

CONTINUITY AND CHANGE: AN *ANNALES* APPROACH TO THE  
LATE CHALCOLITHIC PERIOD IN NORTH MESOPOTAMIA

A Master's Thesis

by  
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May 2018



To my beautiful first-born niece Ezgi Sıla Yıldız

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LATE CHALCOLITHIC PERIOD IN NORTH MESOPOTAMIA

The Graduate School of Economics and Social Sciences  
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İHSAN DOĞRAMACI BİLKENT UNIVERSITY  
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May 2018

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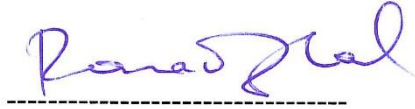
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## ABSTRACT

### CONTINUITY AND CHANGE: AN *ANNALES* APPROACH TO THE LATE CHALCOLITHIC PERIOD IN NORTH MESOPOTAMIA

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The semantic context of the cultural patterns of the past is beyond our perception. This fact, regardless of time and space, thus, makes any type of social organizations that existed in the past complex and transitive. Bearing in mind this fact, this study aimed to analyze the Late Chalcolithic period (*ca.* 4500-3000 BC) in an extensive area of north Mesopotamia with archaeological traces of an increasing socio-cultural, socio-economic, and socio-political complexity through the *Annales School of History* paradigm, which divides time into geographical time, social time, and individual time. Within this division, geographical time (*longue durée*) refers to the role of environment and geography on the nature and development of the northern communities at the regional level. Social time (*conjoncture*) provides a perceptible rhythm of indigenous cultural phenomena in north Mesopotamia (*ca.* 4500-3700 BC) prior to the Uruk culture of southern Mesopotamian origin, and a certain degree of social mobility, history of communities and their ideologies (*mentalité*) after the Uruk expansion (*ca.* 3700-3000 BC). The Uruk phenomenon in north Mesopotamia can be perceived in social time. At another level, individual time (*évènement*), which takes historical events as the reference, coincides with the establishment of the Uruk colonies at Tell Sheikh Hassan, Habuba Kabira Süd, and Jebel Aruda in the Middle Euphrates Basin. In comparison with the earlier assessments, this analysis shows that an interpretation of continuity and change in total history (*histoire totale*) of the Late Chalcolithic period of north Mesopotamia is possible with the *Annales* paradigm. It

also shows that north Mesopotamia, in the long term, hosted a number of cultural patterns; thus, provides culturally accumulated continuity, while different cultural influences and interactions, in several cases, played a key role in cultural changes. The interpretation of this thesis based on archaeological excavations, surveys carried out in north Mesopotamia, as well as previous views on the Late Chalcolithic period.

Keywords: *Annales*, Late Chalcolithic, North Mesopotamia, Uruk Culture

## ÖZET

### DEVAMLILIK VE DEĞİŞİM: KUZEY MEZOPOTAMYA GEÇ KALKOLİTİK DÖNEMİNE BİR *ANNALES* YAKLAŞIMI

Can, Şakir

Yüksek Lisans, Arkeoloji Bölümü

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Geçmişin kültürel örüntülerinin anlamsal bağlamı algılarımızın ötesinde olması, bu geçmişin içinde zamandan ve mekândan bağımsız olarak varlık gösteren herhangi bir sosyal organizasyon biçimini karmaşık ve geçişken yapmaktadır. Bu gerçekten hareketle, bu tez çalışmasında kuzey Mezopotamya coğrafyasının Geç Kalkolitik sürecinde (M.Ö. 4500-3000) artan sosyo-kültürel, sosyo-ekonomik ve sosyo-politik karmaşıklığın arkeolojik izlerinin bir bütün tarihsel okuması için zamanı coğrafik, sosyal ve bireysel olarak bölümleyen *Annales* yaklaşımı esas alınmıştır. Coğrafik zaman (*longue durée*), kuzey Mezopotamya toplumlarının doğasında ve gelişiminde çevre ve coğrafyanın oynadığı rolün bölgesel düzlemde izlenmesine olanak tanır. Sosyal zaman (*conjoncture*), kuzey Mezopotamya’da güney Mezopotamya kökenli Uruk kültürünün öncesinde yerel kültürel olguları (M.Ö. 4500-3700) ve sonrasında belli ölçülerde var olan sosyal hareketliliği, toplumların tarihi ve ideolojilerini (*mentalité*) anlamamızı sağlamaktadır. Sosyal zamanda algılanabilen kuzey Mezopotamya’daki Uruk olgusu ise, tarihsel olaylar referans alan bireysel zamanda (*évènement*) Orta Fırat Havzası’nda Tell Sheikh Hassan, Habuba Kabira ve Jebel Aruda’daki Uruk kolonilerinin kurulmasıyla örtüşmektedir. Böylelikle, kuzey Mezopotamya’nın Geç Kalkolitik döneminin tüm tarihinde algılanabilen devamlılık ve değişimler *Annales* paradigmasıyla açıklanmıştır. Ayrıca, uzun vadede birçok yerel kültürel örüntüye ev sahipliği yapan kuzey Mezopotamya’daki kültürel birikim kültürel devamlılığı sağladığı, farklı kültürel etki ve etkileşimlerin belli bölgelerde



kültürel deęiřimlerde de rol oynadıęı sonucuna ulařılmıştır. Bu deęerlendirme, kuzey Mezopotamya’da yapılan arkeolojik kazılar, yüzey arařtırmalar ile Ge Kalkolitik dönem için yapılan yorumlamalara dayandırılmaktadır.

Anahtar Kelimeler: *Annales*, Ge Kalkolitik, Kuzey Mezopotamya, Uruk Kùltürü

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# CHAPTER 1

## INTRODUCTION

Space and environment, in which all types of social structure exist, make social groups a part of a continuous cultural pattern in the context of relationships they have established with each other and with others. The resulting picture can be that geography and environment provoke both inherent losses and gains in any society in a specified region. Thus, these cultural patterns may reveal changes created by cross-cultural intersections arising from the interaction among transhumant groups and sedentary groups or the like. It is in this regard that the Late Chalcolithic period (LC hereafter) (*ca.* 4500-3000 BC) in Mesopotamia is an era during which we may attempt to find the relationship that individual and society have developed with urbanization, city, and state (Algaze et al. 1989; Algaze, 1993; Oates et al. 2007; McMahon et al. 2007).

As Braudel (2016: 218) suggests, each society or social group joins in a series of civilizations that have ties, while at the same time they can be very different from each other. Starting from this point of view, in this thesis, cultures, cultural changes and associated transformations, and the changes created by cross-cultural intersections among these cultures will be investigated through the time division of Fernand Braudel<sup>1</sup> in a huge geographical area of northern Mesopotamia during the LC period, fixed between *ca.* 4500-3000 BC in time and space (Figure 1). This study aims to explain social, economic, and political continuity and change in north Mesopotamia during the LC period through an *Annales* approach. It should, however, be kept in mind that societies and their material cultures or symbolic

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<sup>1</sup> See chapter 2, below.

worlds cannot be squeezed between fixed times. Nor can they be generalized in a specified region.

Taking into consideration the above lines, we cannot reduce the economic, political, and social landscapes of LC Mesopotamia by a series of evocative univocal words such as homogenous, equal, monotype, standardized, and uniform. In fact, societies, like civilizations, have a dynamic space equipped with geographical advantages and constraints. This dynamism in space contains the traces of constant and cumulative exertion that is being shaped by humanity and takes centuries and even millennia. That is to say, humanity is the key agency of reflective construction by the self (Braudel, 1995: 9). It recalls then what Fernand Braudel emphasizes for the long-term (*longue durée*) as the role of environment and its impact on a given society or the relationship between the individual who is a member of social group and the “inanimate” (Braudel, 1972: 20). Therefore, in the Mesopotamian case as well, we should bear in mind that all kinds of socio-political developments and economic trends cannot be materialized in all the sub-regions equally, simultaneously and similarly during the LC period.

On closer examination, the two spheres of Mesopotamia (north and south) underwent far-reaching socio-political developments. While the alluvial plains of south Mesopotamia witnessed the emergence of urbanized state societies during the 4<sup>th</sup> millennium (*ca.* 3800-3100 BC), known as the Uruk period (Adams, 1981; Wright and Johnson, 1975; Nissen, 1988; Pollock, 1992; 2001), the nearly contemporary period in north Mesopotamia had an almost completely different socio-political horizon. For instance, there was neither state formation process nor large-scale urbanization process like in south Mesopotamia, except for few sites such as Tell Brak and Hamoukar, until the mid-third millennium BC (Wattenmaker, 2009: 107; Çevik, 2007: 132). Nonetheless, it is suggested that urbanization began to appear in north Mesopotamia at Tell Brak as early as the late 5<sup>th</sup> millennium BC (Oates et al. 2007; McMahon et al. 2007). Similarly, recent excavations conducted at Arslantepe demonstrated that a very complex socio-economic system developed in Greater Mesopotamia before the Uruk Expansion (Frangipane, 2001a).

At this juncture it is important to explain what the Uruk expansion is. In the 4<sup>th</sup> millennium BC, the southern part of Mesopotamia was apparently suffering from a lack of natural and mineral resources (Algaze, 1989; 1993; 2001a) and agriculture, the basic subsistence strategy in the alluvial plains, was only available through irrigation (Tamburrino, 2010: 29). These conditions together with increasing interest for raw materials, such as metal ores, timber, and semi-precious stones resulted in a colonializing activity, from the Uruk-centric viewpoint, far from their homeland in what may be called its periphery. Colonies were founded at sites like Tell Sheikh Hassan, Habuba Kabira Süd, and Jebel Aruda in the Middle Euphrates basin (Figure 1) during the mid-4<sup>th</sup> millennium BC (LC 4) and lasted for a few centuries until they were abandoned during the final stages of the LC 5 (Algaze et al. 1989; Algaze, 1993). So then why did these colonies come from South to the North and subsequently abandon their settlement?

This expansion brought about a widespread distribution of material culture of southern origin, such as pottery, architecture, glyptic, and ideology (*mentalité*) in north Mesopotamia, which is why the Uruk ‘corollary’ has been called the “Uruk World System” (Algaze, 1993). Based upon the “core-periphery” dynamics, Algaze’s Uruk World System has been challenged by Stein, who put two alternative explanations forward (“distance-parity” and “trade diaspora”) to understand the nature of relationship between north-south Mesopotamia (Stein, 1999a; 1999b) and by Helwing (1999) who put emphasis on a hybridization process as a result of cross-cultural interaction.

If we now return to the starting point, nothing is coincidence. That is to say, the fascination with the Uruk phenomenon in archaeological research attracted many archaeologists. Did this world of events, actions, developments, and interactions occur at any site suddenly? Certainly not. Since Late Chalcolithic extends over five periods (LC 1-5) (Table 1 and 2), it seems that we have at a minimum 700 years of north Mesopotamian cultures, which, nonetheless, remained like a ‘dark age’. Most research has focused instead on the Uruk phase in the region (Carter & Philip, 2010; Marro, 2012b) in addition to old studies. This period of the LC era is called the Post-Ubaid (Marro, 2012a), LC 1-2 periods, Terminal Ubaid, or Local LC (Rothman, 2001a: 5-9). It must be emphasized that 700 years of the LC period, primarily LC 1-

2, were already carrying some elements of the previous so-called Ubaid period, another southern cultural movement, though not equally at all sites.

In comparison to the alluvial plains of south Mesopotamia, north Mesopotamia's more varied environment, with more rugged terrains and suitable lands, and desirable resources, depended on rain-fed agriculture (Tamburrino, 2010: 29). The area of study that constitutes the main theme of this thesis is north Mesopotamia. In this study, this term will refer to the Erbil Plain, north-east Jazeera, the Khabur and Balikh basins, the Middle and Upper Euphrates basins, the Altınova plain, and the Upper Tigris basin (Figure 1).

In order to place all the cultural phenomena of the LC period in north Mesopotamia into the *Annales* paradigm, it is necessary to review what Braudel means by his philosophy of history based on the division of three temporal scales. Therefore, this thesis's chapter 2 will focus on Braudel's time division, whose suitability to archaeological interpretation will be illustrated by two cases studies in two discrete areas and eras.

Drawing specifically upon a variety of the excavated sites and surveyed regions of north Mesopotamia together with archaeological interpretations, chapters 3 and 4 will explain the degree to which continuity and change took place in north Mesopotamia between *ca.* 4500-3800 BC. It should be noted that this large geographical area is intentionally divided here into two zones: northeast and northwest Mesopotamia. This division aims to make their differences clearer for the reader. The documented data of the LC 1, 2, and early 3 periods in northeast Mesopotamia will be presented in chapter 3 by following the Tigris River and its tributaries, while the same periods in northwest Mesopotamia will be discussed in chapter 4 by following the Khabur, Balikh, and Euphrates rivers.

Chapter 5 will analyze the LC 3, 4 and 5 periods throughout north Mesopotamia by looking at both the indigenous and Uruk archaeological materials. Chapter 6 will conclude general assessments of regional continuity and change, followed by an evaluation of north Mesopotamia based on the *Annales* approach.

## CHAPTER 2

### DIFFERENT “WAVES OF TIME”: THE *ANNALES* SCHOOL OF HISTORY

#### 2.1. *Annales* School of History

The *Annales School of History* was founded by a group of history scholars during the 1920s under the leadership of Marc Bloch and Lucien Febvre (Huppert, 1982: 510). For a better understanding of its usefulness for archaeological analysis, a set of conspicuous archaeological case studies that have been inspired by *Annales* will be discussed. It should be noted that the main movements of the *Annales* separate into four different generations<sup>2</sup>, each of which tended to open up growing perceptions of time and space in history. This study will mostly draw upon the second generation of the *Annales*, which is attributed to Fernand Braudel, as it is the one most relevant to the subject matter of this thesis. Though the first generation is not directly related to the subject of thesis, it is necessary to briefly describe previous approaches to understand Braudel's philosophy of history, since he was influenced by his predecessors and took one further step to resolve the study of “time” in history.

The initial attempts of these scholars towards a fresh insight into history were presented by their journal, “*Annales d'histoire economique et sociale*”, founded in 1929, and which eventually gave its name to their approach to history (Huppert, 1982: 510; Knapp, 1992a: 4). In due course, many scholars of the *Annales* took the advantage of a number of disciplines such as anthropology, sociology, economics, and geography and contributed to different and new approaches to perceiving history (Bintliff, 1991: 5; Knapp, 1992a: 4; Sayegh & Altice, 2014: 33).

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<sup>2</sup> For further detail about four generations of the *Annales* School of History see Knapp, 1992b; Bintliff, 2004; Sayegh & Altice, 2014

Marc Bloch and Lucien Febvre, as the first generation of the *Annales*, paid more attention to the concept of materialist history and tried to understand culture through society and through economy (Wallerstein, 1982: 110-111; Bintliff, 1991: 5; Knapp, 1992a: 5; McGlade, 1999: 146; Sayegh & Altice, 2014: 33). The initial studies, which drew mainly upon sociology, began to examine the *structure* of society and changes in society over time, rather than the narrative of events and individuals (Wallerstein, 1982: 110-111; Bintliff, 1991: 5; Knapp, 1992a: 5; McGlade, 1999: 146). In doing so, making a “total history” based on social, functional and structural approaches was superior to focusing on the foreground of historical events (McGlade, 1999: 146; Sayegh & Altice, 2014: 33).

Unlike his predecessors’ understanding of sociological history, Fernand Braudel, a student of Lucien Febvre, was more interested in geology and geography in order to establish the “total history” (*histoire totale*) (Braudel, 1972: 23). In his eminent work *The Mediterranean and the Mediterranean World in the Age of Philip II*, Braudel segmented three temporal levels of the historical process: environment and geographical structures (*longue durée*); socio-economic sequence, demographic cycles, history of eras and regions (*conjoncture*); and narrative, socio-political events, individuals (*l’histoire événementielle*) (Table 3) (Braudel, 1972: 20-21). He also argued that history is a sequence of processes that take place at different wavelengths of time and levels (Braudel, 1972). One should, however, bear in mind that this does not mean that there are certain rules and trends in each time that make precise distinctions from one level to another. As he well presented in his own thesis (*The Mediterranean*) the separation of various planes of history is essential to make and describe a history: in other words, to divide historical time into geographical time (*longue durée*), social time (*conjoncture*), and individual time (*l’histoire événementielle*). The result aims “...to divide man into a multitude of selves...” (Braudel, 1972: 21; 1980: 25-52). This consequently meant that social time should be evaluated in a multidimension scale (Knapp, 1992a: 6).

One of the most important contributions of Braudel is the long-term phase (*longue durée*), which is mostly based on the relation of the human to the environment, in which there is a slow progression of changes, permanent recurrence and cycles (Braudel, 1972: 20). As the changes cannot be perceived in the historical events,

Braudel interprets them as the dynamics of the long-term (*longue durée*) (Braudel, 1972: 20). These dynamics can be preponderant and slow changes in technologies and lasting cultural characteristics such as ideologies or worldviews (Bintliff, 1991: 7). In terms of temporality, while long-term may cover centuries-long background, it is mostly concerned with “biological, environmental, and social interrelationships”, what may be named “human ecology” today (Knapp, 1992a: 6).

In Braudel’s structural history, *longue durée* provides a useful insight into better understanding historical developments together with their causes and dynamics in a specified region. To do this, it is also crucial to recognize the historical developments in both temporal and geographical scale, the developments of both the center and periphery, the changes over time, and the factors that influence the development of a particular region (Ames, 1991: 935). According to Braudel, we can perceive and recognize “macrophenomena”, which are long-term, but “microphenomena”, which are at the scale of events, can hardly be perceived as indefinite. Therefore, events occurring in the course of history can only be meaningful when they are scrutinized within a broader conjuncture (Knapp, 1992a: 6).

Although Braudel underlies the necessity of geography for a longer-term history, it may be misleading if one relates his concern to the simple description of physical environment. Rather, in Braudel’s schema, the ecological determinism in conjunction with the long-term concept creates a balance between the momentary event and the constant process in a unitary socio-historical basis (Knapp, 1992a: 6). Therefore, he places the social phenomena into their physical setting, which moves at a much slower rate (Hodder, 1987: 3, *see also* Braudel, 1972, Chapter 1: 25-101).

Unlike those traditional books in which the introduction of geographical history is limited to geographical features such as mineral resources, flora and fauna diversities that are listed and not mentioned again, Braudel emphasizes that a history of “timeless past” or of human interaction with the “inanimate” should not be neglected (Braudel, 1972: 20). As such history is “timeless”, long-term “structures” for Braudel are first concerned with duration and then with their impacts on human action (Smith, 1992: 25). The main factors that cause the restriction of human behavior in

his understanding of “macrohistory” are the physical and material factors (“inanimate”) that take place in a long period of time (Knapp, 1992a: 6).

Fernand Braudel in his work on the Mediterranean especially underlines the role of environment and geography in illuminating the dark side of Mediterranean history. In other words, a certain array of factors related to geography must be brought together to shed light on Mediterranean history, including landscapes, images as well as the human impact and even the relevant data from other periods before and after. By doing so, all the cohesive data of time and space offer us an opportunity to comprehend history in a slow motion where permanent values can be perceived (Braudel, 1972: 23). Consequently, geography remains a dynamic process that makes us able to see the historical realities in the long-term in a very wide perspective, as Braudel emphasizes the continuity of geography that “... is no longer an end in itself but a means to an end.” (Braudel, 1972: 23).

At another temporal level, *conjoncture* is related to the social history, history of groups and groupings with “slow but perceptible rhythms” (Braudel, 1972: 20). Medium-term (*moyenne durée*) events concerning the shaping of human life have several generations or centuries of background (Braudel, 1980: 27; Bintliff, 1991: 7; 2004: 176). Braudel distinguishes two distinct levels of *conjoncture*: intermediate level conjunctures deal with recurrence of wages and prices, wars, and the scale of industrialization; long-term conjunctures are more likely temporal changes, such as “long-term demographic movements, the changing dimensions of states and empires, the presence and absence of social mobility in a given society, (and) the intensity of industrial growth” (Braudel, 1972: 899).

The last temporal level (*l’histoire événementielle*) represents history of individual persons and events which might be called the “traditional history” (Braudel, 1972: 21; Braudel, 1980: 27). He defines such a short-term history as being “brief, rapid nervous fluctuations” (Braudel, 1972: 21). He also argues that this history, which has a contrast on either side, is both the most enriched and the most dangerous (Braudel, 1972: 21). In his thesis, the Mediterranean world is at the center of events (*événements*), which record all forms of human actions, and individuals (Braudel, 1972).



It is worth noting that the concept and division of time in Braudel's historical narrative is a significant milestone in the understanding of "total history" (*histoire totale*). Braudel emphasizes that historical narrative is neither a method nor an objective method *par excellence*, but rather a simple philosophy of history. In comparison to traditional divisions that cut the story of life, he suggests that his division of time is a way for a straightforward explanation from one level to another (Braudel, 1972: 21). While each phenomenon occurring in different wavelengths of time has characteristic rhythms, such as "politico-economic", "socio-ideologic systems", time itself does not have a pre-established content. Therefore, history is a unification of diverse times with different speeds (Bintliff, 1991: 7; Knapp, 1992a: 6).

Braudel's "structural history", which contains "time", "structure", and "agency" in time and space, offers a fresh insight for the solution of some central problems posed by some post-positivist critics of social sciences (Bintliff, 1991: 7-8; 2004). However, there have also been some criticisms of Braudel's paradigm. According to Hexter (1972: 533), Braudel's paradigm fails to create a linkage between short-term and long-term. Therefore, Le Roy Ladurie, the third generation of *Annales*, paid more attention to events, which constitute a critical point of intersection for understanding and explaining change (cf Bintliff, 1991: 8; Knapp, 1992a: 6).

However, Braudel perceives *l'histoire évènementielle* ("microhistory") beyond the narrative political history, in which the examination of diachronic historical process short-term events was temporary and were perpetual (Knapp, 1992a: 6). It seems, though, that he did this deliberately because he advocates that events can only be explained with reference to the longer-term structures (Braudel, 1972: 21). Another criticism was made on his *choice* of seeing essential structures of long-term and medium-term as environmental constraints, the history of demography and economic sequences that he neglected *mentalités* (Bintliff, 1991: 9). In fact, *mentalité* is another aspect of the historical process as important as *longue durée*, *conjoncture*, and *évènements*. More straightforwardly, *mentalité* is a world of ideologies, and viewpoints, and can come into existence as a result of either individual or unified exertion (Bintliff, 2008: 158).

Taking into account all the facts about the Braudel paradigm, one may think what to utilize from this “philosophy of history” in archaeology. Although through the contributions of many disciplines and through the data obtained it is possible to interpret past and past societies at an interdisciplinary level, Bintliff (1991: 3) does not agree with the idea and suggests that *Annales* is already an interdisciplinary contributor to the discovery and analysis of the past societies. Furthermore, *Annales* methodology is “complementary” rather than “contradictory” in the interpretation of the past.

Not surprisingly, I will not be the first or the only person who aims to apply Braudel’s philosophy of history in archaeology. Up to the present, many archaeologists have applied at least one temporal level<sup>3</sup> of Braudel’s paradigm in their own research field and era (Knapp, 1992b; Bintliff, 1991; Barker, 1991; Vallat, 1991; Jones, 1991; Ames, 1991; Foxhall, 2000; Bintliff, 2004; 2010). One cannot deny the fact that all these case studies by applying Braudel’s paradigm contributed to archaeology as a human science and encouraged many other archaeologists or students, like me.

Among the successful case studies, Graeme Barker (1991), after working for many years in the Molise and Biferno River valley (in Italy), interprets the settlement nature of this region for three main settlement eras (prehistoric, classical, and medieval settlements) according to Braudel’s paradigm. Although the prehistory of the region lacks data (*ca.* 4500 BC); thus, preventing *événements* from being determined precisely, it is evident that the environment (*longue durée*) had a decisive role in prehistoric settlements. These prehistoric communities used the lower valley for agriculture, and the middle and upper valleys for hunting and pastoral purposes. Change occurred in the 2<sup>nd</sup> millennium BC when the lower valley suffered from the water course and upper valley from a stony soil, because of which these areas were abandoned. In the first half of the 1<sup>st</sup> millennium BC, however, the settlement expanded to the limit of the upper valley’s marginality, a transformation which is associated with the population pressure (Barker, 1991: 45-46).

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<sup>3</sup> For instance Lin Foxhall (2000) applies only *événements* and Kenneth Ames (1991), *longue durée*.

In the Classical period, there is much more evidence to be fit into Braudel's paradigm of *événements*, such as the destruction of Roman towns after the Social War. Furthermore, the increase and expansion of the population from the 5<sup>th</sup> to the 2<sup>nd</sup> centuries BC and the eventual migration of Samnite groups throughout the Apennines and Campania are the main objective for *conjoncture*. Another *conjoncture* is the investment of the Roman aristocracy for its own wealth and eventually the establishment of villa property on the land acquired by the empire (Barker, 1991: 50-51). He exemplifies *mentalité* with the Samnite elites who became more familiar with new lifestyles and new symbols of power after the imposition of Romanization (Barker, 1991: 51).

In another case study, Knapp (1992c) applied the *Annales* approach to the southern Levant between *ca.* 1700-1200 BC, when the social complexity increased and eventually collapsed, in order to establish continuity and change in the socio-aspect of the region. He also tried to establish the connection between short-term events and long-term structures and the “moments” of socio-cultural change in both light of archaeological and written documents. While the episodic documentary evidence of north Jordan and Jezreel Valleys constitutes the historical documentation, archaeological patterns recovered especially from Pella in north Jordan are another source of data. As a result, while the spread of urbanization in the Middle Bronze Age accelerated both political and economic intensification, the imperialist policy of Egypt in the Late Bronze Age, as an external factor, accelerated destabilization and eventual collapse of the existing system in the region. The combination of regional (“macroscopic”) and local (“microscopic”) production helped to open the interaction (“dialectic”) between events and structures in the movement of history (Knapp, 1992c).

## **2.2. Discussion**

All in all, it is reasonable to argue that amongst the archaeological case studies, which applied Braudel's philosophy of history to their areas of study, two of them could be presented in order to have both a better understanding of the contribution of *Annales* and the applicability of Braudel's paradigm in archaeology. Therefore, in this thesis, I will try to follow the models of Barker (1992) and Knapp (1992c) to understand the Late Chalcolithic period in north Mesopotamia.

## CHAPTER 3

### THE LC 1 AND 2 PERIODS IN NORTHEAST MESOPOTAMIA

This chapter focuses on the excavated and surveyed material culture of northeastern communities during the LC 1, LC 2 and partially LC 3 in order to understand social, economic, and political continuity and change through time. It initially starts with a brief overview of the preceding Ubaid phenomenon. At the end of the chapter, cultural continuity and change through time will be discussed within the scope of the *Annales* paradigm. Before moving to the subject matter of this chapter, an explanation of terminology about late 5<sup>th</sup> - 4<sup>th</sup> millennium BC Syro-Anatolia is necessary to prevent confusions. In recent terminology, groups living in Syro-Anatolia during these periods are denominated under various nomenclatures. One of the commonly known terms is the “Local Late Chalcolithic” (Stein, 2001: 267), which refers to the indigenous communities of Syro-Anatolia in the LC 1, LC 2, and LC 3 periods. The same periods are also called the “Pre-Contact” period by some scholars (Lupton, 1996; Rothman, 2001b: 380; Erarslan & Kolay, 2005: 82; 2009: 193). It should, however, be emphasized that such a speculative term may lead to distortions in defining the “ancient reality” (Rothman, 2001b: 368). Otherwise, the term “Pre-Contact” may be implying that there was no contact between north and south Mesopotamia during the early Late Chalcolithic.

#### 3.1. The Ubaid Phenomenon

In the long span of Mesopotamian history, the Ubaid period is generally considered to be the period when the earliest complex society in Mesopotamia began to appear gradually (Stein, 1994: 36; 1996: 27). This period, which represents also a material culture, emerged in southern Mesopotamia around the mid-6<sup>th</sup> millennium BC and continued until the 4<sup>th</sup> millennium BC (Stein, 1994: 36). In time, the cultural characteristics of the Ubaid phenomenon, particularly the tripartite house form with

a “T shaped” architectural plan, ceramic technology along with decoration, bent clay nails or mullers, cone head clay figurines, and clay sickles spread gradually over especially north Mesopotamia up to the Upper Euphrates and Upper Tigris basins as well as eastern Anatolia (Stein, 1994: 37). It is worth mentioning, nevertheless, that this does not mean that there was a cultural uniformity or homogeneity among all the regions given above. Nor was it necessarily the desire of Ubaid groups to exercise domination over ‘non-Ubaid groups’. Rather, this circulation of the Ubaid type material assemblage can be understood as a result of long-distance interaction among the local polities of both spheres (Frangipane, 2002: 170; Rothman, 2001b: 318; Stein, 2012: 128-129).

The density of the Ubaid interaction with the northern communities depended on time and space. In other words, while some areas of north Mesopotamia were located directly on the interaction network with the Ubaid culture, some were outside of this network. To give an instance, archaeological indications of the Ubaid phenomenon, particularly pottery production and architectural similarities recovered in eastern and central parts of north Mesopotamia (from the Tigris valley to the Khabur basin) are much more visible than in the west of the Balikh and the Euphrates regions (Frangipane, 2012a: 42). This thus demonstrates that the Ubaid culture had a different degree of impact on the local communities in different zones (Stein, 2010a: 24; Frangipane, 2012a: 43). Although one cannot deny the fact of the spread of Ubaid material culture and its cultural impact on the north Mesopotamian sites, recent studies have shown that the Ubaid interaction declined after *ca.* 4500 BC (Stein, 2012: 132). Therefore, the phase after *ca.* 4500 BC in chronological terminology is known as the terminal Ubaid, which is at the same time contemporary with the LC 1 (*ca.* 4500-4200 BC) (Rothman, 2001a: 5-9).

### **3.2. Transition from Late Ubaid to the Late Chalcolithic Period**

The LC 1 and LC 2 periods provide the earliest evidence for a gradual urbanization process in northern Mesopotamia, especially in the upper Khabur and Mosul areas (Stein, 2012: 139). For instance, Tell al-Hawa located in the north Jazeera area was roughly 50 hectares during the LC 1-3 periods (Ball et al. 1989:32). Recent excavation projects conducted in the Khabur basin have shown that sites like Tell Brak were already quite substantial in size, even before the “Uruk expansion”,

growing in urban size from 55 ha during the LC2 to 130 ha in the LC 3 periods (Oates et al. 2007; Ur et al. 2007). A similar settlement pattern and spatially extensive site (*ca.* 300 ha) is also documented at Hamoukar that is identified as a “proto-urban” site between village and city during the LC 1-2 periods (Al Quntar et al. 2011: 153).

Following the Ubaid period, the LC 1 period is also a poorly known period in north Mesopotamia compared with the succeeding LC 2 and LC 3 periods (Frangipane, 2012a: 47; Stein, 2012: 132). The LC 1 period is broadly characterized as a period of economic diversity and elite development (Stein, 2012: 132) that had its roots in the preceding Ubaid period. Despite significant degrees of variabilities in north Mesopotamia during the final stages of the Ubaid period, there are, however, several changes that appear to be attested everywhere (Frangipane, 2012a: 43; Stein, 2012: 132). One of the most apparent changes is the common use of slow wheel or *tournette*, which accelerated the development of the mass production of standardized pottery (Frangipane, 2012a: 43).

Another shift away from mass production is from the gradual abandonment of elaborate fine and Ubaid derived painted pottery to the manufacture of unelaborated hand-made, mineral tempered bowls such as moulded flat-based bowls and round-bottomed flint-scraped bowls, the so-called “Coba bowls” (Frangipane, 2002: 174; 2012a: 43- 44; Stein, 2012: 132). They were first unearthed at Coba Höyük (Sakçe Gözü) and are typologically crude: incompletely oxidized, flat-based, simple-rim (Schwartz, 2001: 236-237). Moreover, it is suggested that the simplification of some certain elements of pottery production such as decoration and manufacture is related to a change in “social use of pottery”. In other words, while pottery in the preceding Ubaid period was a medium for expressing group identity especially in social events, in time, it lost its function which implies that communal practices became less important (Frangipane, 2012a: 44).

Having been recovered in large quantities at a number of sites in north Mesopotamia, Coba bowls and related types are often identified as serial and mass-produced bowls; thus, denoting important cultural changes at the end of the Ubaid period (Baldi, 2012a: 394). Nevertheless, we should bear in mind that the term

“Coba” does not reflect that the production was in the responsibility of a single manufacture center in which only one form of bowl from the same component was produced and circulated across the entire north Mesopotamia. Rather, it represents regional diversities across the northern Mesopotamian sites, as attested by round-based, flat-based, chaff-tempered, and grit-tempered examples with a scraped bottom (Figure 2) (Balossi-Restelli, 2012a: 240).

### **3.3. LC 1-2 periods in northeast Mesopotamia**

#### **3.3.1. Iraqi Jazeera**

The first area to be mentioned is eastern Jazeera encompassing roughly modern Mosul, Erbil, and Kirkuk, in northern Iraq (Figure 3). The number of sites occupied in the LC 1 period is fairly scarce in this region, particularly dispersed around agricultural lands, although several settlements such as Tepe Gawra and Shelgiya are in the foreground in each area. The general characteristic feature of the sites dating to this period is their small size (Rothman, 2001b: 378). The ceramic assemblage shows that the increasing number of plain Chaff Faced Ware (CFW hereafter) was prevalent in these regions. In contrast with the Ubaid period, there is a gradual abandonment of decorated ware apart from Sprig Ware bowls and jars. The other diagnostic types include U-shaped vessels and footed bowls (Rothman, 2001b: 371-373; Lupton, 1996: 17).

**Tepe Gawra** located on the east of the Tigris River is one of the best-understood sites during the LC 1-3 periods in eastern Jazeera (Figure 3) (Rothman & Blackman, 2003: 5). The site is defined as a small center not more than 1.5 ha during the LC 1-3 periods (Rothman, 2002; Rothman & Blackman, 2003: 5). At Tepe Gawra, Level XII provides significant amounts of data for socio-economic life in the LC 1 period. At the site were multifunction buildings which combined different spaces for daily practices: craft production; the domestic architecture for the extended families (tripartite planned); ritual areas and a series of storerooms. There are also archaeological indications of far-flung material exchange such as obsidian probably from the Van region, lapis lazuli from Badakshan, gold objects from the Taurus, marble, granite, chlorite, and copper (Rothman, 2002: 81; Rothman & Blackman, 2003: 6). The ceramic repertoire includes roughly decorated

Sprig Ware jars and bowls, Wide Flower pots with extended bases, U-shaped vessels, which were used for burials, and footed bowls (Tobler, 1950: 148; Rothman, 2001b: 371-73; Rothman & Blackman, 2003: 6).

In the broader frame, the ceramic assemblage also demonstrates that the far-flung exchange was not only restricted to exotic or precious materials given above but also some pottery types. Especially Sprig Ware seems to be used as a material of exchange, as Sprig Ware was recovered also from Shelgiyya, identified as the manufacturing center for painted wares (Rothman & Blackman, 2003: 14), west of the Tigris and at Tell al-Hawa located in north Jazeera (Rothman, 2001b: 379-380), as well as at Hamoukar in Syrian Jazeera (Ur, 2002a: 18). Similarly, in the further north area of the Tigris River valley, the Cizre plain located east of the Tigris River, produced Sprig Ware rims at two sites, Gire Tahti and Revini South within the survey project (Algaze et al. 2012: 92-93). There are also examples at Türbe Höyük, 2 km north of the confluence of the Bohtan river and at Başur Höyük, 20 km west of modern Siirt (H. Sağlamtimur, personal communication, November 4, 2017). In comparison with the northern valley, no Sprig Ware sherds were recovered during the survey conducted around Helawa in the Erbil plain (Figure 3) (Peyronel and Vacca, 2015: 111).

