motifs on the same vessel were largely avoided. At the start of the Transitional period potters innovated stylistically by introducing, among others, Standard Ware vessels decorated with red slipped bands alternating with impressed chevrons, and vessels painted with bitumen⁷⁸. During the later Transitional period, in association with a rapidly increasing importance of Fine Ware, these innovations were lost. During the Early Halaf, Standard Ware was reduced to the production of plain, coarse, and utilitarian vessels.

THE STANDARD FINE WARES

In contrast, *Standard Fine Ware* was made of a fine clay that, on the whole, shows small mineral non-plastic inclusions only⁷⁹. It is not always clear, however, if these represent a true “temper”; the inclusions may have been naturally present in the sandy clays selected for making Standard Fine Ware⁸⁰. In addition to the clay fabric, perhaps the defining feature of this pottery in technological terms is the way it was fired. Potters must have employed kiln types in which oxygen fluctuations could be more closely monitored, resulting in a light, pale-yellow surface colour⁸¹ and, when painted, a dark-coloured paint⁸². Such kilns have thus far not been unequivocally documented at any of the Proto-Halaf sites in Syria, but two-storied updraught kilns do appear at this stage in northern Iraq, at Yarim Tepe I⁸³. Two major decorative techniques are associated with the Standard Fine Ware : painting and, to a lesser

77. FAURA, 1996a, b ; LE MIÈRE et PICON, 1999.

78. See fig. 2, in CONNAN *et al.*, 2004 and fig. 23 in NIEUWENHUYSE *et al.*, 2003.

79. There were certainly exceptions to this general pattern, as indicated by Standard Fine Ware containing plant inclusions as well and occurring in the earliest Proto-Halaf levels at Tell Sabi Abyad (LE MIÈRE and NIEUWENHUYSE, 1996 ; NIEUWENHUYSE, in prep.).

80. VAN AS *et al.*, 1998.

81. 2.5Y 8/3, pale yellow.

82. 2.5Y 5/2, greyish brown. NIEUWENHUYSE *et al.*, 2001, 2002 ; VAN AS *et al.*, 1998.

83. MERPERT and MUNCHAEV, 1973, 1993.

70. LE MIÈRE and NIEUWENHUYSE, 1996 : 129.

71. LE MIÈRE and NIEUWENHUYSE, 1996 : 186-187 ; CRUELLES, in prep. a.

72. LE MIÈRE, 2001 : 183 ff ; LE MIÈRE and NIEUWENHUYSE, 1996 : 129 ff.

73. NIEUWENHUYSE *et al.*, 2002 : 43.

74. 5YR 7/6, 10YR 6/2, 7.5YR 7/4, reddish yellow, light brownish grey, pink. LE MIÈRE, 2001 ; LE MIÈRE and NIEUWENHUYSE, 1996 : 129, 147, 184-185.

75. LLOYD and SAFAR, 1945.

76. VOIGT, 1983 : 159.

extent, incising/impresing. In contrast to the Standard Hassuna wares known from northern Iraq, incising/impresing never occurs on its own, but always in combination with painting. Not all Standard Fine Ware was decorated, however; Plain Fine Ware forms part of the assemblage as well⁸⁴.

Perhaps the most conspicuous aspect of the Proto-Halaf period was the dramatic increase of the proportion of Standard Fine Ware in the ceramic assemblage as a whole. From a mere 2-4 % at the start of the Proto-Halaf period at Tell Sabi Abyad, it comprised the majority at the end of the period (table 1). At the start of the Early Halaf it had replaced most of the other ceramic wares. Along this course in time, potters seem to have searched actively, and successfully, for technological improvements. Gradually they began using more finely prepared clays, and they gained increasing control over firing conditions. This resulted eventually in vessels covered with a regular, dark, somewhat glossy paint in the Early Halaf period. Stylistically, too, the Standard Fine Ware changed markedly, to the extent that it may be possible to distinguish between an “early” and a “late” Proto-Halaf stage. Vessels gradually gained a more sharply accentuated, carinated shape. The logical outcome was the development of the so-called “cream bowl” at the end of the Proto-Halaf period: a sharply carinated, collared bowl that perhaps more than anything else symbolizes Halaf pottery.

The decorative style emphasizes the use of *bounded* design motifs. With few exceptions the motifs were attached to the horizontal, structural lines that divided the empty vessel surface. Figurative motifs occur now and then, including the so-called “dancing ladies” painted along the interior rim⁸⁵. Mostly people avoided figurative designs, however, and employed non-representational, geometrical motifs only. To some extent the range of Standard Fine Ware design motifs overlaps those found among the other ceramic wares such as the Standard Ware, especially during the earliest stages of the Proto-Halaf period (Sabi Abyad levels 7-6), but on the whole they are clearly distinguished. Characteristic motifs include various stepped patterns, meanders, and endless variations on the basic themes of crosshatching and zigzags. The design motif of (horizontal) crosshatching increased during the Proto-Halaf period and became the dominant theme during the Early Halaf. The changes in design motif popularity were gradual, however, and indicate no sharp break between the Proto-Halaf stage and the Early Halaf.

A gradually increasing complexity of the design structure during the Proto-Halaf period is seen in a stronger differentiation of the vessel surface into multiple decoration zones, and in a rapidly increasing range of design motifs (fig. 10)⁸⁶. At Tell Sabi Abyad most Standard Fine Ware vessels gained a single decoration zone at the start of the Proto-Halaf period. At the end of this stage multiple decoration zones, separated with multiple “free-floating” lines were common. In the Early Halaf, design structures became more varied. The use of multiple decoration zones continued, but at the same time there was a return to “broad”, singular zones filled with complex design motifs, while many vessels were now painted in a simple, basic style.

A major research question concerns the relationships between the Syrian Standard Fine Ware and the two major ceramic entities that precede the Halaf in northern and central Iraq, respectively the Standard Hassuna and the “Classic” Samarra. Even a superficial comparison suffices to make the point that the affinities are, indeed, strong, but the precise nature of these relationships remains to be elucidated. The discussion is considerably hampered by the still relatively poor understanding of what constitutes Standard Hassuna and Samarra pottery, or what are the boundaries between these two categories. Most scholars would probably hold that these are distinct culture-historical entities, reflecting profound regional differences in subsistence adaptation and social structure⁸⁷. Recent work, however, emphasizes the consider-

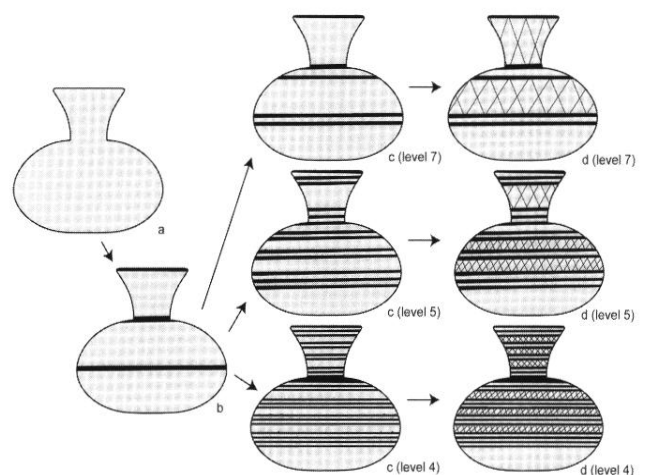


Fig. 10 : Tell Sabi Abyad. The gradual increase in the complexity of the design structure of Standard Fine Ware during the Transitional period (after NIEUWENHUYSE in prep.).

