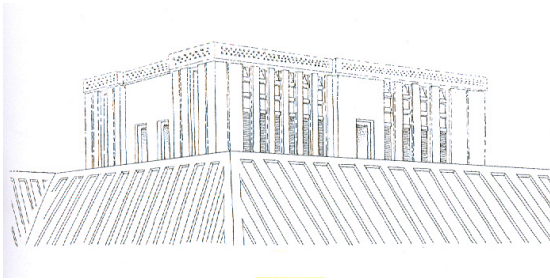


IDEOLOGY, SOCIAL SPACE & POWER IN URUK SOCIETIES.

**– A COMPARATIVE ANALYSIS OF NORTH AND SOUTH
MESOPOTAMIAN SETTLEMENTS IN THE 4th MILLENNIUM B.C.**



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CHAPTER 1: INTRODUCTION.

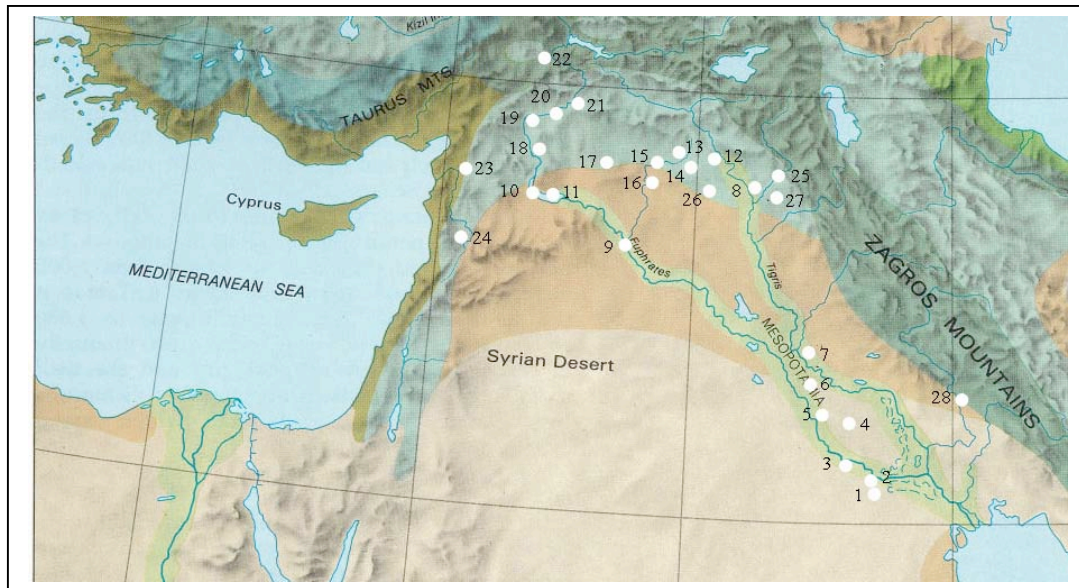
1.1: Introduction.

In the late fourth millennium B.C, the Sumerian civilization rose in the southern parts of Iraq. The people invented scripture and constructed monumental buildings, still to be seen today at some sites. The period is often called the *dawn* or *birth of civilization* (Childe 1968, Frankfort 1956). The Mesopotamian culture has been considered as the civilization to which *western societies* owed their inheritance (Trigger 1997: 168-170). Scientists from Europe and America have been drawn to the Near East since the earliest discoveries in the 17th century, often inspired by biblical stories, to discover the roots of their civilization (Matthews 2003, Trigger 1997). In his work *Orientalism*, Said (1978) discussed the relationship between the Orient and the west. The Middle East has been encountered as something far and exotic, but also familiarized as the land of the bible (Bernbeck 2005: 100, Liverani 2005: 223-225). Early views of the Near East revealed a contrasting picture – from the embracement of ancient Egypt to the alienation from the corrupted Babylon (Wengrow 2006a: 36-39). Scientist today are more wary concerning the connection between the West and the Near East, but the creators of the propaganda prior to the Gulf wars certainly knew their origins, and whose duty and right it was to protect the remains of Near Eastern civilizations (Pollock 2005: 83-86). Perhaps is politics and *Orientalism* a reason why ideology has been discussed to a much lesser degree than other topics, because we are afraid to be criticized for either applying western values into the prehistoric Middle East, making it ours, or for alienating ourselves from barbaric and primitive theocracies? Ideology is the topic in my thesis. It been advertised by authors (Charvat 2001: 216, Lamberg-Karlovsky 1974: 12), and has again become an important topic in the discussion of early urban societies in Mesopotamia (Collins 2000, Pollock 2002, Ross 2005).

1.2: Where and when?

Mesopotamia stretches from the Persian Gulf, up the Euphrates and the Tigris rivers, to the northern Iraq and Syria and into southern Anatolia. The area can roughly be divided into north Mesopotamia, where rain-fed farming is possible, and south Mesopotamia, where agriculture is dependent on irrigation. The two areas are

separated by an uncultivable steppe, suitable for grazing, and are from north to south surrounded by the Zagros Mountains in east and the Taurus in north. The areas to the east are dominated by desert (Stone 2000: 236).



Map 1: Map of Mesopotamia with of Uruk sites mentioned in the text. 1: Eridu. 2: Ur. 3: Uruk-Warka. 4: Nippur. 5: Abu Salabikh. 6: Tell Uqair. 7: Khafajeh. 8: Nineveh. 9: Tell Qraya. 10: Habuba Kabira/Jebel Aruda. 11: Sheikh Hassan. 12: Tell al-Hawa. 13: Tell Hamoukar. 14: Tell Leilan. 15: Tell Brak. 16: Mashnaqa. 17: Tell Kuran. 18: Jerablus. 19: Hacinebi. 20: Samsat/Kurban Höyük. 21: Hassek Höyük. 22: Arslantepe. 23: Tell Judeidah. 24: Hama. 25: Tepe Gawra. 26: Grai Resh. 27: Qalinj Agha. 28: Susa (Edited after Map (Roaf 2003: 22).

The Uruk period can roughly be divided into early, middle and late, or with finer divisions of 4 late chalcolithic periods, illustrated in table 1.

Chronological table of the Uruk period		
Uruk period	Late Chalcolithic period	Years B.C.
Early Uruk	LC 2	4200-3900 B.C
Middle Uruk	LC 3	3900-3600 B.C
	LC 4	3600-3350 B.C
Late Uruk	LC 5	3350-3100 B.C

Table 1: Chronological table of the Uruk period (Emberling & McDonald et al 2003: 33-37, table 5, Oates, J. 2004a: 111, Schwartz 2001: 236-243, Wright 2001: 125-126, Wright & Rupley 2001).