According to Lupton (1996: 17), 10% of the ceramic repertoire of Tepe Gawra level XII consisted of Sprig Ware, which was also recovered from a handful of sites in the North Jazeera Project (NJP) (Wilkinson & Tucker, 1995). Thus, Lupton interprets Sprig Ware “as a status item” because of its rarity. It seems, however, that Sprig Ware would not have been a status mark; rather it could have had a special function to explain its rarity. Furthermore, the other precious materials such as gold and lapis lazuli recovered from level XII at Tepe Gawra show that such imported materials were not as common as the pottery; therefore, the presence of truly exotic and precious materials reduces the possibility that pottery was a “status item”.

In the subsequent LC 2 period, the number of sites and the quality of evidence increased especially along the Khazir Su and the Tigris River. New sites like Musharifa and Nineveh came into existence. It should be noted that there is some speculation about Nineveh. In fact, the characteristic pottery of the LC 2 period was



not recorded at Nineveh, perhaps because of the prehistoric levels' limited exposure in small and deep soundings (Rothman, 2001b: 380-381). Rothman (2009: 23), nevertheless, concludes that Nineveh was not occupied in the transition period from the terminal Ubaid to the LC 1 and even early LC 2 periods.

**Tepe Gawra** in the early LC 2 period (Level XI A/B) seems to retain similar architectural features except for a spectacular building, the so-called “round house” (Rothman & Peasnell, 1999: 109). Its function has been a subject of considerable debate (*e.g.* temple and silo: *see also* Rothman & Blackman, 2003: 6-9): the spatial distribution and the materials recovered in the building including domestic artifacts, mace head, gaming pieces, and serving vessels give the impression that it had either a military function (Rothman & Blackman, 2003: 8) or a living quarter for people who had higher status associated with their activities (Rothman, 2002: 92). The other private houses are smaller, mostly comprising one or two-room buildings. The material assemblage indicates that as was the case for the preceding period, residents continued to “import” or “obtain” highland resources. In addition, in this level, there is the physical evidence of cloth-making, woodworking, and ceramic firing facilities (Rothman & Blackman, 2003: 9). The pottery repertoire of Tepe Gawra in the LC 2 period consists of stamped and applique wares, early Wide Flower, carinated tumblers, double or channel rim bowls, double spouted jars, gray, lightly burnished vessels, hole-mouth jars, and bowls with cannon spouts (Rothman, 2001b: 372-73).

Another site that has LC 2 period content is **Qalinj Agha** (levels I-V) covering some 3.3 ha and located 1.5 km south of the citadel of Erbil (Figure 3). The remains of level I are thin walls, floors, ovens, and kilns that are poorly preserved. In level II, however, several domestic structures along with a pottery workshop and several infant jar burials have been excavated (Peyronel & Vacca, 2015: 96-97). A large tripartite structure that was termed the “Western Temple” due to its tripartite plan and offering tables in the central room, as well as female figurines found in the adjoining room, was excavated in level III (Lupton, 1996: 33; Peyronel and Vacca, 2015: 98). This type of architectural plan has parallels at Gawra XII-XI and Telul eth-Thalathat II (Peyronel & Vacca, 2015: 98). Painted decorations in the central

room may also suggest that the building fulfilled a special function, which according to Lupton (1996: 33) cannot be a ‘temple’; rather a substantial elite residence.

Similarly, in the following phase, two tripartite buildings had presumably the same function. Of these two buildings, one has a T-shaped central room, suggesting that such tripartite planned structures have their root in the preceding Ubaid period (Peyronel & Vacca, 2015: 98) The pottery assemblage consists of red-slipped and gray wares, and other level II materials are clay animal figurines and clay objects: the so-called “eye idols” and double horned objects. A spectacular category of finds are the infant jar burials, which contained a variety of precious and exotic materials such as gold beads and an obsidian spatula decorated with gold (Lupton, 1996: 32).

Located south of Jebel Sinjar, **Grai Resh** is another site from which LC 2 period archaeological materials were recovered in levels IV, III, and IIB (Figure 3). According to <sup>14</sup>C samples, Level IV is the earliest phase dating to *ca.* 4250-4150 BC, followed by subsequent Level III (4150-4050) and Level IIB (4050-3850) (Kepinski, 2011: 51). Although no consistent structural elements were identified, the ceramic remains of levels IV mainly consist of Red Burnished Ware, Reserved Slip Ware and Brown Slipped Ware sherds.

In level IIB, luckily, several tripartite buildings, silos for storage, and ovens for cooking were excavated. One of these tripartite buildings has an oblong adjoining room which was used as a bead workshop, where hundreds of beads of calcite, bone, shell, flint, and obsidian were found. Moreover, a seal made of black stone and an amulet in the form of a human head in profile came from the same room. It is suggested that having both tripartite plan structure together with the workshop room bears similarities with the building found in level IX at Tepe Gawra (Kepinski, 2011: 56).

In another area of level IIB, numerous ovens both inside and outside of several buildings were also found. Those buildings contained flint and obsidian tools, such as mortars, grinding stones, hammers, and spindle whorls. Away from the tripartite buildings, the abundance of ovens and silos along with many tools may indicate that this quarter of the settlement had an entirely domestic function (Kepinski, 2011: 58).

None of the Sprig Ware and Incised-Pressed Pottery have been recorded. However, the CFW Coba bowls are attested in levels IIB and III. In addition, angle neck jars, and hole-mouth pots were found in level IIB (Kepinski, 2011: 58-59). The overall evidence from Grai Resh suggests that the site was a local center in which long distance contacts and exchanges took place during the period between *ca.* 4200 and 3850 BC (Kepinski, 2011: 70).

The second area of study is the north Jazeera plain that stretches between the modern eastern border of Syria and the east bank of the Tigris River on the west-east axis (Figure 1). The plain is almost devoid of both natural and mineral sources. None of the desirable raw materials such as copper, bitumen, basalt, salt, flint, and limestone are available in this region (Wilkinson & Tucker, 1995: 6). A total of 66 sites ranging from 0.3 to 5.8 ha in size have yielded pottery sherds dating to LC 1-2 and 3 periods. Amongst the surveyed sites, Tel al-Hawa was the dominant site in the plain covering an estimated 50 hectares (Figure 3) (Ball et al. 1989:32). Based on the pottery sherds surveyed in the plain, sites situated particularly at the center of the plain continued into the subsequent LC 4 and 5 periods (Wilkinson & Tucker, 1995: 125-134; Lupton, 1996: 26).

Even though **Tell al-Hawa** is suggested to be *ca.* 50 ha, the total area excavated for the LC 1-2 periods is only a small sounding (trench LP) (Ball et al. 1989: 31). It should be stressed, therefore, that the exceptional 50 ha scale of Tell al-Hawa may be misleading and the LC 1-2 phases may not have extended over the entire site, as there are no complete architectural remains identified. The pottery assemblage recovered from the sounding is predominantly plant tempered for the earlier periods including shallow bowls and steep-sided deep bowls (Ball et al. 1989: 39). For the earlier 4<sup>th</sup> millennium BC, hole-mouthed jars have parallels with Tepe Gawra levels XI-IX and Grai Resh levels II-IV in the Sinjar area (Ball et al. 1989: 40; Lupton, 1996: 17). Apart from the pottery assemblage, a burnt clay sealing with a stamp seal impression (Ball et al. 1989: 39), has parallels with Tepe Gawra, Qalinj Agha and Norşuntepe seals (Lupton, 1996: 28).

In the further northeast of Jazeera, where LC pottery assemblage was collected, the area located north of Nineveh has been recently surveyed within the scope of the

**“Land of Nineveh Project”** (Gavagnin et al. 2016). The LC pottery repertoire of the surveyed area is characterized majorly by hand-made, undecorated inwardly beveled rim bowls that were also recorded at Hamoukar, Tepe Gawra, Nineveh, Tell Brak and Hacinebi Phase A. These bowls occasionally have red and brown painted decorations that also show a widespread distribution from the east Jazeera as far as the Keban area, suggesting a long-distance contact (Gavagnin, et al. 2016: 128).

### **3.3.2. The upper Tigris Basin**

The upper Tigris Valley located in the southeast of Turkey covers an extensive area and is geographically surrounded by mountains (Figure 1). This geographical isolation gives rise to several distinctive ecological niches in the valley (Brancato, 2017: 17).<sup>4</sup> Having rich and fertile lands for agriculture, the valley has the three major tributaries of the Tigris River: the Bohtan Su, Garzan Su, and Batman Su. These by themselves not only increase agricultural productivity in the valley but also are the main area for settlements. Ancient settlements, just like the modern occupations, were mostly situated near river or stream beds (Brancato, 2017: 19). This demonstrates that rivers were the main source of water as well as the communication network. Located close to the Taurus range, people living in the valley not only had easy access to the essential raw materials, such as wood, and stone, but also had access to the mineral sources (Ökse, 2015a: 17). Especially, Ergani-Maden (30 km north of Diyarbakır) was a main area for copper procurement as early as the LC period (Gale, 1991; Yakar, 2002; Wagner & Öztunalı, 2000: 55-56; Amzallag, 2009; 499, Table 1).

Our archaeological knowledge of the upper Tigris valley is very little and recent compared with other regions of north Mesopotamia (Bernbeck et al. 2004; Bernbeck & Costello, 2011; Parker & Foster, 2009). The archaeological investigations in the valley have been done intensively in the last three decades within the scope of survey projects and salvage excavations. Throughout numerous survey projects carried out in the valley, at least 700 archaeological sites have been documented (Brancato, 2017; Algaze, 1989; Algaze et al. 1991; Ay, 2001; Peasnall, 2004; Peasnall &

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<sup>4</sup> The upper Tigris Valley on the north (southern Taurus) and northeast is surrounded by upland areas, and to the south by the Mardin mountains. Moreover, the Karacadağ massif in the west separates the upper Tigris Valley (modern Diyarbakır) from the Harran plain (east of Şanlıurfa). Consequently, such physical barriers create several ecological niches in the region (Ökse & Görmüş, 2006: 167).

Algaze, 2010; Ökse, 2013; Ökse et al. 2009; Algaze et al. 2012; Laneri et al. 2008; Ur & Hammer, 2009; Erim-Özdoğan & Sarıaltun, 2011). It can, however, be argued that despite a significant number of the sites (61 sites), in which there is the LC period content (Brancato, 2017: 55), only some of them could be excavated because of time constraints.

Of the excavated sites, **Yenice Yanı** is a small settlement covering some 1.2 ha and located along the eastern bank of the Seyhan Çay, roughly 10 km southeast of Bismil, in Diyarbakır (Figure 3). Based on the second surface collection, the site has tentatively been dated to the LC period (Bernbeck et al. 2004: 117). In contrast with many LC sites, especially those located in the Euphrates valley and investigated magnificently because of the Uruk phenomenon, the Yenice Yanı excavations were significant in relating its local marginal features to the LC in this region, and to assess whether it experienced longer-scale impacts (Bernbeck et al. 2004: 117; Bernbeck & Costello, 2011: 654).

The LC period sequences (LC 1, 2, and 3) were followed in two areas in small step trenches known as Unit A, lower slope of the mound and Unit B as the upper slope of the mound (Bernbeck et al. 2004). On the basis of the relative chronology of ceramic materials, a proposed dating for the LC ranges between *ca.* 4300-3700 BC (Bernbeck et al. 2004: 120). According to site chronology, the Yenice Yanı 5 (“YY 5”) phase corresponds to LC 1 and can be identified in phases IV-III (Unit A) and phases VII-VI (Unit B).

It is suggested that phase VI with high artefact density may consist of a household debris. A carbon sample taken in this area dated this phase to 4500-4340 BC (Bernbeck & Costello, 2011: 657). On the other hand, phase V is represented by a possible food preparation area, as there are several thick pebble surfaces, a large basalt grinding stone and a smashed cooking vessel (Bernbeck et al. 2004: 118). In addition to stone and obsidian tools (Bernbeck & Costello, 2011: 664, table 4), several conical loom weights, some of which were decorated elaborately, indicate that textile production took place at Yenice Yanı in the second half of the 5<sup>th</sup> millennium BC (Bernbeck & Costello, 2011: 660). The pottery repertoire of phase V

is mainly hand-made or slow wheel-made including both diagnostic Ubaid painted sherds and Coba bowls (Bernbeck et al. 2004: 118; Bernbeck & Costello, 2011: 658).

The LC 2 period (YY 4) is identified in Unit B (phases V-IV) and does not have an equivalent in unit A (Bernbeck & Costello, 2011: 657). In phase B V, the decreasing quantity of painted sherds and Coba bowls and the increase in hammerhead bowls, casseroles, and Coarse Brittle wares suggests a date between the late LC2 or early LC 3 period (Bernbeck et al. 2004: 119-120; Bernbeck & Costello, 2011: 659). Therefore, the subsequent phase IV, with examples of Coarse Brittle ware associated with LC 3 hammerhead bowls and casseroles, can be clearly dated to the LC 3 period (Bernbeck et al. 2004: 118).

At **Salat Tepe**, another site located on the northern bank of the Salat Çay, LC sequences were identified in step trenches situated in the southern slope of the mound (Figure 3) (Ökse, 2005: 785-788, fig. 7; Ökse, 2008: 683-684; Ökse & Görmüş, 2006: 186; Ökse & Görmüş, 2013a: 163-166). The LC period is characterized by hand-made and chaff-tempered like CFW, Chaff-Faced Simple Ware, Chaff/Straw Tempered Ware together with Painted Ware (Ökse & Görmüş, 2006: 186). LC period stratigraphic sequences of the site relevant to this discussion are IB (*ca.* 5200-4100 BC), early IC (*ca.* 4200-3600 BC) (LC 2-3), and late IC (*ca.* 3600-3300 BC) (LC 4) (Ökse & Görmüş, 2013b: 93; Ökse, 2015b: 16-18; Ökse, 2017: 43, fig. 3-3).

Period IB consists of multiple levels of the characteristic tripartite mudbrick structures that are mostly considered the Ubaid hallmark (Ökse et al. 2014: 118; Ökse et al. 2015: 22; Ökse, 2017: 43). In addition, there are quadrangular storage units that must have been used as pottery workshops (Ökse et al. 2012: 180; Ökse & Görmüş, 2013b: 93; Ökse, 2012: 8; Ökse, 2015b: 18) resembling Mesopotamian contemporaries (Ökse, 2012: 8).

The pottery assemblage recovered from these levels is mainly plant-tempered and comprises coarse grit-tempered funnel-necked jars, chaff-tempered flint scraped vessels (Coba), inwardly rimmed sherds that have equivalents at Hammam et-Turkman VI-VB and Tepe Gawra XI-XA, and painted vessels (Ökse, 2015b: 18).

The structures together with this ceramic assemblage suggest that this period can be dated *ca.* 5200-4400 BC (Ökse, et al. 2012: 180-181; Ökse, 2015b: 18; Ökse, 2017: 43-44).

The lower level of the same area is represented by plant-tempered and inwardly rimmed sherds, bodies with thickened rim bowls, and ovoid pots. In addition to pottery, small finds included baked clay beads, a stone axe, a grinding stone, obsidian and chipped stone blades, and a baked clay blowpipe (Ökse et al. 2013: 369-370), a very spectacular copper artefact (Ökse et al. 2014: 118) and a limestone stamp seal (Ökse et al. 2015: 22). A proposed date for the copper finding is the first half of the 5<sup>th</sup> millennium BC (T. Koizumi, personal communication, March 8, 2018).

In another area of the excavation, there was much evidence for continuous renovation of buildings, indicated by mudbrick walls built on top of each other multiple times, and rectangular plastered pits. The pottery recovered from this area is mainly funnel-shaped jars, a few Coba bowls, and combed ware sherds, suggesting a date between *ca.* 4400-4100 BC (Ökse, 2015b: 18). It is worth claiming, though, that the pottery type of this period seems to evolve through time, while similar architectural layouts with multiple renovations appear to remain the same. This may demonstrate that the community of Salat Tepe remained in these traditional contexts over many generations (T. Ökse, personal communication, February 26, 2018).

Period IC (*ca.* 4000-3500) (LC 2-3) consists of multiple renovated phases, and walls without stone foundation indicate similar construction techniques. In this phase, several quadrangular storage units were associated with the buildings (Ökse, 2017: 44). There is also a potter's workshop with an oval pottery kiln found in the lower level. This kiln has parallels at Tell Kosak Shamali (Post-Ubaid period) and at Değirmentepe (Late Ubaid period) (Ökse, 2012: 8). The pottery of this level consists of chaff-tempered monochrome and painted vessels dating to LC 2-3 periods and Coba bowls (Ökse & Görmüş, 2013b: 93; Ökse, 2015b: 18). In another area, there are 3 LC layers in which several mudbrick storage units were excavated. While the initial layer's storage plan is rectangular, the upper layers turn into an elliptical plan

(Ökse & Görmüş, 2013a: 164). Small findings recovered from the LC levels are Canaanite blades and two grinding stones (Ökse et al. 2015: 22).

Located within the boundaries of Bakır village, in Siirt, **Başur Höyük**<sup>5</sup> is another site where LC 2-3 materials were excavated in the southern and southeastern areas of the mound (Figure 3) (Sağlamtimur & Kalkan, 2015: 57-58). The site situated just on the west bank of the Başur Stream, which runs from the Bitlis Valley and flows into the Bohtan River, has fertile and well-watered agricultural lands in the immediate vicinity (Sağlamtimur, 2012: 121; Sağlamtimur et al. forthcoming).

Although a few Coba bowls, characteristic of the LC 1 period, were documented, no informative architectural remains were found (Sağlamtimur & Ozan, 2013: 514-515); therefore, it is thought that the site was re-occupied only in the final stages of the LC 1 period (Sağlamtimur et al. forthcoming). In the southeast area of the mound, two layers of the earliest LC 2 levels with square or rectangular plans were identified: a rectangular structure with a small storehouse followed by a rectangular building with a storage vessel (Sağlamtimur, 2012: 128-129; Sağlamtimur & Ozan, 2013: 515; Sağlamtimur et al. forthcoming).

The diagnostic pottery assemblage of the LC 2 period at Başur Höyük is plant-tempered and hand-made and shows continuity in to the LC 3 period. Some of the distinguishing forms of the LC 2 pottery are ‘blob paint’ bowls that were also identified at Norşuntepe, Korucutepe, Tepe Gawra, Nineveh, Tell Hamoukar, as well as hole-mouth jars and spherical-body jars (Sağlamtimur & Kalkan, 2015: 59). In addition to plant-tempered wares, a few sand, lime and grit tempered samples are attributed to the Ubaid tradition. The close similarity of type, shape, and decoration at Tepe Gawra XI-IX, Hamoukar Phase 3-1, Tell Feres levels 6-4, Hammam et-Turkman VA, Tell Brak and Tell Leilan corroborates the cultural interaction among the regions (Sağlamtimur & Ozan, 2013: 516; Sağlamtimur & Kalkan, 2015: 59; Sağlamtimur et al. forthcoming).

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<sup>5</sup> Situated on a tributary of the Tigris River, Başur Höyük remains outstanding, as we have limited archaeological knowledge of the Local Late Chalcolithic and “Uruk influenced” settlements along the Tigris River, unlike sites located along the Euphrates like Hassek Höyük, Hacinebi, Arslantepe, Habuba Kabira, Jebel Aruda, and Sheikh Hassan (Sağlamtimur & Ozan, 2013: 514; Sağlamtimur & Kalkan, 2015: 57-58)



In the following LC 3 period, the building plans and construction technique were partially changed. In this layer, in addition to several infant jar burials underneath the floor, several rectangular planned and multi-roomed spaces with thinner walls were uncovered (Sağlamtimur, 2012: 128-129; Sağlamtimur & Ozan, 2013: 515; Sağlamtimur et al. forthcoming). The pottery of the LC 3 period is mostly plant-tempered and consists of various types including pots, bowls, flint-scraped ware, shallow bowls, casseroles, hammer head bowls and plates (Sağlamtimur et al. forthcoming). Especially casseroles together with hammer head bowls and plates are the most common pottery forms of the LC 3 period across north Mesopotamia (Frangipane, 2012a: 44; Lupton, 1996; Stein, 2012: 140).

### 3.4. Discussion

The settlement distribution of sites for this period is mainly concentrated near rivers and streams, suggesting that water courses were not the only place for arable and fertile lands or grazing but also the major routes for possible contact and exchange, which increased material exchange among the sites. This explains why sites especially those located in Iraqi Jazeera have various non-local materials such as gold objects, obsidian and marble in addition to indigenous ubiquitous pottery forms such as Sprig Ware, and Wide Flower Pots. Consequently, while *longue durée* can be best exemplified by the wide distribution of prominent materials via water courses, the increase in the number of settlements located in Iraqi Jazeera suggests a population increase as a long term *conjoncture*. The comparable examples of clay sealings and seal impressions at Tepe Gawra, Tell al-Hawa, Qalinj Agha, Tell Brak, Hacinebi, and Norşuntepe suggests a shared *mentalité* among these sites, although these tools must have had functionally different use attached on them in any individual site. It seems that, on the other hand, several aspects attributed to the Ubaid culture, such as pottery and architectural plan continued to be used to a varying extent in the LC period together with the indigenous materials, especially in Iraqi Jazeera. The adoption of the tripartite plan of Ubaid type seems to be served as living space at Tepe Gawra, Grai Resh, and Qalinj Agha. Unlike the Iraqi Jazeera, the Upper Tigris basin shows a more elementary style in architecture, mostly rectangular or quadrangular plans and remained mostly unchanged socio-economically in the LC 1-2.

## CHAPTER 4

### THE LC 1 AND 2 PERIODS IN NORTHWEST MESOPOTAMIA

The focus of this chapter is the LC 1-2 and partial LC 3 periods in northwest Mesopotamia including the Khabur, Balikh basins, Middle and Upper Euphrates River basins and Altinova Plain (Figure 1). The main source of data will be excavated sites, but survey projects will also be presented. At the very end, the investigated sites and region will be evaluated in the discussion section according to *Annales* paradigm.

As was the case in northeast Mesopotamia, the pottery style of the transition phase from the terminal Ubaid to LC 1 period in the area east of the Euphrates River, Balikh and the Khabur Basin represents a similar gradual decrease in painted and decorated pottery production. Moreover, different from the previous tradition, this repertoire consists of undecorated, hand-made, mineral tempered, flint scraped bowls (Schwartz, 2001: 236; Stein, 2012: 132). Apart from undecorated pottery, a small quantity of painted types includes black-on-red ware and Sprig Ware, which have parallels in northeast Mesopotamian sites (Schwartz, 2001: 236).

#### 4.1. LC 1 and 2 Periods in Northwest Mesopotamia

##### 4.1.1. The Khabur Basin

**Khirbat al-Fakhar**, located in the Syrian Jazeera, also known as the “Southern Extension” of Hamoukar, provides significant evidence for the LC period (Figure 3) (Ur, 2002a; 2002b). The site recently was defined as a “proto-urban center”<sup>6</sup> rather than as an urbanized site (al-Quntar et al. 2011). The characteristic ceramic type of

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<sup>6</sup> That is a settlement between village and city (al-Quntar et al. 2011: 153).

the LC 1 known as Sprig Ware and deep U-shaped jars were documented, along with various grit tempered forms such as double rimmed jars and stamped fine ware beakers of the LC 2 period (Ur, 2002a: 17-18; 2002b: 62).

A huge quantity of both unused and finished obsidian tools were found scattered not only over the surface of the mound (Ur, 2002b: 62) but significant quantities were also recovered over the course of excavations in different contexts. They account for 97 % of the total lithic assemblage. Even though contemporary sites like Tell al-Hawa, Tell Kosak Shamali, Tell Raffaan, and Norşuntepe have large quantities of obsidian, none of them has as much as concentrated on Khirbet al-Fakhar. This makes Khirbat al-Fakhar a major center for obsidian production and trade (Khalidi et al. 2009: 890; al-Quntar et al. 2011: 162). The archaeometry analyses taken from the obsidian assemblage indicated that the obsidian was imported from deposits near Lake Van, though the precise deposit is not yet identified (Khalidi et al. 2009: 890).

Excavations conducted at a total of nine soundings in different areas of the mound produced several LC domestic structures. Especially in the ZD area, an extended family house with multiple rooms, each of which was used for different purposes<sup>7</sup>, and an associated obsidian workshop were unearthed (al-Quntar et al, 2011: 154). Several small finds raise the possibility of textile production at the site (al-Quntar et al. 2011: 156). Among the ceramic assemblage, flat-based mass-produced bowls constitute the most common type. Other types include an inwardly beveled rim, a globular bowl with in-turned rim, carinated fine ware bowls, hole-mouth pots, U-shaped pots, and flaring rim jars (al-Quntar et al. 2011: 157-161).

Another site located in the Upper Khabur basin of north-eastern Syria is **Tell Brak**, which has recently been declared to be an “indigenous city” almost half a millennium before the Uruk culture reached north Mesopotamia (Figure 3) (Oates et al. 2007; Ur et al. 2007: 1188; Ur et al. 2011: 1). Its situation at the southern edge of the Upper Khabur basin provides, on the one hand, arable lands for agriculture and grazing (Oates et al. 2007: 586). On the other hand, the low amount of rainfall, not exceeding 250 mm of precipitation around the site, increases the risk for agriculture in this region, which may have affected agricultural productivity negatively in prehistoric

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<sup>7</sup> For instance, the courtyard of this building was a working area for obsidian knapping.

times. However, its location just south of eastern Anatolia, where timber, metal and stone sources are amply available increases its strategic importance (McMahon, 2013: 67).

The mound of Tell Brak itself covers a very extensive area of *ca.* 40 ha. In addition, the area around it is surrounded by smaller mounds that are defined as the “outer town” (Oates et al. 2007: 586-587). Together with the outer town, Tell Brak covers an area of 300 hectares (Oates et al. 2007: 587). On the basis of archaeological excavations in discrete areas of the mound as well as the suburban survey (Ur et al. 2011), it is suggested that the settlement at Tell Brak begins to expand as early as the LC 2 period (Ur et al. 2011: 4) and reached urban size, *ca.* 130 ha, in the LC 3 period (McMahon et al. 2007: 70). The widespread distribution of 4<sup>th</sup> millennium pottery sherds in six parts of the outer town may be an indication for the actual expansion of the site. The distance between these areas and the central mound varies from 200-500 meters (Ur et al. 2007: 1188).

Late Ubaid and LC1 materials were recovered from the deep soundings in Area CH (Ur et al. 2011: 4). Excavations conducted in other areas, primarily in areas TW and HS6, made it possible to unearth remains of the LC 2 period (Oates et al. 2007: 587). It is assumed that if the occupation existed continuously between these areas, then the settled area dispersed throughout the central mound during the LC 2 period. This assumption implies that the total occupied area occupied could be 55 hectares in the late 5th and early 4th millennia BC (Ur et al. 2007: 1188; Ur et al. 2011: 5-6). This also suggests that Tell Brak and its other settlements in the outer town stretched over a wide occupational area during the LC 2 period (Ur et al, 2007: 1188).

At Tell Brak, “the Late Chalcolithic complexity” is identified in area TW at the northern entrance of the city together with CH, HS, and the Eye Temple (Oates et al. 2007: 587; McMahon et al. 2007: 145 and 148). A monumental building, the so-called “Basalt Threshold Building”, with thick walls and a basalt threshold in Level 20 may be defined as a secular building of the LC 2 period (Oates et al. 2007: 588; McMahon et al. 2007: 149). Its large scale seems to be a marker for socio-political complexity (McMahon, 2013: 75). Another such thick and monumental wall is recorded in Area HS6 (Ur et al. 2011: 5-6).

In Area TW, the western Level 20 building is another structure identified as a location for workshops manufacturing various materials, such as ceramics, flint and obsidian, as well as prestige items like shell and obsidian inlays and beads tools and processing of staple goods. Levels 22-19 chronologically date to LC 2 and early LC 3 (Oates et al. 2007: 590; McMahon et al. 2007: 149; McMahon, 2013: 75).

One special group of materials recovered in this area is the “hemispherical clay spindle whorls”, almost all of which have a standard weight and diameter. In addition, several worked stones that were thought to be loom weights were recovered here also. All these textile tools thus suggest that centralized weaving and spinning were being performed by the end of the 5<sup>th</sup> and early 4<sup>th</sup> millennia BC (McMahon, 2013: 75). In this case, there are two potential assumptions for the textile tools in area TW. On the one hand, the Area TW context suggests that spinning was a “collective activity”; on the other hand, spinning was a household activity and the essential tools for the production activity were procured from the TW workshops (McMahon, 2013: 76).

It seems consequently that in either case, textile manufacture was an organized event (McMahon, 2013: 76). In this regard, it is proposed that textile production “...may have been commercial...or...ideological...” (McMahon, 2013: 76). This kind of implication, however, should be viewed cautiously if one considers the quantity of the material recovered from Area TW. Unless there is evidence of material correlations at both the site and regional scale, this conclusion is problematic. In other words, a handful of textile tools found in the same context may not be sufficient to support the hypothesis that the textile production was commercial or ideological.

The considerable amount of obsidian in various areas is associated with two main purposes: as tools and as elite objects. Obsidian was probably brought from the Bingöl source due to its quality and durability (McMahon, 2013: 76-77).

Archaeometric analyses point to Meydandağ as another source, though not preferred as much as Bingöl (Khalidi et al. 2009: 890).

Since the remains of imported goods are almost absent (they may have been perishable), it is difficult to establish instead the flow of goods and exchange network related to inter-site relationships. There are, however, numerous stamp-impressed clay sealings, primarily in the containers of the LC 2 and 3 levels, as well as recovered from the Majnuna<sup>8</sup> and T2<sup>9</sup> sites (McMahon, 2013: 77). While most of the sealings were stamped once, some of them stamped several times might be an indication of "multi-level system of control of goods" (McMahon, 2013: 77). On these sealings were illustrated both human (rare), and animal figures, such as lion-animal combats, lion groups, snakes, and vultures. The motifs and styles of these sealings have parallels at Tepe Gawra, Tell Hamoukar, and Hacinebi (McMahon, 2013: 78).

LC 1 period pottery at Tell Brak was unearthed in the Area CH soundings (Schwartz, 2001: 237), and dated to the final stage of the Ubaid period (Oates, 1987: 193). They consist of a number of Coba bowls, some hole-mouth jars, and red burnished pottery types. There are also small quantities of Sprig Ware commonly attested in different regions of north Mesopotamia (Oates, 1987: 194).

In the following LC 2 period, the ceramic repertoire is represented by a great number of the "Wide Flower Pot" type, impressed wares, and gray and red hole-mouth vessels (Oates, 1985: 177), also recorded at Tepe Gawra level XI (Rothman & Blackman, 2003), Grai Resh II B, and Tell al-Hawa. In contrast with the diagnostic pottery type of Coba bowls, a new type emerged: open bowls with criss-cross patterns incised on their bases (Oates, 1985: 177).

The overall picture of architectural differences in areas TW and HS6 and their artefactual findings shows the emergence of a political hierarchy at LC Tell Brak (Ur et al. 2011: 8). From LC 2 to early LC 3 periods, the production seems to evolve from the household level to workshops, suggesting that from the final stage of LC 2 to early LC 3 periods (levels 20-19), a control mechanism, probably by the occupants of the large public building, monitored these industries. Since the buildings of the

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<sup>8</sup> Tell Majnuna is a small LC 3 mound located 500 m north of Tell Brak (McMahon et al. 2007: 156).

<sup>9</sup> T2 is located east of Tell Brak. Excavations here in 2011 uncovered an area of LC 2 pottery production (McMahon, 2013: 71).

earlier levels (21 and 22, early-mid LC 2) were smaller in size, control was probably minimal in the previous period (McMahon, 2013: 77).

In the Khabur basin, **Tell Feres** (4 ha) comprising two small mounds is another site where archaeological remains from the late Ubaid to the LC 5 are recognizable in ten different levels (Figure 3) (Vallet & Baldi, 2016: 91). The architectural remains are well-preserved and provide significant insights on the gradual transformation between 4500 and 3800 BC. However, a hiatus related presumably to a short period of abandonment at the site was recognized in LC 2 and early LC 3 (Baldi, 2012b: 130).

At Tell Feres, the transition phase is the deepest level 9, where two different sub-architectural phases A and B show minor changes. A large central hall defined as a “communal edifice” was connected to three rooms, probably for storage due to *in situ* vessels, and surrounded by a rectangular ditch. Two other rooms, perhaps a private quarter, were located in front of them (Baldi, 2012b: 130-131; Vallet & Baldi, 2016: 92). In the main hall, were found numerous Coba bowls associated with communal meals. The multi-functional use of this entire building recalls the “White House” excavated at Tepe Gawra XII (Vallet & Baldi, 2016: 93).

In the following level 8 (LC 1), two domed and square kilns were built against two separate walls of the communal edifice. Though no individual pottery workshop was found, these kilns would presumably have been used by individual specialized potters, as potters’ marks were found on pottery (Baldi, 2012b: 131; Vallet & Baldi, 2016: 93). In level 7 (LC 1), botanic and faunal remains in four granaries included cereals and pulses, domestic animals (sheep, goats, pigs, and cattle) and hunted animals (equids, aurochs, and birds) (Vallet & Baldi, 2016: 93-94).

The architecture of level 6, roughly the beginning of the LC 2, consists of craft and storage areas situated in the north, and a structure on a tripartite plan in the south. In contrast to the previous levels, the structures display a regular spatial distribution, suggesting on the one hand, the emergence of a “proto-urban organization”; on the other hand, a layout systematically planned by an authority (Vallet & Baldi, 2016: 94).

In level 5 (LC 2), an elite building surrounded by buried silos with wheel-made ceramics was built on the ruins of the former level. The architectural remains of level 4 A-B include a communal storage (4A) and several cooking ovens (4B). In the following level 3 granaries were constructed. In addition, small finds were found such as grinding stones; stone tools; and lithics, especially obsidian that would have been brought from Bingöl A, Nemrut Dağ and Ararat (Vallet & Baldi, 2016: 97).

At Tell Feres, the painted tradition of the Ubaid falls into a gradual decline in the late Ubaid and eventually disappears at the end of the LC 2 period (Baldi, 2012b: 133; Vallet & Baldi, 2016: 91). The diagnostic pottery of LC 1 at Tell Feres is mostly plant-tempered and represented by plain simple ware (Baldi, 2012b: 131). While Coba bowls are the most prevalent type of level 9, they decline gradually from level 8 onward (Baldi, 2012b: 136). Other bowl types are mainly semi-globular bowls with interior incised decoration, which was initially introduced in the beginning of the LC 1 period and shows a regular increase in levels 8 and 7. Among the jars, hole-mouthed jars that were also documented at Tepe Gawra, Grai Resh, Tell al-Hawa appear as early as LC 1 and continued to be used in the LC 2 period. There are also flaring-rim jars and a few Ubaid-derived jars which show continuity from LC 1 onward (Baldi, 2012b: 131-132). In the LC 1 context, only a few samples of Sprig Ware were recorded (Baldi, 2012b: 134; Baldi & Abu Jarryab, 2012: 166).

In the LC 2 period, inwardly-beveled rim bowls become prevalent. One of the diagnostic types of the LC 1 that maintains continuity in the LC 2 period is hole-mouthed jars, double-mouth jars and flange rim jars (Baldi, 2012b: 134-136). Likewise, short-neck flaring rim jars have their origin in the Ubaid and are prevalent in the LC 2 period. There are also a very few examples of Gawra incised and impressed ware types (Baldi, 2012b: 137; Baldi & Abu Jarryab, 2012: 68).

**Tell Mashnaqa** is located on the left bank of the Khabur River and about 20 km south of Al-Hasakah, in northeastern Syria (Figure 3) (Monchambert, 1985: 221). The first (Danish) excavations revealed Ubaid period remains, followed by abandonment at some point in the Ubaid (Thuesen, 1994: 111). This hiatus at the site, mainly at the south and east of the mound lasted until the establishment of a large tripartite building (French excavations), 11.5 x 10.5 in size, which has parallels



with Tepe Gawra level XII; thus, dated to the post-Ubaid or the LC 1 period (Beyer, 1998: 141). In this building, Coba bowls were attested (Schwartz, 2001: 237). One of the peculiarities of this building is that the well-preserved high walls made it possible to determine window spaces (Beyer, 1998: 140).