84. CRUELLES, in prep. a, b.

85. GARFINKEL, 1998, 2003.

86. *Ibid.* : 32.

87. BERNBECK, 1994 ; OATES 1972, 1973 ; WATSON, 1983.

able overlap, both from the technological perspective as well as stylistically⁸⁸. An investigation of the Samarra Fine Ware from the type-site Tell Baghouz suggested that in terms of ceramic technology the Baghouz pottery belonged to the same category as the Standard Fine Ware from Tell Sabi Abyad⁸⁹.

THE ORANGE FINE WARES

An intriguing group is the one termed *Orange Fine Ware*. First discovered at Tell Sabi Abyad⁹⁰, this group has been shown to have a wide distribution in time and space. In terms of ceramic technology, Orange Fine Ware pottery was made of relatively coarse clay. Calcium-carbonate particles and coarse lumps of orange or dark-grey mud-rock are the dominant non-plastic inclusions. Many sherds have a pitted surface caused by lime spalling. Chaff temper was added occasionally⁹¹. The pottery was fired at relatively low temperatures, in circumstances that generally seem to have been oxidizing. The Orange Fine Ware, as its name points out, bears an orange-pinkish surface colour⁹² combined with an orange-pinkish paint colour⁹³. In contrast to some of the other Fine Ware pottery groups that arose at this time, the Orange Fine Ware would not have required updraught kilns⁹⁴.

The range of vessel shapes is restricted thus far to various types of bowls and jars. Orange Fine Ware decorative techniques include slipping and painting (figs 3, 7 and 9). Appliqué occurs occasionally, usually in combination with slip or paint. The design structure emphasizes *bounded* designs. Although this feature is shared with the other Fine Ware styles, the Orange Fine Ware design structures are on the average much simpler. Compared with the Standard Fine Ware, the painted lines are thicker and the designs denser. The range of design configurations selected by the Orange Fine Ware potters overlaps with those of the other Fine Wares, but does not replicate them. Typical motifs include diagonal crosshatching, chevrons, diagonal lines and diagonal lines in

alternating directions. Despite the occasional borrowing of Samarra-style motifs, however, and notwithstanding the superficial similarities with the Samarra-style design structures, Orange Fine Ware is categorically not Samarra Fine Ware or Standard Fine Ware.

At Tell Sabi Abyad the Orange Fine Ware is restricted to the Proto-Halaf period, including less than 4 % of the assemblage. The Orange Fine Ware is more at home in northeastern Syria, where survey work in the Khabur headwaters has yielded a number of sites with Orange Fine Ware⁹⁵. In this region the pottery may have more ancient roots, starting as early as the Proto-Hassuna period⁹⁶. At Boueid about one fourth of the assemblage consisted of Orange Fine Ware⁹⁷. Orange Fine Ware also occurs in the Proto-Halaf levels at Tell Chagar Bazar⁹⁸. Further south, Le Mière noted its presence at Tell Bouqras⁹⁹. Significantly, it may also be part of "classic" Samarra ceramic assemblages, as shown by an Orange Fine Ware vessel at Baghouz¹⁰⁰. The Euphrates may constitute the western limit of the distribution of this specific category¹⁰¹.

THE MINERAL-TEMPERED COARSE WARES AND DARK-FACED BURNISHED WARE

In addition to the groups discussed above, Proto-Halaf ceramic assemblages usually include one or more groups characterized by having large quantities of rather coarse, mineral inclusions and the absence of vegetal temper. Reducing firing conditions are often found, frequently leading to dark surfaces and cores. This category, however, includes a wide range of distinct varieties that remain poorly understood. For instance, there is the plain so-called *Mineral Coarse Ware* found at Sabi Abyad¹⁰², Tell Halula, Chagar Bazar¹⁰³ and other sites, but there are also other groups, each group being distinguished by the application of different surface treatments and decorative techniques, including burnishing, slipping, incising and impressing¹⁰⁴. It seems to be impossible at this stage to generalize.

88. CAMPBELL, 1992.

89. NIEUWENHUYSE *et al.*, 2001.

90. AKKERMANS, 1989 ; LE MIÈRE and NIEUWENHUYSE, 1996 : 168-169.

91. At Tell Boueid II such variation led to distinguishing subgroups in the Orange Fine Ware (NIEUWENHUYSE *et al.*, 2002).

92. Generally 5 YR 7/3, pink.

93. 2,5 YR 5/4, weak red.

94. NIEUWENHUYSE *et al.*, 2001 : 160, 162 ; NIEUWENHUYSE *et al.*, 2002.

95. LYONNET (éd.), 2000 ; NIEUWENHUYSE, 2000 ; LE MIÈRE, 2000.

96. LE MIÈRE, 2000.

97. *Ibid.* : 47.

98. *Ibid.* : 10.

99. LE MIÈRE, 2000 : 133.

100. NIEUWENHUYSE, 1999 ; NIEUWENHUYSE *et al.*, 2001.

101. *Ibid.* : 10.

102. LE MIÈRE and NIEUWENHUYSE, 1996.

103. *Ibid.* : 82.

104. *Ibid.*

A fascinating category has become known as *Dark-Faced Burnished Ware*. Initially defined in the Amuq¹⁰⁵, very similar ceramics have recently been shown to be part of the Pre-Halaf, Proto-Halaf and even Halaf ceramic assemblages in Syria¹⁰⁶. Somewhat unfortunately, the lack of precise definitions about what constitutes Dark-Faced Burnished Ware has made it likely that a number of different categories are currently being presented under the same name¹⁰⁷. The complexity of this issue is clearly shown at Tell el-Kerkh 2, where the Dark-Faced Burnished Ware is divided into 3 subgroups on the basis of technological differences¹⁰⁸. From a technological point of view Dark-Faced Burnished Ware may generally be defined as having an exclusively mineral-tempered fabric, a highly burnished, lustrous external surface and a surface colour ranging from black to dark brown to a bright red. Most of the bulk shows reducing firing conditions but light cores sometimes indicate incompletely oxidizing firing conditions. It is not uncommon to find red slipped examples, sometimes in combination with incised geometrical patterns. Compositional analyses point to a non-local origin of the Syrian Dark-Faced Burnished Ware¹⁰⁹, but the precise locus of production remains to be established. Its excellent qualities as a specialized “cooking ware” may have stimulated its exchange. At Tell Sabi Abyad and Tell Boueid II, Dark-Faced Burnished Ware jars were frequently remodelled into holemouth shapes, after which they were re-used as “cooking pots”¹¹⁰.