1.3: Excavations in Mesopotamia.

The first European to excavate archaeological sites in the Middle East was the Italian nobleman Pietro della Valle who dug at Ur, Babylon and Borsippa. In 1625 he brought home bricks with cuneiform inscriptions. This inspired other travellers, to do minor examinations, marking the start of the Antiquarianism in archaeological research history. During the 19th century archaeological expeditions and digs were conducted throughout Mesopotamia. The character of these expeditions was more like grave-robberies and looting than archaeology. Shafts and tunnels were dug when they sought for treasure, which was to be sent back to museums in Britain and France (Roux 2001: 4, Englund 1998: 15, Kramer 1970: 10, Matthews 2003: 6-11, Lloyd 1980: 8-10).

The archaeological discipline in Mesopotamia changed about 1900. The Germans developed a technique for tracing and excavating mudbricks, which up till then had just been dug up and thrown away. They also introduced the method of stratification for recording of chronological sequences (Matthews 2003: 12). The first major excavations at Uruk-Warka were conducted in 1912 and 1913. This provided new information about the prehistory, and gave name to the Uruk period (Strommenger 1980b: 480), which was unknown prior to this. However the importance of pottery for chronological dating was still ignored, and only complete vessels were kept, sherds if they were decorated, making Uruk-Warka problematic as a chronological focal point (Nissen 2004: 3-4). After WWI Iraq gained its law of antiquities. All archaeological expeditions had to be licensed, and faced certain criteria (Crawford 2006: 3-4). Foreign intervention in Iraq became restricted, leading to an emigration of archaeologists to Syria and other countries (Matthews 2003: 16). This resulted in the discoveries of sites such as Tell Brak (1934). This discovery showed that urban cities in the Uruk period could rise outside the south Mesopotamian plains, and without irrigation farming, which was believed to have been a major factor in the urbanization process (Childe 1950: 8).

Landscape surveys were an important tool in the research on early urbanization, because it made it possible to say something about changes in settlements, population and agriculture during different periods (Adams 1965, 1981, 2002, Adams & Nissen

1972, Crawford 2006: 5, Matthews 2003: 49-54, Lloyd 1938). They were a great contribution to an archaeology that had focused on monumental architecture during the 30s and 40s (Delougaz & Lloyd 1942, Lloyd, Safar & Frankfort 1943, Safar, Mustafa & Lloyd 1981). However, no excavations were conducted, and the surveys only included materials that were collected from the ground, making it hard to confirm or contest the results. Today, surveys in north Mesopotamia have added new information about the early urbanization process, settlement patterns and pottery distribution during the Uruk expansion (Ball, Tucker & Wilkinson 1989, Lupton 1996, Ur 2002, Ur, Karsgaard & Oates 2007). These have rendered the old picture of the south as the “birthplace for civilization,” and the discussions of early urbanization now include north Mesopotamia as well (Oates et al 2007).

Archaeologists in the 60s and 70s stressed that more scientific methods should be used in the discipline. Palaeobotanical samples provided new knowledge about agriculture and animal husbandry (Charvat 2002, Emberling & McDonald 2003, Safar, Mustafa & Lloyd 1981: 317-318), and carbon dating were introduced as a tool for absolute dating in a discipline that had relied on relative methods such as pottery (Wright 2001). Because of tight schedules and high costs, archaeology in the late 70s developed to become more of a regional survey exercise with limited excavation. A lot of new sites from all periods are surveyed, but only a few are subject of long-term excavation. These tend to focus on solutions to specifically defined problems, and are conducted by a few specialists (Crawford 2006: 4.5, Maisels 1998: 199, Matthews 2003: 17). Archaeological expeditions were also affected by the revolution in Iran, which cancelled the opportunities for foreign fieldwork, and the Gulf War in 1990 put an end to archaeological investigations in Iraq (Pollock 2001: 185). The attention of archaeologists was led to Syria and Anatolia, and the focus became the relationship between north and south Mesopotamia. Our understanding of the Uruk period today have been influenced by middle-eastern politics, because scientific interests, politics and economy play a key role in what, where and how archaeological remains are excavated.

1.4: Culture & identity in Mesopotamia.

Variations in material culture, and especially pottery, have been used to define different cultures and people (Trigger 1997: 167-171), and Mesopotamia is no exception. The origins of the Sumerians have been of great interest among scientists since the recognition of Akkad and Sumer in cuneiform tablets, and the discovery of a language in the earliest scripture that was very different from Semitic languages such as Akkadian (Crawford 2006: 1-3, Englund 1998: 56-65, Kramer 1970: 15-21, Potts 1997: 44). Gordon Childe (1928) pointed to the similarities between southwest Iran and south Mesopotamia and postulated that the southern plains were colonized from the eastern highland. These settlers were followed by occupation by a new cultural group that came to northern Babylonia from north Syria and was identified as Akkadians. Henri Frankfort (1932) proposed that the Sumerians were in south Mesopotamia during the Uruk period on the basis of similarities in material culture, between Uruk and later periods. They had come from the east as Childe had suggested, but were not the first settlers on the plain (Frankfort 1932: 16-22). This raised the question about the Sumerians and the Ubaid period. Oates (1960) focused on the continuity from the early Ubaid to the Sumerian period, and argued that it was the same people (Ibid: 44-50, Potts 1997: 44-45). In recent years Englund has opposed this view and proposed that the Sumerians arrived in the area in the late Uruk period (Englund 1998: 81). The Uruk period, which is in focus here, revealed different material culture in north Mesopotamia and south Mesopotamia and can be interpreted as Childe did, splitting the region in two: the north with Akkadians and the south with Sumerians. However, I will not consider cultural identity here, because I find it as an inadequate approach to describe the changes that occurred during the Uruk period and the expansion. The different material will be used to analyze social representations, as an attempt to distinguish between ideology in north and south Mesopotamia. In this thesis it is not important if the people in the two regions were the Akkadians and the Sumerians. In my opinion it is more interesting on what social representations they based their social structures, shaping their ideology, hierarchies and social actions.

1.5: The Uruk expansion.