#### **4.1.2. The Balikh Basin**

**Tell Zeidan** is located 5 km east of the modern city of Raqqa, in northern Syria. The site measures approximately 12.5 ha and has multi-period archaeological deposition beginning from the Halaf period through LC 1 and LC 2 periods (*ca* 5800-3800 BC) (Figure 3) (Stein, 2009: 126-127 and 131). The area north of Tell Zeidan (north of the Balikh Valley) has arable lands for rain-fed agriculture. While the area where Tell Zeidan is situated is suitable for herding, agricultural subsistence is only possible through irrigation due to the 200 mm isohyet (Fisher, 2017: 5).

Zeidan's architectural remains especially shed light on the transition period from the Ubaid to the LC 1 period. This transition period is characterized by a building with niched and thick buttressed walls. Therefore, the thickness of the wall together with the wideness of the niche may suggest a public building, probably a temple like the one found at Tepe Gawra. The presence of 15 pinched lumps of sealing clay in a collapsed deposit near this niche building is linked to some degree of administration or record keeping activity (Stein, 2010b: 110).

In the northwest part of the mound, a small house, a courtyard belonging probably to the house, and a storage jar were excavated. Two other storage jars, one of which contained a Coba bowl, were buried beneath the floor in the area defined as the courtyard. One of the most important findings is the discovery of a baked clay "muller" with rounded head in the room deposit in the house. In this case, it can be asserted that these mullers, which were of Ubaid origin, continued to be used in the LC 1 period as well (Stein, 2009: 133; Stein, 2010b: 112). However, a distinctive feature of the LC 1 mullers is that these have cross-hatched incised patterns on the heads, while the Ubaid mullers are bent and have no such incisions (Stein, 2012: 132).

Aside from the northern part of the mound, the transition period is documented also in the south mound, in Area D. A series of rooms of a building with multi-layered floors in this area suggests that this building remained in use for some time between the later Ubaid and LC 1. Both the Ubaid and LC1 clay mullers were found together here in the same area (Stein, 2011: 130-131). In Area E a set of three better-preserved three multi-room buildings with a single course of mud-brick wall were excavated. The two rooms of the easternmost building have red-painted white plaster on the walls (Stein, 2011: 132).

In addition to the clay mullers, the overall pottery assemblage of the initial phase of LC 1 period too represents a continuation of preceding Ubaid style and decoration, though it disappears completely at the end of the LC 1 period (Stein, 2012: 132). The LC 1 pottery recovered from all deposits comprises mainly mass-produced bowls, such as Coba bowls, which account for more than 50 % of the whole assemblage (Stein, 2012: 132), as well as Beaded-Lip bottom scraped bowls, “Wide Flower Pot” bowls, jars and cooking pots (Fisher, 2017: 252). By the end of the LC 1 period, a new form of “inwardly beveled-rim bowls”, as well as short-necked globular pots and extended ledge-rim bowls were introduced (Fisher, 2017: 253).

There is much evidence of material obtained from long distances at Zeidan. One of the commonly found materials is flint for sickle blades, whose handles were covered with bitumen. It is suggested that bitumen would have been obtained from a source 70 km south of the site either by trade or by expedition (Stein, 2009: 134). Another material is obsidian which constitutes 5% of the chipped stone assemblage of Zeidan and was probably brought from the Bingöl or Nemrut Dağ sources (Stein, 2009: 134). A stone stamp seal, on which a deer was depicted elaborately is attributed to administrative organization at Zeidan. Since the iconography illustrates a close stylistic affinity with a stamp seal found at Tepe Gawra, there may have been a set of shared symbols or common ideology among the leaders (Stein, 2009: 134-135).

At Zeidan, one of the spectacular findings is a blowpipe or *tuyere* that according to Stein (2009: 134) indicates copper was being smelted at the site. He also suggests that copper was a trade material, obtained presumably from Ergani Maden in Diyarbakır. It should be noted that the isolated presence of a blowpipe may not

qualify for metal processing because there is no further contextual or material evidence such as crucible fragments, kilns, or copper slags to support this argument.

The limited evidence for the subsequent LC 2 period is represented by a number of graves dispersed in the Operation 6 area. Two different burial types -jar mostly for infants and inhumation- were practiced in the same area. In other words, it is a unique case that both infants and adults were buried in the same place. Whereas the mainly preferred area for infant burials of the LC 2 period was beneath the houses, those of adults were outside the settlement area (Stein, 2010b: 107). In another area, defined as the cemetery, a series of forty infant jar burials of the LC 2 period were uncovered. However, only three of them have grave goods such as tiny white beads, a copper bead, and a bronze wire bracelet (Stein, 2011: 131).

**Tell Hammam et-Turkman**, on the eastern bank of the Balikh river, is about 75 km north of the modern city Raqqa, in north Syria (Figure 3) (Akkermans, 1988: 109). The area where Hammam et-Turkman is located has fertile lands for agriculture. However, to have reliable successful crops, agricultural areas need to be irrigated since the area is in the marginal zone; thus, rain-fed agriculture may not be possible due to the limited rainfall.<sup>10</sup>

Although the mound was partially excavated (thus, does not display a full picture of architectural remains), a series of test trenches revealed the Ubaid and LC periods (Akkermans, 1988: 109). Based on the relative chronology, Hammam IV D corresponds to LC 1 period and the ceramics are associated with Gawra XIIA-XII (Akkermans, 1988: 117; Schwartz, 2001: 237). Bowls form most of the ceramic assemblage at Hammam. Especially bead-rim bowls are common in level IV D, and later on show a significant decrease in quantity and are replaced with plain-rim bowls. The shape and decoration of these bowls do not share similarities with the Gawra XIIA-XII, and Leilan VIB repertoire, but they do appear to have similar technological advances (Akkermans, 1988: 118).

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<sup>10</sup> Retrieved from <https://www.universiteitleiden.nl/en/research/research-projects/archaeology/tell-hammam-syria> , December, 2017.

The subsequent level VA (early LC 2 period) (Schwartz, 2001: 237) appears to shift toward an urban life style, indicated by the mass production of pottery and the architecture. The pottery assemblage closely matches ceramics in southeast Anatolia, Grai Resh, and Tepe Gawra (Van Loon, 1988a: 582; Akkermans, 1988: 120). Nearly half of the whole assemblage consists of Coba bowls, though various other pottery types are also recorded. However, painted examples are found in small quantity (Akkermans, 1988: 119).

In the western unit of period VA was uncovered a building consisting of a main room flanked by three smaller rooms, two of which have doors opening to the main hall. It is suggested that the building would, in fact, have been constructed on a tripartite plan if another set of smaller rooms existed on the opposite side of the main hall (Meijer, 1988: 74). A variety of artefacts such as an unsealed jar stopper, a stamp seal, and a house model were found in the main room, while another house model, likely representing a temple, was found on the floor of the middle side room (Meijer, 1988: 74; Rossmesl & Venema, 1988: 568; Van Loon, 1988b: 661).

It seems that in the next phase the same building was re-occupied with minor architectural adjustments. The doorway spaces of the side rooms appear to be blocked and a white plastered niche was constructed at the western end of the main room. On the floor of this building was another house model. The ceramics of this period VA share similarities with sites like Kurban Höyük, Tell Brak and Tepe Gawra. While plain rim bowls are found in small quantity, Coba bowls seem to disappear in this period. Bead-rim bowls, which were prevalent in the previous period, still constitute the most common type of bowl. It is thus suggested that the Coba bowls were replaced by the bead-rim vessels in household activities. There are also hole-mouth pots with beaded rims (Akkermans, 1988: 121).

Hamam et-Turkman may have taken a “truly urban character” in level VB (Van Loon, 1988a: 582). An imposing building having triple recessed niches and flanked by the smaller rooms, presumably for storage purposes because of its large jars (on the eastern flank of the main room) constitutes one of the spectacular architectural remains of the site (Meijer, 1988: 76). Although *ca.* 3250 BC was originally proposed for the building (Van Loon, 1988a: 583), the carbon samples proposed

interval ranges from *ca.* 4230 to 3940 BC LC 2 period (Wright & Rupley, 2001: 99). The entire building complex may have had a central economic function, but this is not certain yet. Its architectural parallels are recorded at Tepe Gawra and Uruk (Van Loon, 1988a: 582). Several artefactual features including grinding slabs, jars, clay ‘pipes’ and a burnt beam were found in this building (Meijer, 1988: 77).

#### 4.1.3. The Middle Euphrates Valley

West of the Khabur and Balikh basins, the archaeological traces of the LC 1, 2 and 3 periods were also documented in the Middle Euphrates Basin. Particularly in the last three decades, the archaeological investigations within the scope of the salvage excavations primarily on the Atatürk, Birecik, Carchemish, Tishrin, and Tabqa dam areas in the Middle Euphrates Valley, paved the way to understand the archaeological settlement landscape of the region. In addition to salvage excavations, a number of regional survey projects have been undertaken in the Middle Euphrates Basin (Figure 1) (Serdaroğlu, 1977; Özdoğan, 1977; Wilkinson, 1990a; Algaze 1990; Algaze et al. 1994; Özdoğan & Karul, 2002; Wilkinson et al. 2007; Peltenburg et al. 2012; Lawrence & Ricci, 2016). However, since most of these survey projects were undertaken before the Santa Fe chronology was established (with the exception of the Land of Carchemish Project (LCP) )<sup>11</sup>, the material assemblage of the LC 1, 2, and 3 periods of the Middle Euphrates Basin cannot be distinguished appropriately. Furthermore, our present understanding of the Local Late Chalcolithic (LC 1, 2, and 3) is mostly based on the material assemblage of the LC 3 period; therefore, the LC 1 and 2 periods remain poorly understood in the valley (Lawrence & Ricci, 2016: 44).

The surveys within the scope of the **Land of Carchemish Project** in northern Syria have demonstrated that all the settlements dating to the Ubaid period continued to be occupied in the LC 1-2 periods, while seven newly established settlements were determined. These new settlements were mostly established along the Amarna and Sajur Rivers, on the west of the Euphrates (Lawrence & Ricci, 2016: 45). In the subsequent LC 3 period, the number of settlements drops from 13 to 9 and two new settlements appear (LCP 78-53) (Lawrence & Ricci, 2016: 45). Along the Euphrates

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<sup>11</sup> The LCP geographically covers the area north of Carchemish and south of today’s Turkish-Syrian border (Peltenburg et al. 2012: 192).

River, Jerablus Tahtani (LCP 22) is newly founded in the LC 3 period (Peltenburg et al. 2012: 194).

Among the excavated sites in the basin, **Tell Kosak Shamali** is a small mound located on the east bank of the Euphrates, 50 km southeast of the modern city Manbij, in Syria. Among the architectural remains, of particular significance are both the Ubaid (level 10), and post-Ubaid (levels 6 and 5) or the so-called “LC 1 period” pottery workshops (Figure 3) (Nishiaki, 2016: 76-77).

A variety of facilities associated with pottery production was found in the area defined as the LC 1 pottery workshop (*ca.* 4300 BC) in the levels 6 and 5 of Sector B. The presence of two well-preserved large kilns points to mass-production in this workshop. There is also a circular bin probably used to prepare clay located in another area just south of the room where ceramic production took place. The fact that the pottery workshop is situated away from the domestic area may indicate that specialized potters were involved in the production activity. Like many settlements of north Mesopotamia, the decorated tradition of the preceding Ubaid was replaced with simple plain wares in the LC 1 (Nishiaki, 2016: 77-78).

Further north, **Hacinebi** covering an area of 3.3 ha is located on the east bank of the Euphrates River and is 5 km north of modern town Birecik, in Şanlıurfa (Figure 3). The site is strategically important because it is located on the north-south main river trade route connecting Anatolia to Syria and Mesopotamia (Stein et al. 1996: 208).

Based upon the stratigraphy and the study of the ceramics, the Late Chalcolithic period was divided into two sub-phases. The earlier phase A corresponds to the LC 2 period. This phase is represented by handmade, chaff-tempered, and Amuq F related chaff-faced ceramics that are characteristics for the local Anatolian pottery (Stein & Mısırlı, 1994: 154; Stein et al. 1996: 209; Stein, 2001: 270). Although phase A initially was placed between 3900- 3800 BC based on the relative chronology (Stein et al. 1996: 209; Stein, 1997: 94), carbon samples taken from this phase extended the occupation date to 4050 BC (Wright & Rupley, 2001: 107).

The following phase B1 (LC 3 *ca.* 3800-3600 BC) shows strong continuity of material culture (Pearce, 2000: 116). Phase B1 is characterized by chaff-tempered, hand-made casseroles and hammerhead bowls. Craft activities of production seem to be retained and developed. It is in the upper strata of B1 that the first samples of Beveled Rim Bowls (BRBs hereafter) begin to appear (Stein & Edens, 1999: 167-168).

Archaeological remains of the early 4<sup>th</sup> millennium BC at Hacinebi phases A-B1 revealed that there was already a social complexity and a social hierarchical system before its inhabitants encountered the Uruk phenomenon. These two phenomena are particularly discernible in the architectural remains, mortuary practices, and record keeping materials. Thus, this phase has potential to provide information for the relevant social, cultural, and political practices at Hacinebi (Pearce, 2000: 116; Stein, 2001: 271-276).

The architecture of this early phase A-B1 varies structurally in all three areas of the mound (Pearce, 2000: 115). At the westernmost part of the mound was excavated an array of storerooms, where both administrative and metallurgical activities took place. This building complex comprises at least four storerooms that underwent a few changes and rebuilding instead of a single unit constructed all at once (Stein, 1997: 103; 2001: 271).

Likewise, in the southeastern corner of the mound, a monumental stone enclosure wall standing 3.3 meters (Wall 68) was uncovered in area B. The most remarkable aspect of the wall is that it has 2-meter-wide niches and is buttressed along the east face. The wall has been dated to the first quarter of the 4<sup>th</sup> millennium BC. It is suggested that the wall may have been an “open air monumental enclosure” (Stein, 1997: 100; Pearce, 2000: 115).

On the south slope of the mound, a massive mud brick building has a 1.70 thick wall. At the northeast of this building, a niche with a plaster installation in front was built in the north wall. Based upon the size of the wall and the niche, it is suggested that the building had a public function rather than domestic (Stein & Mısırlı, 1994:152-153; Stein et al. 1996: 212-213).

Mortuary practice draws a similar picture with local south-east Anatolia: children and infant jar burials were mostly buried beneath houses without grave goods (Stein & Mısır, 1994: 150). Of special significance is an infant jar burial beneath a room floor with a miniature ceramic vessel, a copper ring, and two silver earrings. This grave gives a clear indication of social stratification and elite practices among the inhabitants of Hacinebi. Such graves equipped with grave goods are infrequent in a southeast Anatolian context. Moreover, since silver is a rare material and found only in a burial setting, it is thus an extremely valuable prestige good (Pearce, 2000: 116; Stein, 2001: 273-74). The absence of adult graves suggests that these may have been buried in a designated area (cemetery) located off-site (Stein and Mısır, 1994: 150; Stein et al. 1996: 215-216).

There is also evidence of bureaucratic paraphernalia such as stamp seals and seal impressions, suggesting that emergent hierarchical administrative activities were practiced at Hacinebi (Pearce, 2000: 116; Stein, 2001: 274). On these seals were mostly the depiction of animals and partly geometric motifs just like those at Tell Brak. These seals were made of either baked clay or limestone and each seal has a unique animal motif carved meticulously. In the absence of a written legend, it is suggested that these seals were used as the record keeping equipment for “trading” goods, taxes, and tribute. That is to say, the seals were used to mark personal ownership within the centralization of economic activities. Their animal imagery has also been found at local Late Chalcolithic sites like Arslantepe, and Değirmentepe as well as in Iraqi Jazeera at Tepe Gawra and Tell Brak in the Upper Khabur basin (Stein, 2001: 274-275).

Artefacts made of precious and non-local materials are another set of evidence for long-distance involvement. They showed that the inhabitants of Hacinebi were integrated into an exchange network system by which they could obtain such exotic supplies (Stein, 2001: 276). In phase A, a stone pendant made of chlorite was found on the floor of a room. Similarly, there is a fragment of a bowl made of white chlorite from the western part of the mound. Yet, chlorite is not a native resource available in this region; rather, the closest chlorite source is located *ca.* 250 km away in Diyarbakır. Another material is cowrie shell, which is specific to the Mediterranean area and was used for the shell beads at Hacinebi.



Obsidian was also procured from diverse sources such as Nemrut and Bingöl in eastern Anatolia, Göllüdağ in central Anatolia, and Gutansar in Armenia. The two silver earrings found in the grave context were more likely brought from the Altınova Plain (Stein, 2001: 276-77). Finally, there is also evidence associated with two types of metallurgical activities. At the site, copper metallurgy recorded in several archaeological contexts is thought to mean that metal production was not a centralized activity (Stein et al. 1998: 167; Stein, 2012: 136). This also demonstrates that the inhabitants of the site not only obtained finished copper artefacts, such as small chisels, earrings, and pins from outside, but also material remains such as casting molds, crucibles, slags, and a blowpipe or *tuyere* show that copper was being processed by inhabitants of the site (Stein et al. 1998: 167; Stein, 2001: 277). The analyses of these copper artifacts have shown that copper was brought from Ergani (Diyarbakır) as an ore and smelted at the site (Stein, 2001: 277).

**Horum Höyük** is approximately 15 km north of modern Nizip and located on the west bank of the Euphrates (Figure 3). The only archaeological context dating to the 5<sup>th</sup> and early 4<sup>th</sup> millennia BC is a pit from which deposits were recovered *in situ*. This pit, D0012, more than 6 m in depth had pottery sherds belonging to various periods (Fletcher, 2007: 198). The pit also contained two stamp seals, one made of stone and the other of animal bone, depicting a goat carved elaborately. The bone seal is a typical “gable stamp”. The iconographic resemblance with those found at Tell el Judeideh and Tarsus suggests the LC period. On the other hand, the only appreciable evidence in the site’s trenches D, E, and G consists of pot sherds and stone materials including numerous chipped stones and a small quantity of obsidian (Tibet et al. 1999: 225-226; Marro et al. 2000: 172).

Pit D0012 may potentially contribute to our understanding of the change in material culture for the transition period from the Ubaid to the earliest Late Chalcolithic period (Fletcher, 2007: 192). The pottery type of the transition period predominates mostly in the form of jars and bowls (Tibet et al. 1999: 226) including Ubaid-derived

fine mineral tempered pottery that represents an Ubaid continuation in addition to CFW<sup>12</sup> wares and Coba bowls (Baldi, 2012a: 397-398).

**Tilbes Höyük** is another site located at the opposite bank of the Euphrates, approximately 22 km north of the modern town Birecik (Figure 3). The site is surrounded by productive lands for agriculture and animal herding (Fuensanta & Mısır, 1998: 228). The excavations discovered two distinct local LC phases known as “an earlier local LC” and “another local LC phase with the presence of Uruk cultural elements” (Fuensanta & Mısır, 1998: 230-231). At the site, no monumental architecture like Hacinebi’s was recorded. Instead, the LC buildings were domestic structures containing agricultural equipment and domestic items on the ground of these areas (Fuensanta et al. 2002: 132-133). The earlier local Late Chalcolithic phase is represented by the chaff-faced sherds and flint-scraped bowls (Fuensanta & Mısır, 1998: 230-231).

Even further north, **Kurban Höyük** is located on the east bank of the river within the Atatürk Dam area (Figure 3). After the Halaf period occupation, the site appears to be re-occupied in the first half of the 4<sup>th</sup> millennium BC with several clues for the LC 2 period. The succeeding LC phases associated with the so-called “Uruk Expansion” were documented much better archaeologically (Marfoe & Ingraham, 1990: 61). In the absence of architectural remains associated with the earlier occupation, the south mound appears to be the only occupied area during LC 2 (Marfoe & Ingraham, 1990: 61). This earlier phase of the LC is represented by the indigenous CFW wares (Marfoe & Algaze, 1990: 424) and Coba bowls (Baldi, 2012a: 396).

Located 17 km west of Samsat village in Adıyaman, **Hayaz Höyük** just like Kurban and Horum Höyük does not provide any architectural elements dateable to the LC 1 and 2 periods (Figure 3). The only identifiable material concerning the earlier phase of the LC is the ceramic repertoire in level 5 (Lupton, 1996: 15). As at other settlements in the same region, a significant amount of Coba bowls was also documented at Hayaz Höyük (Baldi, 2012a: 398). Another commonly found ceramic type is a variety of chaff-tempered bowls with beaded rims, with parallels in the

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<sup>12</sup> This newly introduced type is also known as *Amuq F* identified first by Braidwood (1960: 228) at Tell el Judeideh in the Amuq Plain.

Keban area, and the Balikh basin at for instance Hammam et-Turkman. Among the jars is a squat rounded jar with everted rim. This type of jar bears similarities with those found in the Keban area, Tepe Gawra, and Musharifa in the eastern Jazeera (Lupton, 1996: 15).

**Hassek Höyük** is another site located on the left bank of the Euphrates River, north of modern Siverek, in Şanlıurfa (Figure 3). At the site, the LC period is identified in level 5 (from the latest to the earliest as a-b-c) (Behm-Blancke et al. 1981). While levels 5 a-b are contemporaneous and because of the archaeological materials mostly related to the Uruk Phenomenon (LC 4-5), level 5 c, based on the relative chronology, is placed sometime before the Uruk phenomenon. The ceramic materials recovered in level 5 c consist only of chaff-tempered pottery and local cooking pot ware (Helwing, 1999: 94-95). In addition to ceramics, two stamp seals with geometric motifs were also found in a secondary deposit (LC 4-5 context), suggesting that “administrative structures” or personal ownership probably existed as early as the 5 c period at Hassek (Helwing, 1999: 97).

In addition to those excavated sites, flint-scraped *Coba* bowls were also recorded by surveys at sites like Kale Meydanı Höyük, and Kefri Höyük in the Birecik-Carchemish dam area through the survey (Algaze et al. 1994: 28 and 42).

#### **4.1.4. The Upper Euphrates Basin**

**Arslantepe** is located in the northernmost periphery of north Mesopotamia (Figure 1 and 3). As an advantage of being located in the Malatya plain, the site has fertile agricultural lands irrigated by the tributaries of the Euphrates River (Frangipane, 2001a: 325). Thanks to a long history of excavations, Arslantepe has exposed a wealth of archaeological data, which provides useful insights for understanding the indigenous character of the Late Chalcolithic socio-cultural and economic organizations on the regional basis.

The Late Chalcolithic occupation of the site has been identified in three superimposed layers: period VIII 4300-4000 BC (Post-Ubaid\LC 1-2\ Early Uruk); period VII 3700\3450 (LC 3-4); and period VIA 3350-3000 BC (LC 5 or the so-called “Uruk-influenced” period (di Nocera, 2000; Frangipane, 2001a: 326-327;

Rothman, 2001b: Table 1.1; Wright & Rupley, 2001: Figure 3.21-3.22; Balossi-Restelli, 2012a: 236). In the Malatya plain, Arslantepe is the only excavated site where archaeological evidence of the LC 1-2 (period VIII) periods was recognized, but seven other sites were identified through surveys (Balossi-Restelli, 2012b: 42). However, period VIII (LC 1-2) has only recently been unearthed and because it is deeply buried underneath of the subsequent layers, it is not as well-defined archaeologically as periods VII and VIA (LC 3-4-5) (Balossi-Restelli, 2012a: 236; 2012b: 41).

The archaeological traces of period VIII have been recovered in the western part of the mound. In this area, a series of architectural layers have been identified all of which contained functionally domestic structures. The latest phase of period VIII was destroyed by the construction activities of the subsequent period VII (Balossi-Restelli, 2008: 22; 2012a: 236-237; 2012b: 42). The architectural remains of phase 1 consist of a room defined as kitchen with a round oven, as well as two smaller lateral rooms. Based on their size, these smaller rooms could have been used as silos for storage. In the kitchen area, the overall ceramic sherds found *in situ* may indicate that this area was used for processing food and preserving it, since several necked jars were also found. Amongst the ceramic assemblage of phase 1, containers and storage jars account for the majority of the whole assemblage (Balossi-Restelli, 2008: 23; 2012a: 237).

The following phase 2 is luckily much better preserved, which made it possible to detect a few minor changes and rebuilding activities in this phase (Balossi-Restelli, 2012b: 45). The discovery of three kitchen areas together with the large ovens suggests that these buildings could have belonged to three different family units. Unlike the two northern buildings, the southern complex contains several rooms opening onto the central room defined as a courtyard. As in the previous phase, a number of cooking pots along with pestles and mortars were found *in situ* in these three kitchens, although they were not supplied with as many storage jars. Instead for this purpose serving and consumption vessels were located in the courtyard (Balossi-Restelli, 2012a: 238).

The subsequent phase 3 consists of several adjacent rooms and a total of four ovens. Unfortunately, no stratigraphic links were found between these adjacent rooms in the western part of the excavated area and those constructed just to the southeast. Therefore, apart from being domestic in character, the tie among these structures remained ambiguous. There have been found traces of paintings on the walls of two western rooms and a platform likely to be a “mud column”. It is suggested that one of these western rooms may have been used as a kitchen, as it contained several ceramic items including a bowl, a storage jar, and four small ones like bottles. In addition to architecture and ceramic assemblage, two infant jar burials were found beneath the room defined as the kitchen. Clay spindle whorls, bone awls, pendants, a few seals and sealings thought to be administrative tools were also features of phase 3 (Balossi-Restelli, 2008: 24; 2012a: 238).

Despite changes, the ceramic assemblage of period VIII provides continuity with the subsequent period VII. In period VIII, the great majority of the ceramics were recovered from floors and room fills. While plain simple ware constitutes almost the whole assemblage, the painted samples are very few in this level. The characteristic feature of these ceramics is that their bodies were scraped; thus, they are more likely associated with the Coba bowls common in northern Mesopotamia. As for shapes, most of the vessels are bowls, while there are also beakers, basins, bottle-like containers, jars, and a few pithoi (Balossi-Restelli, 2008: 24-25; 2012a: 239-242).

The following period VII with its significant evidence for our present understanding of local continuity and change at Arslantepe, is also correlated with the LC 3 (3700-3500 BC) and has a very long and continuous occupation (Frangipane, 2001a: 326; 2012b: 20).

It is not coincidence that no buildings with administrative, public, religious or economic functions were situated at the highest part of the mound. Rather, several spectacular buildings, the only architectural remains excavated so far, would be the residences of individuals or families who had higher status (Frangipane, 2012b: 23; Frangipane, 2017a:26). It is likely that the elevation of this elite residential area contributed to its power, since this part of the mound was visible from any distance in the plain (Frangipane, 2012b: 20; Frangipane et al. 2017: 68). In one of the main

rooms of these buildings (Building XXV) were recovered black and red wall paintings, as well as a white plastered mud-brick column. The main room went through an architectural change over time, when it was divided into more rooms, one of them for food preservation, the others serving as a domestic quarter (Frangipane, 2012b: 23; Frangipane, 2017a: 26).

None of the individual or family houses are tripartite in plan, even the common houses standing in the northeastern margins of the mound. Rather, these common houses are somewhat small, showing no consistency in size, but generally two or three medium-sized rooms (Frangipane, 2017a: 27). The architectural distribution of the buildings over the ancient mound indicates that such use of space defines an “internal hierarchy” between elites and the rest of the community (Frangipane, 2001a: 327; 2001b: 2; 2012b: 20; 2016a: 13; 2016b: 476-478; 2017a: 26-30; Frangipane et al. 2017).

Aside from the elite residences and common houses, two adjacent ceremonial public structures –Temple C and D– were also uncovered in the western part of the ancient mound, Temple D most recently (Frangipane, 2001a: 327; 2001b: 2; 2012b: 20; 2016a: 28; 2017a:26; Frangipane et al. 2017: 68-69). The architectural layout of both temples appears to be tripartite in plan. These two buildings were contemporary, as the same seal impressions found in both temples, suggesting also that the same individuals were responsible for the management of both temples (Frangipane, 2017a: 26).<sup>13</sup>

It is argued that Arslantepe temples both resemble and differ from contemporary Mesopotamian temples in some respects. In comparison with the layout of Mesopotamian cities where the central area was especially preferred for public buildings, the Arslantepe temples were situated in the western area of the mound presumably aiming to increase their visibility from the plain (Frangipane, 2017a: 26). While Arslantepe temples differ from those Mesopotamian temples in terms of the wall paintings and motifs, several architectural features such as tripartite floor plan, multi-recessed niches, and a platform in the central room have a likely resemblance

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<sup>13</sup> There is no other type of evidence, other than the same seal impressions for contemporaneity (Frangipane et al. 2017: 69).

to the Mesopotamian temples (Frangipane, 2012b: 24; 2017a: 26). Apart from differences, a probable common feature is that Arslantepe leaders used “sacred buildings” for economic and political activities just like the Mesopotamian model (Frangipane, 2017a: 29; Frangipane et al. 2017: 70 and 72).

Situated closer to the western slope of the mound, Temple C was constructed on a stone and mud-brick platform and had at least four entrances opening to the main room (Frangipane, 2001b: 2; 2012b: 24). It is suggested that in terms of the construction techniques (implanting wooden beams beneath the walls and floors), Temple C bears similarities with the LC 2 monumental building of Tell Brak (Frangipane, 2012b: 24). In Temple C, various materials were found scattered on the floor, such as a few chaff-faced red slipped wares, and mass-produced examples of both the flint-scraped and string cut bowls. Especially in the eastern side rooms, vessels appeared to be kept ready for use, while the vessels found in the main room presumably had been already used (Frangipane, 2017a: 29).

In addition, a great number of clay sealings were also found, on which there are geometric, plant, and animal motifs. It seems that sealings stylistically and iconographically continue to be used in succeeding period VIA, which also indicates a similar purpose of usage (Frangipane, 2001b: 2-3). In the main room, there is also a wall painting on the north-eastern corner of the wall (Frangipane, 2001a: 329; 2001b: 3). Of particular significance are the sealings in both temples, signifying economic and administrative centralization in period VII (Frangipane, 2016a: 28; Frangipane et al. 2017: 70-71). On the one hand, the architectural organization of Temple C; on the other hand, a number of clay sealings recovered from the floors suggest to the excavator that meals were served here during ceremonial events (Frangipane, 2001a: 329; 2001b: 3; 2012b: 26; 2016a: 30; 2016b: 478; 2017a: 29; Frangipane et al. 2017: 68). The distributions must have been a way for consolidating the power and prestige of elites, as this kind of event needed their personal and economic supervision (Frangipane, 2012b: 26).

It is worth mentioning that metal production and use were restricted in period VII, and intensive in the following period VIA (Di Nocera, 2010: 256). Thus, the use of metal appears to have increased in the second half of the 4<sup>th</sup> millennium BC at

Arslantepe. For obtaining and distributing metal ores and artefacts, it is claimed that transhumant and nomadic pastoralists were the predominant agents with a greater capacity to access metal resources than settled groups (Frangipane, 2017b:191-192). The local smiths of period VII produced mostly copper and lead alloys with low amounts of polymetallic ores such as arsenic, nickel, and antimony (Yakar, 2002: 19).

In addition to metal, in period VII a total of 40 spindle whorls, in majority animal bone, were mostly found in working or residential areas throughout the excavation (Frangipane et al. 2009: 10). Especially in one of the elite residents (Building XXV) evidence related to textile production is indicated by a number of spindle whorls, awls, and pointed tools, though no loom weights were found in the building (Frangipane et al. 2009: 9; Laurito, 2012: 320). Furthermore, several spindle whorls were found in the so-called “common houses” area, north-eastern edge of the mound. In contrast, none of this equipment was found in Temple C area (Frangipane et al. 2009: 9; Laurito, 2012: 320), suggesting that textile production was a household activity.

#### **4.1.5. The Altnova Plain**

Another region where there are clear archaeological indications of the LC period is the Altnova plain (Figure 1). The plain located in Elazığ, in east-central Turkey, was especially investigated during the 1960s and 1970s, as salvage research connected with the construction of the Keban Dam. In the plain, LC sherds were identified at a total of 14 sites during a regional survey (conducted by Robert Whallon) in 1967 (Whallon, 1979: 266). The LC 1 and LC 2 periods are represented by two diagnostic ware groups: LC Grit-Tempered Ware and CFW. The latter group’s diagnostic types are bowls with beaded rims, simple bowls with internally beveled lips or flat grooved lips, and jars without angled rims and beaded lips (Whallon, 1979; Lupton, 1996: 13). The typical forms of the LC Grit-Tempered Ware are squat jars with simple flaring rims and open bowls with beaded rims (Lupton, 1996: 13). In addition to those types, another bowl form is a crude flaring bowl. Although this form could not be recognized by Whallon during his survey, Lupton (1996, 14) asserts that it is the indicator of the LC 2 period, with parallels in northern Mesopotamian sites like Arslantepe VII and Hammam et-Turkman IVC-VA.



In the plain, sites appear to be small. Although Tepecik seems to be the largest site in the plain, it measures only 2.1 hectares. Similarly, four other sites (Norşuntepe, Tülintepe, Körtepe 055\8-9, and Korucutepe) are between 1.3 and 1.8 hectares, while other sites are less than 1 hectare (Lupton, 1996: 20).

Since the archaeological investigations in the plain were done during the 1970s and 1980s, it is difficult to distinguish the LC period remains of the excavated sites. It is, however, possible to make a chronological division of three sites according to the C<sup>14</sup> samples. Tepecik level 3 provides the date between 3644-3376 BC (LC 3 and partially 4), Norşuntepe 4300-3800 BC (LC 2), and Korucutepe phase B almost the same with Norşuntepe (LC 2) (di Nocera, 2000: 74).

**Norşuntepe** is located in the central part of Altınova plain and is generally recognized as the second largest site in the plain (Figure 3). The LC layers were uncovered on the western part of the mound in areas J/K17 (levels 11-2) and J-K/18-19 (levels 10-5) (Hauptmann, 1971; 1972; 1974; 1976; 1979; 1982). They were defined by a small building with round hearths containing multi-cellular rooms made of mud-brick; and a tripartite building with a copper smelting area. This building can be compared with Mesopotamian contemporaries (Hauptmann, 1973: 37-38; Gülçur & Marro, 2012: 307).

In the north and south of J-K/18-19 area, Level 7 is characterized by three rooms with central round hearths. These rooms are separated by a passage and have a long room in the north. On the northern wall of this room are two niches and another hearth (Hauptmann, 1973: 52;). In this level, abandoned houses were filled with debris and a terrace supported by mudbricks was built for the new structures, like the previous levels (Hauptmann, 1976: 53).

In level 8, a total of eight rooms were excavated in different areas of J-K/18-19 area. Three adjacent and rectangular rooms with central round hearths in the north are interconnected by a 3-meter wide street space with another single-roomed structure, located to the south of these rooms. In the east wall of this room were preserved two white plastered niches with red paint (Hauptmann, 1973: 52). Another three rectangular rooms are located south of the street. One of the best-preserved rooms is

the middle room with a round hearth and a small brick platform under the doorway. Here the two white plastered niches in the south wall contained red and black geometric motifs. In the southernmost of these rooms were recovered a number of grinding stones and a hearth (Hauptmann, 1976: 53-54).

In the following level 9, three single rooms had a similar architectural layout. In contrast with the previous levels, several smelting furnaces with significant amounts of copper slag were also recovered (Hauptmann, 1982: 29).

In level 10 of J-K\ 18-19 area, a regularly planned multicellular tripartite building with narrow spaces, either corridor or alleyways, was uncovered. In this building, room 2 in addition to doorways opening to rooms 3 and 5 have red and black designs on a white plaster just like level 7's 'painted room'. Of particular significance is a storeroom with burnt debris on the floor, which contains funnel-shaped deep bowls stacked on top of each other, together with copper ores and slags, grinding stones and numerous animal bones (Hauptmann, 1975: 37-38; 1982: 29-30).