SOME DIRECTIONS FOR FURTHER STUDY

The appearance and subsequent development of decorated pottery in the Near East has surfaced as one of the most exciting research subjects of the last decade. We now know that after the initial adoption of pottery, at around 6 900 BC, it took several centuries before people began to decorate their

ceramic vessels on a large scale. When they did so eventually, during the later part of the 7th millennium BC, a wide variety of ceramic technologies and decorative styles arose. Thanks to a series of recent discoveries, what we term the Halaf style can now be shown to have arisen gradually out of a variety of local, Pre-Halaf styles. However, many crucial questions still remain to be dealt with.

One of the most depressing problems we currently face is the need for a better terminology when it comes to defining our ceramic categories. Actually, this holds not just for the Proto-Halaf period but for most other stages of the nearly 2 000-year-long Late Neolithic as well. Ceramic categories such as “Coarse Ware”, “Samarra Fine Ware” or “Dark-Faced Burnished Ware”, among many others, constitute essential elements of various definitions of the later Neolithic, yet each of these terms remains poorly understood. In the past many of these definitions have been based largely upon decorative style – the way that the vessels were decorated-, but ultimately they boil down to differences in ceramic technology – the way vessels were made. Rigorous study of the ceramic technology of each category is an essential prerequisite to come to a stronger agreement in a ceramic terminology valid for the whole of Syria. As to the Proto-Halaf period, several studies have already started in this direction¹¹¹. This includes “low-tech” studies of clay selection and preparation, shaping techniques and firing strategies¹¹², but also “high-tech” studies including chemical and physical analysis¹¹³. Not only do such studies shed light on the evolution of ancient ceramic technologies in general, but they also aim to come to grips with the difficult questions of ceramic definitions and terminology.

A closely related issue concerns the locus of production and ceramic exchange. It seems highly likely that pots travelled over great distances at various times during the later Neolithic. However, the scale of ceramic exchange and, indeed, the locus of origin of many presumably non-local items usually remains obscure. A case in point is the Dark-Faced Burnished Ware. While this category is definitely not local to northern Syria, it could have come from a large geographical area in

105. BRAIDWOOD and BRAIDWOOD, 1960.

106. LE MIÈRE, 2000 : 132 ; LE MIÈRE et PICON, 1987 : 136.

107. A point already made by COPELAND et HOURS (1987 : 403).

108. Dark-Faced Burnished Ware should not be confused with the so-called “Black Series”, first defined at Tell Halula (FAURA, 1996b) and recently discovered also at Akarçay Tepe (ARIMURA *et al.*, 2000, CRUELLS, in prep. c) and Mezraa Teleilat (KARUL *et al.*, 2001, 2002a and 2002b ; ÖZDOĞAN 2003a and 2003b), both on the Turkish Euphrates. Nor should it be confused with what is termed “Kerkh ware” (MIYAKE, 2003). These two groups bear superficial resemblances to Dark-Faced Burnished Ware but differ in fabric composition.

109. LE MIÈRE, 2000 ; LE MIÈRE et PICON, 1987.

110. LE MIÈRE and NIEUWENHUYSE, 1996 ; LE MIÈRE et PICON, 1999 : 180 ; NIEUWENHUYSE, *et al.*, 2002.

111. Earlier studies have already yielded important insights into the technology of decorated Halaf, Hassuna and Samarra pottery. BLACKHAM, 1996 ; COURTOIS and VELDE, 1984, 1991 ; NOLL, 1976, 1977, 1991 ; VANDIVER, 1987.

112. *E.g.* VAN AS *et al.*, 1998.

113. A project on physical and chemical analysis of Proto-Halaf pottery from several archaeological sites is running at the Universitat Autònoma de Barcelona. Various projects along these lines are being carried out at the Laboratoire de Céramologie de la Maison de l’Orient Méditerranéen (CNRS, Université Lumière-Lyon 2).

addition to the 'Amuq. The Orange Fine Ware has been claimed to be non-local¹¹⁴, but whence it came remains unclear. Various authors have suggested that much of the Samarra-style Standard Fine Ware represented imported pottery¹¹⁵, but this remains in fact to be demonstrated. The evidence gathered thus far does not contradict local production of Standard Fine Ware across Syria. These issues are important for understanding the details of ceramic production, exchange and consumption, but they have much wider implications for our understanding of Late Neolithic societies. There is much room for systematic studies investigating the chemical and mineral composition of local clays and pottery fabrics.

The view is complicated by the circumstance that the number of excavated sites that give information on the short-lived Proto-Halaf period is still exceedingly limited¹¹⁶. It can be argued that the current scarcity of sites has led to an exaggeration of the perceived cultural differences between key-sites situated far apart. In other words, it contributes to a view of separate culture-historical entities in the Late Neolithic. Now that more sites from this period are being excavated or re-investigated, cultural dichotomies appear to be much less sharp. A case in point is Tell Baghouz. For long seen as the key example of a Samarran site, its ceramics have now been shown to occupy an “intermediate” position between those from the “classic” Samarra sites in central Iraq and from the “northern Samarra” sites found in Syria¹¹⁷. In short, we need more well excavated and thoroughly documented sites. The excavations and surveys in Syria discussed in this paper offer a huge potential in this respect. In addition there are new projects in southeastern Anatolia, a region with a strong recent history of archaeological research into the Late Neolithic, and where recent excavations at sites like Mezraa Teleilat¹¹⁸, Domuztepe¹¹⁹, Kazane Hoyuk¹²⁰, Boz Tepe¹²¹ and

Hakemi Use¹²² show that this region participated in the Proto-Halaf phenomenon.

Only a few sites excavated thus far offer the complete transition, with the Early Halaf evolving from the preceding Pre-Halaf stages with no apparent break. In Syria these are Tell Sabi Abyad in the Balikh Valley and Tell Halula on the Euphrates. Future work should explore the extent to which the trajectories towards the Halaf in each region were similar, in which aspects they differed, and to which extent they overlapped in time. For instance, Tell Sabi Abyad offers a long and complex evolution to the Early Halaf period that may include at least two distinct phases, an “early” and a “late” Transitional stage. At Tell Halula, on the other hand, the current view suggests that the Proto-Halaf period represented a singular, much shorter stage, which evolved more rapidly towards the Early Halaf. The possibility, indeed the likelihood of, such regionally distinct pathways to the Halaf should be further explored in future studies¹²³.