In this thesis I will examine ideology in north and south Mesopotamia during the *Uruk expansion*, a phenomenon within the Uruk period, which lasted from 3700-3100 B.C. It is used as a term for the period when south Mesopotamian pottery, architecture and administration technology spread to other regions, from Nineveh in northern Iraq to Syria and to south Anatolia, where local material culture dominated. The south Mesopotamian material appeared in north Mesopotamia for the first time about 3700 B.C, and became abundant about 3350 B.C, before it disappeared about 3100 B.C, when local culture emerged again (Algaze 2005a, Frangipane 2001, Lupton 1996, Schwartz 2001). Questions about and explanations of this phenomenon have been asked and proposed by several authors, and the dominating view is that it happened as a result of processes in south Mesopotamia such as economical expansion (Algaze 1989, 2005a, 2005b, McCorrison 1997, Stein 1999), urbanization, centralization (Nissen 2001, Wright & Johnson 1975, Johnson 1975), war and emigration (Johnson 1988-89). North Mesopotamia was sought by the south Mesopotamians as a region that they could move to, dominate or trade with to get the materials that were needed to sustain existing power relations (Algaze 2001a: 37-46). Paul Collins (2000) argued that the Uruk expansion was conditioned by a unique ideology that had developed in the communities in south Mesopotamia, and that the expansion of this ideology created the Uruk expansion (Ibid: 2). Charvat (2001) has also advertised an approach towards changes in ideology as an explanation for the Uruk expansion (Ibid: 216). Geoff Emberling, who had been field director at Tell Brak until 2004, said that; *“People didn’t just move in; they took ideological control (Lawler 2006: 1463),”* about the southern intrusion at the site 3350-3100 B.C. Is it possible that the Uruk expansion was more than an economical expansion, which involved the spread of new ideology to the north? In this thesis I will focus on the relations between north and south Mesopotamia on these matters. The period in question is the Uruk expansion, but material from the earlier periods will be used for comparison when it is necessary to understand the background for the developments during the expansion.

1.6: Research questions.

In this thesis I study ideology, social space and power in Uruk societies, and the relationship between the north and the south. Did these regions share aspects of ideology, and did the south Mesopotamians dominate ideologically from about 3350 B.C as Emberling has postulated? And what were the consequences? These questions are closely connected to those about social organization and power relations. South Mesopotamia can be considered a single cultural area, but it is unclear what kind of power relations that existed between the settlements (Nissen 2001: 158). Who exercised power, and how was it legitimated?

1.7: The structure of the thesis.

In the next chapter I will discuss ideology. How it interacts with people in a society, how it can be analyzed through material culture, and how ideology and material culture interplay with power relations. In the 3rd chapter I discuss the ecological and economical aspects that concern the background for the developments in ideology during the 4th millennium B.C. The 4th chapter is a comparative analysis of material in north and south Mesopotamia concerning social organization, and the 5th concerns ideology and material culture – the relationship between the north and the south, and the impact of the Uruk expansion. In chapter 6 I will discuss the changes that occurred in the political landscape, and the ideological effects on adjacent areas. The last chapter is a summary. The thesis has in addition an appendix that contains pictures of selected temples and cylinder seals mentioned in the text. These are referred to in the text as e.g. fig. A14.

CHAPTER 2: IDEOLOGY AND ARCHAEOLOGY.

This chapter aims to explain what ideology and material culture is, and how these interact and are reproduced in societies through human agency. I will first review theoretical perspectives that are important for the understanding of Uruk societies today.

2.1: Theoretical perspectives on the Uruk period.

Different methods, theories, and new archaeological materials have led to several interpretations and views. Early interpretations were based on studies of later temple archives, and the Uruk communities with their monumental temples were often described as theocracies. The temple owned all the land and was ruled by a priest-king (Amiet et al 1981: 73-74, Collins 2000: 6-7, Falkenstein 1974: 5-7). Interpretations by Diakonoff (1974: 6-11) and Gelb (1979) challenged this view and proved that there were private landholders in addition to the temple, who conducted transactions of land. Jacobsen (1943) postulated that the Uruk society was a form of early democracy with a council of elders, selected by an assembly of citizens. This is attested in the epic of Gilgamesh, and recognized in written sources from later periods (Diakonoff 1974: 8-11). The early attempts to reconstruct ideology in the Uruk period were soon rejected, and other subjects came to dominate the discourse for many years. This reflected Oppenheim's (1977) view. He had postulated that it was not possible to link archaeological material and ideology in a convincing way.

Discussions concerning the Uruk period from the 60's tended to put weight on economy, demography, ecology, centralization and urbanization – contrasting the early descriptions of the theocratic state. Gordon Childe (1937) was a pioneer in this work already in the inter-war years. He emphasized the invention of new technologies such as irrigation agriculture, the plough and specialized crafts. This led to the urban revolution, which transformed the village communities into cities. He also believed that irrigation was prerequisite to support a city with specialists, elites and public constructions (Ibid 1937, 1950). Sherratt (1981, 1983) followed this up with what he termed the secondary products revolution. He argued that products like milk and wool became important for the first time during the Uruk period. Later research has shown

that the “revolution” began during the Ubaid period, but has also confirmed the products importance during the Uruk period (Charvat 2002, Green 1980, Pollock 2002). Based on features such the origin of scripture, urbanization and monumental architecture it was argued that the first centralized states originated in south Mesopotamia at Susa in western Iran and at Uruk-Warka about 3200 B.C (Wright & Johnson 1975). This view was criticized by Adams (1981) who argued for a mix of relationships between the centres and peripheries. Different areas focused on its local resources and specialized e.g. in agriculture or pasturage, and the cities facilitated rather than administered the exchange of goods and services.

The questions about hierarchy and political domination in Mesopotamia have been difficult to answer, because such information often is derived from graves. After all the excavations and surveys that have been conducted, there have been extraordinarily few graves from the Uruk period. It was argued that this was the result of an ideology that focused on equality and community (Pollock 2002: 188-189, 204, 216). Charvat (2002) postulated that the people were concerned about sharing the income and distribute it fairly, an ideology they had inherited from their ancestors. Everyone therefore received the same burial, regardless of their social position, a strategy that may have been applied by a ruling elite to mask inequality and legitimize power. This interpretation is plausible, because there have been found graves from both prior (Peasnell 2002) and later periods (Dickson 2006), where grave goods were used to indicate social status. The most famous example of this are the royal graves from Ur about 2500 B.C, where people were sacrificed to accompany their leaders in death, which together with graves goods formed a scene that displayed absolute power (Ibid). The interpretation of the missing graves must be viewed with a critical sense, because it is a conclusion based on negative evidence – on the fact that almost no graves have been found, and none that indicate high social status. It can also be criticized, because graves not automatically reflect social positions in a society, and such interpretations must be considered with caution (Dark 2002: 90-94).