In addition to architectural remains, there is also a variety of stone, bone, flint, and obsidian tools and objects: especially stone axes, chipped stone and obsidian blades, various types of arrowheads, scrapers and sickle blades. Furthermore, copper slags, rings and needles, awls made of copper and smelting furnaces indicate that metal production took place at Norşuntepe as early as the first half of the 4<sup>th</sup> millennium BC. The widespread use of copper at Norşuntepe is mostly associated with the copper deposits of Ergani (Hauptmann, 1976: 55; 1982: 31) which is located 30 km (as the crow flies) south of Norşuntepe.

Administrative paraphernalia is another set of evidence at Norşuntepe, suggesting that administrative practices took place as early as the LC 2 period (Hauptmann, 1976: 55). They consist of clay bullae and several oval, round, and rectangular shaped stamp seals depicting mainly geometric designs and figural motifs with contemporaries at Tepe Gawra XI-IX (Tobler, 1950: Pls. 166, 116; 167, 135).

The pottery assemblage of the LC period is mainly categorized by the Wide Flower Pot with standard shape and size (east version of Coba bowls), especially common in

level 10 in area J-K/18-19, and CFW. There are also Dark-Faced-Burnished Ware and Graphite Ware types. The latter type is dated to very end of the Middle Chalcolithic, decreasing in number in the succeeding period (Gülçur & Marro, 2012: 310).

Typical vessel shapes are simple-rim bowls (quite common), carinated bowls with out-flaring simple rims (rare), and large bowls with straight walls and everted rim (rare). Among the closed shapes are wide-necked jars with simple rims. There are also samples of hole-mouthed jars with a simple rim (Gülçur & Marro, 2012: 312-315). Other types are carinated bowls, bowls with an inner bevelled-rim and flange rim jars. Among the painted ceramics particularly significant is Sprig Ware, the widely distributed type attributed to Tell Shelgiyya, and Gawra XI-IX as well as attested in the Cizre Plain and Khabur Basin (Gülçur & Marro, 2012: 322-323).

Located in the east of the Altınova Plain, **Korucutepe** phases A-B are also associated with the LC period (Figure 3) (Marro, 2010: 51, Table 1), known only from a small area at the northwest area of the mound (van Loon, 1971: 47-48, 1972: 79-80; 1973: 358-361). Based on the radiocarbon samples and ceramic sherds taken from the site, the earliest LC phases A and B were dated to the LC 1 and LC 2 periods (*ca.* 4259 BC) (van Loon, 1973: 359).

The only architectural remain is a yellow-plastered mudbrick building that was rebuilt in different strata. Despite stratigraphic gaps due to modern damages, the building shows a cultural and ceramic continuity (van Loon, 1973: 359; Marro, 2010: 50) between the earlier and later phases.

The technological similarities between the ceramics of phases A and B, however, involve different pastes. While phase A is chaff-faced, mainly dark-coloured, and burnished (van Loon, 1973: 359) and mostly associated with Ovçular Tepesi in Azerbaijan (Marro, 2010: 49), phase B is mainly chaff-faced and chaff-tempered (van Loon, 1972: 80). The pottery of this phase is widespread from the Amuq to Kura Basin between the LC 2 – LC 4 periods. According to Marro (2010: 49-50), the pottery repertoire of phase B, including wide-necked jars with or without everted collars, beaded-rim-bowls, and small footed bowls has close affinities with the last

Chalcolithic levels of Norşuntepe. Among the small finds are obsidian blades, an animal figurine, and clay spindle whorls (both conical and biconical) (van Loon, 1973: 358).

**Fatmalı-Kalecik** is a small mound, less than one hectare, and is located 30 km north of Elazığ (Figure 3). It would represent a village whereas in the plain the towns like Norşuntepe and Tepecik are considered to have urban features (Hess et al. 1998: 57). It has been dated to the beginning of the 4<sup>th</sup> millennium BC, based on the charcoal data (Hess et al. 1998: 58). The only architectural remains consist of several rooms and courtyards in which metallurgical artefacts, especially silver, were recovered (Hess et al. 1998: 58). Interestingly, silver sources are only 27 km south-west of Fatmalı-Kalecik (Hess et al. 1998: 58). In addition to pottery, stone artefacts such as obsidian and hammer stones, plant and animal remains (Lupton, 1996: 28), silver slags, litharge (a lead by-product), and a tiny copper fragment were also found, but in small numbers (Hess et al. 1998: 59). According to Lupton (1996: 28), based on the low quantities, metal production was carried out on the household level, which indicates that metal production was not a centralized activity.

#### 4.2. Discussion

The widespread distribution of several pottery types, similar seal depictions as shared *mentalite*, obsidian, and the initial interest in metallurgy are indications of increasing social complexity. This also coincides with the existence of a noticeable exchange network. The increasing propensity toward an urban life, especially in the first half of the 4<sup>th</sup> millennium BC, was documented in the Khabur basin in the east-west axis where several large size sites were identified. It seems that the shift from household production to workshops is evident to varying degrees especially at Tell Brak, Tell Feres, and Tell Kosak Shamali. During the LC 2 period, we have specialized craftsmen and potters. The Altınova plain seems to have benefited from being close to the mineral sources so that they produced their own metal objects, which is a feature of *longue durée*. Finally, the numbers of administrative tools are good indications of personal ownership and social differentiation. Perhaps a best example of *conjoncture* is the gradual change in social *structure* of Hacinebi and Tell Brak, where there is the evidence for administrative practices, metallurgy, non-local

products, all of which made the sites socio-economically more developed compared to other sites located in the valley, such as Tilbeş, Horum, Hassek, Kurban Höyük.

## **CHAPTER 5**

### **CULTURAL LANDSCAPE IN NORTH MESOPOTAMIA DURING THE LC 3-LC 5 PERIODS**

This chapter analyzes the socio-cultural, economic, and political structure of northern Mesopotamia in the LC 3, 4, and 5 periods (*ca.* 3700-3000 BC) by looking through the data obtained from excavations and survey projects carried out in north Mesopotamian sites. In order to establish the material correlations between north and south Mesopotamia, this chapter will begin by briefly defining the Uruk phenomenon, which was in fact of south Mesopotamian origin, and its material culture. By saying briefly, it is meant that although the Uruk phenomenon in Mesopotamian archaeology has been a considerable subject of debate, this chapter will touch only upon the cultural features attributed to the Uruk that left a very wide range of influences across north Mesopotamian sites, especially in the LC 3, LC 4, and LC 5 periods. At the end of the chapter, the overall evidence will be summarized and the possible association with the *Annales* paradigm will be discussed.

#### **5.1. The Uruk Phenomenon in the Homeland**

In southern Mesopotamia the chronological and cultural phase following the Late Ubaid phase is called the Uruk period in Mesopotamian archaeology and is roughly dated to *ca.* 4150-3100 BC (Rothman, 2001a: 7, Table 1.1.; Wright, 2001: 125). In the Uruk period, south Mesopotamia witnessed major social, political, and economic developments that eventually gave rise to early state formation and urbanized societies in south Mesopotamia, sometime in the second half of the 4<sup>th</sup> millennium BC (Adams, 1981; Johnson, 1973; Algaze et al. 1989: 571; Algaze, 1993; 2001: 30 and 34; Stein, 1994: 35; Pollock, 2001: 181; Bernbeck & Pollock, 2005: 16; Yoffee,

2004).<sup>14</sup> Although during the Uruk period most of the settlements reached a large size, none of them showed the same growth as Uruk/Warka city (Pollock, 2001: 189), a city which stood as the only and the largest site in the southern lowlands throughout the Uruk period (Nissen, 2001: 154). Uruk/Warka city was *ca.* 100 ha during the Middle Uruk period (*ca.* 3800-3350 BC), while it reached 250 ha during the Late Uruk period (*ca.* 3350-3100 BC) (Bernbeck & Pollock, 2005: 16; Pollock, 2001: 191-192).

Based on the pollen samples taken from the southern Zagros and Lower Mesopotamian plains, the environmental conditions at this time offered a dense vegetation and oak forests in the mountains. However, from *ca.* 3500 BC onwards, the southern area became less humid (Wright, 2001: 128). As the sea level declined between *ca.* 4300-3500 BC and the population increased, the increasing aridity of the Uruk period led southern communities to establish new settlements nearby riversides and irrigable and arable lands (Kennett & Kennett, 2006: 90-91). Therefore, in the southern Mesopotamian landscape, agriculture, as the basic subsistence strategy, was only possible through irrigation, which eventually accelerated the construction of complex water canals for a greater reliance on agriculture (Adams, 1989; Algaze et al. 1989: 587; Roux, 1992: 66; Tamburrino, 2010: 22). Moreover, wool production for domestic consumption seems to have remained an important industry throughout the Uruk period (Bernbeck & Pollock, 2005: 16).

While it is logical to assume that environmental conditions together with population movement towards arable and irrigable lands increased the social complexity in south Mesopotamia, a series of decisions seems to have affected the spatial distribution of the southern lowlands. The settlement distribution in south Mesopotamia appears to be concentrated in two main areas: Nippur/Adab (north) and Uruk/Warka (south). In the Early and Middle Uruk period (LC 2-4), the Uruk/Warka area saw a spatially lesser density of occupation. As in the subsequent Late Uruk (LC 5) the number and density of occupations and population increased (Adams, 1981: 60-61). In comparison to the mono-nucleated Uruk/Warka area, at least four large sites (20-50 ha) were surrounded by smaller size settlements in the Nippur/Adab area

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<sup>14</sup> For further information about the emergence of state and urbanism in south Mesopotamia *see also* Algaze et al, 1989, Algaze, 1993; Adams, 1981; Johnson, 1973; Yoffee, 2004; Kennett & Kennett, 2006.

in the LC 2-4 periods, while in the LC 5 the settlements become scarcer (Pollock, 2001: 191-191, Figs 6.3-6.4). There was presumably a variety of reasons, such as socio-economic sanctions *e.g.* heavy tribute demands (Pollock, 2001: 192), environmental advantage and easy access to daily needs to explain why the rural population may have preferred to remain in the Uruk/Warka area.

At Uruk/Warka city excavations revealed a series of levels datable to the Uruk period: levels XI-X (Early Uruk), levels IX-VI (Middle Uruk), and levels V-IV (Late Uruk) (Charvát, 2002: 99-100). Although there is a lack of complete data concerning the architectural layout of the entire city of Uruk/Warka (Algaze, 2001: 33; Nissen, 1998; 2001), the building program in especially the center of Uruk/Warka city, which is well-understood (Algaze, 2001: 32) provides another set of evidence for understanding Uruk culture, especially from the second half of the 4<sup>th</sup> millennium BC onwards. A defensive wall surrounded the heart of the city, where large public structures were located (Nissen, 2001: 154). The center of the city not only consisted of religious structures but especially in the LC 5 the core of the city seems to contain some other monumental types. These buildings, though their functions remain unclear, would not have had a religious function, as they contain no offering tables comparable to the religious structures (Algaze, 2001: 33).

The construction of public structures in tripartite plan and the elaborate embellishment of the walls with wall cone mosaics appear in level 12a, and become well documented in the subsequent layer V while climaxing in layer IV, where there is a series of both public and individual structures (Charvát, 2002: 101-106). The same architectural layout of T-shaped planned central halls in levels VI, V, and IV seems to have been applied continuously, as new structures were constructed over the old ones. A different pattern in these temples is that unlike their Ubaid predecessors, these temples have numerous entrances cutting the walls (Roux, 1992: 68-69; Charvát, 2002: 103-104). The social meaning attached to these structures, being at the heart of the city and visible from a long distance, may indicate that religion played not only a central role for social control (Algaze, 2001: 33), but also these structures were significant for the ordinary people living in the city.



On the other hand, the population movements and the increasing population over time naturally brought along some social, economic, and political changes that can be clearly perceived in the archaeological record. Furthermore, technological developments accelerated the emergence of socio-political organizations and social differentiation. Of particular significance is the appearance of various forms of record keeping paraphernalia including the clay tokens in level VI, cylinder seals appeared initially in level VII with clay bullae and tokens (Bernbeck & Pollock, 2005: 16) and the earliest numerical clay tablets in level IV of the Eanna precinct of Uruk. These gave rise ultimately to the pictographic system (Nissen et al. 1993: 13-14). Especially since most of the 4<sup>th</sup>-millennium texts are “economic” or “administrative”, these texts help us to visualize bureaucratic measures of the Uruk society (Zimansky, 2005: 312).

Iconographically, these seals, in particular, depict physical violence, hierarchy and domination between two different groups of people (Bernbeck & Pollock, 2005: 16). Therefore, it would not be wrong if we claim that the depicted scenes and individuals on various forms of materials actually show the level of social welfare and social difference in the Uruk world.

With its pottery manufactured on the fast wheel and predominantly mineral-tempered, the ceramic repertoire of the Uruk culture consists of a standardized variety of forms and types professionally made (Nissen, 1972: 100). In the Early Uruk period, round-lip and tapered beveled-rim bowls, neckless ledge-rim jars, high-band-rim jars, and expanded-rim jars are prevalent (Wright, 2001: 125). In the Middle Uruk period, BRBs appear to be common everywhere, while in Warka they are unearthed in level IX onward (Charvat, 2002: 100). In this period, there is also a series of small jars with straight or ledge rims and large jars with straight, expanded, and ledge rims were made on sand or grit tempered wares. Having conical spouts and plain strap handles, these assemblages were decorated with reserved slip, red slip, simple grooving, or simple crosshatch-incised bands (Wright, 2001: 125; Stein, 2001: 286). The characteristics of the Late Uruk period are mostly sand-tempered wares and include band-rim bottles and other jars with markedly drooping spouts, groove and oblique and complex crosshatch-incised decoration, and twist handles (Wright, 2001: 125).

### 5.1.1. Mysterious bowls: Beveled Rim Bowls

As a completely Uruk innovation, one of the outstanding ceramic forms is the BRB, which appears first in level XII in Uruk and continues until the end of the level IV. It in turn shows a wide distribution over time and space across many north Mesopotamian sites (Figure 4) (Millard, 1988: 53; Porter, 2012: 97). In addition to those from Uruk/Warka, they were often made locally of chaff or grit-tempered clay (Stein, 1999a: 16; Potts, 2009). These vessels average 10 cm in height, and 18 cm in diameter, while the base is half of the rim (Millard, 1988: 50).

The widespread distribution of the BRB over long distances (van de Mieroop, 2004: 36, map 2.2) has led many archaeologists working in this period to propose uses for these bowls, such as votive offerings (Beale, 1978), ration containers, food containers used by Uruk aristocracy in large banquets, salt containers, and yoghurt making containers (cf Millard, 1988: 50-51; Porter, 2012: 96). However, even though it was a different geography more or less contemporary, we know that similar vessels were used in Egypt as bread moulds during the Early Dynastic period *ca.* 3200 BC. Drawing upon this analogy, Millard (1988: 52) suggests that these bowls were primarily used as bread moulds.

All these implications given above already showed that there is not only one form of these containers but that they can be adopted by anyone because of the technical advantages of manufacturing and their benefits (Porter, 2012: 96). Because their purpose is not fully understood, there are still ongoing discussions about their use<sup>15</sup>. It is noteworthy that their adoptions by the northern communities along with temporal and spatial distribution throughout Uruk and Uruk-related sites in north Mesopotamia signifies a common interest, and presumably a common function. Therefore, it seems more convincing that these bowls were used to make bread because of its thick wall, which was enough to absorb heat for baking the dough without burning it. This light baking, at the same time, made possible to make beer-bread (Millard, 1978: 52-53).

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<sup>15</sup> For further details about the implications *see also*, Millard, 1988: 51; for recent discussions on BRB *see* Porter, 2012: 96-103

### 5.1.2. The Uruk Expansion as a “Corollary”

During the mid-4<sup>th</sup> millennium BC, the southern world seems to become more interested in the outside world. It was at this time that northern Mesopotamia became one of the focal areas for the southern world to contact (Helwing, 1999: 91; Frangipane, 2001a; Sagona and Zimansky, 2009: 146; Ur et al, 2011: 8; Stein, 2012: 141). From the north Mesopotamian viewpoint, this contact with the southern world, brought about several new and non-local cultural trends and components, such as architecture, ceramic technology and typology, and glyptic styles that over time reached a number of sites across the high plains of northern Mesopotamia up to north Syria and eastern Anatolia. Based on the excavations and survey projects carried out in north Mesopotamia, Uruk material elements are particularly well attested at the sites located in the Middle Euphrates and Khabur region (Stein, 1999a; Frangipane, 2001a; 2002, 2004: 126; Sağlamtimur & Ozan, 2013: 514; Tırpan, 2013: 467).

Although one cannot deny the fact that traces of the Uruk material culture were found over very long distances, there is, however, very little direct evidence of the Uruk site itself (Nissen, 2001). The wide distribution of the Uruk material culture has been interpreted to result from an “Uruk Expansion”. Algaze has proposed this expansion as a quest for raw materials –such as metal ores, timber, and semi-precious stones with Urukian communities establishing colonies far from their homeland-periphery. These communities fed the core - center (Uruk/Warka) - by exploiting available sources in northern Mesopotamia and elsewhere, because southern Mesopotamia lacked any of these natural materials (Algaze, 1989; 1993; 2001: 67). Algaze’s proposed model has been criticized by many scholars especially those whose research focuses on northern Mesopotamia (Stein, 1999b; Nissen, 2001; Rothman, 2001b: 352-53; Frangipane, 2001a; Tırpan, 2013: 468, Emberling and Minc, 2016: 819-20).<sup>16</sup> It seems that the interaction at any level between the two spheres of Mesopotamia does not imply that Lower Mesopotamia dominated Upper Mesopotamia politically (Lupton, 1996: 39). Nor did the two regions experience

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<sup>16</sup> For instance, in his critique of the World System Gil Stein (1999b) argues that Uruk could not have afforded to enforce political and economic control over these long distances and that other circumstances may explain the Uruk cultural elements at the far distance. Another critique by Frangipane (2001a) is that Algaze did not pay enough attention to the socio-political developments of northern Mesopotamia, which he describes as “periphery”, and tries to explain the Uruk expansion only from the southern perspective.

parallel social, religious, economic, and political developments (Stein, 2012: 126). Rather, it was based on some form of reciprocity between two spheres (Lupton, 1996: 39). In relation to the Uruk expansion specifically, this process took between 500 and 700 years to occur within the area of Greater Mesopotamia (Porter, 2012: 83, figure 6; Lupton, 1996: 39). This dating is confirmed through improved calibration systems of radiocarbon dating (Wright & Rupley, 2001) and recent excavations carried out in various areas of the northern sphere.

## **5.2. Local and Interregional Complexity of North Mesopotamia during the LC 3-5 Periods**

At the time of the Uruk expansion, on the other hand, there is also the evidence in north Mesopotamia for an increasing propensity towards social complexity, powerful leadership, and political centralization in the LC 3, a period that remarkably maintains a continuity of material culture from the previous LC 2 period (Stein, 2012: 139-140). Furthermore, there is solid evidence at this time for the appearance of “true urbanism” in north Mesopotamia (Oates et al. 2007; Stein, 2012: 140; McMahon, 2013).

Undoubtedly, one of the reliable indicators of intra-regional interactions is the ubiquitous repertoire of pottery types, mostly chaff-tempered and hand-made in similar or even the same forms throughout north Mesopotamia. Of particular interest are casseroles and hammer-head bowls that were attested in various sub-regions of the area between the Euphrates and Tigris rivers (Schwartz, 2001: 238; Frangipane, 2012a: 44, Sağlamtimur & Kalkan, 2015: 60). Another characteristic feature of the LC 3 period associated with pottery production is the use of potters’ marks. This is especially noticeable at Arslantepe and Tell Brak. Different from previous production techniques are bowls with flint-scraped bottoms (Frangipane, 2012a: 44). Despite having similarities in form and production technique, it is difficult to speak of a homogenous distribution in all northern Mesopotamia. Rather, there are regional and chronological variances among all its sub-regions (Schwartz, 2001: 239).

Another set of data indicating that symbolic and ideological values were being shared among the northern Mesopotamian communities are the eye/spectacle idols. These idols may have been introduced in the LC 2 period tradition and despite local

variances (Stein, 2012: 138, fig. 8), occurred in sites like Hacinebi, Hamoukar, Tell Brak, and Gawra (Frangipane, 2012a: 46; Stein, 2012: 140; Marro, 2012: 12). Another element is that the iconographic depictions on seals and sealings are widely shared in settlements like Hacinebi B1, Gawra VIII, Tell Brak LC 2-3, and Arslantepe VII (Frangipane, 2012a: 46).

As noted above, although the LC 3 period bears the traces of an increasing intra-regional interaction network and substantial cultural connections in north Mesopotamia (Frangipane, 2012a: 44; Stein, 2012: 140; Schwartz, 2001: 238), local and specific cultures also exist in its the sub-regions (Frangipane, 2012a: 46). Therefore, each of these sub-regions (the subject matter of this study) had a different degree of social mobility and cultural diversity in their own landscapes.

### **5.2.1. Northeast Mesopotamia during the LC 3-5 Periods**

In the Iraqi Jazeera, the LC 3, LC 4 and LC 5 provide a varied social and cultural horizon of continuity and change. During the early LC 3 period, many sites like Tepe Gawra, Helawa, Grai Resh, Qalinj Agha, Musharifa, Rifan, Arpachiyah, Khirbet Yosef, and Tell Nader were abandoned (Rothman, 2001b: 381; Peyronel & Vacca, 2016: 95). In the northern piedmont, it can be noted that although the LC 3 and LC 4 periods are not well-understood due to the inadequacy of the available data, the change between these two periods seems on the contrary to be very little (Rothman, 2001b: 382).

**Tepe Gawra** was abandoned before the establishment of Habuba Kabira, Nineveh IV, or Arslantepe VIA, and re-occupied, in level VIII, *ca.* 3700-3600 (Figure 5) (Rothman & Peasnell, 1999: 106). Contemporary with Hacinebi phases B1 and B2, Tepe Gawra level VIII corresponds also to the initial movement of the southern Uruk outward (Rothman & Peasnell, 1999: 109). Though religion seems to be still an active part of the VIII community just as in levels X-IX, in contrast to them, the number of residential houses is few (Rothman, 2001b: 390; Rothman & Peasnell, 1999: 110). Although four structures excavated in Level VIII were initially described as temples, recent reconsiderations clearly demonstrated that they have different non-religious functions (Rothman, 2009: 19).

Of particular significance are the ones found in level VIII A that are substantial in size and surrounded by large courtyards. These buildings have craft areas in which various materials including seals, beads, and obsidian tools were being manufactured. Another building called the “central warehouse” has a comparable form at Tell Sheikh Hassan (Rothman & Peasnell, 1999: 109). In one of these tripartite buildings situated very close to the warehouse were found sealings depicting bulls, dogs, and snakes. Interestingly, the same depictions were found in other buildings. It is suggested that the same person was responsible for both the warehouse and flow of goods. This implies that the political actors were involved in a large-scale network system (Rothman & Peasnell, 1999: 110; Rothman, 2001b: 390).

At **Helawa** where the surface collection comprises mostly LC 1 and LC 2 ceramic sherds, the absence of the characteristic LC 3 pottery such as hammer-head bowls and casseroles and the Middle Uruk types suggests that Helawa was abandoned during the early LC 3 period (Figure 5) (Peyronel & Vacca, 2016: 91 and 116). Although the presence of an enclosure wall at **Grai Resh** (Figure 5) during the final stages of the 5<sup>th</sup> millennium BC was interpreted as a response to potential conflict (Kepinski, 2011: 69), the idea needs further evidence, such as skeletal trauma, or weapons. The only surface materials associated with Uruk are numerous fragments of BRB, while there are no representative Uruk forms. Thus, Grai Resh seems to be unaffected by the Uruk expansion and abandoned *ca.* 3600 BC (Kepinski, 2011: 68-69).

It is worth noting that until recently our archaeological knowledge of the LC period in Iraqi Jazeera was mostly known through the Tepe Gawra excavations, a small center with Northern Ubaid-LC 1-3 levels, and through the surveys and excavations carried out in the Saddam Dam basin (Rothman, 2001b: 378-386). Therefore, Iraqi Jazeera has not been fully explored. This part of north Mesopotamia, however, has recently been a target of new archaeological projects providing significant amounts of data for the reconstruction of ancient sites and associated settlement landscape (Kepinski, 2011; Peyronel & Vacca, 2016; Gavagnin et al. 2016; Ur et al. 2013).

According to the preliminary report of survey on the Erbil Plain, ‘southern’ Uruk forms were found in eight settlements (Ur et al. 2013: 110, fig. 15). It is, however, currently asserted that both **the plains of Erbil** and **Mahkmur** experienced a high density of occupation with southern features in the second half of the 4<sup>th</sup> millennium BC (Peyronel & Vacca, 2016: 120). In **Makhmur** and **Kirkuk plains**, at Tall al-Nul, Gird-iRes and at Tepe Yorgan (levels VIII-IX), the characteristic forms of southern Mesopotamia such as BRBs, bottles, and drooping spouts were recorded (Peyronel & Vacca, 2016: 118). Furthermore, Khani Shaie in the **Bazyran Valley** (Figure 5), a small settlement with a Late Uruk phase yielded a numerical tablet with cylinder seal impression, though unstratified (Kopaniyas et al. 2015: 24). The recent projects in Iraqi Kurdistan make it possible to document significant numbers of BRBs in sites like Tell Begum (Early-Middle Uruk) in the Shahrizor Valley, Gurga Chiya (Late Uruk), and Surezha (LC 1-4) in the Erbil plain (Figure 5) (Kopaniyas et al. 2015: 12, 21, and 50).

It seems that **Kuyunjik**, the larger mound of Nineveh, which was an important center in the 4<sup>th</sup> millennium BC (Figure 5) (Algaze, 1993: 37) was re-occupied and sustained its growth (Rothman, 2001b: 382). At Kuyunjik, due to old excavation techniques and small sampling from deep soundings, Nineveh 3, representing a local culture, is less known (Rothman, 2001b: 383) than the subsequent Nineveh 4 or Late Uruk period, where all the ceramic specimens represent completely “classic Uruk” wares (Frangipane, 2009: 33).

The site has a number of typical materials of Uruk culture, including pottery, accounting practices, glyptic and iconography (Algaze, 1986, Algaze et al. 1989: 578). In comparison with the so-called “Uruk colony” sites along the Euphrates (Habuba Kabira, Tell Sheikh Hassan), which were established on virgin soil, Nineveh had a preexisting settlement occupation (Algaze, 1986: 130). The outstanding pottery forms are small jars with nose-lugs, jars with droop spouts, small bottles, and BRBs (Emberling & Minc, 2016: 9).

In **northern Jazeera**, the number of settlements increased from 47 in the Ubaid period to 68 in the late 4<sup>th</sup> millennium BC (Wilkinson, 1990b: 56). However, southern Uruk materials were recovered from only seven sites (Wilkinson & Tucker,

1995: 43-44, fig. 35). The settlement pattern in the region mostly remained unchanged, suggesting small village-size communities (Wilkinson & Tucker: 1995: 44-45). Several specimens of the Uruk pottery repertoire including BRBs and drooping spouts or nose-lugs have been documented in sites nos. 75 and 139 (Wilkinson, 1990b: 56). The exceptionally large Tell al-Hawa was an important center in the LC period (Figure 5). While Uruk sherds are scattered on the mound and plant-tempered and sand-tempered Late Uruk ware predominate a variety of both Middle and Late Uruk wares<sup>17</sup> were documented through surveys and deep soundings (Trench LP). One reason that the Uruk material does not show an even distribution throughout the mound (Ball et al. 1989: 31) is because it is hidden by the dense settled areas of the mound in later periods, particularly with Nineveh V and Khabur ware (Wilkinson, 1990b: 55).

Although unpublished and still under discussion, both LC and Uruk materials were collected within the scope of the **UZGAR**<sup>18</sup> project in the **Greater Zab** area. While local LC 1-5 sites number 15, “Southern Uruk” is represented by only 2 sites (Koliński, 2012; 2014: 10, table 3). Interestingly, in the survey carried out in the northern part of Nineveh, the **northeast Jazeera**, within the scope of **LoNAP**, Uruk ceramic types have also been documented to a limited extent. These fragments were entirely found in the Navkur plain, and consist of a BRB sherd, a jar with nose lugs and cordoned decoration, and a jar with flaring rim with parallels at Tell Brak CH and TW (levels 9b-11), Tell Leilan, Hacinebi B2, and Tell Mohammed ‘Arab (Gavagnin et al. 2016: 130). A possible explanation of the limited Uruk material may be that the interaction was very limited, and there was no well-established long-distance trade route. Even if there was, the surveyed area may not have been situated in this network system (Gavagnin et al. 2016: 130). In contrast with few Uruk sherds, are a number of locally made pottery forms such as hammer-head bowls, casseroles, and jars with an internally grooved neck (Gavagnin, 2016: 130).

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<sup>17</sup> The excavators used the terms “earlier” and “later” Uruk ware (Wilkinson, 1990; Ball et al. 1989) rather than Middle and Late.

<sup>18</sup> The Upper Greater Zab Archaeological Reconnaissance Project aims to investigate both sides of the Greater Zab river and foot of the mountains of Kurdistan (retrieved from, <http://archo.amu.edu.pl/ugzar/indexen.htm> ; April, 2018)



Further north, the **Cizre-Silopi** region in Turkey, is characterized mostly by hammerhead rimmed bowls and carinated casseroles of CFW known also as the Amuq F assemblage, which shows a widespread distribution from the Zagros Mountains to the Middle Euphrates basin (Algaze, 1989: 247). A total of 16 local LC sites dispersed across the plain, though mostly near water sources, were recorded in the surveyed area, but it is difficult to determine a possible settlement hierarchy. Since half of these sites also have Ubaid period materials, there appears to have been a continuity of occupation (ignoring their settlement history) between these periods (Algaze et al. 2012: 20). It is noted that very few numbers of southern Mesopotamian grit-tempered sherds were discovered in Cizre-Silopi region, and only at Basorin and Rubaikale (Figure 5). At Basorin, in addition to Amuq F types and half a dozen BRBs, were found a handful of conical cups with string cut bases and one typical ledge-rimmed jar (Algaze et al. 2012: 19).

In the Upper Tigris River valley, a total of 61 sites were recorded (Brancato, 2017: 55). This shows an increased density of settlements during the 4<sup>th</sup> millennium (Algaze, 1989: 244). The Upper Tigris region is characterized by the Amuq F Chaff-Faced assemblage that was hand-made and orange-buff in colour (Brancato, 2017: 55). The characteristic assemblage comprises mainly wide necked-jars with short, everted collars and mass-produced hemispherical bowls with simple or beaded rims bowls (Marro, 2010: 37).

Excavations conducted on the southern slope of **Başur Höyük** provided a significant amount of LC 5 material culture associated with southern Mesopotamia (Figure 5). It is suggested that during the LC 5 period, a city wall surrounded the site. It is noteworthy that the public buildings were built on a platform made of pebble stones, whereas the domestic buildings were constructed on terraces, east and west of the public buildings (Sağlamtimur et al. forthcoming).

Another peculiarity is that some infrastructure was installed before the construction activities, including drainage pipes for waste water, similar to examples at Habuba Kabira Süd (Sağlamtimur & Ozan, 2013: 14). Several structures with long corridors probably functioning for storage were recovered together with a building containing typical examples of southern Mesopotamian clay nails and stone eye inlays for

sculptures (Sağlamtimur et al. forthcoming). The pottery of this phase that is attributed to the Uruk culture is mainly mineral-tempered. In addition, mould-made and chaff-tempered BRBS are the predominant Uruk types. The conical bowls have the traces of strings marks on their bottom. There are also spouted, lugged, neckless jars as the Uruk types alongside examples of hammerhead bowls and carinated bowls in the LC 5 period (Sağlamtimur & Kalkan, 2015: 62).

At **Giricano** (Figure 5), a regular planned building in its southern section is 6 m in length. Several materials including BRBs and painted ceramics together with a bulla dated to mid-4<sup>th</sup> millennium BC were uncovered in it (Schachner & Schachner, 2003: 453; Brancato, 2017: 56). At **Aşağı Salat Höyük** (Figure 5), level VII yielded a broken terracotta wall mosaic and several BRBs around a square platform made of recycled materials primarily pivot stones, grinding stones and raw stones probably for processing (Şenyurt, 2004: 643-644). The LC 4 assemblage at **Salat Tepe** (Figure 5) is represented by grit-tempered monochrome conical cups, necked jars, and bowls with thickened rims. The main Uruk materials are a few BRBs and combed or incised vessels (Ökse, 2017: 44).

It is evident that not all the LC communities in the **Upper Tigris River** valley produced the Uruk material components, such as pottery, glyptic, and architectural style. For instance, at Hirmeberdon Tepe, although the earliest phase of the Outer Town is contemporary with LC 3 (Figure 5) (Nanucci, 2016: 18), no assemblage associated with genuine Uruk was detected. Rather, the LC 3 phase is characterized by the early and late CFW form of hammerhead bowls and casseroles (Nanucci, 2016: 19). Similarly, several domestic buildings in Areas F and G at Kenan Tepe are contemporary with the LC 4 and LC 5 periods (Foster, 2012: 442). The pottery assemblage is represented by three main categories: Simple Ware, Chaffy Ware and Cook Pot. Although there are no “true Uruk” forms, there are similar types including coarse bowls with a string cut base, incised geometric designs on jar shoulders, a flared ‘round-rim’ jar with a tall neck, and a jar with ledge rim (Creekmore, 2007: 94-95).

### 5.2.2. Northwest Mesopotamia during the LC 3-5 Periods

One cannot admit that the movement from the south towards north Mesopotamia was the result of a sudden decision or a single-process that suddenly occurred. Nor that it took only a short time. Rather, the “expansion” has *ca.* 700 years of life span in various directions and movements. It is suggested that this movement chronologically “... is just a source of circumstantial evidence” (Porter, 2012: 88). While the first tendency of southerners was toward the zones that were in the immediate vicinity, such as Qraya and Abu Salabikh to the north (Porter, 2012: 88), the material indicator of a first contact between the Uruk world and north Mesopotamia appears at Tell Brak (Figure 6), where five BRBs were documented in Level 16 (Oates & Oates, 1993: 181).<sup>19</sup> Up to now, based on the survey and excavation projects carried out across north Mesopotamia, these bowls produced the first association with north-south contact, as early as the LC 3 period. Although a possible dating for these bowls was initially proposed during *ca.* 3500 BC (Oates & Oates, 1997: 291), it recently goes back to *ca.* 3600 BC or even earlier (Porter, 2012: 88).

What is more attractive is their find spots in the so-called “feasting hall” first built in Tell Brak’s Level 18a and continuing in use through Level 14 (Figure 7a) (McMahon et al. 2007: 149; Oates et al. 2007: 594). The reason why this building is defined as a “feasting hall” is because it has large ovens in the northern courtyard, along with the faunal remains for large-scale meat consumption (Oates et al. 2007: 594-595). It is, therefore, not obviously a temple. However, it is also suggested that the building was a guesthouse in which travelers could stay, because of being close to the north gate (Oates et al. 2007: 594).

In this scenario of “feasting hall”, the superiority of large ovens along with mass-production of bowls for such constructions suggest that consumption shifts from a single household level to a more ‘common consumption’ level. It is evident that at Tell Brak the construction of these large buildings also required intensive work, and large quantities of materials such as water, straw, mud, and plaster. It is, therefore,

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<sup>19</sup> Lying on the south edge of the Upper Khabur, Tell Brak provides one of the earliest evidences for “true” urbanism (Oates et al. 2007; McMahon, 2013; Stein, 2012: 140). *See also* Chapter 4 (pp. 27-30) in this thesis.

suggested that a “numerical tablet”, recording a large number is referencing to labour obligations (Figure 7c) (Oates et al. 2007: 596; Oates & Oates, 1997: 291). If this is so, then at Tell Brak, we have the earliest tablet as the record-keeping evidence for control of manpower.