A related issue is the lack of reliable C¹⁴ radiocarbon dates, to fix the temporal dimensions of the Proto-Halaf stage. The very limited number of C¹⁴ dates available give the general time range, about 6 100-5 950 BC¹²⁴. They suggest not only that the transition from Pre-Halaf to Early Halaf happened very quickly indeed – in the course of only a few generations – but also that it happened at about the same time over an enormously large region. This view may of course be misleading. Although in a general sense the outcome of the process appears to have been very similar over large distances, as the wide distribution of Early Halaf sites shows, there is no reason to assume *a priori* that regional communities everywhere “stepped in” at the same time. The Proto-Halaf phenomenon need not have happened everywhere at the same time, or at the same pace, as the different trajectories of Sabi Abyad and Halula suggest. For instance, communities in the Rouj basin of western Syria seem to have participated only marginally, and local ceramic production in the Rouj for a long time continued to produce local styles. During the Early

114. LE MIÈRE, 2000.

115. AKKERMANS, 1993.

116. Recent surveying suggests possibilities of increasing their number.

117. Nieuwenhuyse, 1999.

118. The major site of Mezraa Teleilat has offered important data, which cover a long sequence from late PPNB to a “transitional” early Pottery Neolithic phase, and subsequently to the later Pre-Halaf. The upper-most Late Neolithic level (phase IIA) dates to the Proto-Halaf period, but was much disturbed by later, neo-Assyrian building activities. The Proto-Halaf ceramic assemblage includes some Samarra sherds (ÖZDOĞAN, 2003 : 37-38 ; we also thank Prof. Dr. M. ÖZDOĞAN for his personal informations on the last results on the site. August, 2004).

119. CAMPBELL, 1998b, 2003 ; CAMPBELL and HEALEY, 1996 ; CAMPBELL *et al.*, 1999 ; CARTER and CAMPBELL, 1999.

120. BERNBECK *et al.*, 1999 ; COURSEY *et al.*, 1998.

121. PARKER and CREEKMORE, 2002.

122. TEKIN in press a, b.

123. At Tell Chagar Bazar in the Khabur again a different pattern is shown. Here the Proto-Halaf stage represents the first occupational stage, which then develops gradually into the Early Halaf. The other sites discussed, Tell Boueid II in the Khabur and Tell Baghouz on the Euphrates, offer a single, short-lived Proto-Halaf phase without any internal evolution.

124. Only four C¹⁴ dates from Sabi Abyad have thus far become available : GrN-19367 = 7 075±25 uncal. BP ; GrN-19368 = 7 100±60 uncal. BP ; UtC-1008 = 6 930±80 uncal. BP and GrN-16803 = 7 075±25 uncal. BP (AKKERMANS, 1996 : X), but additional dates are forthcoming. New C¹⁴ dates from Tell Chagar Bazar are forthcoming as well (CRUELLES, in prep. a).

Halaf, potters at Tell el-Kerkh were making Halaf style vessels using the local Dark-Faced Burnished Ware technology¹²⁵. Future work should aim to gain as much chronological precision as possible, covering an area as large as possible. This should also contribute to a better understanding of the chronological relationships between the Syrian Proto-Halaf, the Iraqi Samarra culture and the southeastern Anatolian cultures, which are far from being solved¹²⁶.

In spite of these problems, and notwithstanding the fact that the results from these investigations are still in progress, the Proto-Halaf ceramic assemblage as we currently understand it has a certain degree of consistency from one site to another. We can clearly distinguish the ceramic assemblage from this period both from what came before and from subsequent assemblages. Importantly, the rise of Fine Ware, perhaps the major feature of the period, has been documented at a number of sites, including Tell Sabi Abyad and Tell Halula. In terms of the ceramic assemblage as a whole the Proto-Halaf period shows much continuity with the preceding stages. Many of the ceramic categories existed already during the later Pre-Halaf phase. The new elements of the period include a set of new wares that represented a true innovation in pottery production. These innovations are basically represented by the so-called Standard Fine Ware, a group that includes, among others, the Samarra style. It is this group that gradually developed through time towards what we have termed Halaf pottery. There were other Fine Ware groups, too, among which the Orange Fine Ware is perhaps the most intriguing. These groups show huge supra-regional distributions, which cut across existing culture-historical boundaries and which foreshadow the large regional extent of the succeeding Halaf. To mention just one example, the so-called Standard Ware “husking tray”, until recently considered to be a prime fossil guide of the Hassuna culture, has now been attested across western Syria and southeastern Anatolia, continuing at least until the middle Halaf¹²⁷.

Yet, to excavate more “data” is in itself not sufficient, nor would it be very challenging. There is more to the Proto-Halaf period than just finding the “missing link”. We are facing

huge challenges in re-evaluating our basic explanatory models for the period, and the assumptions underlying those models. The discovery of the Proto-Halaf is rapidly changing the way we look at Syrian prehistory. As scholars increasingly acknowledge, much work on the Syrian Late Neolithic has shown a strong emphasis on culture-historical description and classification¹²⁸. Too often, sophisticated interpretations have rested on the good old notion of distinct culture groups, each group being defined on a presumably homogeneous, mutually discrete set of pottery characteristics. The increasing evidence for overlap and continuity in both time and space cautions against such assumptions. There is a huge potential for studies that make the attempt to place pots and people in their social context. In this respect we may mention the emphasis on broad scale excavation found at a number of sites, which enables contextual analyses to be done.

Many years ago, Agatha Christie Mallowan, while helping her husband at Chagar Bazar, mused about the origins of the stylized Halaf bukranium motif, thinking how helpful it would be if all the “intervening steps” were known¹²⁹. The intervening steps have now been found. The Proto-Halaf phenomenon points to significant changes taking place in the social and symbolical role pottery had in the Late Neolithic communities involved. The study of these changes and their wider implications has only just begun.

Walter CRUELLS

*Universitat Autònoma de Barcelona
Facultat de Lletres
Departament de Prehistòria
08193 – Bellaterra
Spain
wcruelsb@wanadoo.es*

Olivier NIEUWENHUYSE

*National Museum of Antiquities
Leiden
The Netherlands
onieuw@xs4all.nl*

125. TSUNEKI *et al.*, 1997, 1998, 1999, 2000.

126. C¹⁴ dates obtained from the Samarra type-site Tell es-Sawwan in Iraq (level III) offer a similar range of cal. BC dates as Sabi Abyad (6 808±82 uncal. BP (P-856), 7 246±146 uncal. BP (Pr-180) and 7 069±66 uncal. BP (BM-1434). Radiocarbon VII, 1965 :190 ; Radiocarbon 24/3, 1982 : 247).

127. Husking trays have been found in the Early Halaf layers at Sabi Abyad (LE MIÈRE and NIEUWENHUYSE, 1996), at Tell Halula (CRUELLS, 2001 : 144 and in prep. b) and at Middle-Late Halaf Umm Qseir (TSUNEKI and MIYAKE, 1948 : 75 and fig. 35 : 11-14), to name just a few examples.