Through new perspectives, and the distance from theocracy, scientists seemed to have forgotten ideology and religion in Uruk Mesopotamia. The critique was right, because the attempts offered tended to focus religion rather than ideology, and interpretations were based on written sources from the dynastic period such as Jacobsen (1976)

descriptions of religious metaphors. Pollock (2002) shifted the attention towards ideology (even though she also argued that Jacobson's interpretation of the religion was supported by archaeological evidence), and created a necessary distance from old theories. She argued that the construction of monumental architecture was a part of social control and creation of community (Ibid: 173-195). There have been few studies of ideology and the interaction between north and south Mesopotamia during the Uruk expansion. However, Lamberg-Karlovsky (1974) commented on Adams (1974) who had focused on economy and ecology, that ideology had been an important factor of power, shaping the social landscape in Mesopotamian societies. He also advertised that north and south Mesopotamia shared ideology, because there were similarities in ceramics, architecture and iconography. Sherratt (2004) shared this view in a recent paper (Ibid: 94), and Algaze (2005a) noted this in his reconstruction of the Uruk world system (Ibid: 38). This summarizes the core in my questions, because it is a comparison of south and north Mesopotamian material that will be the basis for this study.

2.2: Comparison and analogies.

The material culture in north and south Mesopotamia forms the basis for a comparative analysis of ideology, because these two material cultures had an overlapping distribution in time and space. The material will in some instances be compared with Anatolia, because this region was adjacent to north Mesopotamia, and subject to south Mesopotamian influence. However, the material formed a different pattern that is suitable for comparison. This can be used to explain how material culture related to ideology through human agency (discussed below). To formulate answers about ideology in Mesopotamia during the Uruk period, relational analogies are an important source, because they preserve the cultural-historical context (Verhoeven 2005, Yoffee 2006: 189, 192-194). The archaeological material from the two regions is compared with earlier and later material, indicating similarities in cultural traditions and developments. I argue that traditions in Mesopotamia were strong, because people inhabited the same site for thousands of years, and the temples were constantly built upon each other (Safar, Mustafa & Lloyd 1981, Oates, J. 2004b). Architectonic features were maintained both in domestic and monumental constructions, and the people developed a comprehension of landscape, settlement

and the household they lived in. This ideological connection between people and settlement must be taken into consideration besides the functional aspects of landscape, which focuses on elements such as water and other basic resources (Steadman 2004). In this thesis I rely on the archaeological material from the Uruk period, but I will use material from earlier period to support my theories. In addition I will use analogies to the dynastic periods.

2.3: Defining ideology.

Ideology is the basis for social representations shared by a group, and is constituted by discourses, images, myths and actions, concerning the world people live in. It is used by people in a group to organize their multitude of social beliefs about what is essential to them – what is good or bad, right or wrong etc – and how to act accordingly (Shanks & Tilley 1993: 75, van Dijk 2000: 8). Ideology gives meaning and acts to constitute actors in a certain way in specific circumstances – affecting explanations, social arrangements, behavior, understanding of the world, and what is considered true or false – thus as a coordinator of social interpretations and practices, drawn upon memory, experiences, desires, expectations and a communicative engagement or discourse with others (Barrett 2006: 152, Shanks & Tilley 1993: 75, van Dijk 2000: 8). To simplify this into few words and to create a definition that is suitable for the analyses throughout this thesis, ideology is defined as the basis of social representations, which are situated in everyday social practices (van Dijk 2000: 8).

2.4: Ideology & society.

The principles from the theory of structuration (Giddens 1986) can help to understand how ideology works in society. Social structures are what social practices draws upon, and its effects upon actions are a concretization of the structures. The actions in turn will affect (intended or unintended) the existing structures that are being exposed for reordering or transformation, because the principles and meanings for conduct are re-evaluated through actions. This is termed the duality of structure (Barret 2006: 149-150, Dobres 2000: 132-134, Shanks & Tilley 1993: 71-72, Wobst 2005: 40).

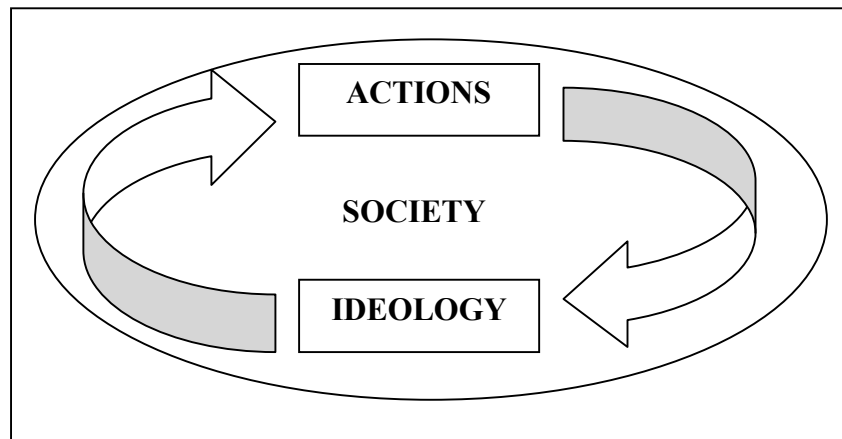


Figure 1: The duality of action and ideology in society.

Agents in society produce, reproduce, construct and reconstruct their existing ideology through a duality as illustrated in figure 1, where actions affect ideology and visa versa. This is important when considering the interaction within and between north and south Mesopotamia. Movements and communication between people and groups would affect the ideology through processes, where different social representations were shared (van Dijk 2000: 228-229). Therefore, the interaction between the north and the south involved more than just the exchange of goods. Their existing ideology was transferred through exchange of ideas and beliefs in social situations and actions.

2.5: Technology & ideology.

Sherratt (2004) has postulated that technologies developed in one society and transferred to another have other consequences than just introducing e.g. a new way of pottery making. Technologies alter economical aspects e.g. when production becomes more efficient or a new material such as copper is exploited. This will also alter the social sphere, because it affects the existing valuables, and the understanding of wealth. It thus changes the exchange systems, because new networks interact in the distribution of products and production modes, and the societies are organized to deal with the new technologies and materials. Sherratt exemplified his theories with the introduction of technologies such as the plough, animal traction, secondary products, etc into Europe. These technologies led to changes in the economical sphere, but also affected the social world where the old collective tradition met new ideas of

individuality, explaining the replacement of collective burials and monuments with an ideology that focused on the individual (Ibid: 89-90).