In another area contemporary with Level 16, a variety of small finds were found on a heavily burnt house floor including pottery, wooden objects, ivory, a bead of rolled gold sheet and several Eye Idols (Oates & Oates, 1993:178).

While Tell Brak ‘s LC 3 period, primarily local in character, was identified in Area TW Levels 17-14, the following Levels 13-12 are associated respectively with the LC 4 and LC 5 or the so-called “Late Uruk” (Oates & Oates, 1993: Oates & Oates, 1997, Schwartz, 2001: 241 and 242). The local pottery assemblage is represented by CFW that illustrates a widespread distribution in north Mesopotamia from the Karababa area, in Turkish Lower Euphrates, to Tell al-Hawa and Nineveh to the east (Oates & Oates, 1993: 172; 1997: 290). Of particular significance are various symbols incised and impressed on the vessels pre-firing. A similar practice, though lesser in quantity and variety, was also documented at Arslantepe and Amuq (F). These symbols related to pictography were present in north Mesopotamia before the Uruk IV pictographic script (Oates & Oates, 1993: 172-174).

Although no consistent architecture was identified, Level 13 in Area TW produced the local assemblage alongside the southern type. Especially the southern forms have close parallels, in particular BRBs in large quantity, at the “colony” sites like Tell Sheikh Hassan, Habuba Kabira Süd, and even the Eanna precinct at Warka (Oates & Oates, 1997: 291). In addition, a very spectacular cylinder seal in drilled style depicting a bear, two snakes and other animals, as well as a number of spindle whorls were also found in the same area. The drilling style would be common in the Jamdat Nasr period (Oates & Oates, 1993: 176; Oates & Oates, 1997: 291).

The following Level 12 is represented by an abandoned domestic building, which has a unique plan similar to Late Uruk *mittelsaal* type with more or less square rooms each containing keyhole form hearths. This context contained in situ reserved slip jars with drooping spouts, and red-slipped nose lug jars (Oates & Oates, 1997: 292)

very similar with the ones found at Habuba Kabira Süd and Warka (Oates & Oates, 1993: 171). Beneath this building level were excavated numerous rubbish pits, containing a variety of Late Uruk materials: predominantly pottery together with flint and obsidian debris. These flints were presumably for manufacturing blades like the cores and blades were found at Hassek Höyük, which was interpreted therefore as a specialized production center (Oates & Oates, 1993: 174).

In these pits, the remarkable small find corpus consists of the seals, which in general show similarity with Jebel Aruda's sealings. Of particular significance is the scene showing tasseled pots with carrying devices, architecture, and human figures. Also, the Brak owl (lion?) headed creature is unique, suggesting an early Anzu-bird, a figure in the Sumerian and Akkadian mythologies (Figure 7b) (Oates & Oates, 1997: 294). Another peculiar find, which provides strong evidence for metal working during the late-4<sup>th</sup> millennium BC like a contemporary example at Tell Sheikh Hassan, is the impression of a large metal pick-axe, probably made by a wood object. It was presumably a mould to manufacture axes (Oates & Oates, 1997: 295).

At **Tell Majnuna**, situated 450 m north of Tell Brak's main mound, three large mass graves were recently brought to light (Figure 6) (McMahon et al. 2007: 155-156). It is assumed that these mass graves were filled episodically over at least two centuries between *ca.* 3800-3600 BC (McMahon et al. 2011: 205). In the MTW area, at the southwestern edge of the mound, a minimum number of 54 individuals were buried in one mass grave, which was formerly used to discard rubbish (McMahon et al. 2011: 206). Similarly, in another area called EM that is slightly later than MTW at least 89 individuals were buried together (McMahon et al. 2011: 212).

In another part of the Upper Khabur drainage, surface collection conducted in the close environs of Leilan revealed that the pottery assemblages of LC 3, 4, and 5 are predominantly local in character, and share similarities with northern Mesopotamian sites (Figure 6). The local LC period in the surveyed area is characterized by Grey Ware of early LC 3, CFW and local Middle Uruk types of LC-4, while southern Uruk types are very rare and recorded in only 5 sites among the 28 surveyed (Brustolon & Rova, 2007: 32). While the settlement landscape of the surveyed area showed that a trend toward a "proto-urban" development in the LC 3-4 periods

increases, the number of settled sites decreases, in favour of their larger individual size. It seems that during the LC 5 period, most of the settlements were abandoned (Brustolon & Rova, 2007: 37).

Another survey project was carried out in the immediate vicinity of **Tell Hamoukar**. The southern Uruk types were documented in five sites while the local Late Chalcolithic types were documented in twelve sites (Figure 6) (Ur, 2002b: 65 and 67). Among these sites, the Uruk grit-tempered pottery is well-attested in the THS area, especially drooping spouts of LC 5 period (Ur, 2002b: 64). It is, however, notable that although a number of Uruk sherds were collected on the surface of the mound at Hamoukar, no southern Uruk type pottery was found in the excavated houses with the exception of a single BRB (Gibson et al. 2002: 53).

Excavations conducted in area B revealed wells for water supply and large ovens that suggest the large scale of food preparation, presumably “institutional” during the Northern Middle Uruk.<sup>20</sup> Moreover, more than 90 seals (mainly bone together with few stone examples) were found in the same area. The majority of these seals are in the form of animals such as lions, dogs, and hares (Gibson et al. 2002: 53). These seals together with the sealings impressed mostly on bitumen and clay may point to the presence of administrative practices (Gibson & Maktash, 2000, 477, Gibson et al. 2002: 53). The overall sets of evidence including a possible defensive wall, seals and large ovens for food preparation may indicate that before Uruk contact, there existed multiple centers of social complexity, attesting to “...local state-level polities” in north Mesopotamia (Gibson & Maktash, 2000: 477).

The Late Uruk at **Mashnaqa** is represented by a roughly circular enclosure only partially exposed because of time constraints (Figure 6). Otherwise, the walls of several large domestic houses with large hearths were recovered. At the site, both the local CFW and Uruk pottery were documented (Beyer, 1998: 144-147).

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<sup>20</sup> The term Northern Middle Uruk refers to local LC that shows no association with southern Uruk (Gibson et al. 2002: 53).

With the exception of three sites (Merj Abu Sharib, Tell al-Hajjran, and Tell Shrey)<sup>21</sup> (Akkermans, 1988: 318), neither Uruk nor Uruk-related materials were found along the Balikh River (Copeland, 1979: 271). Hammam et-Turkman witnessed a hiatus in its pottery assemblage between its VB and VI periods, which corresponds to the second half of the 4<sup>th</sup> millennium BC (Akkermans, 1988: 317). Further north, the lack of substantive excavations in the Harran Plain prevents us from presenting a comprehensive picture of its archaeological settlement landscape. On the basis of surveys carried out in the plain, however, ceramic sherds of the 4<sup>th</sup> millennium BC were documented in a total of thirty-four sites, six of which at the same time yielded southern Uruk types (Figure 8) (Yardımcı, 1991; 1994; 2004).<sup>22</sup> In addition to ceramics, Uruk type flints at Ömürtepe (Yardımcı, 1994: 265-266) and a blade at Tel Mahruk (Yardımcı, 1991: 405), as well as a baked clay wall cone at Tel İdris were also found (Yardımcı, 2004: 32).

The drier marginal zone of the Middle Euphrates during the 4<sup>th</sup> millennium BC saw the establishment of Uruk centers at **Tell Sheikh Hassan, Habuba Kabira/Tell Qannas, and Jebel Aruda** (Figure 6) (Wilkinson et al. 2014: 76). When the excavations at Sheikh Hassan, on the eastern bank of the Euphrates River, revealed a rich number of southern Mesopotamian materials in its 17 long sequences of the 4<sup>th</sup> millennium (Oates, 1993: 414), the site became associated with the Uruk expansion and named an Uruk “enclave” (Algaze, 1993). Despite the long sequences, C<sup>14</sup> samples taken only from layers 6 and 5 proposed a date range from *ca.* 3680 BC to *ca.* 3200 BC (Wright & Rupley, 2001: 105). The variety of Uruk materials included pottery, architectural types, and record keeping paraphernalia, such as bullae, tokens, and cylinder seals (Stein, 1999a: 18). The pottery repertoire consists of mineral-tempered conical bowls with pouring lip, globular pots with strap handles, small carinated cups, bead-rim bowls, and plain round jars with short neck that have parallels at Hacinebi (Helwing, 2000: 148; Pearce, 2000: 120). It is evident that metal was being processed locally at the site, because there are smelting crucibles (Algaze, 2001a: 208).

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<sup>21</sup> Merj Abu Sharib is located south of Hammam et-Turkman; Tell al-Hajjran is 10 km northeast of Hammam et-Turkman; Tell Shrey is located north of Hammam et-Turkman (Akkermans, 1988: 318).

<sup>22</sup> The six sites are Tel İdris, Küplüce, İkizce, Hamdi Tepe, Para Para and Emirler.

In the Late Uruk period, two other Uruk enclaves (Algaze et al. 1989: 577) at Habuba Kabira Süd, on the west bank of the Euphrates, and Jebel Aruda, to its north, provide further evidence for the Uruk presence in north Mesopotamia. These sites were defined as colonies because they have a variety of southern materials including architectural plan and elements such as brick types and cone wall mosaics, pottery production technology and forms, and administrative and economic equipment, such as bullae, tokens, and numerical tablets (Stein, 1999a: 15; Algaze, 1993: 25-29; Algaze et al. 1989). These features distinguish the sites from their local northern contemporaries.

Among the excavated sites (Figure 8) in the area located between the **Birecik and Carchemish** dams, Horum Höyük (G and I areas), has only one ceramic type indicating Uruk influence: bowls resembling BRBs (Fletcher, 2007: 198). At Tilbeş Höyük (Fuensanta et al. 1999: 208) and Yarım Höyük (Kozbe & Rothman, 2005: 111) both local and Uruk sherds were found. From Tilbeş, Uruk types especially have close affinities with Hassek Höyük and Kurban Höyük VIA (Fuensanta and Mısır, 1998: 231). Şarağa Höyük yielded several BRB rims and drooping spout sherds (Sertok & Kulakoğlu, 2002: 108).

**Zeytinli Bahçe**, on the right bank of the Euphrates, has several superimposed levels of the LC 3-5 periods (Figure 8) (Frangipane, 2010: 181). Prior to the Uruk influence, an occupational phase with mud-brick houses, courtyards, and open spaces contains local elements including CFW (where casseroles predominate); they show a noticeable decrease in the following Middle Uruk phases (Frangipane, 2010: 188). The site appears local during the Middle Uruk period, although there is a marked adoption of the southern pottery assemblage, such as grit-tempered Uruk pottery with Reserved Slip decoration and BRBs (Frangipane, 2010: 189). Although no substantial buildings with special functions were recorded in the Middle Uruk phases, an empty and spectacular structure containing cell rooms separated by thick walls has close affinity with Sheikh Hassan (Frangipane, 2010: 189). Consequently, the essential change between the earlier and later identity of the site during the Middle Uruk suggests that southern people possibly settled and then abandoned it in a short time span (Frangipane, 2010: 190). The LC 5 period with smaller size houses shows a re-interpreted version of LC 3 material culture, creating a hybridization of



the pottery assemblage especially vessel form (Figure 9). While BRBs are not frequent, the band-rim bowls characteristic of the Middle Uruk phase became prevalent not only at Zeytinli Bahçe (Frangipane, 2010: 190-191) but also at sites located along the Euphrates (Algaze et al. 1989).

At **Hacınebi** phase B2 corresponding to LC 4 (3600-3300 BC) (Stein & Edens, 1999: 167-168) shows a similar continuity of material culture with the previous phases in the south and west areas side-by-side with the appearance of Uruk materials (Figure 8) (Stein, 2001: 280). A nearly full repertoire of southern Uruk material culture was detected including pottery types, production techniques and decoration, cone wall mosaics but without associated architectural remains, as well as seals, bullae and tokens (Stein, 1999a: 6; Stein et al. 1996: 215-216; Stein et al. 1997: 115). The pottery production seems to have taken place on the site (Stein, 1999a: 16). Of particular interest are grooved stone weights in cruciform shape associated with measurement that have parallels at Susa, Habuba Kabira, and Sheikh Hassan (Stein, 1991b:18). The presence of an almost complete assemblage of the Uruk culture is interpreted as the establishment of a “trading enclave” on the northeast corner of the mound by a southern group (Stein, 1999a: 16).

Algaze and his team’s survey along the Turkish Middle Euphrates between **Birecik and Carchemish**, provided further evidence for Uruk material culture in the valley (Algaze, et al. 1991). A variety of Uruk forms (mainly BRBs) were documented at sites situated close to the river bed, including, Tiladir Tepe, Kum Ocağı, Şadi Tepe, Komeçli, and Şarağa (Figure 8) (Algaze et al. 1991). The Uruk types were also attested at inland sites like Tilfar and Kabir Höyük (Özdoğan & Karul, 2002). It is reasonable to suggest that communities living along the Turkish Euphrates were settled on preexisting occupations, with the exception of Şadi Tepe and Kum Ocağı, two single-phase occupations according to the survey data (Algaze et al. 1991). These local communities in turn seem to use an Uruk pottery assemblage over some time. Another characteristic feature is that these communities benefited from having the river nearby compared to hinterland sites, with more than 20 sites at close distance to one or two hours away from each other (Can, forthcoming) recorded with LC materials (Algaze et al. 1991). On the basis of two surveys (Algaze et al. 1991; Özdoğan & Karul, 2002), the settlements on both sides of the Euphrates River show

an uneven distribution. The western bank has more LC sites than the opposite side, which may suggest a more intensive socio-economic complexity or better living conditions on the west bank sites.

Traces of Uruk materials were also discovered in the Karababa basin of the Turkish Lower Euphrates. Though the chronological attestation of the various survey projects remains unclear (whether LC 4 or LC 5) (Özdoğan, 1977; Serdaroğlu, 1977; Wilkinson, 1990; Algaze et al. 1992), Uruk pottery was documented for at least 10 sites along the Euphrates, and in a more hinterland area including Lidar, Gritille, Hayaz, KHS-15, KHS- 39, TS-30, and TS 9. In the region, excavated data from various sites provided further evidence (Figure 8). At **Kurban Höyük**, LC levels were found in period VI A-B, in Area A (Figure 8). Although the limited excavations provided no comprehensive picture of architecture, the pottery assemblage of phase VI B consists of grit-tempered vessels with four-nose lugs, drooping spouts, and BRBs while the local pottery is mainly chaff-tempered (Algaze et al. 1990: 422-425). In the subsequent period VI A, the quantity of chaff-tempered ware decreases, while grit-tempered becomes prevalent (Algaze, 1993: 90).

At **Samsat Höyük** excavation levels XX-XXVII provide a wide span for the LC period (Figure 8) (Özgüç, 1992: 152). Since the later periods mostly damaged the LC levels, the architecture could only be characterized by the presence of several domestic houses in different levels (Özgüç, 2009: 88). Both the local ceramic productions such as casseroles and hammerhead bowls and the Uruk assemblage including BRBs are common. Although in the subsequent layers the Uruk types occur together with the local assemblage, they never entirely become the only repertoire (Helwing, 2000: 149-150). Another material linked to the typical Uruk feature, though no associated architectural context was identified, is the cone wall mosaics that were found also at Hacinebi and Hassek Höyük (Özgüç, 2009: 95). Several cylinder seals were found, one of which contains a motif attributed to Late Uruk glyptic (Algaze, 1993).

Although **Hassek Höyük** was defined as a small “Uruk station” with Uruk style pottery repertoire (Figure 8) (Algaze, 1993: 50), the site may be instead of “...indigenous origin and character” (Helwing, 1999: 91). The combination of

pottery – in local forms but southern production technique including the fast-wheel and grit-temper and the adoption of southern forms in chaff-tempered types– can be associated with hybridization (Figure 10) (Helwing, 1999). The site appears to be surrounded by a fortification wall inside which are two tripartite houses typically *Mittelsaal* plan with monocellular rooms around them resembling those found at Habuba Kabira Süd. The rooms were used for multiple functions, such as working areas, and for storage (Algaze, 1993: 50).

In the Upper Euphrates valley, after the abandonment of both its temples of period VII, **Arslantepe** (Figure 6) period VI A (*ca.* 3400-3100 BC), which saw a more concrete and powerful system of the so-called “palatial period”, is characterized by the establishment of several new imposing interconnected buildings (Figure 11) (Frangipane, 2016b: 10). Moreover, it was in this period that metallurgy at Arslantepe reached its climax. The sophisticated metallurgy of Arslantepe is discernible in a variety of materials and forms, in particular weapons. It seems to have held close relations with the Southern Caucasus and the Black Sea coast, where arsenic and copper ores were rich (Frangipane, 2017b: 192).

A large courtyard stands between a substantial building with its thick walls on the one side (Building 37 or “audience building”) and Temple B on the opposite site (Figure 11) (Frangipane et al. 2017: 72). As the audience building has a seating platform, wood remains probably of “chair” or furniture, and very well-designed vessels, it appears to be a place in which the leader and the audience came together in a ceremonial event without religious function (Frangipane et al. 2017: 74-76). Moreover, on the wall of the corridor opening to the audience building and courtyard is a red and black wall painting. It depicts two figures who are bull-like animals looking at each and other “lozenge” motifs. There is also a human figure that is pulling a cart or plough (Frangipane, 2016a: 12, fig. 8 a-b). Interestingly, such a theme is commonly carved on the Uruk seals, one instance of which was found also at Arslantepe. Therefore, the iconographical analogy of this theme, though not on the same material, suggests a hybridity (Figure 12) (Tirpan, 2013: 477).

Unlike the temples of the former period, in which meal consumption took place with the participation of the community, both Temples A and B with their cultic practices

was less accessible to public, though still with communal meals. It is, therefore, suggested that the limited access to these temples shows that they were allocated only to a few people of presumably high status (Frangipane, 2012b: 29-31). These two temples are smaller than the previous Temple C in size and “tripartite” plan gave place to “bipartite” tradition (Frangipane, 2012b: 29). The meal consumption seems to take place in two temples, since they contained a number of vessels, a considerable number of sealings, as well as animal bones, flint blades, a grinding stone, and a mortar (Frangipane, 2012b: 31).

Temple B has several internal architectural elements including podiums, altars, offering tables, a central platform and niches on either side of the walls that have corresponding elements at Jebel Aruda in the Red and Grey temples. Although the bipartite plan of Temple B is distinct from the tripartite Uruk temples, the close affinity between shared architectural elements suggests that Temple B contains some hybrid features (Figure 13) (Tirpan, 2013: 475). Moreover, the walls of the adjoining rooms of Temple B were adorned with “lozenge-shaped” motifs in red colour which might be a replica of Uruk style temple decoration. This decorative style recalls the exterior walls of the public buildings embellished with colorful wall cones in Uruk settlements (Tirpan, 2013: 475).

South of Temple B, three interconnected buildings appear to have been used for storage, though each is functionally distinctive. As the larger room was for storage purposes indicated by vessels and bottles, the smaller room, from which a variety of finds were recovered, including pithoi, jars, cooking pots, three grinding stones, 100 mass-produced bowls, 130 sealings, and animal bones (sheep and goat), served to distribute meals (Frangipane, 2012b: 31; Frangipane et al. 2009: 12). Various kinds of evidence indicate that the redistribution practices carried out in the sacred space in the former period were no longer conducted here. Rather, these practices were performed in a series of interconnected public buildings and were controlled by prominent agents, presumably those of high status (Frangipane et al. 2007; Frangipane, 2012b: 27; Frangipane, 2016b; Frangipane, 2017c: 33; Frangipane et al. 2017: 76). The numerous sealings indicate also that this class of people had discrete responsibilities and tasks in this complex administrative system (Frangipane, 2012b: 33).

In the Altınova Plain, the number of sites decreases in the second half of the 4<sup>th</sup> millennium BC. Four sites (Tepecik, Tülintepe, Körtepe 055/8-9, and Boytepe) were recorded for this period during surveys (Whallon, 1979). At **Tepecik** was excavated a tripartite planned building flanked by rooms and built on stone foundations (Figure 6) (Esin, 1979: 108). The materials found in this structure are linked to Alişar and Alacahöyük in central Anatolia, and to Mesopotamia. It appears that the site had an active role in the production of metal tools in the second half of the 4<sup>th</sup> millennium BC, according to the remains of metal and slags, as well as the residue of a casting (Esin, 1975: 47). The main ware types are Light Simple, Reserved Slip, Red and Grey Uruk including BRBs (see also Algaze, 1993: 70, fig. 34).

### 5.3. Discussion

The overall evidence suggests that the similar cultural traits such as pottery and ideology (eye idols), were shared among the northern communities before and after they encountered the Uruk phenomenon. This helps us to construct the *conjoncture* of north Mesopotamia on a regional basis. On the other hand, it can be suggested that each sub-region had a different degree of social patterns of *conjoncture* embedded in their living environment, while in some cases geographical and ecological aspect of *longue durée* had a certain degree of impact on the nature of relations.

All the sub-regions of the entire Mesopotamian zone had a varying degree of Uruk materials. The frequency of Uruk-related diagnostic materials was in some regions limited, predominantly to BRBs. This is especially the case in northeast Mesopotamia, with the exception of Nineveh and Başur Höyük. It remains unclear why most of the sites located in Iraqi Kurdistan were abandoned during the LC 3. Especially the abandonment of Tepe Gawra with a very highly sophisticated cultural phenomena remains as an enigma. On the basis of the available evidence, it is possible to recognize that northwest Mesopotamia, in contrast, experienced the strong impact of southern Uruk culture because of the establishment of three colony sites. This occurred most visibly in the Middle Euphrates basin, where the evidence also points to a very local complex social system.

## CHAPTER 6

### CONCLUSION

This thesis aimed to bring the importance of geography and environment in the foreground in order to understand the nature of social and cultural continuity and change. Northern Mesopotamia itself does not have a completely integrated geographical structure. For this reason, instead of placing the entire north Mesopotamia into a single picture, a regional basis was followed in order to establish the semantic context of *histoire totale*.

The studied geographical units suggest that the history of communities is embedded in their geography and environment. This implication is based upon at least 30 examined sites in various sub-regions of north Mesopotamia, where each region has its own characteristic diversity and authenticity. For example, although Hammam et-Turkman in the Balikh basin is located close to the Middle Euphrates, Uruk material was not found there despite pottery similarities with Kurban Höyük and Tell Brak (Akkermans, 1988).

In some cases, the individuality of geography and environment may not be a predetermination for understanding the processes of social and historical continuity and change (Braudel, 1995: 10). A basic aspect that stands out and also needs to be consulted may be the forms of social organizations and/or social dynamics. The same environmental conditions may have a different degree of impact on continuity and change of the historical and social interaction processes of sedentary, semi-sedentary, and transhumant groups. This perhaps can be best exemplified at Kenan Tepe (Figure 14). The site appears to have remained entirely local during the LC 4-5 periods, as there are no characteristic Uruk materials, although these were found, especially BRBs, in many other settlements in the Upper Tigris basin. Moreover, the absence of

any monumental or public structures or craft facilities may be associated with the lack of any complexity at the site.

In Braudel's philosophy of history, *longue durée* is emphasized, which places the role of environment in the foreground in shaping human life and socio-economic developments. This perspective can also be applied to the north Mesopotamian environment, where each region has its own environmental advantages and constraints. For instance, the Balikh presents a micro-environmental diversity, although at first glance it may be thought to have entirely fertile lands (Figure 14). However, only the upper zone in the valley seems to be suitable for agriculture and animal herding, which is why it shows a dense settlement pattern especially in the Halaf period. Moreover, a significant number of "prehistoric base camps" were documented throughout surveys carried out around Hammam et-Turkman. This may indicate that seasonal mobility was present, as sherds were documented on the top of the terraces through surveys. Consequently, the lack of urbanization in the *longue durée* and non-participation in the settlement networks may be because of the micro-environmental diversity of the valley (Hritz, 2013). Similarly, the decisive role of environment may explain why there is not only a strong Uruk presence but also how the environment shaped human life conditions there.

In contrast to plains, arable lands and pastures, highlands are the main source of natural and mineral reserves. Although agriculture and livestock are the basic sources of life, the LC communities in several cases exploited the environment more effectively, which takes us a step forward directly to the resources endowed by environment. In the Altınova plain, for instance, metallurgy begins as early as LC 2 and continues throughout the LC period. The Altınova's occupants, at Norşuntepe, Fatmalı-Kalecik, and Tepecik, exploited copper from Ergani Maden, which was 30-40 km distant from the plain (Figure 14). There appears also the exploitation of silver that was available close to the plain. While the effective exploitation of environment is obvious for the Altınova case, the use of metal also indicates that the inhabitants of the Altınova Plain had the knowledge and the technological level for the metal production. In comparison with the Altınova, however, the available evidence in the Upper Tigris basin suggests that despite located in close proximity to Ergani Maden, these communities were not interested in metallurgy, presumably because of their

extent of social dynamics and inadequate socio-economic and technological level (Figure 14). It appears, however, that although there is no metal evidence in the LC levels of Başur Höyük presumably because of the socio-economic factors, the site became highly interested in metal use in the beginning of the 3<sup>rd</sup> millennium BC. Especially the very sophisticated metal artefacts found in the grave contexts are associated with the emergent “elite class” who presumably took control over the local sources and long-distance “trade” (Sağlamtimur & Batıhan, 2017).

With its long history of use, obsidian shows most clearly its wide distribution throughout Mesopotamia. The LC communities, like their predecessors, were particularly interested in the eastern highlands’ obsidian, primarily Bingöl, Nemrut and Meydandağ, which had the main sources of obsidian since the Neolithic period (Figure 14) (Dixon et al. 1968: 43). On the one hand, it is almost everywhere documented in significant quantities throughout the LC period in a variety of forms and functions. On the other hand, obsidian was especially appreciated for making tools because of its durability, but also as a type of prestige item as at Tell Brak and Qalinj Agha. Especially sites like Başur Höyük and Türbe Höyük, where significant amount of obsidian were found, lie at the mid-point between Mesopotamia and obsidian resources located west of Lake Van. Although located far from the eastern highland obsidian resources, Tell Hamoukar, where obsidian dominates the lithic assemblage, is defined an important center for obsidian production and ‘trade’. This center seems to have acquired its reputation because of the socio-economic level of its inhabitants. Procurement of obsidian from distant places must have certainly needed the participation of several prominent figures and a certain degree of skill, experience, and technological development. It appears that the long-term use of obsidian in an extensive landscape overlaps with its eventual replacement by metal in the second half of the 4<sup>th</sup> millennium BC in north Mesopotamia.

Throughout history, social groups who shared a common geography have shown an interest to create or join interest networks for socio-cultural and socio-economic exchange. In this regard, the suitability of geography plays a decisive role in the nature and function of the network. In Mesopotamian geography first come, for sure, the two great rivers Euphrates and Tigris together with their tributaries, which were of vital importance.



Perhaps “man in his relationship to the environment”, the *longue durée* (Braudel, 1972: 20), can be best exemplified by the rivers, where most of the Chalcolithic settlements were established (Figure 15). In the long span of Mesopotamian history, the similar interest in these two great rivers played an important role for imperialist powers such as Sumer, Akkad, Babylon, and Assyria and the location of their imperial capitals. They have thus been defined as the “river civilizations” (Braudel, 1995: 9). Therefore, rivers dominate in the Mesopotamian geography not only for the fertile lands in close proximity but also in establishing a settlement network for trade, exchange, and travel that interconnected along the valleys and at their crossing points.

Although it is archaeologically difficult to provide evidence for transportation on the rivers, riverine navigation seems to begin in Mesopotamia as early as the 6<sup>th</sup> millennium BC (Broodbank, 2013: 290). Moreover, an Ubaid period clay boat model coated with bitumen from Mashnaqa suggests people were travelling on the rivers (McIntosh, 2017: 206). The only evidence for the LC period comes from Hacinebi, where a fragment of reed boat covered by bitumen dated to *ca.* 3800 BC suggests the same idea of travelling (Schwartz, 2002: 617).

Travelling on the rivers by boat was not the only way for the communication network. Although the available evidence cannot provide a well-established overland map of communication routes, the two possible routes from two different periods<sup>23</sup> showed that they were maintained almost unchanged for millennia. One of these routes started from Sippar in the south and continuing along the Tigris River to Nineveh, passing west from Nineveh through Tell Brak, continued northward through the Harran Plain, while another route was on the Euphrates River in the north-south or vice versa direction (Bossuyt et al. 2001: 374). Consequently, each of these routes increased the strategic advantage of all the types of settlements located at the “invisible” intersections in this network.

In other respects, this geographical advantage of the rivers and plains for settlement networks may be restricted by the mountains which have impacts on the socio-

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<sup>23</sup> The 3<sup>rd</sup> millennium BC and the 1<sup>st</sup> millennium BC (Bossuyt et al. 2001: 376, fig. 1; Algaze, 1986:137, fig.3).

economic nature of relations and developments. For instance, the Upper Tigris basin presents extensively arable agricultural lowlands which are surrounded by mountains - the Taurus, Zagros, Karacadağ, and Tur Abdin - that create a natural barrier, geographically isolating the region (Figure 14). Consequently, this region was not on the LC routes; it can, therefore, be assumed that due to this isolation, during the LC period, this area remained elementary in cultural aspects. This important role of environment on the development of the communities had also an impact on the development of social *structure* and *conjuncture* of the region, which remained unchanged for centuries.

There is little doubt that regardless of time and space, in any form of social organization, there are internal dynamic processes in the cultural environment. This dynamic process, in whatever form it occurs, challenges, and modifies culturally conservative or completely homogenous cultural patterns, though some key principles such as symbols and ideologies may remain conservative. Therefore, culture and cultural accumulation in a given community is inevitably a dynamic process rather than static or fixed.

These words take us directly to the so-called Uruk expansion, which has a life span of *ca.* 700 years and is a typical *conjuncture*. It appears that a series of *événements* eventually gave rise to social mobility that can be perceptible in a number of regions in north Mesopotamia, a reflection of Braudel's long-term *conjuncture*. The degree of Uruk impact on the indigenous northern communities remains to be determined. The arrival of southern communities together with their highly sophisticated and well-developed material culture need not be understood as an "age of enlightenment" from a north-centric viewpoint. Rather, northern communities had already an existing culture, identity, and settlement network systems that had partially accumulated by the previous cultural interactions *e.g.* in the Ubaid period. Therefore, a certain degree of familiarity with the intra-regional network system had already been established, well before the colonization in the Middle Euphrates basin.

It was in this network system that Tell Brak (TW and CH areas) is a best example of *conjuncture*. The site encountered Uruk elements indicated by BRBs in Level 16 (LC 3) contemporary with the foundation of Tell Sheikh Hassan. This is later followed by

Levels 13-12 (LC .4-5) when Habuba Kabira and Jebel Aruda were established on the opposite bank of the Euphrates. It is in these levels that we have strong evidence for the ‘Uruk way of life’ at Tell Brak indicated by architectural *Mittelsaal* houses, pottery assemblage, administrative tools resembling to the colony sites and so forth. Even it is recently suggested that Tell Brak during the LC 5 was colonized by southern population, although not the entire mound (Porter, 2012). Prior to the Uruk phenomenon, the site appears to be already the product of a long occupational sequence with a well-developed indigenous socio-political and economic complexity embedded in an urban material culture as early as LC 2 period. There was also a political hierarchy based on the presence of elite architecture and artefactual finds. Furthermore, the production from household level to workshops and specialized craftsmen are other pieces of evidence for the socio-political level of Tell Brak. Although Tell Brak because of its extreme huge size presumably did not have sufficient area of agricultural land, the site must have relied heavily on outside crops. In this case, it is known that the central mound was surrounded by smaller size towns, villages, and hamlets, which may therefore suggest that although each being distinct neighbouring communities, there must have been a complex settlement network among these cluster of sites based on the exchange, especially when thinking a part of Tell Majnuna as a place for mass-graves and an area of T2 for the pottery production. Therefore, this interdependence among the satellite sites including the central mound increased a certain degree of regional social complexity in the Khabur basin. Consequently, we can perceive the “slow and perceptible rhythms” of *conjoncture* in the history of Brak before and after *événements*.

It appears that the “Uruk expansion” brought about an increase in settlements in the Middle Euphrates basin. In the Carchemish-Birecik area, a total of 37 settlements, 20 of them newly founded, yielded a range of Uruk materials, while our knowledge for the previous periods was based on a handful of sites, such as Tilbeş, Horum, Hassek, Kurban, and Hayaz Höyük. Similarly, the area north of the Sajur river included both Local LC and Uruk settlements (Wilkinson et al. 2012: 159). Consequently, the increase in the number of settlements reflects a larger number of people living in the region. This denser settlement pattern can be related to *conjoncture*, archaeologically reflected by a population increase. These sites, in close proximity, suggest that socio-economic interaction must have been denser than in any other regions of north

Mesopotamia. Moreover, the establishment and abandonment of a colony at Hacinebi in the LC 4 and 5 periods shows the nature and causes of social mobility in the region.

At this juncture, Hacinebi provides another *conjoncture* with its perceptible socio-economic level of settlement history. The earlier phases A-B1, which show continuity in material culture, are architecturally represented by the monumental enclosure wall and the public building along with the domestic buildings. The site also witnessed the social hierarchical system indicated by the presence of stamp seals and several prominent graves with artefactual signs for stratification. Despite the visible social hierarchy, the metal production remained at household level rather than centralized. As being a part of intra-regional network, the inhabitant of Hacinebi also used non-local materials, such as copper, silver, obsidian, and chlorite. It was within this culturally complex system that the subsequent period B2, in addition to the local cultural aspects, saw the presence of full repertoire of Uruk materials and a population increase. Especially grooved stone weights for measurement indicate the socio-economic climax of the site until the abandonment of the site *ca.* 3300 BC.

Another *conjoncture* can be recognized in the expanding and vigorous settlement network, especially from the LC 3 onward, which paved the way for the circulation of Uruk materials throughout the regions of north Mesopotamia including the Erbil Plain, Upper Zab, the Upper Tigris basin, the Khabur Basin, and the Altınova plain. The intensity of Uruk materials was regulated by space and time. In other words, its distribution to the various regions was uneven across north Mesopotamia, with the exception of BRBs. Their popularity reflects an adopted *mentalité* over an exceptionally wide geographical area. Their presence in significant quantity in a considerable number of the LC sites and their size appears to support the functional possibility that they were used as bread-moulds. These bowls were also used for making beer bread, which suggests that beer consumption among the LC communities in north Mesopotamia increased (Figure 4).

A few sites show other types of *mentalité*. At Zeytinli Bahçe Höyük, after an abandonment during the LC 3 period, the pottery forms correlated with Uruk seem to be re-interpreted in the LC 5 period (Figure 9). Similarly, at Hassek Höyük Uruk

forms were modified according to their styles (Figure 10). These examples also reflect the *mentalité* of Braudel's paradigm, creating a new identity from an inspired material and establishing a new authenticity.

Arsilantepe, an indigenous LC site, deserves a special attention in our case for *conjoncture*. The shift from a very complex hierarchical community to the "palatial period" is visible in several aspects. While public structures of period VII are characterized by tripartite planned temples, the following period VI A illustrates bipartite planned temples. The physical change in their forms at the same time reflects their change of accessibility by its public population from "secular" to less "secular". That is to say, even though meal consumption took place in both periods VII and VI A, it appears to have been less accessible to the public in period VI A. Although Arsilantepe in periods VII-VIA shows strong indications for an indigenous identity, several features may appear to be as a result of Uruk influence. One of these temples contains similar architectural elements<sup>24</sup> with the Uruk temples. In addition, on one of these temples' wall, the depiction of a scene from an Uruk seal in different material points to an iconographical *mentalité* (Figure 12).