128. AKKERMANS and SCHWARTZ, 2003 : 101 ; CAMPBELL, 1992, 1998a ; MATTHEWS, 2003 : 20-22.

129. CHRISTIE MALLOWAN, 1999 : 147 (original 1946).

BIBLIOGRAPHY

- AKKERMANS P.M.M.G.
1989 The Prehistoric Pottery of Tell Sabi Abyad. In : AKKERMANS P.M.M.G. (ed.), *Excavations at Tell Sabi Abyad* : 77-213. Oxford (BAR Int. Ser. 468).
- 1993 *Villages in the Steppe : Late Neolithic Settlement and Subsistence in the Balikh Valley, Northern Syria*. Michigan, Ann Arbor (International Monographs in Prehistory Archaeological Series 5).
- 1997 Old and New perspectives on the Origins of the Halaf Culture. In : ROUAULT O. et WÄFLER M. (éd.), *La Djézirè et l'Euphrate syriens de la Protohistoire à la fin du second millénaire av. J.-C.* : 55-68. Paris : ERC.
- AKKERMANS P.M.M.G. (ED.)
1996 *Tell Sabi Abyad : the Late Neolithic Settlement. Report on the Excavations of the University of Amsterdam (1988) and the National Museum of Antiquities (1991-1993) in Syria*. Istanbul : Nederlands Historisch Archeologisch Instituut.
- AKKERMANS P.M.M.G. and LE MIÈRE M.
1992 The 1988 Excavations at Tell Sabi Abyad, a Later Neolithic Village in Northern Syria. *American Journal of Archaeology* 96 : 1-22.
- AKKERMANS P.M.M.G. and VERHOEVEN M.
1995 An Image of Complexity : the Burnt Village at Late Neolithic Sabi Abyad, Syria. *American Journal of Archaeology* 99/1 : 5-32.
- AKKERMANS P. M.M.G. and DUISTERMAAT K.
1997 Of Storage and Nomads. The Clay Sealings from Late Neolithic Sabi Abyad, Syria. *Paléorient* 22,2 : 17-44.
- AKKERMANS P.M.M.G. and SCHWARTZ G.M.
2003 *The Archaeology of Syria. From Complex Hunter-Gatherers to Early Urban Societies (ca 16 000-300 BC)*. Cambridge : Cambridge University Press.
- AKKERMANS P.M.M.G., NIEUWENHUYSE O.P., JACKSON A. and DE CESARI C.
in prep. The Late Neolithic architecture. In : AKKERMANS P.M.M.G. and NIEUWENHUYSE O.P. (eds), *Excavations at Late Neolithic Tell Sabi Abyad (1994-1999)*.
- ARIMURA M., BALKAN-ATLI N., BORRELL F., CRUELLS W., DURU G., ERIM-ÖZDOĞAN A., IBAÑEZ J., MAEDE O., MIYAKE Y., MOLIST M. and ÖZBASARAN M.
2000 A new Neolithic settlement in the Urfa region : Akarçay Tepe, 1999. *Anatolia Antiqua* VIII : 227-255.
- BERNBECK R.
1994 *Die Auflösung der häuslichen Produktionsweise*. Berlin : Dietrich Reimer Verlag.
- BERNBECK R., POLLOCK S. and COURSEY C.
1999 The Halaf Settlement at Kazane Höyük. Preliminary Report on the 1996 and 1997 Seasons. *Anatolica* XXV : 109-147.
- BLACKHAM M.
1996 Further Investigations as to the Relationship of Samarran and Ubaid Ceramic Assemblages. *Iraq* LVIII : 1-15.
- BRAIDWOOD R.J., BRAIDWOOD L.S., TULANE E. and PERKINS A.L.
1944 New Chalcolithic Material of Samarran Type and its Implications. *Journal of Near Eastern Societies* III : 47-260.
- BRAIDWOOD R.J. and BRAIDWOOD L.S.
1960 *Excavation on the Plain of Antioch. Vol. 1 : The earlier Assemblages : Phases A-J*. Chicago : University of Chicago Press (OIP 61).
- CAMPBELL S.
1992 *Culture, Chronology and Change in the Later Neolithic of North Mesopotamia*. Edinburgh : University of Edinburgh, Ph.D. thesis.
- 1998a Problems of Definition : the Origins of the Halaf in North Iraq. In : LEBEAU M. (ed.), *About Subartu. Studies devoted to Upper Mesopotamia* : 39-52. Brussels : Brepols (Subartu IV, 1).
- 1998b Domuztepe. *Anatolian Archaeology* 4 : 4-5.
- CAMPBELL S. and HEALEY E.
1996 Domuztepe, a Late Pottery Neolithic Site in Southeast Turkey. *Neo-Lithics* 2/96 : 3-4.
- CAMPBELL S., CARTER E., HEALEY E., ANDERSON S., KENNEDY A. and WHITCHER S.
1999 Emerging Complexity on the Kahramanmaraş Plain, Turkey : The Domuztepe Project, 1995-1997. *American Journal of Archaeology* 103 : 395-418.
- CARTER E. and CAMPBELL S.
1999 Preliminary report on the 1998 season of excavations at Domuztepe. *Kaz Sonuçlar Toplantı* 21 : 133-142.
- CAUVIN M.C. et MOLIST M.
1987-88 Prospection néolithique sur le Haut Euphrate Syrien. *Annales Archéologiques Arabes Syriennes* 37-38 : 78-90.
- CHRISTIE MALLOWAN A.
1999 *Come, Tell me How you Live. An Archaeological Memoir*. London : Harper-Collins (original 1946).
- CONNAN J., NIEUWENHUYSE O.P., VAN AS A. and JACOBS L.
2004 Bitumen in Early Ceramic Art : Bitumen-Painted Ceramics from Late Neolithic Tell Sabi Abyad (Syria). *Archaeometry* 46 : 115-124.
- COPELAND L. et HOURS F.
1987 L'expansion de la civilisation Halafienne. Une interprétation de la répartition des sites. In : HUOT J.L. (éd.), *Préhistoire de la Mésopotamie : La Mésopotamie Préhistorique et l'exploration récente du Djebel Hamrin* : 209-220. Paris : Éditions du CNRS.
- COURSEY C., BERNBECK R. and POLLOCK S.
1998 Excavations of the Halaf Occupation at Kazane Höyük, 1998. *Neo-Lithics* 3/98 : 6-7.
- COURTOIS L. et VELDE B.
1984 Recherches comparées sur les matériaux et les techniques de peintures céramiques de Mésopotamie (VI^e-V^e millénaires). *Paléorient* 10,2 : 81-93.
- 1991 Recherches comparées sur les matériaux et les techniques de peintures céramiques de Mésopotamie (VI^e-V^e millénaires). In : HUOT J.L. (éd.), *Oueili. Travaux de 1985* : 285-312. Paris : ERC.
- CRUELLS W.
1996 La cerámica pintada Halaf. In : MOLIST M. (ed.), *Tell Halula (Siria). Un yacimiento Neolítico del Valle Medio del Éufrates. Campañas de 1991 y 1992* : 99-114. Madrid : Ministerio de Educación y Cultura.
- 2001 Nuevas aportaciones a la cultura Halaf en Siria. In : MONTERO J.L., VIDAL J. et MASÓ F. (eds), *Actas del I Con-*