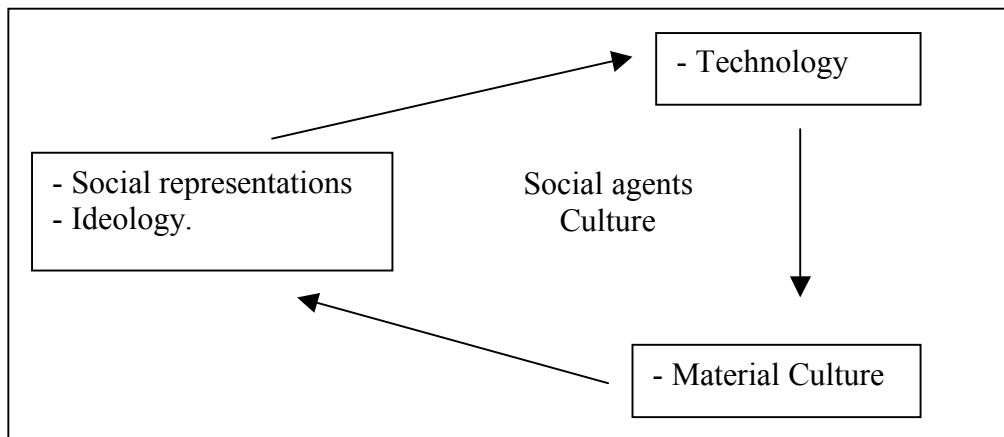


Figure 2: Technology in action.

Figure 2 describes technology, material and ideology as interwoven elements within society. The actions and ideologies that we can analyze through archaeology are those that have produced a material pattern. An interesting approach is to view technology as an expression for action and interaction, which includes aspects such as cultural practices, social relations, politics and material abilities or resources. It thus interweaves the making and the usage of material culture with the production and reproduction of culture, including ideology and social representations, both conducted by the actions of social agents in society. The material culture and the technologies are therefore concrete expressions of human thought and ideas – or their ideology, because social representations in society are reaffirmed through technology conducted by agents who are affected by everyday social experience and political strategies (Dobres 2000: 87-88, 93-95, Dobres & Hoffman 1999). This means that productions in Mesopotamia such as copper smiting, pottery- and seal making must be considered as more than a technology to make objects. The technologies became part of a process that is connected to the production of society's ideology and culture.

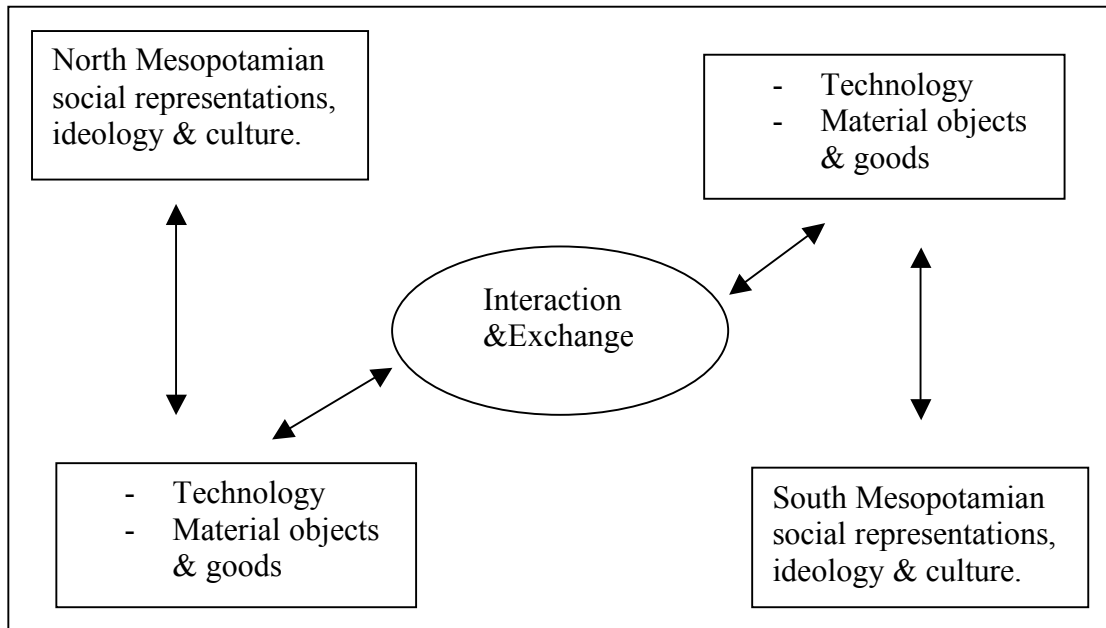


Figure 3: Interaction in Mesopotamia.

Figure 3 illustrates interaction and exchange of social representations through technology and material culture between north and south Mesopotamia. In such a context technologies and material culture must be considered as human agencies that contribute to the production and transformation of social and material conditions (Dobres 2000: 127-134). Social representations in each region were implicated into material culture and technology through interaction within society (Fig. 3). Therefore, technology, material objects and goods that were exchanged in Mesopotamia involved the exchange of ideology through the social representations that were expressed through technology.

2.6: Material culture as agency.

Material culture is not a mute source. We use the material medium actively today as an agency in interaction with other humans. Clothes do not only keep us warm, but they may also express status, religion etc. The material culture of a society can be used to express messages of group affiliation, gender roles and social organization (Dark 2002: 97). The expressions can be studied in the archaeological remains through the distribution and character of the material, and the differences between the societies that produced the material patterns (cf. Chilton 1999: 58-59). This means for example that a raw material or a type of ceramics had symbolic meanings in addition

to the practical functions (Dark 2002: 97). An example from the Middle East is found in studies of round and rectangular households from Syria in the 7th millennium B.C. Archaeological remains of the activities and the symbolism within the two house types were interpreted as a separation based on gender, creating a male and female realm (Wengrow 1998: 786-787). This exemplifies how material remains can be interpreted as expressions of social relations and ideology in society.

Pottery distribution in Mesopotamia		
Year	South Mesopotamia	North Mesopotamia
3100/3000 B.C	Jemdet Nasr Ware	Nineveh V Ware
3350-3100 B.C	Uruk Ware	Uruk ware/Mix
3700-3350 B.C	Uruk Ware	Uruk/Chaff ware
4000-3700 B.C	Uruk Ware	Chaff Ware

Table 2: Pottery distribution in Mesopotamia (Hansen 1965, Lupton 196, Rova 1996, Schwartz 2001, Nissen 2001).