It is important noting that in this study, both relative chronology and radiocarbon dates were used to understand LC material culture. However, the relation between the two Mesopotamias is not necessarily accurate and this is an unresolved problem. To give an example, at Hammam et-Turkman, the monumental building of level VB with multi-recessed niches is dated to *ca.* 3200 BC, but radio carbon age determination proposed an interval *ca.* 4090 BC. In fact, the plan and the shape of walls are undistinguishable from the typical Uruk temple plan, while the ceramics are mostly Amuq F types such as carinated bowls with beaded rims, and small fine jars, and flared neck jars with thickened rims (Figure 16). It should be noted that the building is unique in north Mesopotamia, with the exception of the Uruk colony sites' temples at Habuba Kabira and Jebel Aruda, which shows a *mentalité* from Uruk temples.

Although there is no association of Tepe Gawra with the Uruk phenomenon, the site, whose reputation within the scope of this study comes from LC 1-3 levels, seems to

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<sup>24</sup> For architectural elements see also pp. 76.

evolve gradually from a socio-economic complexity to a more concrete complex system. This typical settlement history of *conjoncture* with perceptible rhythms at Gawra is represented by multi-functioned buildings, where almost each level illustrates an outstanding type of structures, respectively “White House, Round House, and Central Ware House”. Their sophisticated personal bureaucratic tools, especially stamp seals and sealings, non-local products such as lapis lazuli, gold, obsidian show the socio-economic level of the site. It seems, however, that this highly developed cultural system ends with a destructive *évènement* of fire in level VIIIA, which is associated with the competition on new exchange opportunities and resulted in an internal “resentment”.

A similar settlement pattern like that of Tell Brak in the Khabur basin can be drawn in the social *structural* history of the north Jazeera, where a three-tiered settlement hierarchy was documented. In the region, the lack of substantial natural and mineral sources in north Jazeera seems not to be a predetermination for the settlement pattern, as there is a dense indigenous settlement pattern throughout the LC period that mostly remained unchanged and that were the small village-based communities, while the number of settlements decrease during the LC 3-5 periods. The question remains how they could acquire natural and non-local materials. The available evidence suggests that Tell al-Hawa, as the only dominant site, was an important center and presumably the rest of north Jazeeran sites had an exchange system with the site based on the agricultural crops and animal husbandary, as the site catchment area of Hawa is not sufficient for agricultural crops. On the other hand, other sites dispersed over a wider area and draw a village-based settlement pattern in the region. Within this system, several agents were responsible for obtaining the basic resources such as wood, and stone from the highlands probably Tur Abdin in the north or Zagros Mountains in the east.

Although the entire Uruk expansion is not by itself an *évènement*, in the long run, however, it is a long-term *conjoncture*, as it appears to involve few, and small fragmentary population movements transposing their own material identity. An early example, *ca.* 3600 BC, LC 4, is Tell Sheikh Hassan on the east bank of the Euphrates. It was followed at least two centuries later by the establishment of two settlements at Habuba Kabira and Jebel Aruda on the opposite bank of the Euphrates

River during the LC 5 period. It seems that there appears now three *événements*, with the foundation of these individual settlements, that are certainly historical events (*l'histoire événementielle*). In this cluster of events, however, we are restricted by the absence of historical documents concerning specific individuals, their names, actions, the way they came to settle down, the fixed “moment” for their arrival and the degree to which all these actions took place, because history is in fact much more complex than our perception.

On the other hand, it remains unclear what attracted them to stay and colonize the same region over an interval of six hundred years. It is not logical that they would travel such long distances for agriculture or settling down on the river bank. Therefore, it is possible that the Euphrates river was not their target of a colonial venture for agriculture or animal herding, as this zone was suffering from drought correlated with limited rainfall (Wilkinson et al. 2012: 143).

There may be other reasons why they preferred this region. Despite agricultural uncertainty, this area may have been a controlling point and a crossing point (Wilkinson et al. 2012: 173). Or this location could be strategically important by illustrating the mid-point between north Mesopotamian highland resources, and the Levant and Egypt.<sup>25</sup> Pertaining to the highland resources, it seems difficult to transport the timber via overland route; therefore, the Euphrates must have been much more navigable than Tigris River. Interestingly, this zone witnessed an increase in the number of settlements by the establishment of the colony sites, whereas north of this “Zone of Uncertainty”, the very long and dense settlement history goes back to the 6<sup>th</sup> millennium (Wilkinson et al. 2012: 172).

Prior to their interest, while this region remained mostly unsettled and coincides with the insufficient environmental conditions that may have been determinant for this circumstance, in other respects, the decisive role of social factors cannot be ignored. In the absence of any types of social organization in the region, it would be more appropriate to establish their colonies, especially when considering the suitability of

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<sup>25</sup> Although Uruk impact or interaction seems to be almost invisible in the southern Levant, Uruk *mentalité* appears to be present in the Nile Valley at the very end of the 4<sup>th</sup> millennium BC (Joffe, 2000; Philip, 2002: 225).

this area (between Carchemish and Mari) only for archaeologically invisible agents: “mobile pastoralists” (Porter, 2012: 86). Consequently, the steppe zone, suitable for a pastoral economy, determined their selection of this open and unstructured region.

All in all, the superior geographical advantages of north Mesopotamia are now clearer compared to the south. While mountains reduced the degree of cultural interactions *e.g.* in the Upper Tigris basin, rivers conversely paved the way for settlement networks.<sup>26</sup> For instance, the distribution of Sprig Ware along the Tigris River valley or the dense circulation of the Uruk materials especially along the Euphrates are not coincidences. In the *longue durée* north Mesopotamia appears to have hosted a number of indigenous cultural patterns; thus, showed a culturally accumulated continuity, while foreign influences and interactions on a specified region’s existing cultures in several cases resulted in socio-economic changes. This is especially the case in the Middle Euphrates River valley where the region seems to fall gradually into “Uruk expansion” more densely than the Erbil Plain, the north-east Jazeera<sup>27</sup>, the Upper Tigris<sup>28</sup>, and the Altınova plain.

Rather than the former approaches and explanations of Algaze (1993) and Stein (1999a; 1999b), which were “one-dimensional” (Porter, 2012: 76), and hybridization (Helwing, 1999), an *Annales* approach, in this study, showed that it provides a complementary picture for the establishment of *histoire totale* during the LC period in north Mesopotamia (Table 4). It is now clearer in the *longue durée* that the role of geography and environment was significant for the nature and development of northern communities during the LC period. At another temporal level, *conjoncture* can provide a history of communities and regions, their worldviews and ideological *mentalité* together with the social mobility before and after the Uruk expansion. While at the last temporal level the establishment and abandonment of three colony sites as historical events can be considered as *événements* during the LC 3-5 periods.

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<sup>26</sup> The best example for this explanation is Başur Höyük, where strong Uruk influence is documented.

<sup>27</sup> Except for Nineveh in the LC 5 period.

<sup>28</sup> Except for Başur Höyük.



## REFERENCES

- Adams, R. McC. (1981). *Heartland of Cities; Surveys of Ancient Settlement and Land Use on the Central Foodplain of the Euphrates*. Chicago: University of Chicago Press.
- Akkermans, P.M. M. G. (1988). An Updated Chronology for the Northern Ubaid and Late Chalcolithic Periods in Syria: New Evidence from Tell Hammam et-Turkman. *Iraq*, 50, 109-145.
- Algaze, G. (1986). Habuba on the Tigris: Archaic Nineveh Reconsidered. *Journal of Near Eastern Studies*, 45 (2), 125-137.
- Algaze, G. (1989). A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988. *Journal of Near Eastern Studies*, 48 (4), 241-281.
- Algaze, G. (1990). *Town and Country in Southeast Anatolia Vol 2. The Stratigraphic Sequence at Kurban Höyük*. Chicago: Oriental Institute Publications.
- Algaze, G. (1993). *The Uruk World-System: The Dynamics of Expansion of Early Mesopotamian Civilization*. Chicago: University of Chicago Press.
- Algaze, G. (2001a). Initial Social Complexity in Southwestern Asia. *Current Anthropology*, 42 (2), 199-233.
- Algaze, G. (2001b). The Prehistory of Imperialism: The Case of Uruk Period Mesopotamia. In M. S. Rothman (Ed.), *Uruk Mesopotamia and Its Neighbors: Cross-Cultural Interactions in the Era of State Formation*, (pp. 27–84). Santa Fe: School of American Research Press.
- Algaze, G., Brenties, B., Knapp, A. B., Kohl, P. L., Kotter, W. R., Lamberg-Karlovsky, C. C., ...Zagarel, A. (1989). The Uruk Expansion: Cross-Cultural Exchange in Early Mesopotamian Civilization. *Current Anthropology*, 30 (5), 571-608.
- Algaze, G., Breuninger, R., Lightfoot, C. & Rosenberg, M. (1991). The Tigris-Euphrates Archaeological Reconnaissance Project: A Preliminary Report of the 1989-2990 Seasons. *Anatolica*, 17, 176-240.
- Algaze, G., Breuninger, R., Knudstad, J. (1994). The Tigris-Euphrates Archaeological Reconnaissance Project: Final Report of the Birecik and Carchemish Dam Survey Areas. *Anatolica*, 20, 1-96.
- Algaze, G., Hammer, & Parker, B. J. (2012). The Tigris-Euphrates Archaeological Reconnaissance Project: Final Report of the Cizre Dam and Cizre Silopi Plain Survey Areas. *Anatolica*, 38, 1-115.

- Al Quntar, S., Khalidi, L. & Ur, J (2011). Proto-Urbanism in the Late 5<sup>th</sup> Millennium BC: Survey and Excavations at Khirbat al-Fakhar (Hamoukar), Northeast Syria. *Paléorient*, 37 (2), 151-175.
- Ames, K. M. (1991). The Archaeology of Longue Durée: Temporal and Spatial Scale in the Evolution of Social Complexity on the Southern Northwest Coast. *Antiquity*, 65 (249), 935-945.
- Amzallag, N. (2009). From Metallurgy to Bronze Age Civilizations: The Synthetic Theory. *American Journal of Archaeology*, 113, 497-519.
- Ay, E. (2001). Müslümantepe Excavations 2002. In N. Tuna & O. Doonan (Eds.), *Salvage Projects of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2002* (Vol 2), (pp. 528-555). Ankara: Middle East Technical University.
- Baldi, J. S. (2012a). Coba Bowls, Mass Production and Social Change in Post-Ubaid Times. In C. Marro (Ed.), *After the Ubaid. Interpreting Changes from the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent and Beyond, Interpretational Workshop Held at Fosseuse, 29<sup>th</sup> June-1<sup>st</sup> July 2009*, (pp. 393-416). Paris: IFEA-DeBoccard.
- Baldi, J. S: (2012b). Tell Feres al-Sharqi in the LC 1-2 Period. Serial Production and Regionalization of Ceramic Traditions: A Perspective from a Small Rural Site. In C. Marro (Ed.), *After the Ubaid. Interpreting Changes from the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent and Beyond, Interpretational Workshop Held at Fosseuse, 29<sup>th</sup> June-1<sup>st</sup> July 2009*, (pp. 129-162). Paris: IFEA-DeBoccard.
- Baldi, J. S: & Abu Jayyab, K. (2012). A Comparison of the Ceramic Assemblages from Tell Feres al-Sharqi and Hamoukar. In C. Marro (Ed.), *After the Ubaid. Interpreting Changes from the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent and Beyond, Interpretational Workshop Held at Fosseuse, 29<sup>th</sup> June-1<sup>st</sup> July 2009*, (pp. 163-182). Paris: IFEA-DeBoccard.
- Ball, W., Tucker, D. & Wilkinson, T. J. (1989). The Tell al-Hawa Project: Archaeological Investigations in the North Jazira 1986-87. *Iraq* 51, 1-66.
- Balossi-Restelli, F. (2012a). The Beginning of the Late Chalcolithic Occupation at Arslantepe, Malatya. In C. Marro (Ed.), *After the Ubaid. Interpreting Changes from the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent and Beyond, Interpretational Workshop Held at Fosseuse, 29<sup>th</sup> June-1<sup>st</sup> July 2009*, (pp. 235-260). Paris: IFEA-DeBoccard.
- Balossi-Restelli, F. (2012b). At the Roots of the Late Chalcolithic Society in the Anatolian Euphrates Valley. *ORIGINI XXXIV*, 41-58.

- Balossi-Restelli, F. (2008). Post Ubaid Occupation on the Euphrates: Late Chalcolithic 1-2 at Arslantepe (Malatya, Turkey). In H. Kühne, R. M. Czichon, & F. J. Kreppner (Eds.), *Proceedings of the 4<sup>th</sup> International Congress on the Archaeology of the Ancient Near-East, Berlin 29<sup>th</sup> March-3<sup>rd</sup> April 2004: Vol 2* (pp. 21-32). Berlin: Harrasowitz Verlag.
- Barker, G. (1991). Two Italys, One Valley: An *Annaliste* Perspective. In J. Bintliff (Ed.), *The Annales School and Archaeology*, (pp. 34-56). New York: New York University Press.
- Beale, T. W. (1978). Bevelled Rim Bowls and Their Implications for Change and Economic Organization in the Later Fourth Millennium B. C.. *Journal of Near Eastern Studies*, 37 (4), 289-313.
- Behm-Blancke, M. R., Boesneck, J., van der Driesch, A., Hoh, M. R. & Wiegand, G. (1981). Hassek Höyük. Vorläufer Bericht über die Ausgrabungen der Jahre 1978-1980. *Istanbul Mitteilungen*, 31, 11-93.
- Bernbeck, R. & Costello, S. (2011). Yenice Yanı: Bir Geç Kalkolitik-Demir Çağ Köyü'nde Sondaj Çalışmaları. In O. Doonan & N. Tuna (Eds.), *Ilisu Karkamış Baraj Gölleri Altında Kalacak Arkeolojik ve Kültür Varlıklarını Kurtarma Projesi 2002 Yılı Çalışmaları*, (pp. 653-686). Ankara: ODTÜ Tarihse Çevre Araştırma ve Değerlendirme Merkezi.
- Bernbeck, R., Costello, S. & Ünal, N. (2004). Excavations at Yenice Yanı 2002. *Kazi Sonuçları Toplantısı* 25, 117-126.
- Bernbeck, R. & Pollock, S. (2005). A Cultural-Historical Framework. In S. Pollock & R. Bernbeck (Eds.), *Archaeologies of the Middle East: Critical Perspectives*, (pp. 11-40). Malden: Blackwell Publishing.
- Beyer, D. (1988). Évolution de l'espace bâti sur un site de la vallée du Khabur au I<sup>er</sup> millénaire: Les fouilles Françaises de Mashnaqa. *Travaux de la Maison de l'Orient Méditerranéen*, 28 (1), 139-148.
- Bintliff, J. (1991). The Contribution of an *Annaliste*/Structural History Approach to Archaeology. In J. Bintliff (Ed.), *The Annales School and Archaeology*, (pp. 1-33). New York: New York University Press.
- Bintliff, J. (2004). Time, Structure, and Agency: The Annales, Emergent Complexity, and Archaeology. In J. Bintliff (Ed.), *A Companion to Archaeology*, (pp. 174-194). London: Blackwell Publishing.
- Bintliff, J. (2008). History and Continental Approaches. In R. A. Bentley, H. D. G. Maschner, & C. Chippindale (Eds.), *Handbook of Archaeological Theories*, (pp. 147-164). Lanham: Altamira Press.

- Bintliff, J. (2010). The Annales, Events, and the Fate of Cities. In D. J. Bolender (Ed.), *Eventful Archaeologies: New Approaches to Social Transformation in the Archaeological Record*, (pp. 117-131). New York: Suny Press.
- Bossuyt, A., Broze, L. & Ginsburg, V. (2001). On Visible Trade Relations between Mesopotamian Cities during the Third Millenium B.C.. *The Professional Geographer*, 53 (3), 374-383.
- Braidwood, R. & Braidwood, L. S. (1960). *Excavations in the Plain of Antioch I: The Earlier Assemblages Phases A-J (Vol LXI)*. Chicago: The University of Chicago Press.
- Brancato, R. (2017). *Settlement Patterns and Political Landscapes in the Upper Tigris Valley*. Roma: SANEM.
- Brandt, R. W. (1973). The Excavations at Korucutepe, Turkey, 1968-70: Preliminary Report. Part IV: The Chalcolithic Pottery. *Journal of Near Eastern Studies*, 32 (4), 439-444.
- Braudel, F. (1972). *The Mediterranean and the Mediterranean World in the Age of Philip II*. S. Reynolds, trans. New York: Harper and Row.
- Braudel, F. (1980). *On History*. S. Matthews, trans. Chicago: University of Chicago Press.
- Braudel, F. (1995). *A History of Civilizations*. R. Mayne, trans. New York: Penguin Books
- Braudel, F. (2016). *Tarih Üzerine Yazılar*. M. A. Kılıçbay, trans. Ankara: Doğu-Batı Yayınları.
- Broodbank, C. (2013). *The Making of The Middle Sea: A History of the Mediterranean from the Beginning of the Emergence of the Classical World*. London: Thames & Hudson.
- Brustolon, A. & Rova, E. (2007). The Late Chalcolithic Period in the Tell Leilan Region: A Report on the Ceramic Material of the 1995 Survey. *Kaskal*, 4, 1-42.
- Can, Ş. (forthcoming). Şanlıurfa İli Sınırları İçerisinde Uruk Dönemi Yerleşim Sistemi: Fırat Havzası ile Harran Ovasının Karşılaştırılması.
- Carter, R. & Philip, G. (2010). *Beyond the Ubaid: Transformation and Integration in the Late Prehistoric Societies of the Middle East*. Chicago: Oriental Institute of the University of Chicago: Studies in Ancient Oriented Civilization, 63.
- Charvát, P. (2002). *Mesopotamia Before History*. London: Routledge
- Cluzan, S. (Ed.). (1993). *Syrie: mémoire et civilization*. Paris: Flammarion.

- Copeland, L. (1979). Observations on the Prehistory of the Balikh Valley, Syria, during the 7<sup>th</sup> to 4<sup>th</sup> Millennia B.C.. *Paléorient*, 5, 251-275.
- Creekmore, A. (2007). The Upper Tigris Archaeological Research Project (UTARP): A Summary and Synthesis of the Late Chalcolithic and Early Bronze Age Remains from the First Three Seasons at Kenan Tepe. *Anatolica*, 33: 75-128.
- Çevik, Ö. (2007). The Emergence of Different Social Systems in Early Bronze Age Anatolia: Urbanization versus Centralization. *Anatolian Studies*, 57, 131-140.
- Di Nocera, G. (2000). Radiocarbon Datings from Arslantepe and Norşuntepe: The Fourth-Millennium Absolute Chronology in the Upper Euphrates and Transcaucasian Region. In C. Marro & H. Hauptman (Eds.), *Chronologies des pays du Caucase et de L'Euphrate aux IVe et IIIe millénaires*, (pp. 73-79). Paris: Varia Anatolica XI.
- Di Nocera, G. M. (2010). Metals and Metallurgy. Their Place in the Arslantepe Society between the end of the 4<sup>th</sup> and beginning of the 3<sup>rd</sup> Millennium BC. In M. Frangipane (Ed.), *Economic Centralization in Formative States. The Archaeological Reconstruction of the Economic System in 4<sup>th</sup> Millennium Arslantepe*, (pp. 255-274). Studi di Preistoria Orientale, vol 3. Roma: Sapienza Università di Roma.
- Dixon, J. E., Cann, J. R. & Renfrew, C. (1968). Obsidian and the Origins of Trade. *Scientific American*, 218 (3), 38-47.
- Emberling, G. & Minc, L. (2016). Ceramic and Long-Distance Trade in Early Mesopotamian States. *Journal of Archaeological Science: Reports*, 7, 819-834.
- Erarslan, A. (2009). Emergence of Local Trajectories in Southeastern Anatolia at the Fourth and the Early Third Millenium BC. *Akkadica*, 130 (2), 189-210.
- Erarslan, A. & Kolay, A. İ. (2005). Doğu ve Güneydoğu Anadolu Bölgeleri'nin Kentleşme Sürecinin Öncü Kent Döneminin Ubaid ve Uruk Evreleri (M.Ö. 5500-3100). *İstanbul Teknik Üniversitesi Dergisi / Sosyal Bilimler*, 2 (1), 80-86.
- Erim-Özdoğan, A & Sarialtun, S. (2011). Ilısu Baraj Alanı Garzan Vadisi ve Batman Çayı Çevresi Kültür Envanteri. In N. Tuna & O. Doonan (Eds.), *Salvage Projects of the Archaeological Heritage of the Ilısu and Carchemish Dam Reservoirs Activities in 2002* (Vol 2), (pp. 945-1146). Ankara: Middle East Technical University.
- Esin, U. (1979). Tepecik Excavations, 1973. In *Keban Projesi 1973 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 1, no 6*, (pp. 97-112). Ankara: Middle East Technical University.
- Esin, U. (1975). Recent Archaeological Research in Turkey: Tepecik, 1975. *Anatolian Studies*, 25: 46-49.

- Fisher, M. T. (2017). *The Late Chalcolithic I Period in Northern Mesopotamia: Tell Zeidan, Syria, in Regional Context* (Doctoral Dissertation). Retrieved from the University of Chicago Dissertations database.
- Fletcher, A. (2007). The Prehistoric Ceramic Assemblage from Horum Höyük. *Anatolian Studies*, 57, 191-202.
- Foster, C. P. (2012). The Uruk Phenomenon: A View from the Household. In B. J. Parker & C. Foster (Eds), *New Perspectives on Household Archaeology*, (pp. 437-472). Indiana: Eisenbrauns.
- Foxhall, L. (2000). The Running Sands of Time: Archaeology and the Short-Term. *World Archaeology*, 31 (3). 484-498.
- Fuensanta, J. G. & Mısır, A. (1998). Excavations at Tilbeş Höyük. *Kazı Sonuçları Toplantısı*, 19 (1), 227-244.
- Fuensanta, J. G., Rothman, M. S., Charvat, P. & Bucak, E. (2002). Tilbeş Höyük Salvage Project Excavation, *Kazı Sonuçları Toplantısı*, 23 (1), 131-144.
- Frangipane, M. (2001a). Centralization Process in Greater Mesopotamia: Uruk “Expansion” as the Climax of Systemic Interactions among Areas of the Greater Mesopotamian Region. In M. S. Rothman (Ed.), *Uruk Mesopotamia and its Neighbors: Cross-cultural Interactions in the Era of State Formation*, (pp. 307-348). Santa Fe: School of American Research Press.
- Frangipane, M. (2001b). The Transition between Two Opposing Forms of Power at Arslantepe (Malatya) at the Beginning of the 3<sup>rd</sup> Millennium B.C.. *TÜBA-AR* 4, 1-24.
- Frangipane, M. (2002). *Yakındoğuda Devletin Doğuşu*. Z. Z. İlkelen, trans. Istanbul: Arkeoloji ve Sanat Yayınları.
- Frangipane, M. (2004). Non-Uruk Developments and Uruk Linked Features on Northern Borders of Greater Mesopotamia. In J. N. Postgate (Ed.), *Artefacts of Complexity: Tracking the Uruk in the Near East*, (pp. 123-146). Cambridge: Cambridge University Press.
- Frangipane, M. (2009). Rise and Collapse of the Late Uruk Centers in Upper Mesopotamia and Eastern Anatolia, *Scienza dell’Antichità Storia*, 15: 25-42.
- Frangipane, M. (2010). Late Chalcolithic Developments and the Transition to EB I in the Turkish Middle Euphrates Valley, As Seen from the Recent Excavations at Zeytinli Bahçe Höyük (Urfa). In P. Matthiae, F. Pinnock, L. Nigro, N. Marchetti (Eds.), *Proceedings of the 6th ICAANE Conference, Rome, May 2008*, (pp. 186-203). Wiesbaden:Harrasowicz Verl.
- Frangipane, M. (2012a). “Transitions” as an Archaeological Concept. Interpreting the Final Ubaid-Late Chalcolithic Transitions in the Northern Periphery of Mesopotamia. In C. Marro (Ed.), *After the Ubaid. Interpreting Changes from*

*the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent and Beyond, Interpretational Workshop Held at Fosseuse, 29<sup>th</sup> June-1<sup>st</sup> July 2009*, (pp. 39-64). Paris: IFEA-DeBoccard.

Frangipane, M. (2012b). Fourth Millennium Arslantepe: The Development of a Centralized Society without Urbanisation. *ORIGINI XXXIV*, 19-40.

Frangipane, M. (2016a). The Origins of Administrative Practices and Their Developments in Greater Mesopotamia. The Evidence from Arslantepe. *Archéo-Nil* 26, Juin 2016, 9-32.

Frangipane, M. (2016b). The Development of Centralized Societies in Greater Mesopotamia and the Foundation of Economic Inequality. In H. Meller, H. Hahn, P. Jung, R. Risch (Eds.), *Arm und Reich, Rich and Poor: Competing for Resources in Prehistoric Societies*, (pp. 469-490). *Tagungen des Landesmuseums für Vorgeschichte Halle*, Band 14/II.

Frangipane, M. (2017a). Different Trajectories in State Formation in Greater Mesopotamia: A View from Arslantepe (Turkey). *Journal of Archaeological Research*, 21 (3), 1-61.

Frangipane, M. (2017b). The Role of Metal Procurement in the Wide Interregional Connections of Arslantepe during the Late 4<sup>th</sup>-Early 3<sup>rd</sup> Millennia BC. In Ç. Maner, M. T. Horowitz, & A. S. Gilbert (Eds.), *Overtuning Certainties in Near Eastern Archaeology: A Festschrift in Honor of K. Aslıhan Yener*, (pp. 186-210). Lieden: Brill.

Frangipane, M., Manuelli, F. & Vignola, C. (2017). Arslantepe, Malatya: Recent Discoveries in the 2015 and 2016 Seasons. In S. R. Steadman & G. McMahon (Eds.), *The Archaeology of Anatolia Vol 2. Recent Discoveries (2015-2016)*, (pp. 67-93). Cambridge: Cambridge Scholars Publishing.

Frangipane, M., Strand, A. E., Laurito, R., Möller-Wiering, S., Nosch, M-L., Rast-Eicher, A. & Wisti Lassen, A. (2009). Arslantepe, Malatya (Turkey): Textiles, Tools and Imprints of Fabrics from the 4<sup>th</sup> to the 2<sup>nd</sup> Millennia BCE. *Paléorient*, 35 (1), 5-29.

Gale, N. H. (1991). Metals and Metallurgy in the Chalcolithic Period. *Bulletin of the American Schools of Oriental Research* 282/283, 37-61.

Gavagnin, K., Iamoni, M. & Palermo, R. (2016). The Land of Nineveh Archaeological Project: The Ceramic Repertoire from the Early Pottery Neolithic to the Sasanian Period. *Bulletin of the American Schools of Oriental Research* 375, 119-169.

Gibson, McG., Maktash, M., Franke, J. A., Al-Azm, A., Sanders, J. C., Wilkinson, T., ... Salameh, A. (2002). First Season of Syrian-American Investigations at Hamoukar, Hasekeh Province. *Iraq*, 64, 45-68.

- Gibson, McG. & Maktash, M. (2000). Tell Hamoukar: Early City in Northeastern Syria. *Antiquity*, 74 (285), 477-478.
- Gülçur, S. & Marro, C. (2012). The View from the North: Comparative Analysis of the Chalcolithic Pottery Assemblages from Norşuntepe and Ovçular Tepesi. In C. Marro (Ed.), *After the Ubaid. Interpreting Changes from the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent and Beyond, Interpretational Workshop Held at Fosseuse, 29<sup>th</sup> June-1<sup>st</sup> July 2009*, (pp. 305-352). Paris: IFEA-DeBoccard.
- Hauptmann, H. (1971). Norşun Tepe Kazısı, 1969. In *Keban Projesi 1969 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 1, no 2*, (pp. 71-79). Ankara: METU.
- Hauptmann, H. (1972). Norşun Tepe Kazıları, 1970. In *Keban Projesi 1970 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 1, no 3*, (pp. 87-101). Ankara: METU.
- Hauptmann, H. (1973). Recent Archaeological Research in Turkey: Norşuntepe, 1972. *Anatolian Studies*, 23: 49-52.
- Hauptmann, H. (1974). Norşun Tepe Kazıları, 1971. In *Keban Projesi 1971 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 1, no 4*, (pp. 71-85). Ankara: METU.
- Hauptmann, H. (1975). Recent Archaeological Research in Turkey: Norşuntepe, 1975. *Anatolian Studies*, 25: 35-38.
- Hauptmann, H. (1976). Norşun Tepe Kazıları, 1972. In *Keban Projesi 1972 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 5, no 2*, (pp. 41-59). Ankara: METU.
- Hauptmann, H. (1979). Norşun Tepe Kazıları, 1973. In *Keban Projesi 1973 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 1, no 6*, (pp. 43-60). Ankara: METU.
- Hauptmann, H. (1982). Norşun Tepe Kazılar, 1974. In *Keban Projesi 1974-1975 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 1, no 7*, (pp. 13-40). Ankara: METU.
- Helwing, B. (1999). Cultural Interaction at Hassek Höyük, Turkey. New Evidence from Pottery Analysis. *Paléorient*, 25 (1), 91-99.
- Helwing, B. (2000). Regional Variation in the Composition of the Late Chalcolithic Pottery Assemblages. In C. Marro & H. Hauptmann (Eds.), *Vom Euphrat in den Kaukasus: vergleichende Chronologie des IV. und III Jahrtausends v. Chr.* (pp. 187-196). Istanbul: Institut Francais d'Etudes Anatoliennes.



- Hess, K., Hauptmann, A., Wright, H. & Whallon, R. (1998). Evidence of Fourth Millennium BC Silver Production at Fatmalı-Kalecik, East Anatolia. In T. Rehren, A. Hauptmann & J. D. Muhly (Eds.), *Metallurgica Antiqua. In Honour of Hans Gert Bachmann and Robert Maddin*, (pp. 57-77). Bochum: Deutsches Bergbau Museum (Der Anschnitt 8).
- Hexter, J. H. (1972). Fernand Braudel and the *Monde Braudellien*... *Journal of Modern History*, 44: 480-539.
- Hodder, I. (1987). The Contribution of the Long Term. In I. Hodder (Ed.), *Archaeology as Long-Term History*, (pp. 1-8). Cambridge: Cambridge University Press.
- Hritz, C. (2013). Urbanocentric Models and “Rural Messiness”: A Case Study in the Balikh River Valley, Syria. *American Journal of Archaeology*, 117 (2), 141-161.
- Huppert, G. (1982). Lucien Febvre and Marc Bloch: The Creation of the *Annales*. *The French Review*, 55 (4), 510-513.
- Jasim, S. & Oates, J. (1986). Early Tokens and Tablets in Mesopotamia: New Information from Tell Abada and Tell Brak. *World Archaeology*, 17 (3), 348-362.
- Joffe, A. H. (2000). Egypt and Syro-Mesopotamia in the 4<sup>th</sup> Millennium: Implications of the New Chronology. *Current Anthropology*, 41 (1), 113-123.
- Johnson, G. A. (1975). Locational Analysis and Investigation of Uruk Local Exchange Systems. In J. Sabloff & A. L. Karlovsky (Eds.), *Ancient Civilization and Trade*, (pp. 285-340). Albuquerque: University of New Mexico Press.
- Jones, R. (1991). Archaeology, the *Longue Durée* and the Limits of the Roman Empire. In J. Bintliff (Ed.), *The Annales School and Archaeology*, (pp. 93-107). New York: New York University Press.
- Kennett, D. J. & Kennett, J. P. (2006). Early State Formation in Southern Mesopotamia: Sea Levels, Shorelines, and Climate Change. *The Journal of Island and Coastal Archaeology*, 1: 67-99.
- Kepinski, C. (2011). New Evidence from Grai Resh, Northern Iraq-the 2001 and 2002 Seasons. A Pre-Uruk Expansion Site from the Late Chalcolithic Period. *Zeitschrift für Orient-Archäologie*, 4: 26-81.
- Khalidi, L., Gratuze, B. & Boucetta, S. (2009). Provenance of Obsidian Excavated from Late Chalcolithic Levels at the Sites of Tell Hamoukar and Tell Brak, Syria. *Archaeometry*, 51 (6), 879-893.
- Knapp, A. B. (1992a). Archaeology and *Annales*: Time, Space, and Change. In A. B. Knapp (Ed.), *Archaeology, Annales, and Ethnohistory*, (pp. 1-22). New York: Cambridge University Press.

- Knapp, A. B. (Ed.) (1992b). *Archaeology, Annales, and Ethnohistory*. New York: Cambridge University Press.
- Knapp, A. B. (1992c). Independence and Imperialism: Politico-Economic Structures in the Bronze Age Levant. In A. B. Knapp (Ed.), *Archaeology, Annales, and Ethnohistory*, (pp. 83-98). New York: Cambridge University Press.
- Koliński, R. (2012). Report on the Field Activities of the Upper Greater Zab Archaeological Reconnaissance Project for the 2012 Season. Retrieved from <http://archeo.amu.edu.pl/ugzar/indexen.htm>
- Koliński, R. (2014). Report on the Field Activities of the Upper Greater Zab Archaeological Reconnaissance Project for the 2014 Season. Retrieved from <http://archeo.amu.edu.pl/ugzar/indexen.htm>
- Kopanias, K. McGinnis, J. & Ur, J. (2015). Archaeological Projects in the Kurdistan Region in Iraq. *The Directorate of Antiquities of Kurdistan*, 1-52.
- Kozbe, G. & Rothman, M. (2005). Chronology and Function at Yarım Höyük, Part II. *Anatolica*, 31, 111-144.
- Laneri, N., Schwartz, M., Ur, J., Valentini, S., D'Agostino, A., Berthron, R. & Halde, M. M. (2008). The Hirbemerdon Tepe Archaeological Project 2006-2007: A Preliminary Report on the Middle Bronze Age 'Architectural Complex' and the Survey of the Site Catchment Area. *Anatolica* 35, 177-239.
- Laurito, R. (2012). Changes in Textile Production at Arslantepe during the 4<sup>th</sup> and 3<sup>rd</sup> Millennia BCE. *Origini XXXIV*, 317-328.
- Lawrence, D. & Ricci, A. (2016). Long-Term Settlement Trends in the Birecik-Carchemish Sectors. In T. J. Wilkinson, E. Peltenburg & E. B. Wilkinson (Eds.), *Carchemish in Context: The Land of Carchemish Project, 2006-2010*, (pp. 38-67). Oxford: Oxbow Books.
- Lupton, A. (1996). *Stability and Change: Socio-Political Development in North Mesopotamia and South-East Anatolia 4000-2700 B.C.* Oxford: BAR International Series 627.
- Marfoe, L. & Ingraham, M. L. (1990). Excavation Areas and the Stratigraphy. In G. Algaze (Ed.), *Town and Country in Southeastern Anatolia (Vol 2): The Stratigraphic Sequence at Kurban Höyük* (pp. 21-118). Chicago: The Oriental Institute of the University of Chicago Press.
- Marfoe, L. & Algaze, G. (1990). Synthesis. In G. Algaze (Ed.), *Town and Country in Southeastern Anatolia (Vol 2): The Stratigraphic Sequence at Kurban Höyük*, (pp. 421-432). Chicago: The Oriental Institute of the University of Chicago Press.