- gresso de *Arqueologia e Historia Antigua del Oriente Próximo* : 135-157. Barcelona : Societat Catalana d'Amics del Pròxim Orient Antic (*Monografies Eridu* 1)
- in prep. a Chagar Bazar 1999-2000. Rapport sur les sondages préhistoriques. In : TUNCA Ö. and ABD EL-MASSIH-BAGDO. (eds), *Chagar Bazar (Syria). Progress Reports I*. Louvain-Paris-Dudley (Ma): Peeters.
- in prep. b Origenes y desarrollo del horizonte Halaf en Tell Halula. In : MOLIST M. (ed.), *Tell Halula (Siria). Un yacimiento Neolítico del Valle Medio del Éufrates. Campañas de 1993-99*. Madrid : Ministerio de Educación y Cultura.
- in prep. c Akarçay Tepe. Report on the ceramics from phases IIB and III. In : *Akarçay Tepe : 1999-2001*. Istanbul.
- CRUELLS W., MOLIST M. and TUNCA Ö.
2004 Tell Amarna in the General Framework of the Halaf Period. In : TUNCA Ö. et MOLIST M. (éd.), *Tell Amarna (Syrie) I. La période de Halaf* : 261-283. Louvain-Paris-Dudley (Ma) : Peeters (*Publications de la Mission archéologique de l'Université de Liège en Syrie*).
- DAVIDSON T.E.
1977 *Regional Variation within the Halaf Ceramic Tradition*. Edinburgh : University of Edinburgh, Ph.D. unpublished.
- DAVIDSON T.E. and WATKINS T.
1981 Two Seasons of Excavation at Tell Aqab in the Jezireh, NE Syria. *Iraq* 43,1 : 1-18.
- DU MESNIL DU BUISSON H.
1948 *Baghouz l'ancienne Corsote. Le tell Archaique et la nécropole de l'Age du Bronze*. Leiden : Brill.
- EINWAG B.
1993 Vorbericht über die archäologische Geländebegehung in der Westgazira. *Damaszener Mitteilungen* 7 : 23-43.
- FAURA J.M.
1996a La cerámica "Pre-Halaf". In : MOLIST M. (ed.), *Tell Halula (Siria). Un yacimiento Neolítico del Valle Medio del Éufrates. Campañas de 1991 y 1992* : 91-98. Madrid : Ministerio de Educación y Cultura.
1996b *Un conjunt ceràmic del VIII mil·lenni B.P. a la Vall de l'Éufrates : Les produccions de Tell Halula (Siria)*. Barcelona : Universitat Autònoma de Barcelona, Trabajo de investigación de 3^{er} ciclo.
- FAURA J.M. et LE MIÈRE M.
1999 La céramique Néolithique du haut Euphrate Syrien. In : OLMO G.D. and MONTERO J.L. (eds), *Archaeology of the Upper Syrian Euphrates. The Tishrin Dam Area* : 281-298. Sabadell : Ed. AUSA.
- GARFINKEL Y.
1998 Dancing and the Beginning of Art Scenes in the Early Village Communities of the Near East and Southeast Europe. *Cambridge Archaeological Journal* 8,2 : 207-237.
2003 *Dancing at the Dawn of Agriculture*. Austin : University of Texas Press.
- GARSTANG J.
1908 Excavations at Sakje-Geuzi, in North Syria : preliminary report for 1908. *Annals of Archaeology and Anthropology* 1 : 97-117.
- GEYER B. et BESANÇON J.
1997 Environnement et occupation du sol dans la vallée de l'Euphrate syrien durant le Néolithique et le Chalcolithique. *Paléorient* 22,2 : 5-15.
- GEYER B. et MONCHAMBERT J.
1987 *Prospection de la moyenne vallée de l'Euphrate : rapport préliminaire, 1982-1985* : 293-344. Paris : ERC (*Mari : Annales de Recherches Interdisciplinaires* 5).
- GUT R.V.
1995 *Das prähistorische Ninive. Zur relativen Chronologie der frühen Perioden Nordmesopotamiens*. Mainz : Philipp von Zabern.
- IWASAKI T. and TSUNEKI A.
2003 *Archaeology of the Rouj Basin. A regional study of the transition from village to city in Northwest Syria*, vol. 1. Tsukuba : University of Tsukuba (*Al-Shark – Studies for West Asian Archaeology* 2).
- KARUL N., AYHAN A. and ÖZDOĞAN M.
2001 1999 Excavations at Mezraa-Teleilat. In : TUNA N. and VELIBEYOLU J. (eds), *Salvage Project of the Archaeological Heritage of the Ilýsu and Carchemish Dam Reservoirs, Activities in 1999* : 162-174. Ankara : TAÇDAM METU.
2002a 2000 YI Mezraa-Teleilat Kaz. *Kazı Sonuçları Toplantısı* 23-II : 63-74. Ankara.
2002b Mezraa Teleilat 2002. In : TUNA N. and VELIBEYOLU J. (eds), *Salvage Project of the Archaeological Heritage of the Ilýsu and Carchemish Dam Reservoirs, Activities in 2000* : 115-141. Ankara : TAÇDAM METU.
- KOHLMEYER K.
1984 Euphrat Survey. Die mit der Gerda Henkel Stiftung durchgeführte archäologische Geländebegehung im syrischen Euphrattal. *Mitteilungen der Deutschen Orient Gesellschaft* 116 : 95-118.
1986 Euphrat Survey 1984. Zweiter Vorbericht über die mit Mitteln der Gerda Henkel Stiftung durchgeführte archäologische Geländebegehung im syrischen Euphrattal. *Mitteilungen der Deutschen Orient Gesellschaft* 118 : 51-65.
- LE MIÈRE M.
2000 L'occupation proto-Hassuna du Haut-Khabur occidental d'après la céramique. In : LYONNET B. (éd.), *Prospection archéologique. Haut-Khabur occidental (Syrie du N.E.)* vol. 1 : 127-150. Beyrouth : IFAPO (*BAH* 155).
2001 The Neolithic pottery from Tell Kosak Shamali. In : NISHIKI Y. and MATSUTANI T. (eds), *Tell Kosak Shamali. The archaeological investigations on the Upper Euphrates, Syria. Chalcolithic architecture and the earlier prehistoric remains* vol. 1 : 179-211. Tokyo : The University Museum, University of Tokyo.
- LE MIÈRE M. and NIEUWENHUYSE O.P.
1996 The Prehistoric Pottery. In : AKKERMANS P.M.M.G. (ed.), *Tell Sabi Abyad : the Late Neolithic Settlement. Report on the Excavations of the University of Amsterdam (1988) and the National Museum of Antiquities (1991-1993) in Syria* : 119-284. Istanbul : Nederlands Historisch Archeologisch Instituut.
- LE MIÈRE M. et PICON M.
1987 Production locale et circulation des céramiques au VI^e millénaire, au Proche-Orient. *Paléorient* 13,2 : 133-147.
1999 Les débuts de la céramique au Proche-Orient. *Paléorient* 24,2 : 5-26.
2003 Appearance and first development of cooking and "non-cooking" ware concepts in the Near East. In : DI PIERRO S., SERNEELS V. and MAGGETTI M. (eds), *Ceramic in the Society. Proceedings of the 6th European Meeting on Ancient Ceramics* : 175-188. Fribourg : Fribourg University.