Table 2 describes the distribution of ceramic ware between north and south Mesopotamia. It should be emphasized that this is a rough division, because local variations occurred especially within the *chaff ware* (Rova 1996: 14-16, fig. 2). However, in this thesis it serves as a suitable division to distinguish between the two regions. The relationship between the two wares changed from 3700 B.C when *Uruk ware* first appeared among the *chaff ware*, before they disappeared between 3100-3000 B.C, when new ceramics were introduced. Seals and pictography also changed during the 4th millennium B.C as a result of the interaction between the north and the south. Seals can be distinguished between stamp seals, representing the north Mesopotamian tradition, and cylinder seals, which generally are associated with south Mesopotamian culture (Fig. 4). Both types were used to seal containers such as bags, vessels and baskets, but also architectural units such as doors and windows (Emberling & McDonald et al 2003: 14, Frankfort 1965: 1-2, fig. 1).

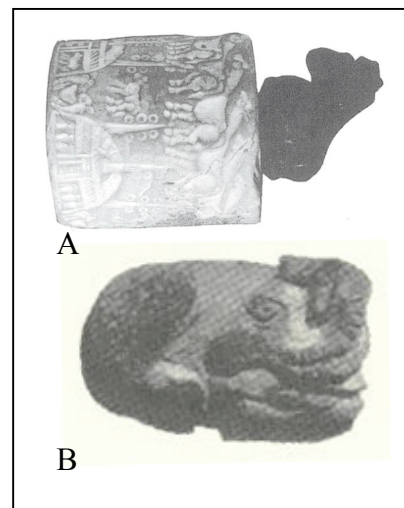


Figure 4. A: Cylinder seal (Collon 2005: Fig. 12). B: Stamp seal (Pittman 2001: Fig .11.20).

The seals bore a wide spectre of representations of persons, nature and constructions, which functions are unclear concerning the action of opening and closing a jar. However, it seems clear that it involved a cognitive aspect, because people achieved authority to seal and to break seals (Wengrow 2008: 13), and the pictography gave associations to e.g. an institution or a level of authority. An analysis of seals from Susa has indicated that different categories of seal-pictograms represented different levels of authority and power that were held at different institutions (Dittmann 1986: 332, 335). Seals had a sender and a receiver, who was the intended breaker, but also anyone who saw the seal on its journey from A to B. The seals can be interpreted as evidence of former relationships that existed between agents involved with seals and sealing practices (Rothman 1994: 99-100). Wengrow (2008) has proposed a view of seals within a branding economy as marks of quality and provenance. They functioned as symbols that evoked associations that can be compared to branding commodities today. Following these arguments, a branding economy presupposes a common understanding of the representations, because if not, they would make no sense as trademarks. This is interesting, because the common understanding of the seals that were needed to assure the commutative acts between the agents (Rothman 1994: 99-100) indicate common social representations. Sealings can therefore be interpreted as agencies that were used to send a message to a receiver, and which can be interpreted as symbolic communication between agents in societies.

Material culture and ideology in Uruk societies was interconnected through social practices (Fig. 2), because it was used as an agency to communicate existing social representations in a constant process of creation and transformation (DeMarrais 2004). Social representations were expressed through the technologies and actions related to e.g. ceramics and seals. Changes in the way material culture was used and created may therefore be used to analyze changes in social representations and ideology, because material culture was used as an agency to bring to mind associations that were meaningful to the interpreter (Barrett 2006: 152, Hodder 2003: 101-102, 172). In this way material culture became both an outcome and a media for social practices in societies (Arroyo-Kalin 2004, Chilton 1999, Earle 2002: 350-351, Schiffer 1999: 12-13). The changing patterns in Mesopotamia can be interpreted as changes in technologies, but also in the underlying processes such as social practices and ideologies attached to the material culture (Fig. 3).

Agents in society use material culture, because it is good to think with. Symbols and material expressions are used to describe inequalities or relations in society (Håland & Håland 1999: 52). Domestic animals in the seal material from Mesopotamia can be interpreted as expressions of subsistence or goods. They can also be interpreted as symbols, describing social relations. E.g. the glyptic may have symbolized relations between groups that communicated through seals. Material culture may express social differences and similarities through dichotomies (Hodder 1987). E.g. the different symbols and activities that were connected to different architecture can be interpreted as the division between men and women (Wengrow 1998). Material culture can thus be used as an agency to organize the differentiation of social space, which is a process where groups are dissociated from one another within society. Vertically stratification refers to differentiation of persons and groups between high or low status. This can be incorporated into society as a whole, but also into social components as for example a household. Horizontal differentiation regulates relationships between groups within a social level, but can also be used to describe the relationship between interacting settlements (Yoffee 2006: 32-33). This method will be used in chapter 4 to examine the tripartite household and its importance for the division of social space and ideology. The households revealed a pattern that can be interpreted as a division based on status and gender (Maisels 1998, Wengrow 1998). This interpretation is supported by an ethnographic study from a modern village in western Iran where social positions were reflected in architectural features (Watson 1978). In more recent studies Larick (1999) and Pfaffenberger (1999) have argued that house plans, internal organization and construction works can be used as part of a process where existing ideology and social relations in society were preserved and reaffirmed. The household thus became a construction of the social sphere, exemplifying how technology and material culture were agencies that interacted with ideology in society.

2.7: Ideology and power.

Ideology can be associated with a group's interests, conflicts and struggles, and provide a framework in which resources are given value and inequality defined. It can work to legitimate or oppose power, to symbolize social problems and contradictions and is used in the competition for power in the social space (Bourdieu 1996: 42,

Hodder 2003: 88, van Dijk 2000: 5, 8). Ideology is needed to establish any authority, whether it is within a household, a city or state, because it gives the necessary legitimacy to exercise power, which is accepted without opposition by those who are ruled (Smith 2003: 108-109, Yoffee 2006: 33). Dominance is achieved when an ideology, often favourable to a particular minority in the society, hold sway over the whole society and acts to reproduce the same conditions. Ideology legitimizes such domination by winning consent, and it can ensure the continuation of the social order, because it makes it appear as natural or sacred (Miller 1989: 63).