- Marro, C. (2010). Where Did Late Chalcolithic Chaff-Faced Ware Originate? Cultural Dynamics in Anatolia and Transcaucasia at the Dawn of Urban Civilization (ca. 4500-3500 BC). *Paléorient*, 36 (2), 35-55.
- Marro, C. (2012a). Is There a Post-Ubaid Culture? Reflections on the Transition from the Ubaid to the Uruk Periods along the Fertile Crescent and beyond. In C. Marro (Ed.), *After the Ubaid. Interpreting Changes from the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent and Beyond, Interpretational Workshop Held at Fosseuse, 29<sup>th</sup> June-1<sup>st</sup> July 2009*, (pp. 13-38). Paris: IFEA-DeBoccard.
- Marro, C. (2012b). *After the Ubaid. Interpreting Changes from the Caucasus to Mesopotamia at the Dawn of Urban Civilization (4500-3500 BC). Papers from the Post-Ubaid Horizon in the Fertile Crescent and Beyond, Interpretational Workshop Held at Fosseuse, 29<sup>th</sup> June-1<sup>st</sup> July 2009*. Paris: IFEA-DeBoccard.
- Marro, C., Tibet, A. & Ergeç, R. (2000). Horum Höyük 1998 Çalışmaları. *Kazı Sonuçları Toplantısı*, 21 (1), 167-184.
- McGlade, J. (1999). The Times of History: Archaeology, Narrative and Non-Linear Causality. In T. Murray (Ed.), *Time and Archaeology*, (pp. 139-163). London and New York: Routledge.
- McIntosh, J. R. (2017). *Mesopotamia and the Rise of Civilization: History, Documents, and Key Questions (Crossroads in World History)*. California: ABC-CLIO
- McMahon, A. (2013). Tell Brak, Early Northern Mesopotamian Urbanism, Economic Complexity and Social Stress, Fifth-Fourth Millennia BC. In D. Bonatz & L. Martin (Eds.), *100 Jahre Archäologische Feldforschungen in Nordost-Syrien- Eine Bilanz*, (pp. 67-80). Wiesbaden: Harrassowitz.
- McMahon, A., Oates, J., Al-Quntar, S., Charles, M., Colantoni, C., Hald, M. M., Khalidi, L., Soltysiak, A., Stone, A., & Weber, J. (2007). Excavations at Tell Brak 2006-2007. *Iraq* 69, 145-171.
- McMahon, A., Soltysiak, A. & Weber, J. (2011). Late Chalcolithic Mass Graves at Tell Brak, Syria, and Violent Conflict during the Growth of Early City-States. *Journal of Field Archaeology*, 36(3), 201-220.
- Meijer, D. J. W. (1988). Tell Hammam: Architecture and Stratigraphy. In M. N. Van Loon (Ed.), *Hammam et-Turkman I; Report on the University of Amsterdam's 1981-84 Excavations in Syria I (Vol I)*, (pp. 69-128). İstanbul: Nederlands Historisch-Archaeologisch Instituut te İstanbul.
- Millard, A. R. (1988). The Bevelled-Rim Bowls: Their Purpose and Significance. *Iraq*, 50, 49-57.

- Monchambert, J. Y. (1987). Mashnaqa 1986. Rapport préliminaire sur la Deuxième campagne de fouilles. *Syria*, 62 (3/4), 219-250.
- Nanucci, S. (2016). Phase I. Late Chalcolithic Period. In N. Laneri (Ed.), *Hirbemerdon Tepe Archaeological Project 2003-2013 Final Report: Chronology and Material Culture*, (pp. 17-25). Bologna: BraDypUS Communicating Cultural Heritage.
- Nishiaki, Y. (2016). Tell Kosak Shamali (Aleppo). In Y. Kanjou, A. Tsuneki (Eds.), *A History of Syria in One Hundred Sites*, (pp. 76-79). England: Oxuniprint.
- Nissen, H. J. (1972). Typological Dating Criteria. In R. McC. Adams & H. J. Nissen (Eds.), *The Uruk Countryside*, (pp. 97-104). Chicago: Chicago University Press.
- Nissen, H. (1988). *The Early History of the Ancient Near East 9000-2000 BC*. Chicago: University of Chicago Press.
- Nissen, H. J. (1998). Uruk: Key Site of the Period and Key Site of the Problem. Paper Presented at the Conference on *Artefacts of Complexity: Tracking the Uruk in the Near East*, November 6-7 Manchester.
- Nissen, H. J. (2001). Cultural and Political Networks in the Ancient Near East during the Fourth and Third Millennia B.C.. In M. S. Rothman (Ed.), *Uruk Mesopotamia and Its Neighbors: Cross-Cultural Interactions in the Era of State Formation*, (pp. 149–180). Santa Fe: School of American Research Press.
- Nissen, H., Damerow, P. & Englund, R. (1993). *Archaic Bookkeeping*. Chicago and London: University of Chicago Press.
- Oates, J. (1985). Tell Brak: Uruk Pottery from the 1984 Season. *Iraq* 47, 175-186.
- Oates, J. (1987). A Note on ‘Ubaid and Mitanni Pottery from Tell Brak. *Iraq* 49, 193-198.
- Oates, J. (1993). Trade and Power in the 5<sup>th</sup> and 4<sup>th</sup> Millennia BC: New Evidence from Northern Mesopotamia. *World Archaeology*, 24 (3), 403-422.
- Oates, D. & Oates, J. (1993). Excavations at Tell Brak 1992-93. *Iraq*, 55, 155-199.
- Oates, J. & Oates, D. (1997). Shorter Notes. *Cambridge Archaeological Journal*, 7(2), 287-307.
- Oates, J. McMahon, A. Karsgaard, P. Quntar, S.A. & Ur, J. (2007). Early Mesopotamian Urbanism: A New View from the North.” *Antiquity*, 81 (313), 585-600.
- Ökse, A. T. (2005). Salat Tepe Kazılarının Stratigrafik Sonuçları. *Belleten*, 69 (256), 781-800.

- Ökse A. T. (2008). Preliminary Results of the Salvage Excavations at Salat Tepe in the Upper Tigris Region. In J. M. Cordoba, M. Molist, M. C. Pérez, I. Rubio & S. Martínez (Eds.), *Proceedings of the 5<sup>th</sup> International Congress on the Archaeology of the Ancient Near East Madrid, April 3-8 2006*, (pp. 683-698). Madrid: UAM EDICIONES.
- Ökse, A. T. (2012). Salat Tepe 2000-2010 Kazıları Sonuçları. *Kocaeli Üniversitesi Fen-Edebiyat Fakültesi Sosyal Bilimler Araştırma Dergisi* 3, 7-28.
- Ökse, A. T. (2013). Ilısu Dam Construction Area 2008 Survey. In *The Ilısu Dam Project and HEP Project Excavations; Seasons 2004-2008* (pp. 457-460). Diyarbakır: Diyarbakır Museum.
- Ökse, A. T. (2015a). Ancient Diyarbakır according to Findings of Amida Höyük and Historical Documents. In N. Soyukaya (Ed.), *Diyarbakır Fortress and Hevsel Gardens Cultural Landscape*, (pp. 17-28). Diyarbakır: Diyarbakır Metropolitan Municipality.
- Ökse, A. T. (2015b). Salat Tepe Kalkolitik Tabakasının Kuzey Mezopotamya Kronolojisine Göre Değerlendirilmesi. *Journal of Anatolian Prehistoric Research* 1, 15-27.
- Ökse, A. T. (2017). Salat Tepe: Overview of the Stratigraphic Sequence and the Early EBA Levels Excavated in the Last Two Seasons. In S. R. Steadman & G. McMahon (Eds.), *The Archaeology of Anatolia Volume II: Recent Discoveries (2015-2016)*, (pp. 40-65). Cambridge: Cambridge Scholar Publishing.
- Ökse, A. T. Atay, E., Görmüş, A., Atay, E., Muluk, Y., Eroğlu, S., Torpil, S., Bayraktar, A. A., Tan, T., Balkan Atlı, A., Astruc, L. & N. Kayacan. (2009). Ilısu Barajı İnşaat Sahası Yüzey Araştırmasında Belirlenen Arkeolojik Alanlar/Archaeological Sites Recovered in the Construction Area of the Ilısu Dam. *TÜBA-Kültür Envanteri Dergisi*, 7, 71-94.
- Ökse A. T. & Görmüş, A. (2006). Excavations at Salat Tepe in the Upper Tigris Region: Stratigraphical Sequence and Preliminary Results of the 2005-2006 Seasons. *Akkadica* 127, 167-197.
- Ökse, A. T. & Görmüş, A. (2013a). Salat Tepe 2005-2008 Kazıları. In Diyarbakır Museum (Ed.), *The Ilısu Dam Project and HEP Project Excavations; Seasons 2004-2008*, (pp. 163-200). Diyarbakır: Diyarbakır Museum.
- Ökse, A. T. & Görmüş, A. (2013b). Salat Tepe Kazısı. In A. Özfirat & Ç. Uygun (Eds.), *Hatay Arkeolojik Kazı ve Araştırmaları*, (pp. 91-106). Antakya: Mustafa Kemal Üniversitesi.
- Ökse, A. T., Görmüş, A., Koizumi, T., Meier, D. Y. & Soyukaya, N. (2012). Ilısu Barajı – Salattepe 2010 Yılı Kazısı. *Kazı Sonuçları Toplantısı*, 33 (1), 173-188.

- Ökse, A. T., Görmüş, A., Koizumi, T., Yaşın Meier, D. & Soyukaya, N. (2013). Ilısu Barajı – Salat Tepe 2011 Yılı Kazısı. *Kazı Sonuçları Toplantısı*, 34 (1), 365-376.
- Ökse, A. T., Görmüş, A., Koizumi, T. & Soyukaya, N. (2014). Ilısu Barajı – Salat Tepe 2012 Yılı Kazısı. *Kazı Sonuçları Toplantısı*, 35 (1), 113-124.
- Ökse, A. T., Görmüş, A., Koizumi, T. & Şimşek, Ö. (2015). Ilısu Barajı – Salat Tepe 2013 Yılı Kazısı. *Kazı Sonuçları Toplantısı*, 36 (1), 21-36.
- Özdoğan, M. (1977). *Lower Euphrates Basin 1977 Survey, METU Lower Euphrates Project Publications 1, no. 2*. İstanbul: Tek Ofset Basım.
- Özdoğan, M. & Karul, N. (2002). Birecik-Suruç Arkeolojik Envanter Raporu. In N. Başgelen (Ed.), *Birecik-Suruç Türkiye Kültür Envanteri Pilot Bölge Çalışmaları*, (pp. 1-101). İstanbul: Arkeoloji ve Sanat Yayınları.
- Özgüç, N. (1992). The Uruk Culture at Samsat. In B. Hrouda, S. Kroll, & P. Z. Spanos (Eds.), *Von Uruk nach Tuttul: eine Festschrift für Eva Strommenger*, (pp. 151-157). München: Profil Verlag.
- Özgüç, N. (2009). *Samsat, Sümeysat, Samosata, Kumaha, Hahha, Hahhum. Bir Başkent ve Kalenin Uzun Yaşamının 6000 Yıllık Döneminden Kesitler*. Ankara: Türk Tarih Kurumu.
- Parker, B. J. & Foster, C. P. (2009). An Overview of the Ceramic Sequence at Kenan Tepe. In H. Sağlamtimur, E. Abay, Z. Derin, A. Erden, A. Batmaz, F. Dedeoğlu, M. Erdalkıran, M. Baştürk, & E. Konakçı (Eds.), *Studies in Honour of Altan Çilingiroğlu: A Life Dedicated to Urartu on the Shores of the Upper Sea*, (pp. 505-531). İstanbul: Arkeoloji ve Sanat Yayınları.
- Peasnall, B. (2004). 2002 Diyarbakır Small Streams Archaeological Survey. *Araştırma Sonuçları Toplantısı*, 21 (2), 29-44.
- Peasnall, B. & Algaze, G. (2010). The Survey at Pir Hüseyin. *Anatolica*, 36, 165-195.
- Pearce, J. (2000). The Late Chalcolithic Sequence at Hacinebi Tepe, Turkey. In C. Marro, H. Hauptmann (Eds.), *Chronologies des pays du Caucase et de l'Euphrate aux IVe-IIIe millénaires* (pp. 115-143). Paris: Institut Français d'Etudes Anatoliennes d'Istanbul.
- Peltenburg, E., Wilkinson, T. J., Ricci, A., Lawrence, D., McCarthy, A., Wilkinson, E. B., Newson, P. & Perini, S. (2012). The Land of Carchemish (Syria) Project: The Sajur Triangle. In J. Curtis, A. Fletcher, C. Glatz, R. Matthews, M. Seymour, J. Simpson & H. Taylor (Eds.), *Proceedings of the 7<sup>th</sup> ICAANE Conference held in London in 2010*, (pp. 191-204). Harrassowitz: Wiesbaden.

- Peyronel, L. & Vacca, A. (2015). Northern Ubaid and Late Chalcolithic 1-3 Periods in the Erbil Plain. New Insights from Recent Researches at Helawa, Iraqi Kurdistan. *Origini XXXVII*, 89-127.
- Philip, G. (2002). Contacts between the 'Uruk' World and the Levant during the Fourth Millennium BC: Evidence and Interpretation. In N. Postgate (Ed.), *Artefacts of Complexity: Tracking the Uruk in the Near East*, (pp. 207-237). British School of Archaeology in Iraq: Iraq Archaeological Reports 5.
- Pollock, S. (2001). The Uruk Period in Southern Mesopotamia. In M. S. Rothman (Ed.), *Uruk Mesopotamia and its Neighbors: Cross-Cultural Interactions in the Era of State Formation*, (pp. 181-232). Santa Fe: School of American Research Press.
- Pollock, S. (1992). Bureaucrats and Managers, Peasants and Pastoralists, Imperialists and Traders: Research on the Uruk and Jemdet Nasr Periods in Mesopotamia. *Journal of World Prehistory*, 6: 297-336.
- Porter, A. (2012). *Mobile Pastoralism and the Formation of Near Eastern Civilizations: Weaving Together Society*. New York: Cambridge University Press.
- Potts, D. (2009). Bevel-Rim Bowls and Bakeries: Evidence and Explanations from Iran and the Indo-Iranian Borderlands. *Journal of Cuneiform Studies*, 61, 1-23.
- Roaf, M. (1995). Palaces and Temples in Ancient Mesopotamia. In J. Sasson (Ed.), *Civilizations of the Ancient Near East*, 1: (pp. 423-441). New York.
- Rossmesl, I. & Venema, P. (1988). The Other Clay Finds. In M. N. Van Loon (Ed.), *Hammam et-Turkman I; Report on the University of Amsterdam's 1981-84 Excavations in Syria II*, (pp. 561-604). İstanbul: Nederlands Historisch-Archaeologisch Instituut te İstanbul.
- Rothman, M. S. (2001a). The Local and The Regional: An Introduction. In M. S. Rothman (Ed.), *Uruk Mesopotamia and its Neighbors: Cross-cultural Interactions in the Era of State Formation*, (pp. 3-26). Santa Fe: School of American Research Press.
- Rothman, M. S. (2001b). The Tigris Piedmont, Eastern Jazira, and Highland Western Iran in the Fourth Millennium B.C. In M. S. Rothman (Ed.), *Uruk Mesopotamia and its Neighbors: Cross-cultural Interactions in the Era of State Formation*, (pp. 349-402). Santa Fe: School of American Research Press.
- Rothman, M. S. (2002). *Tepe Gawra: The Evolution of a Small, Prehistoric Center in Northern Iraq*. Philadelphia: University of Pennsylvania, Museum of Archaeology and Anthropology.
- Rothman, M. S. (2009). Religion, Function, and Social Networks: Tepe Gawra in the Late Fifth and Early Fourth Millennia BC. In P. Butterlin (Ed.), *A propos de*

- Tepe Gawra, le Monde proto-urbain de Mésopotamie*, (pp. 15-40). Turnhout: Brepols.
- Rothman, M. S., & Blackman, M. J. (2003). The Late and Early Fifth Millennium Exchange Systems in Northern Mesopotamia: Chemical Characterization of Sprig and Impressed Wares. *Al-Rafidan XXIV*, 1-24.
- Rothman, M.S. & Peasnell, B. (1999). Societal Evolution of Small, Pre-State Centers and Politics: The Example of Tepe Gawra in North Mesopotamia. *Paléorient*, 25 (1), 101-114.
- Roux, G. (1992). *Ancient Iraq* (3<sup>rd</sup> Edition). London: Penguin Books.
- Sagona, A. & Zimansky, P. (2009). *Ancient Turkey*. New York: Routledge.
- Sağlamtimur, H. (2012). Başur Höyük. In A. Çilingiroğlu, Z. Mercangöz & G. Polat (Eds.), *Ege Üniversitesi Arkeolojik Kazıları*, (pp. 121-133). İzmir: Arkadaş Matbaacılık.
- Sağlamtimur, H. & Batıhan, M. (2017). Başur Höyük, *Aktüel Arkeoloji*, 60, 98-101.
- Sağlamtimur, H. & Kalkan, E. (2015). Late Chalcolithic Pottery Assemblage from Başur Höyük. *Arkeoloji Dergisi XX*, 57-88.
- Sağlamtimur, H. & Ozan, A. (2013). Başur Höyük 2012 Yılı Kazı Çalışmaları. *Kazı Sonuçları Toplantısı*, 35 (3), 514-529.
- Sağlamtimur, H., Ozan, A., Baştürk, E., Batıhan, M. & Aydoğan, İ. (Forthcoming). Başur Höyük.
- Sayegh, S. & Altice, E. (2014). *History and Theory*. New Jersey: Pearson Education, Inc.
- Schachner, A. & Schachner, Ş. (2003). 2000-2001 Yılı Giricano Kazıları. *Kazı Sonuçları*, 24(2), 447-460.
- Schwartz, G. M. (2001). Syria and the Uruk Expansion. In M. S. Rothman (Ed.), *Uruk Mesopotamia and its Neighbors: Cross-cultural Interactions in the Era of State Formation*, (pp. 233-264). Santa Fe: School of American Research Press.
- Schwartz, M. (2002). Early Evidence of Reed Boats from Southeast Anatolia. *Antiquity*, 76: 617-618.
- Serdaroğlu, Ü. (1977). *Aşağı Fırat Havzasında Araştırmalar 1975, ODTÜ Aşağı Fırat Yayınları I, no. 1*. Ankara: Türk Tarih Kurumu Basımevi.
- Sertok, K. & Kulakoğlu, F. (2002). Şaraga Höyük 1999-2000 Kazı Sonuçları. *Kazı Sonuçları Toplantısı*, 23 (1), 107-122.



- Smith, M. E. (1992). Braudel's Temporal Rhythms and Chronology Theory in Archaeology. In A. B. Knapp (Ed.), *Archaeology, Annales, and Ethnohistory*, (pp. 23-34). New York: Cambridge University Press.
- Stein, G. (1994). Economy, Ritual, and Power in 'Ubaid Mesopotamia. In G. Stein & M. S. Rothman (Ed.), *Chiefdoms and Early States in the Near East. The Organizational Dynamics of Complexity*, (pp. 35-46). Madison: Prehistory Press.
- Stein, G. (1996). Producers, Patrons, and Prestige: Craft Specialists and Emergent Elites in Mesopotamia from 5500-3100 B.C. In B. Wailes (Ed.), *Craft Specialization and Social Evolution: In Memory of V. Gordon Childe*, (pp. 25-38). Philadelphia: University of Pennsylvania, University Museum Press.
- Stein, G. (1997). 1995 Excavations at Hacinebi Tepe. *Kazı Sonuçları Toplantısı*, 28(1), 93-120.
- Stein, G. (1999a). Material Culture and Social Identities: The Evidence for a 4<sup>th</sup> Millennium BC Mesopotamian Uruk Colony at Hacinebi, Turkey. *Paléorient*, 25 (1), 11-22.
- Stein, G. (1999b). *Rethinking World Systems: Diasporas, Colonies, and Interaction in Uruk Mesopotamia*. Tucson: University of Arizona Press.
- Stein, G. (2001). Indigenous Social Complexity at Hacinebi (Turkey) and the Organization of Uruk Colonial Contact. In M. S. Rothman (Ed.), *Uruk Mesopotamia and Its Neighbors: Cross-Cultural Interactions in the Era of State Formation*, (pp. 265–306). Santa Fe: School of American Research Press.
- Stein, G. (2009). Tell Zeidan (2008), *Oriental Institute Annual Report 2008-2009*, Oriental Institute of the University of Chicago, Chicago, 126-137.
- Stein, G. (2010a). Local Identities and Interaction Spheres: Modelling Regional Variation in the Ubaid Horizon. In R. Carter & G. Philip *Beyond the Ubaid: Transformation and Integration in the Late Prehistoric Societies of the Middle East*, (pp. 23-44). Chicago: Oriental Institute of the University of Chicago: Studies in Ancient Oriental Civilization, 63.
- Stein, G. (2010b). Tell Zeidan (2009), *Oriental Institute Annual Report 2009-2010*, Oriental Institute of the University of Chicago, Chicago, 105-118.
- Stein, G. (2011). Tell Zeidan (2010), *Oriental Institute Annual Report 2010-2011*, Oriental Institute of the University of Chicago, Chicago: 122-139.
- Stein, G. (2012). The Development of Indigenous Social Complexity in Late Chalcolithic Upper Mesopotamia in the 5<sup>th</sup>-4<sup>th</sup> Millennia BC- An Initial Assessment. *Orini XXXIV*, 125-151.
- Stein, G., Bernbeck, R., Coursey, C., McMahon, A., Miller, N. F., Mısırlı, A., ... Wright, H. (1996). Uruk Colonies and Anatolian Communities: An Interim

- Report on the 1992-1993 Excavations at Hacinebi, Turkey. *American Journal of Archaeology*, 100 (2), 205-260.
- Stein, G. & Edens, C. (1999). Hacinebi and the Uruk Expansion: Additional Comments. *Paléorient*, 25 (1), 167-171.
- Stein, G., Edens, C., Edens, J. P., Boden, K., Laneri, N., Özbal,...Pittman, H. (1998). Southeast Anatolia Before the Uruk Expansion: Preliminary Report on the 1997 Excavations at Hacinebi, Turkey. *Anatolica* 24, 143-193.
- Stein, G. & Mısır, A. (1994). Mesopotamian-Anatolian Interaction at Hacinebi, Turkey: Preliminary Report on the 1992 Excavations. *Anatolica* 20, 145-190.
- Şenyurt, Y. (2004). Aşağı Salat 2001 Yılı Kazısı / Excavations at Aşağı Salat, 2001. In Tuna, N., Greenhalgh, J. and J. Velibeyoğlu (Eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs, Activities in 2001*, (pp. 641-668). Ankara: Middle East Technical University.
- Tamburrino, A. (2010). Water Technology in Ancient Mesopotamia. In L. W. Mays (Ed.), *Ancient Water Technologies*, (pp. 29-52). London and New York: Springer.
- Thuesen, I. (1994). Mashnaqa. *American Journal of Archaeology*, 98, 111-112.
- Tırpan, S. B. (2013) Architectural Spaces and Hybrid Practices in Ancient Northern Mesopotamia. In J. Card (Ed.), *Archaeology of Hybrid-Material Culture (Vol 39)*, (pp. 466-485). Carbondale: Southern Illinois University Press.
- Tibet, A., Marro, C. & Ergeç, R. (1999). Horum Höyük 1997 Çalışmaları. *Kazı Sonuçları Toplantısı*, 20 (1), 219-240.
- Tobler, A. J. (1950). *Excavations at Tepe Gawra*. Vol II: *Levels IX-XX*. Philadelphia: University of Pennsylvania Press.
- Ur, J. (2002a). Surface Collection and Offsite Studies at Tell Hamoukar, 1999. *Iraq* 64, 15-43.
- Ur, J. (2002b). Settlement and Landscape in Northern Mesopotamia: The Tell Hamoukar Survey 2000-2001. *Akkadica*, 123, 57-88.
- Ur, J., Karsgaard, P. & Oates, J. (2007). Early Urban Development in the Near East. *Science*, 317 (5842), 1188.
- Ur, J., Jong, L. de., Giraud, J., Osborne, J. F. & McGinnis, J. (2013). Ancient Cities and Landscapes in the Kurdistan Region of Iraq: The Erbil Plain Archaeological Survey 2012 Season. *Iraq*, 75: 89-117.
- Ur, J., Karsgaard, P. & Oates, J. (2011). The Spatial Dimension of Early Mesopotamian Urbanism: The Tell Brak Suburban Survey, 2003-2006. *Iraq* 73, 1-19.

- Ur, J. & Hammer, E. (2009). Pastoral Nomads of the 2<sup>nd</sup> and 3<sup>rd</sup> Millennia A.D. on the Upper Tigris River, Turkey: An Archaeological Evidence from the Hirbemerdon Tepe Survey. *Journal of Field Archaeology*, 34, 37-56.
- Vallat, J. P. (1991). The Place and Role of the *Annales* School in an Approach to the Roman Rural Economy. In J. Bintliff (Ed.), *The Annales School and Archaeology*, (pp.73-92). New York: New York University Press.
- Vallet, R. & Baldi, J. S: (2016). Tell Feres (Hassake). In Y. Kanjou & A. Tsuneki (Eds.), *A History of Syria in One Hundred Sites*, (pp. 91-97). Oxford: Oxuniprint.
- Van De Mieroop, M. (2004). *A History of the Ancient Near East, ca. 3000-323 BC*. Malden Blackwell Publishing.
- Van Loon, M. (1971). Korucutepe Kazısı 1969. In *Keban Projesi 1969 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 1, no 2*, (pp. 47-56). Ankara: Middle East Technical University.
- Van Loon, M. (1972). Korucutepe Kazısı 1970. In *Keban Projesi 1970 Çalışmaları. ODTÜ Keban Projesi Yayınları Seri 1, no 3*, (pp. 79-81). Ankara: Middle East Technical University.
- Van Loon, M. (1973). The Excavations at Korucutepe, Turkey, 1968-70: Preliminary Report. Part I: Architecture and General Finds. *Journal of Near Eastern Studies*, 32 (4), 357-423.
- Van Loon, M. (1988a). New Evidence for North Syrian Chronology from Hammam et-Turkman. *American Journal of Archaeology* 92 (4), 581-587.
- Van Loon, M. (1988b). The Seals and Seal Impressions. In M. N. Van Loon (Ed.), *Hammam et-Turkman I; Report on the University of Amsterdam's 1981-84 Excavations in Syria II*, (pp. 661-668). İstanbul: Nederlands Historisch-Archaeologisch Instituut Te İstanbul.
- Wagner, G. A. & Öztunalı, Ö. (2000). Prehistoric Copper Sources in Turkey. In Ü. Yalçın (Ed.), *Anatolian Metal I*, (pp. 31-67). Bochum: Deutsches Bergbau Museum.
- Wallerstein, I. (1982). Fernand Braudel, Historian: Historien, "l'homme de la conjoncture". *Radical History Review*, 26, 104-119.
- Wattenmaker, P. (2009). States, Landscapes, and the Urban Process in Upper Mesopotamia: Inter-Polity Alliances, Competition, and Ritualized Exchange. In S. E. Falconer, & C. L. Redman (Eds.), *Politics and Power: Archaeological Perspectives on the Landscapes of Early States*, (pp. 106-124). Tucson: The University of Arizona Press.

- Wilkinson, T. J. (1990a). *Town and Country in Southeast Anatolia, vol. 1. Settlement and Land Use at Kurban Höyük and Other Sites in the Lower Karababa Basin*. Chicago: Oriental Institute Publications 109.
- Wilkinson, T. J. (1990b). The Development of Settlement in the North Jazira between the 7<sup>th</sup> and 1<sup>st</sup> Millennia BC. *Iraq*, 52, 49-62.
- Wilkinson, T. J., Philip, G., Bradbury, J., Dunford, R., Donoghue, D., Galiatsatos, N., ... Smith, S. L. (2014). Contextualizing Early Urbanization: Settlement Cores, Early States and Agro-pastoral Strategies in the Fertile Crescent during the Fourth and Third Millennia BC. *Journal of World Prehistory*, 27, 43-109.
- Wilkinson, T. J., Galiatsatos, N., Lawrence, D., Ricci, A., Dunford, R., & Philip G. (2012). Late Chalcolithic and Early Bronze Age Landscapes of Settlement and Mobility in the Middle Euphrates: A Reassessment. *Levant*, 44 (2), 139-185.
- Wilkinson, T. J., Peltenburg, E., McCarthy, A., Wilkinson, E. B. & Brown, M. (2007). Archaeology in the Land of Carchemish: Landscape Surveys in the Area of Jerablus Tahtani, 2006. *Levant* 39, 213-247.
- Wilkinson, T. J. & Tucker, D. (1995). *Settlement Development in the North Jazira, Iraq*. Warminster, UK: Aris and Philips.
- Whallon, Robert. (1979). *An Archaeological Survey of the Keban Reservoir Area of East-Central Turkey*. Michigan: University of Michigan Museum.
- Wright, H. (2001). Cultural Action in the Uruk World. In M. S. Rothman (Ed.), *Uruk Mesopotamia and its Neighbors: Cross-Cultural Interactions in the Era of State Formation*, (pp. 123–148). Santa Fe: School of American Research Press.
- Wright, H. & Johnson, G. (1975). Population, Exchange, and Early State Formation in Southwest Iran. *American Anthropologist*, 77, 267-289.
- Wright, H. T. & Rupley, E. S. A. (2001). Calibrated Radiocarbon Age Determinations of Uruk-related Assemblages. In M. S. Rothman (Ed.), *Uruk Mesopotamia and Its Neighbors: Cross-Cultural Interactions in the Era of State Formation*, (pp. 85–122). Santa Fe: School of American Research Press.
- Yakar, J. (2002). East Anatolian Metallurgy in the Fourth and Third Millennia BC: Some Remarks. In Ü. Yalçın (Ed.), *Anatolian Metal II. Der Anschnitt, Beiheft 15*, (pp. 15-26). Bochum: Deutsches Bergbau-Museum.
- Yardımcı, N. (1991). 1989 Yılı Şanlıurfa-Harran Ovası Yüzey Araştırmaları. *Araştırma Sonuçları Toplantısı*, 8, 401-418.
- Yardımcı, N. (1994). 1992 Yılı Şanlıurfa-Harran Ovası Yüzey Araştırmaları. *Araştırma Sonuçları Toplantısı*, 11, 265-284.
- Yardımcı, N. (2004). *Harran Ovası Yüzey Araştırması (Vol 1-2)*. İstanbul: Kolektif Kitap.

Yoffee, N. (2004). *Myths of the Archaic State: Evolution of the Earliest Cities, States, and Civilizations*. Edinburgh: Cambridge University Press.

Zimansky, P. (2005). Archaeology and Text in the Ancient Near East. In S. Pollock & R. Bernbeck (Eds.), *Archaeologies of the Middle East: Critical Perspectives*, (pp. 308-326). Malden: Blackwell Publishing.

## TABLES

Table 1. Chronological framework of the Late Chalcolithic period and related levels of excavated sites in northeast Mesopotamia (after Rothman, 2001a: 7, Table 1.1).

<div>Date B.C.</div>	<div>Sites</div>	Terminal Ubaid	LC 1	LC 2	LC 3	LC 4	LC 5										
		4500	4400	4300	4200	4100	4000	3900	3800	3700	3600	3500	3400	3300	3200	3100	3000
	Tepe Gawra		Level XII	Levels XI-IX	Level VIII												
	Kuyunjik				MM-59/-50	MM-45/-38	MM-37/-31									MM-31/-20	
	Qalinj Agha			Levels I-V													
	Grai Resh				Levels IV-III-IB												
	Tell al-Hawa		Trench LP														
	Başur Höyük			BSA-5	BSA-4											BSA-3	
	Hirbemerdon					Area B - Phase I											
	Kenan Tepe				Areas F - G												
	Aşağı Salat		Level 8				Level 7										
	Giricano											Level 06					
	Salat Tepe		Period IB		Period Early IC		Period Late IC									Period ID: 9	
	Yenice Yanı			Units A-B													

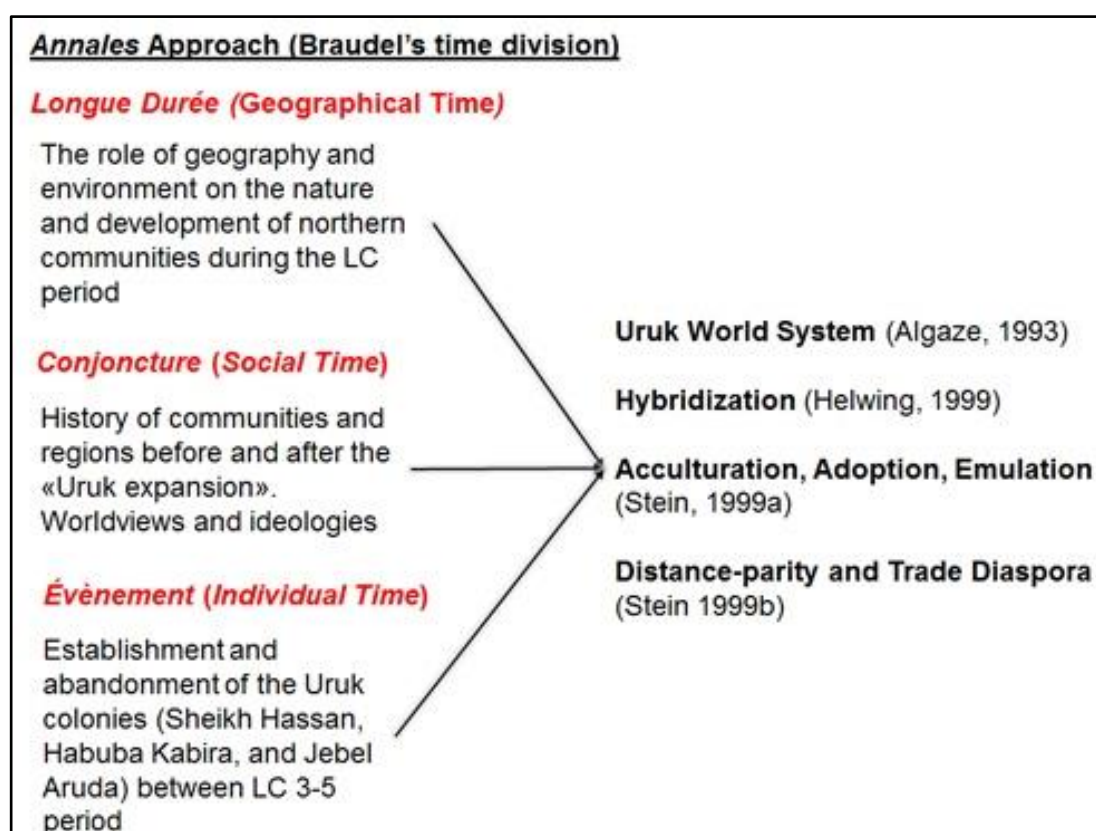
Table 2. Chronological framework of the Late Chalcolithic period and related levels of excavated sites in northwest Mesopotamia (after Rothman, 2001a: 7, Table 1.1).

<div>Date B.C.</div>	<div>Sites</div>	Terminal Ubaid	LC 1	LC 2	LC 3	LC 4	LC 5										
		4500	4400	4300	4200	4100	4000	3900	3800	3700	3600	3500	3400	3300	3200	3100	3000
	Khirbat al-Fakhar		ZI-ZD 3/4-ZD 1/2-, ZM														
	Tell Brak		HS 6, 9-7 / CH 15-20		HS 6, 6-2 / TW 21-20			TW 19-18		TW 17-14		TW 13		TW 12-11			
	Tell Majnuna		EM - MTW areas														
	Tell Feres	Level 10 A/B	Levels 9B-7		Levels 6 - 4A			Levels 3 - 2 A/B		Levels 1C/1B		Level 1A					
	Mashnaga		B 1	B 2	B 3			B 4	C 1	C 2			C 3				
	Tell Zeidan	LC 1b	LC 1c	LC 1d	LC 2a			LC 2b									
	H. et-Turkman	IV C	IV D / VA		VA				VB								
	Sheikh Hassan																
	Sheikh H. 8-10/13																
	Sheikh H. 5-7																
	Sheikh H. 4																
	Habuba Kabira																
	Habuba Kabira Süd																
	Jebel Aruda																
	Jebel Aruda																
	Kosak Shamali		Sector B / Levels 6-5														
	Zeytinli Bahçe																
	Trench B8																
	Trench B8																
	Hacınebi																
	Phase A																
	Phase B1																
	Phase B2																
	Horum Höyük		Pit D0012														
	Period VI B																
	Period VI A																
	Kurban Höyük																
	?																
	?																
	Samsat																
	Levels XX-XXVII																
	Hassek Höyük																
	Level 5 c																
	Level 5a-b																
	Period VIII																
	Period VII																
	Period VI A																
	JJK 17 (levels 11-2) - JJK 18-19 (levels 10-5)																
	Phase A																
	Phase B																

Table 3. Braudel's time division of *histoire totale* (after Bintliff, 2010: 119, fig.1).