- LEMONNIER P.
1992 *Elements for an Anthropology of Technology*. Ann Arbor : Museum of anthropology, Univ. of Michigan.
- LYONNET B. (ÉD.)
2000 *Prospection archéologique dans le Haut-Khabur occidental (Syrie du N.E.)*, vol 1. Beyrouth : IFAPO (BAH 155).
- LLOYD S. and SAFAR F.
1945 Tell Hassuna. Excavations by the Iraq Government Directorate General of Antiquities in 1943 and 1944. *Journal of Near Eastern Studies* 4 : 255-289.
- MALLOWAN M.E.L.
1936 The excavations at Tall Chagar Bazar, and an archaeological survey of the Habur Region, 1934-5. *Iraq* 3 : 1-59.
1937 The excavations at Tall Chagar Bazar. Second campaign, 1936. *Iraq* 4 : 91-177.
- MALLOWAN M.E.L. and ROSE J.C.
1935 Excavations at Tall Arpachiyah, 1933. *Iraq* 2 : 1-178.
- MATTHEWS R.
2003 Surface Investigations. In : MATTHEWS R. (ed.), *Excavations at Tell Brak vol. 4 : Exploring an Upper Mesopotamian regional centre, 1994-1996* : 7-24. Cambridge : McDonald Institute for Archaeological Research and British School of Archaeology in Iraq.
- MATHOT H. et FONTANA S.
in prep. La céramique d'époque Halaf de Tell Masaikh. *Ah-Purattim* 2.
- MELLAART J.
1975 *The Neolithic of the Near East*. London : Thames and Hudson.
- MERPERT N.I. and MUNCHAEV R.M.
1973 Excavations at Yarim Tepe 1972. Fourth preliminary report. *Sumer* 29 : 3-16.
1993 Yarim Tepe I. In : YOFFEE N. and CLARK J.J. (eds), *Early Stages in the Evolution of Mesopotamian Civilization. Soviet Excavations in Northern Iraq* : 93-114. Tucson/London : University of Arizona Press.
- MIYAKE Y.
2003 Pottery. In : IWASAKI T. and TSUNEKI A. (eds), *Archaeology of the Rouj Basin. A Regional Study of the Transition from Village to City in northwest Syria* : 119-142. Tsukuba : Department of Archaeology.
- MOLIST M.
1998 Espace collectif et espace domestique dans le Néolithique des IX^e et VIII^e millénaires BP au nord de la Syrie : Apports du site de Tell Halula (Vallée de l'Euphrate). In : FORTIN M. et AURENCHÉ O. (éd.), *Espace naturel, espace habité en Syrie du nord (10^e-2^e millénaires av. J.-C.)* : 115-130. Québec-Lyon : BCSMS – TMO.
2001 Halula, village néolithique en Syrie du Nord. In : GUILAINE J. (éd.), *Communautés villageoises du Proche Orient à l'Atlantique (8 000-2 000 avant notre ère)* : 35-52. Paris : Éditions Errance.
- MOLIST M. (ED.)
1996 *Tell Halula (Siria). Un yacimiento neolítico del valle medio del Éufrates. Campañas de 1991 y 1992*. Madrid : Ministerio de Educación y Cultura.
- in prep. *Tell Halula (Siria). Un yacimiento neolítico del valle medio del Éufrates. Campañas de 1993-1999*. Madrid : Ministerio de Educación y Cultura.
- MOLIST M. et STORDEUR D.
1999 Le moyen Euphrate syrien et son rôle dans la néolithisation. Spécificité et évolution des architectures. In : OLMO G.D. and MONTERO J.L. (eds), *Archaeology of the Upper Syrian Euphrates. The Tishrin Dam Area* : 395-412. Sabadell : Editorial AUSA.
- NIEUWENHUYSE O.P.
1995 The transitional Fine Ware Pottery of Tell Sabi Abyad. *Oriental Express* 1 : 15-16.
1996 Late Neolithic Settlement in the Upper-Khabur, Syria. A Regional Survey Project. *Oriental Express* 1996/1 : 16-17.
1997 Following the earliest Halaf : some later Halaf Pottery from Tell Sabi Abyad, Syria. *Anatolica* 23 : 227-242.
1999 Tell Baghouz reconsidered : a collection of "Classic" Samarra sherds from the Louvre. *Syria* 76 : 1-18.
1999a A note on the Hassuna/Samarra site of Tell Boueid II (Syria). *Neo-Lithics* 1/99 : 1-2.
1999b Tell Boueid II : Syrian rescue excavations at a small Hassuna/Samarra site. *Oriental Express* 1999/1 : 3-5.
2000 Halaf Settlement in the Khabur Headwaters. In : LYONNET B. (éd.), *Prospection archéologique dans le Haut-Khabur Occidental (Syrie du N.E.)* vol. 1 : 151-260. Beyrouth : IFAPO (BAH 155).
2002 The small finds. In : SULEIMAN A. and NIEUWENHUYSE O.P. (eds), *Tell Boueid II. A Late Neolithic Village on the Middle Khabur (Syria)* : 13-34. Brussels : Brepols (Subartu XI).
in prep. *From Plain to Painted. Prehistoric Pottery Styles on the Syrian and Northern Mesopotamian Plains*. Leiden : Leiden University, Ph.D. thesis.
- NIEUWENHUYSE O.P., JACOBS L., VAN AS A., BROEKMANS T. and ADRIAENS M.
2001 Making Samarra Fine Ware – technological observations on the ceramics from Tell Baghouz (Syria). *Paléorient* 27,1 : 147-165.
- NIEUWENHUYSE O.P., JACOBS L. and VAN AS A.
2002 The ceramics. In : SULEIMAN A. and NIEUWENHUYSE O.P. (eds), *Tell Boueid II. A Late Neolithic Village on the Middle Khabur (Syria)* : 35-124. Brussels : Brepols (Subartu XI).
- NIEUWENHUYSE O.P., CONNAN J., VAN AS A. and JACOBS L.
2003 Painting Pots with Bitumen at Late Neolithic Tell Sabi Abyad (Syria). *Neo-Lithics* 2/03 : 22-25.
- NOLL W.V.
1976 Mineralogie und Technik der frühen Keramiken Grossmesopotamiens. *Neues Jahrbuch für Mineralogie* 127,3 : 261-288.
1977 Techniken antiker Töpfer und Vasenmaler. *Antike Welt* 8,2 : 21-36.
1991 *Alte Keramik und ihre Pigmente. Studien zu Material und Technologie*. Stuttgart : Schweizerbart.
- OATES J.
1972 Prehistoric Settlement Patterns in Mesopotamia. In : UCKO P.J., TRINGHAM R. and DIMBLEDY G.D. (eds), *Man, Settlement and Urbanism*. London : Duckworth.
1973 The Background and Development of Early Farming Communities in Mesopotamia and the Zagros. *Proceedings of the Prehistoric Society* 39 : 147-181.