The social space within society can be dominated by different means of social power such as economical, coercive, ideological and political power, which offers alternative ways to domination (Bourdieu 1996, Mann 1986, Yoffee 2006: 34-36). Ideology may become an effective source of power when materialized into concrete forms. This happens through social actions such as ceremonies, rituals and writings, but also in objects and monuments (Bourdieu 1996, DeMarrais, Castillo & Earle 1996: 17-19, Earle 2002: 349-350, Ross 2005: 328). Material culture thus functions as an agency to display power, and is used actively as ideological mechanisms to gain or hold power (Hodder 2003: 88, Miller & Tilley 1984a: vii, Pollock 2002: 173-174, Ross 2005: 333). Analysis of material objects and their distribution in archaeological contexts can be interpreted as evidence of a broader pattern of social, political and economic activities that inform us of former power relations and ideologies.

The different sources of social power could be combined in distinct strategies to achieve specific goals (Earle 2002: 349), or power could be transferred between the resources if it was conceived as capital that could be accumulated. Agents could then use the capital in the meaning to produce social conditions that were favourable to them (Barrett 2006: 161). Economic power in south Mesopotamia could be accumulated as capital through good yields or acquisition of precious and much-coveted materials. This could later be invested in other fields e.g. to finance an army or to acquire labour to build a temple, transferring the economic capital into coercive and ideological power. Rituals that were conducted in public areas such as a temple may have been a strategy to consolidate and maintain social roles (Blanton 2000: 164), exemplifying how ideological power was used as a source to social power. The public ritual acted as an agency to display power and convince the participants of

their right to rule, and to ensure the existing social division. Another example of the use and transformation of powers in Mesopotamia is the royal graves at Ur. Dickson (2006) interpreted the graves as agencies through which the rulers expressed cruelty to reinforce power in a society with strong oppositions against the elite. The coercive power that was used to sacrifice people was transferred into ideological power by the scene they created, and to social power by displaying their cruelty.

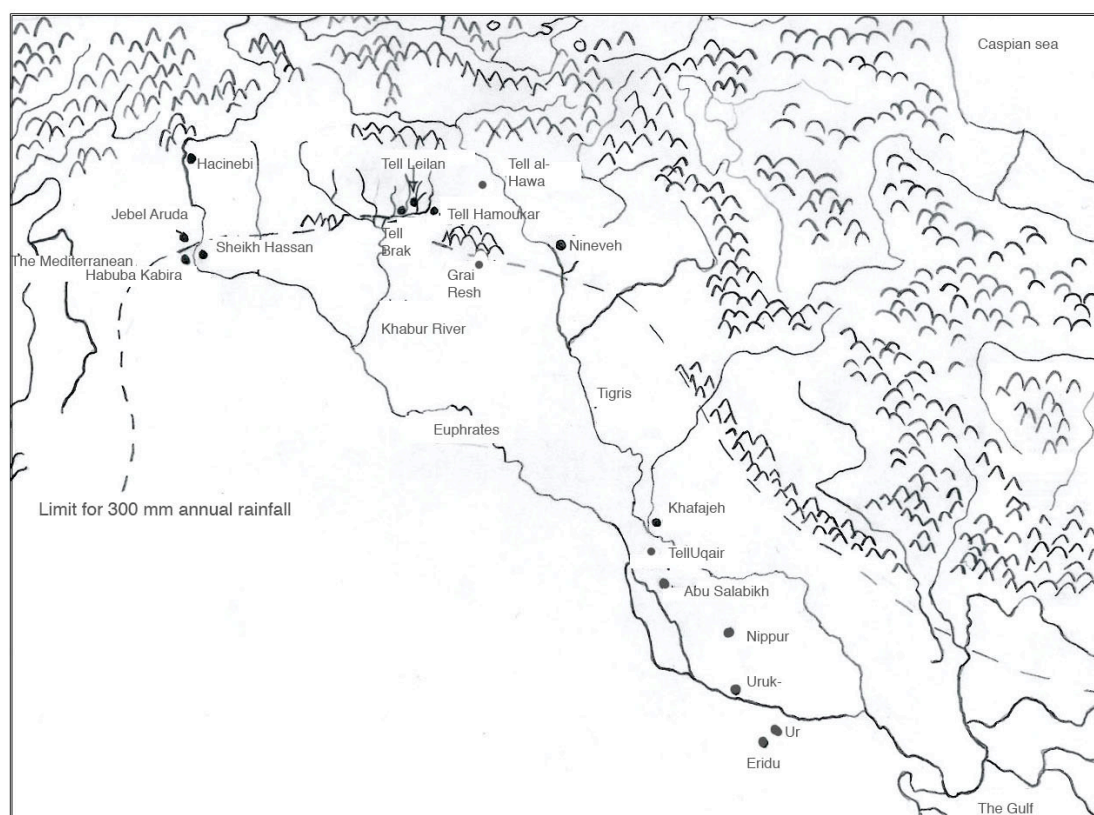
Domination of the social space is the power to exclude and include agents in society (Bourdieu 1996). The competition for positions within the social space may have an individual or collective character, and the social space is defined through the division between the positions it contains. Physical space can be used to express an agent's position in social space (Ibid: 150-157). E.g. the organization of the tripartite household in Mesopotamian societies can be interpreted as an expression of social division. The internal features can be understood as a representation of the social positions within the household, and the external features as the household's position in relation to others at the settlement. Monumental architecture such as a temple or a city wall may in turn show the settlement's position in relation to other communities.

2.8: Concluding remarks.

The theories presented here are interesting for my perception of the Uruk culture, because technologies such as sealings and pottery were used in the negotiation of social position and ideology. To accumulate ideological power monuments and public courtyard were erected and used for a public display, ceremonies and rituals. Households and temples were constructed, decorated and located within societies in a way that can be analyzed as a division of social space. A struggle for power took place between different groups within this space. Different sources of social power were accumulated and transferred as capital, and material culture was used as an agency to display power and social position within and between societies. To analyze how ideology worked and changed during the uruk expansion, it's first necessary review the north and south Mesopotamian landscape. The natural setting and its resources offered and constrained the possibilities (Götzel 2002: 79, Pollock 2002, box 3, Redman 2002, Selz 2002: 13, affecting how ideological capital could be achieved, used and transformed into social power.

CHAPTER 3: THE LANDSCAPE AND ITS IDEOLOGICAL IMPLICATIONS.

The environment in Mesopotamia played an important role in later ideology. The settled plains of south Mesopotamia were viewed as the centre of the ordered world, while the surrounding world outside the fields was uncivilized and unordered. Here lived monsters and wild men, who threatened the order of civilization (Eyre 2000: 175-176, Glassner 2000: 1821, van de Mieroop 1999: 44). In this chapter I will examine subsistence and settlement in north and south Mesopotamia and how this shaped the ideological comprehension of the landscape.