<i>Longue Durée</i> Long Term	Geohistory: "Enabling and Constraining"; History of Civilizations, Peoples; Stable Technologies, worldviews ( <i>mentalités</i> )
<i>Conjoncture</i> (Medium Term)	Social, Economic History; Economic, Agrarian, Demographic Cycles; History of Eras, Regions, Societies; Worldviews, Ideologies ( <i>mentalités</i> )
<i>Évènements</i> (Short Term)	Narrative, Political History; Events; Individuals

Table 4. *Annales* paradigm and previous approaches on the LC period of north Mesopotamia (drawn by the author).





## FIGURES



Figure 1. Map showing the main area of study and the main Late Chalcolithic sites in north Mesopotamia (adapted from QGIS).

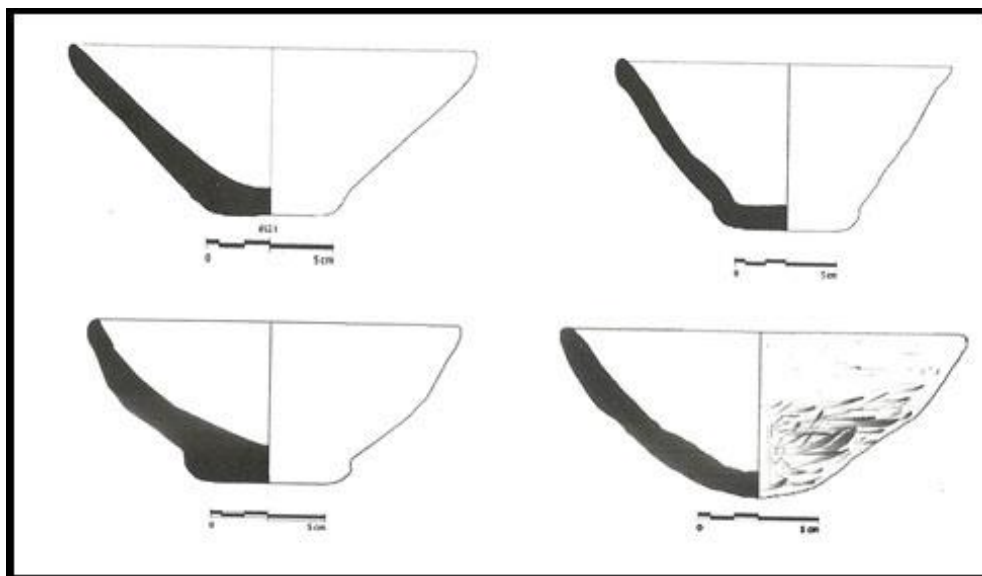


Figure 2. Regional diversities of Coba bowls with four main types (Baldi, 2012a: 414-415, figs.2-3).





Figure 3. Map showing the main LC 1-2 sites in north Mesopotamia (adapted from QGIS).

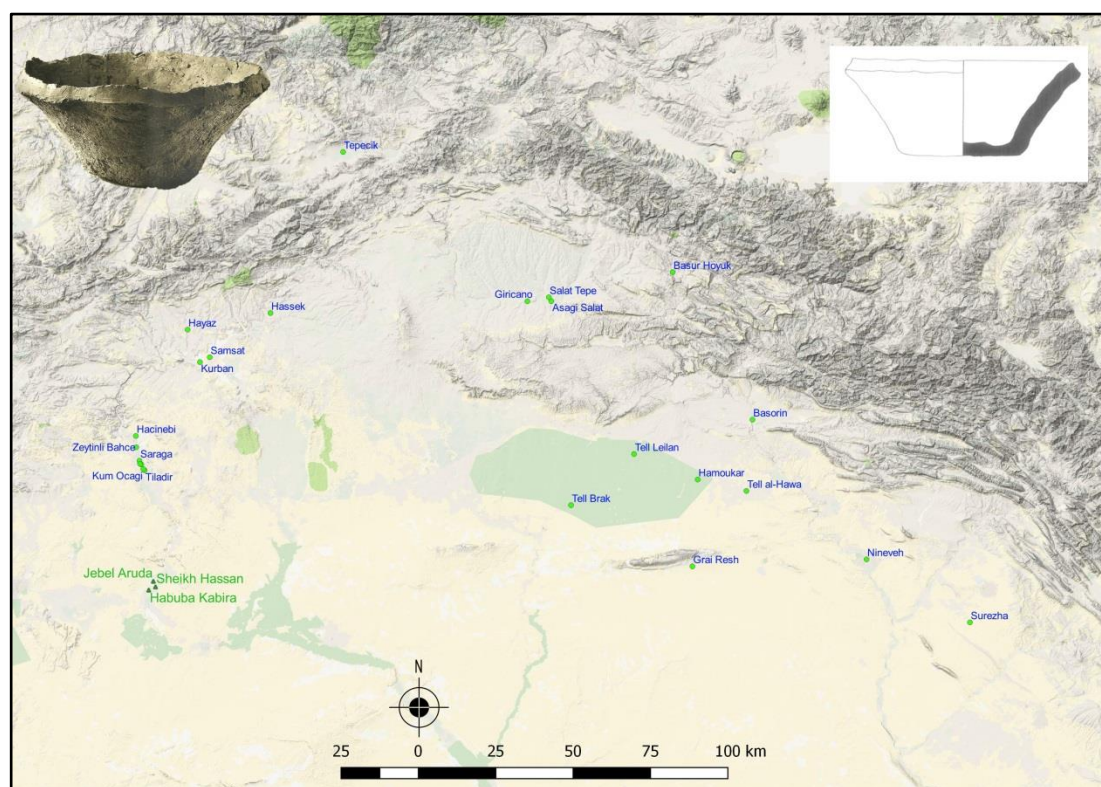


Figure 4. Beveled Rim Bowls from excavated and surveyed sites (map adapted from QGIS; picture; Cluzan, 1993: 87, fig. 84b; drawing; Pearce, 2000: 136, fig. 12).



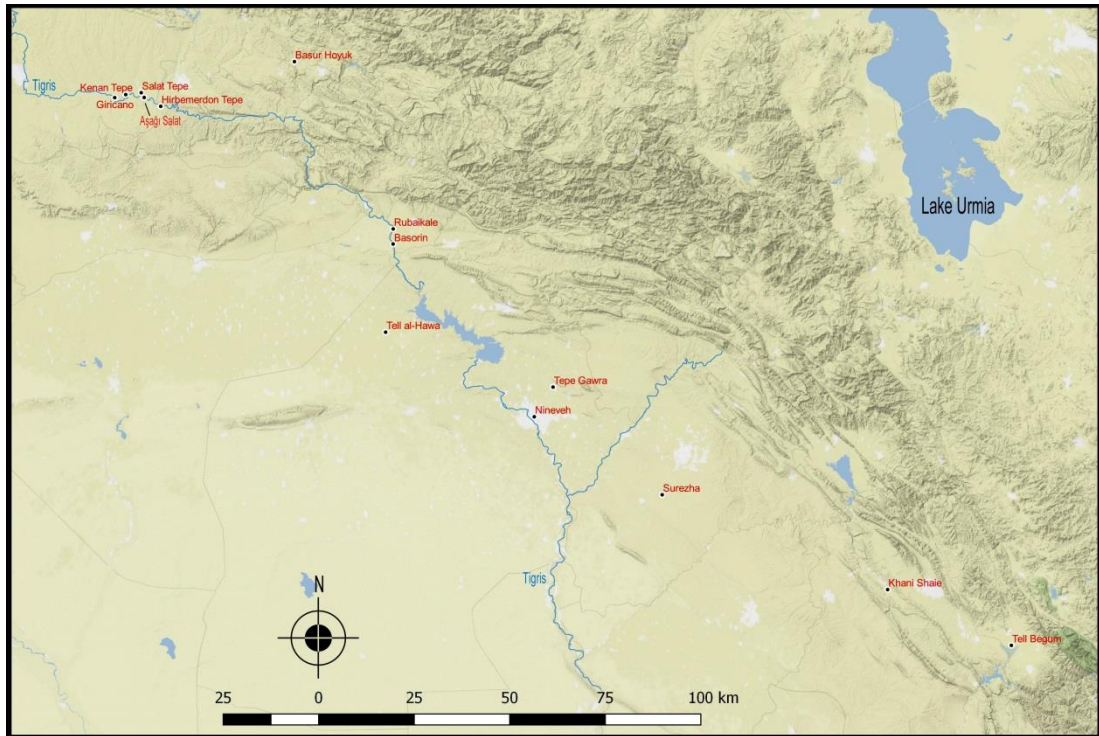


Figure 5. Map showing sites with LC 3-5 archaeological contents in northeast Mesopotamia (adapted from QGIS).

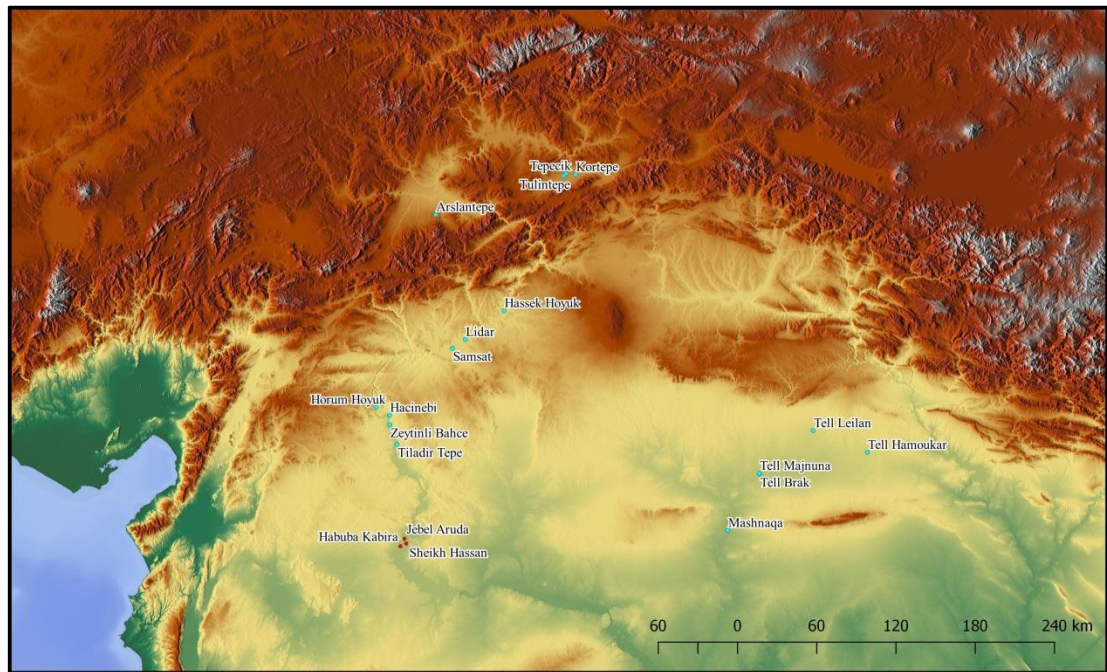


Figure 6. Map showing sites with LC 3-5 archaeological contents in northwest Mesopotamia (adapted from QGIS).



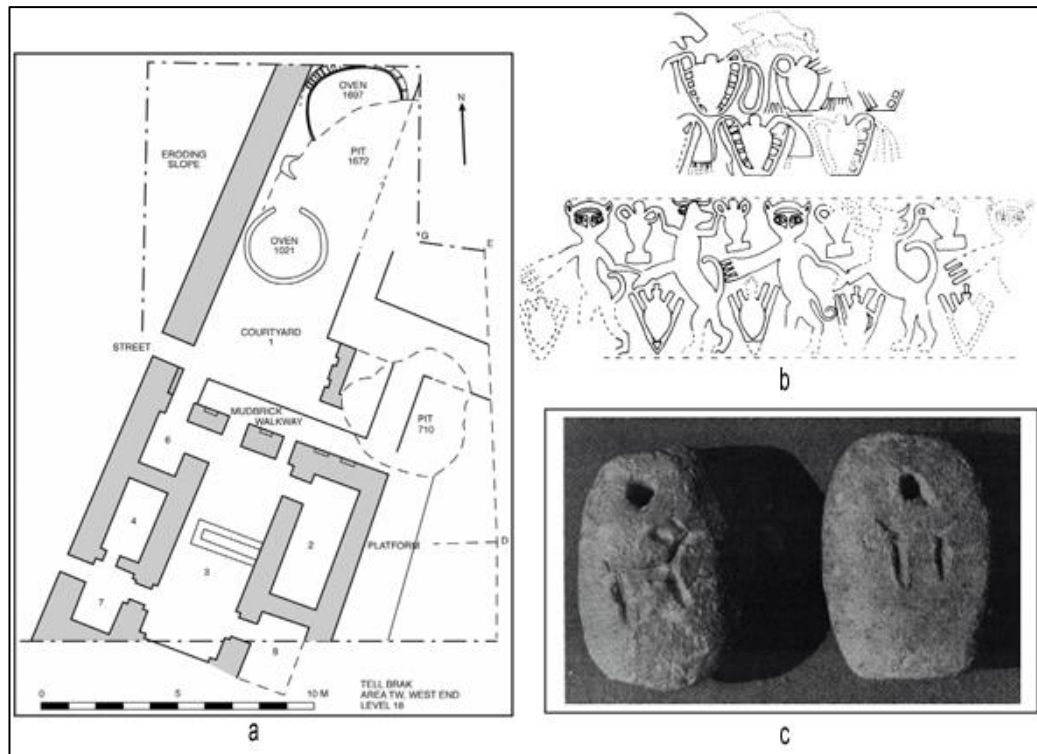


Figure 7. (a) Architectural plan of the Feasting Hall (Oates et al. 2007: 595: fig. 11); (b) the depiction showing tasseled pots with carrying devices and the depiction of (lion?) as an early Anzu-Bird (Oates & Oates, 1997: 294: fig. 14); (c) Numerical tablets from Tell Brak (Jasim & Oates, 1986: Fig. 2a).

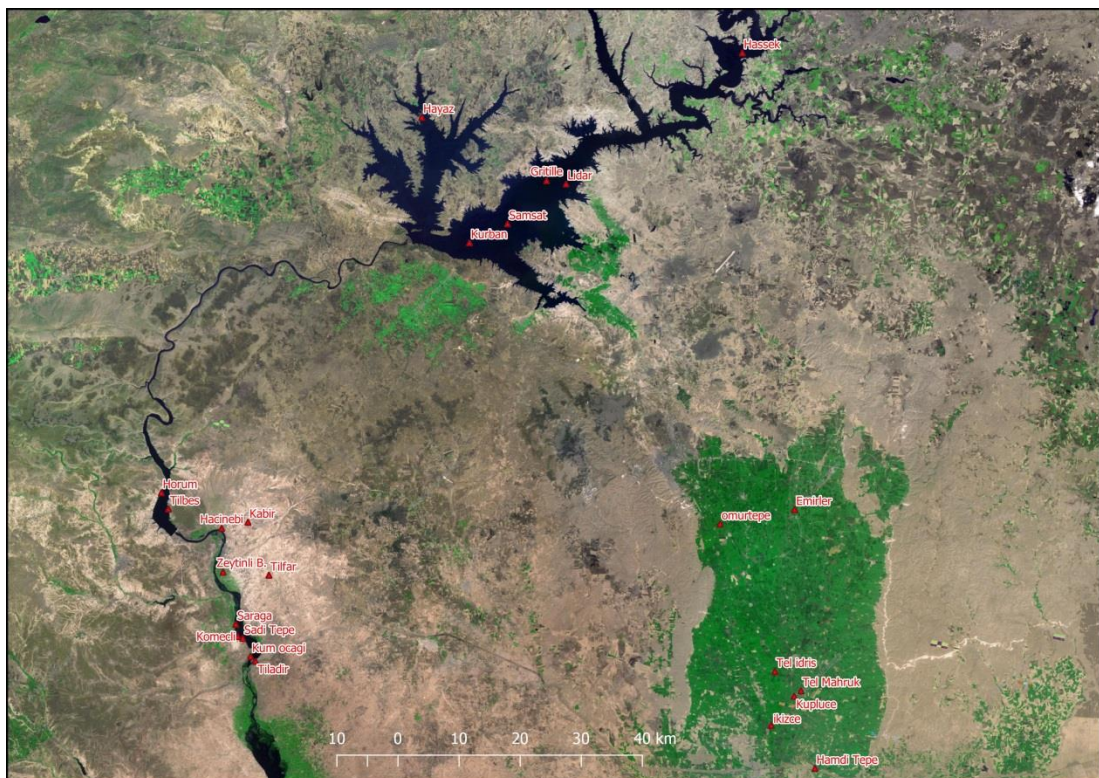


Figure 8. Map showing main sites located in the Middle Euphrates Basin and the Harran Plain (adapted from QGIS).

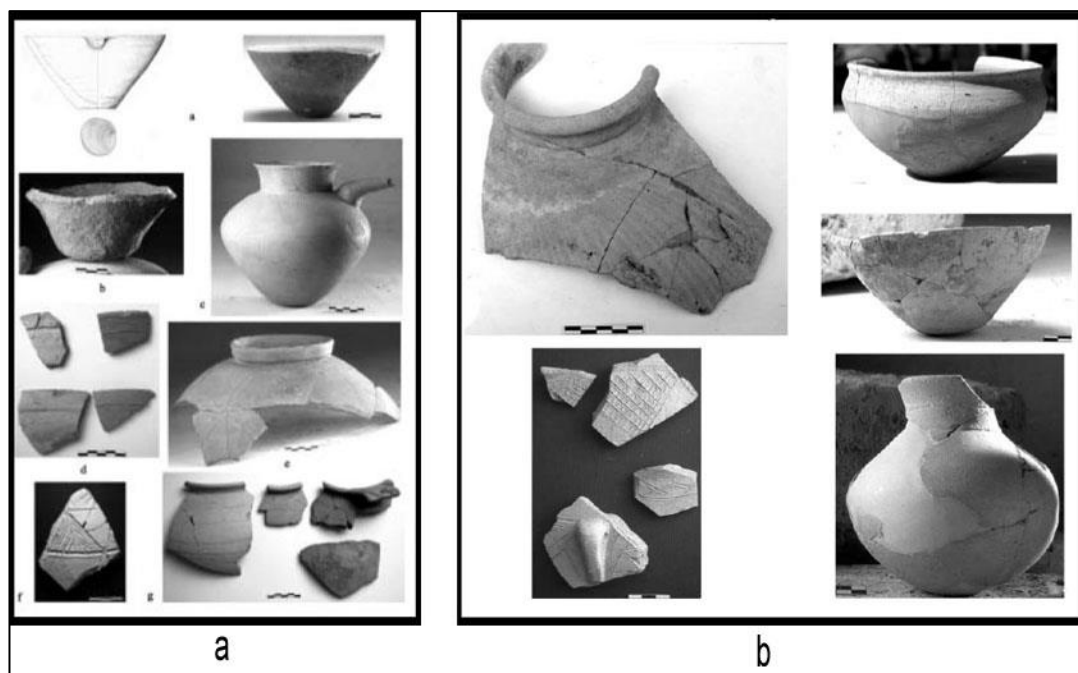


Figure 9. The reinterpretation of LC 3 pottery (a) in the LC 5 period at Zeytinli Bahçe (b) (Frangipane, 2010: 200-201, figs. 5 and 6).

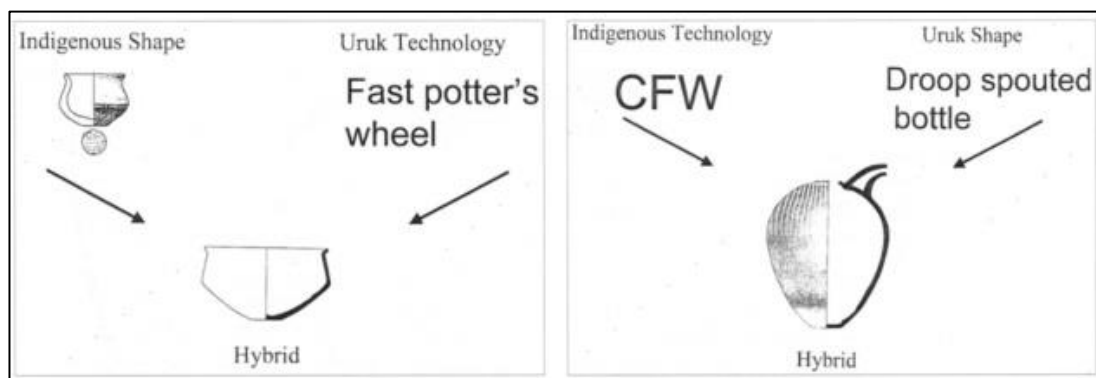


Figure 10. Local and Uruk style Hybridized pottery assemblage of Hassek Höyük (Helwing, 1999: 96, figs. 4a-4b).

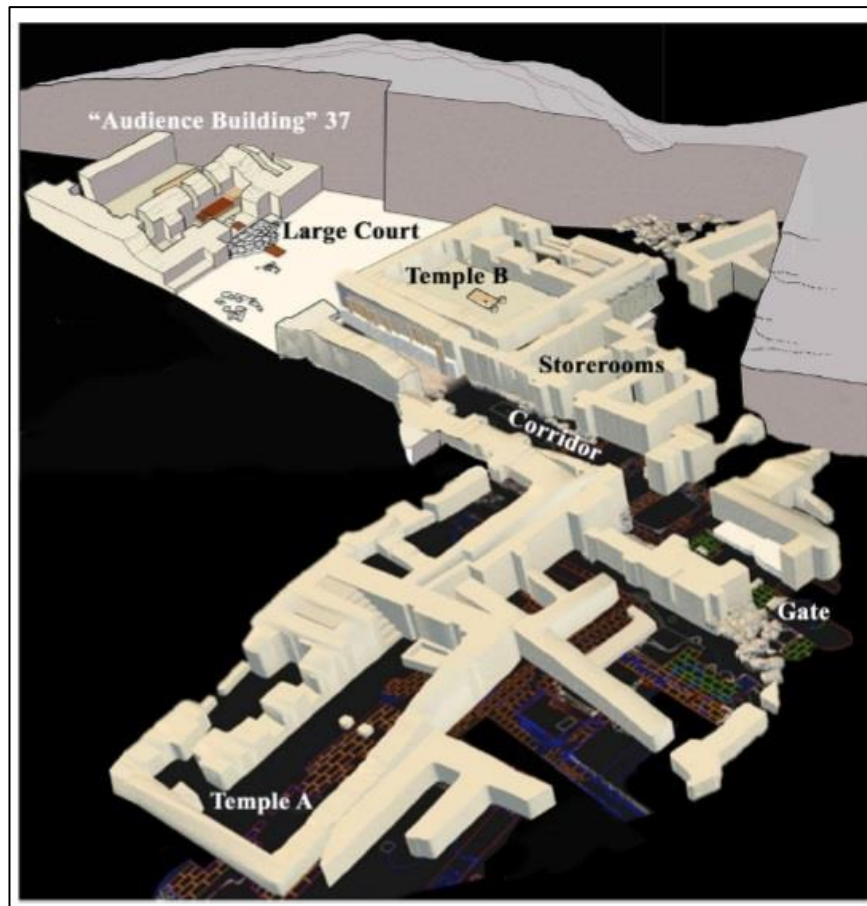


Figure 11. Reconstruction of Arslantepe period VI A “palatial period” (Frangipane, 2017a: 37, fig. 13).

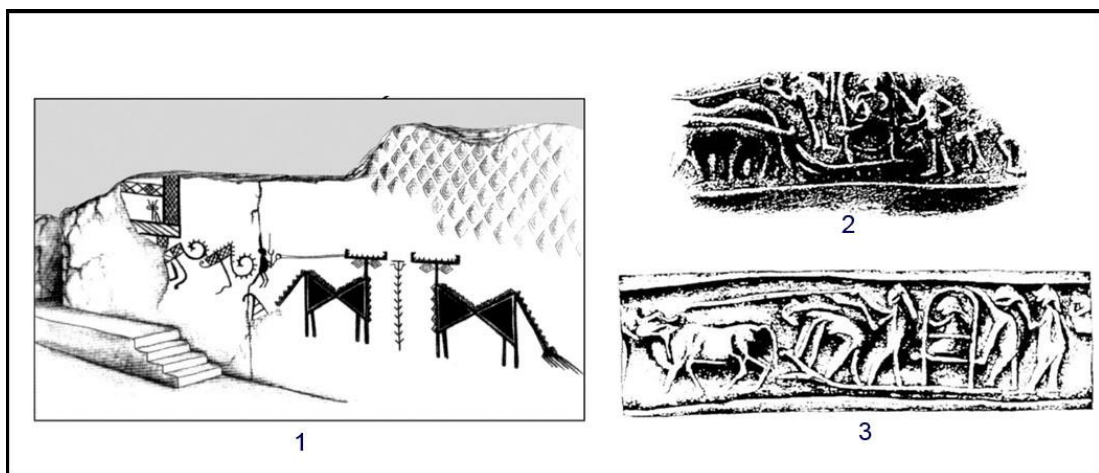


Figure 12. (1) Arslantepe period VI A wall painting in the audience building; (2) Uruk type seal from Arslantepe; (3) Uruk seal from Warka (Tirpan, 2013: 478-479, figs. 20-5 and 20-6)



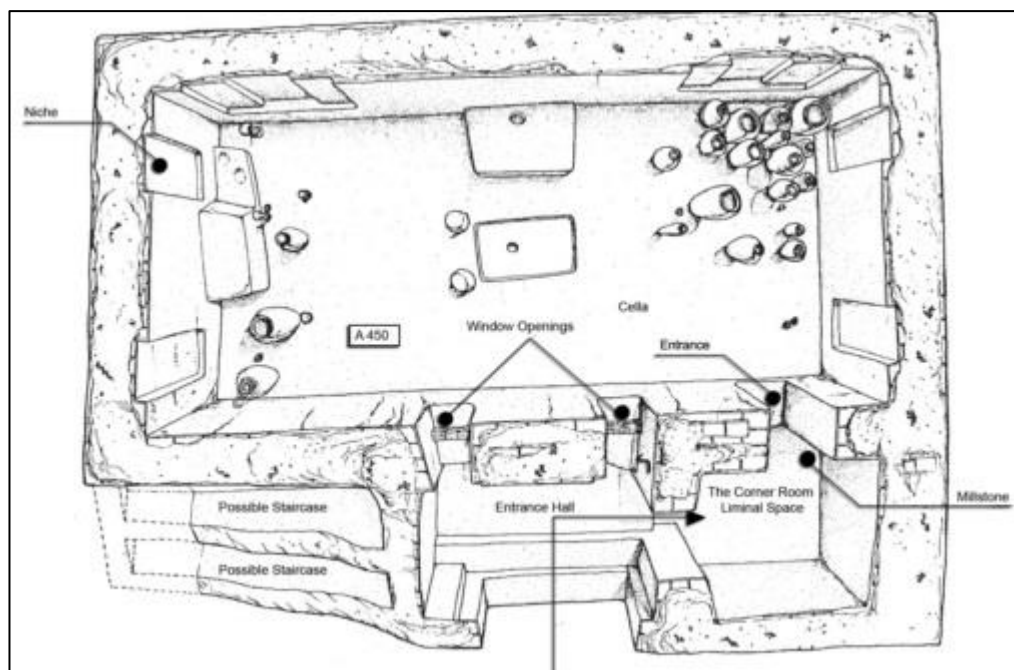


Figure 13. Arslantepe period VI A Temple B and interior architectural elements (Tirpan, 2013: 476, fig. 20-3).

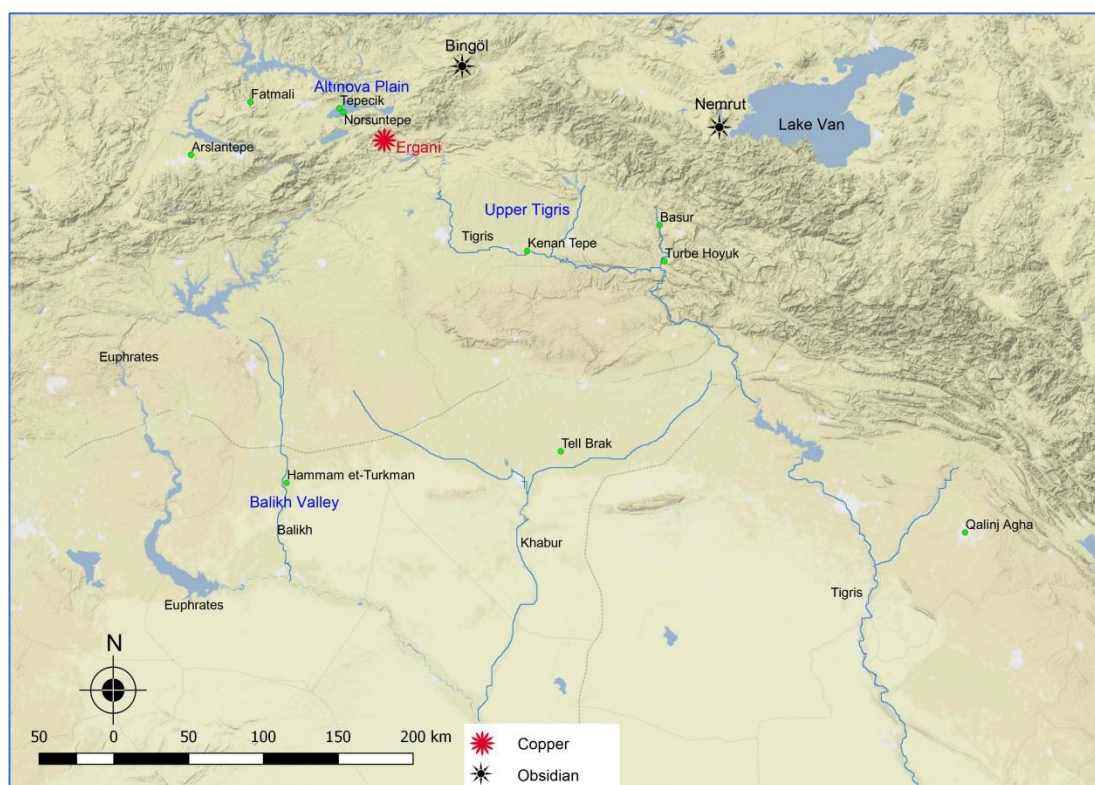


Figure 14. Map showing the location of main highland resources and sites discussed in chapter 6 (adapted from QGIS).

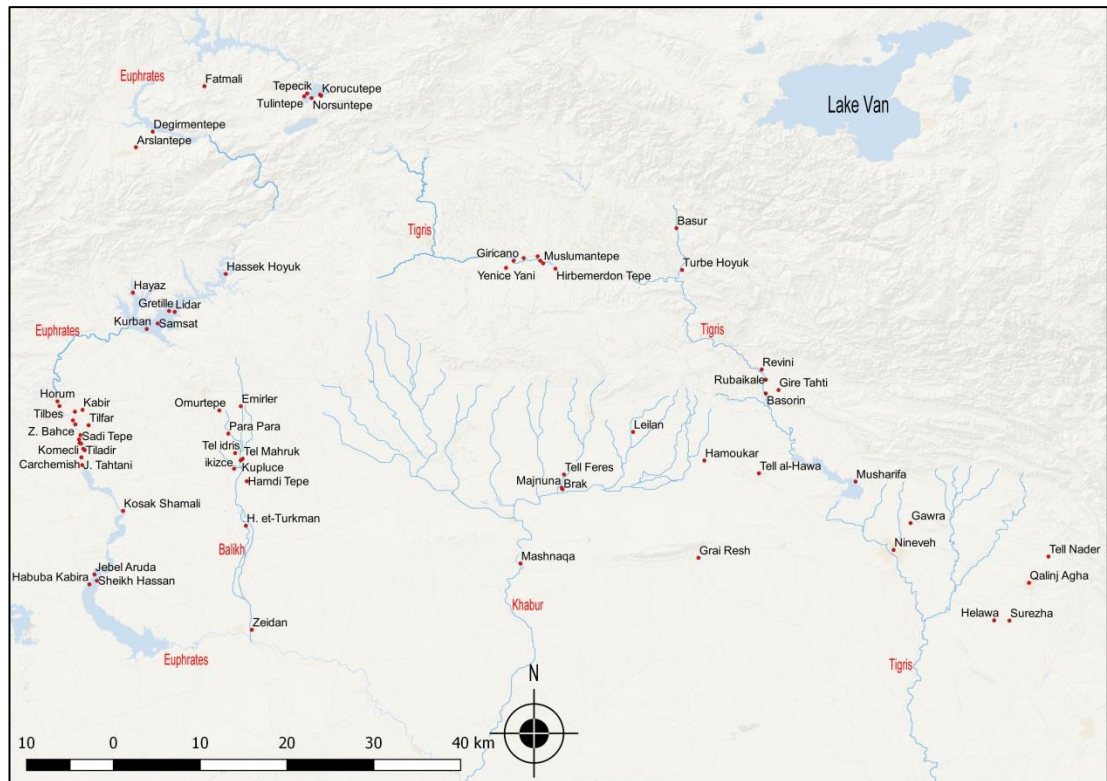


Figure 15. The close proximity of the LC period sites near rivers in north Mesopotamia (adapted from QGIS).

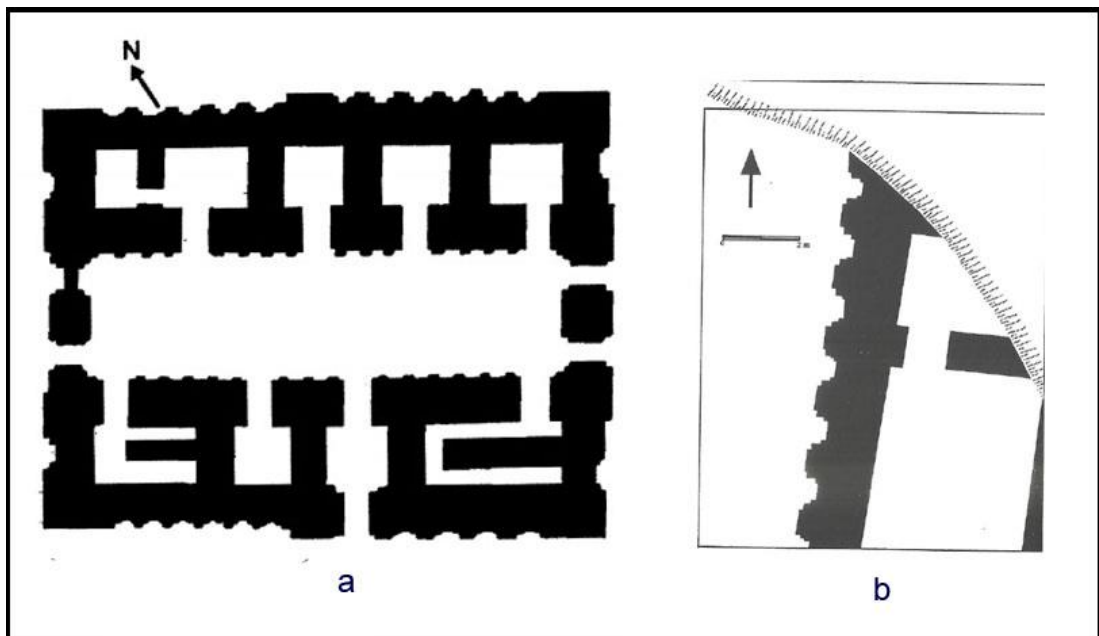


Figure 16. (a) Architectural plan of White Temple at Uruk (Roaf, 1995: 430, fig. 7); (b) Stratum 7 building in Level VB at Hammam et-Turkman (Lupton, 1996: 29, fig. 2.13).