- ODAKA T.
2003a Finc Painted wares in the Neolithic Northern Levant : the earliest evidence from Tell Ain el Kerh, the Rouj Basin. *Orient Express* 2003/3 : 80-81.
2003b Samarra pottery in the National Museum of Aleppo, Syria. *Al-Rafidan* XXIV : 25-39.
- ÖZDOĞAN M.
2003a A Group of Neolithic Stone Figurines from Mezraa-Teleilat. In : ÖZDOĞAN M., HAUPTMANN H. and BAŞGELEN N. (eds), *From Village to Cities : Early Villages in the Near East* : 511-523. Istanbul : Arkeoloji ve Sanat Yayınları.
2003b Mezraa Teleilat. Un site néolithique en bordure de l'Euphrate. *Dossiers d'Archéologie* 281 « Néolithique, découverte d'un berceau anatolien » : 36-41.
- PARKER B.J. and CREEKMORE R.
2002 The Upper Tigris Archaeological Research Project : a Final Report from the 1999 Field Season. *Anatolian Studies* 52 : 19-74.
- SAÑA M.
2002 The faunal remains. In : SULEIMAN A. and NIEUWENHUYSE O.P. (eds), *Tell Boueid II. A Late Neolithic Village on the Middle Khabur (Syria)* : 125-140. Brussels : Brepols (*Subartu* XI).
- SULEIMAN A.
1995 Tell Boueid. *Syria* LXXII : 164-170.
2002 The stratigraphy and architecture. In : SULEIMAN A. and NIEUWENHUYSE O.P. (eds), *Tell Boueid II. A Late Neolithic Village on the Middle Khabur (Syria)* : 5-12. Brussels : Brepols (*Subartu* XI).
- SULEIMAN A. and NIEUWENHUYSE O.P.
1999a A note on the Hassuna/Samarra site of Tell Boueid II (Syria). *Neo-Lithics* 1/99 : 1-2.
1999b Tell Boueid II : Syrian rescue excavations at a small Hassuna/Samarra site. *Orient Express* 1999/1 : 3-5.
- SULEIMAN A. and NIEUWENHUYSE O.P. (EDS)
2002 *Tell Boueid II. A Late Neolithic Village along the Middle Khabur (Syria)*. Brussels : Brepols (*Subartu* XI).
- TEKIN H.
in prep. a Preliminary Report on the 2001 season at Hakemi Use. In : TUNA N. and VELIBEYODLU J. (eds), *Salvage Project of the Archaeological Heritage of the Ilýsu and Carchemish Dam reservoirs, Activities in 2001*. Ankara : METU.
in prep. B Preliminary Report on the 2002 season at Hakemi Use. In : TUNA N. and VELIBEYODLU J. (eds), *Salvage Project of the Archaeological Heritage of the Ilýsu and Carchemish Dam reservoirs, Activities in 2002*. Ankara : METU.
- TSUNEKI A. and MIYAKE Y. (EDS)
1948 *Excavations at Tell Umm Qseir in Middle Khabur Valley, North Syria*. Tsukuba : Department of Archaeology, Institute of History and Anthropology, University of Tsukuba (*Al-Shark* 1).
- TSUNEKI A., HYDAR J., MIYAKE Y., AKAHANE S., NAKAMURA T., ARIMURA M. and SEKINE S.
1997 First preliminary report of the excavations at Tell el-Kerkh (1997), Northwestern Syria. *Bulletin of the Ancient Orient Museum* 18 : 1-40.
- TSUNEKI A., HYDAR J., MIYAKE Y., AKAHANE S., NAKAMURA T., ARIMURA M., NISHIYAMA S., SHA'BAAN H., ANEZAKI T. and YANO S.
1998 Second preliminary report of the excavations at Tell el-Kerkh (1998), Northwestern Syria. *Bulletin of the Ancient Orient Museum* 19 : 1-40.
- TSUNEKI A., HYDAR J., MIYAKE Y., HUDSON M., ARIMURA M., MAEDA O., ODAKA T. and YANO S.
1999 Third preliminary report of the excavations at Tell el-Kerkh (1999), Northwestern Syria. *Bulletin of the Ancient Orient Museum* 20 : 1-32.
- TSUNEKI A., HYDAR J., MIYAKE Y., MAEDA O., ODAKA T., TANNO K. and HASEGAWA A.
2000 Fourth preliminary report of the excavations at Tell el-Kerkh (2000), Northwestern Syria. *Bulletin of the Ancient Orient Museum* 20 : 1-36.
- VAN AS A., JACOBS L. and NIEUWENHUYSE O.P.
1998 The Transitional Fine Ware Pottery of Tell Sabi Abyad, Syria. A Pilot Study. *Newsletter of the Department of Pottery Technology* 14/15, 1996/1997 : 25-47. Leiden : Leiden University.
- VAN LOON M.N.
1967 *The Tabqa Reservoir Survey*. Damascus : Direction Générale des Antiquités et des Musées.
- VANDIVER P.
1987 Sequential slab construction ; a conservative southwest Asiatic ceramic tradition, ca. 7000-3000 BC. *Paléorient* 13,2 : 9-35.
- VERHOEVEN M.
1999 *An Archaeological Ethnography of a Neolithic Community. Space, Place and Social Relations in the Burnt Village at Tell Sabi Abyad*. Istanbul : Nederlands Historisch-Archeologisch Instituut.
2000 Death, Fire and Abandonment : Ritual Practice at later Neolithic Tell Sabi Abyad, Syria. *Archaeological Dialogues* 7,1 : 46-83.
- VOIGT M.
1983 *Hajji Firuz Tepe, Iran : the Neolithic Settlement*. Philadelphia : The University Museum, University of Pennsylvania (*University Museum Monograph* 50).
- VON OPPENHEIM M. FR.
1943 *Tell Halaf. Vol 1 : die prähistorischen Funde (bearbeitet von Hubert Schmidt)*. Berlin : Walter de Gruyter and Co.
- WATKINS T. and CAMPBELL S.
1987 The chronology of the Halaf culture. In : AURENCHÉ O., EVIN J. and HOURS F. (eds), *Chronologies in the Near East* : 427-466. Oxford : Archaeopress/Lyon : MOM (*BAR Int. Ser.* 379 (ii)).
- WATSON P.J.
1983 The Halafian culture : a Review and Synthesis. In : Young T.C., Smith P.E.L. and Mortensen P. (eds), *The Hilly Flanks and Beyond : Essays on the Archaeology of Southwest Asia* : 231-249. Chicago : University of Chicago Press (*Studies in Ancient Oriental Civilizations* 36).
- WATSON P.J. and LEBLANC S.A.
1973 Excavation and Analysis of Halafian Materials from South-eastern Turkey : the Halafian Period reexamined. In : *72nd annual meeting of the American Anthropological Association. Nov. 28 - Dec. 2 1973*. New Orleans.
- WILKINSON T.J. and TUCKER D.J.
1995 *Settlement Development in North Jazira, Iraq. A Study of the Archaeological Landscape*. Baghdad : British School of Archaeology in Iraq, Department of Antiquities and Heritage (*Iraq Archaeological Reports* 3).