Map 2: Map of Mesopotamia with a selection of sites from about 3350 B.C (Drawn from Algaze 2005a: Fig. 4, Collins 2000: Fig. 1).

3.1: Urban neighbours.

South Mesopotamia was previously viewed as the cradle of civilization, while the north was considered a less advanced periphery (Lloyd 1978). However, the understanding of the early Uruk period and before 3350 B.C is limited. E.g. the knowledge of the late 5th and early 4th millennium B.C at Uruk-Warka is limited to one trench (Nissen 2001: 150-153, 2004: 4-5). Further excavations were stopped due

to the Iraqi wars, leading archaeologists to the periphery of south Mesopotamia. Excavations on sites in Syria have revealed evidence of complex urban societies in the early 4th millennium B.C, and thus extended our knowledge of early urbanism. Tell Brak produced evidence of large public buildings, a city wall, and workshops for extensive organized work, along with finely produced prestige goods in stone as well as precious metals such as silver, gold and copper. Raw materials and pottery showed that the site had wide connections (Emberling et al 1998: 1, Emberling & McDonald et al 2001: 21-23, Oates, J. 2004a, 2004b, Oates et al 2007). The material also revealed pottery with incised symbols, and two clay tablets with impressed signs were found in layer TW 16, dated to about 3600-3500 B.C (Fig. 5).



Figure 5: Tablets from Tell Brak (Jasim & Oates 1986: Fig. 2a).

The tablets are interpreted as devices that had been used for the accounting of goods. The symbols incised on jars also appeared to have been of numerical significance (Jasim & Oates 1986: 348, Oates, D. 1985: 164, Oates & Oates 1997: 287-288, 2004: 180). Complex societies also emerged at Tell Hamoukar, and like Tell Brak it revealed a city wall and monumental architecture (Gibson et al 2002: 11-15 Gibson & Maktash 2000: 477). At Tepe Gawra public architecture and graves from 4200-3700 B.C indicated a centralized and stratified society (Rothman 2002), and at Tell al-Hawa surveys indicated urban proportions in the early 4th millennium B.C. The pottery and administration technology suggested that these sites were closely connected (Lupton 1996). The north Mesopotamian cities contested earlier anticipations of irrigation agriculture as a prerequisite for hierarchic power (Wittfogel 1964: 12), and its importance for the emergence of complex societies (Childe 1950: 8). New perspectives have emerged, because excavations have revealed sites in the region at the same level of complexity as societies in south Mesopotamia. Therefore it's misleading to term north Mesopotamia as a periphery anymore, and the two regions must be reviewed as urban neighbours that influenced and affected each other.

3.2: The south Mesopotamian landscape.

Region	Early/Middle Uruk (LC 2-4)		Late Uruk (LC 5)	
	Medium-Size	Large	Medium-Size	Large
Nippur-Adab	678 (13.5 ha)	1172 (25.5 ha)	678 (13.5 ha)	1172 (25.5 ha)
	1020 (8.2 ha)	1237 (42 ha)	1194 (11.5 ha)	1306 (50 ha)
	1046 (8.6 ha)	1306 (50 ha)		Nippur (25 ha)
	1166 (10.6 ha)	Nippur (25 ha)		
	1194 (11.5 ha)			
	Abu Salabikh (10.0 ha)			
Uruk-Warka	4 (10 ha)	Uruk-Warka (100 ha)	4 (10 ha)	Uruk-Warka (230 ha)
	171 (10 ha)		110 (9 ha)	125 (24 ha)
	201 (11 ha)		201 (11 ha)	
			242 (10 ha)	
			260 (14 ha)	

Figure 6: Sites in south Mesopotamia larger than 8 ha (Pollock 2001: table 6.1).

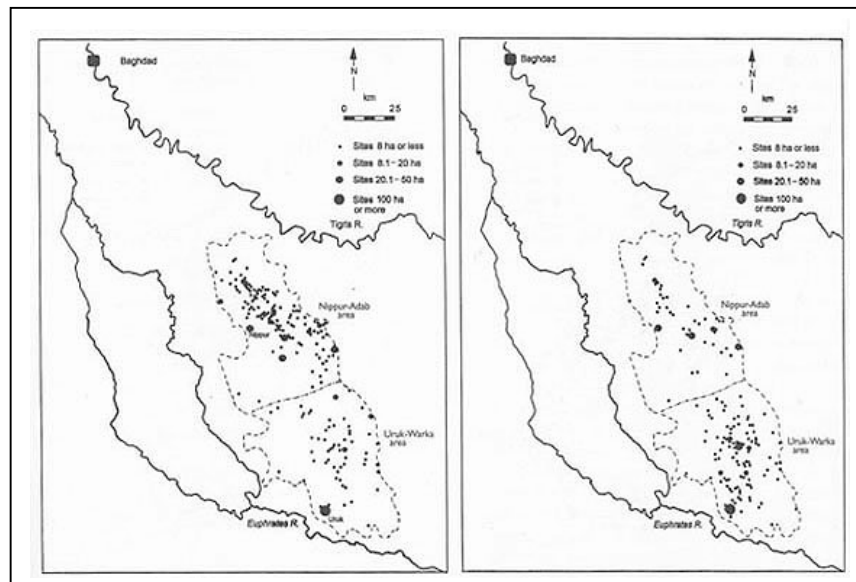


Figure 7: Spatial distribution of settlements in south Mesopotamia (Pollock 2001: Fig. 6.3-4).

Figures 6 and 7 illustrate the changes in the spatial distribution of settlements, which occurred in the Adad-Nippur and the Uruk-Warka regions of south Mesopotamia from 4200 to 3100 B.C. The Adad-Nippur region was densely populated from 4200 – 3350 B.C., while the Uruk-Warka region was dispersedly settled. This turned about 3350 B.C. The Uruk-Warka became densely populated, while the Adad-Nippur region became more dispersedly settled (Adams 1981: fig. 12-13, Algaze 2005b: 16-18, Pollock 2001: 190-194, fig. 6.1, 6.3-4). Adams (1981) proposed that a major movement from north to south occurred because of ecological factors such as changing watercourses and canals, political instability and warfare (Ibid: 60-81). A

climatic change about 4200 B.C also affected the situation, because it became cooler, leading to more favourable conditions for farming in the southern areas (Hole 1994: 125-128). A weakness with the survey study is that pottery was used for dating. The result was a division with one period from 4200 to 3350 B.C, and the other from 3350 and 3100 B.C. The data is also unreliable because no excavations have been conducted to examine the stratigraphic sequences on the settlements, which may differ from the generalized picture that the surveys created.

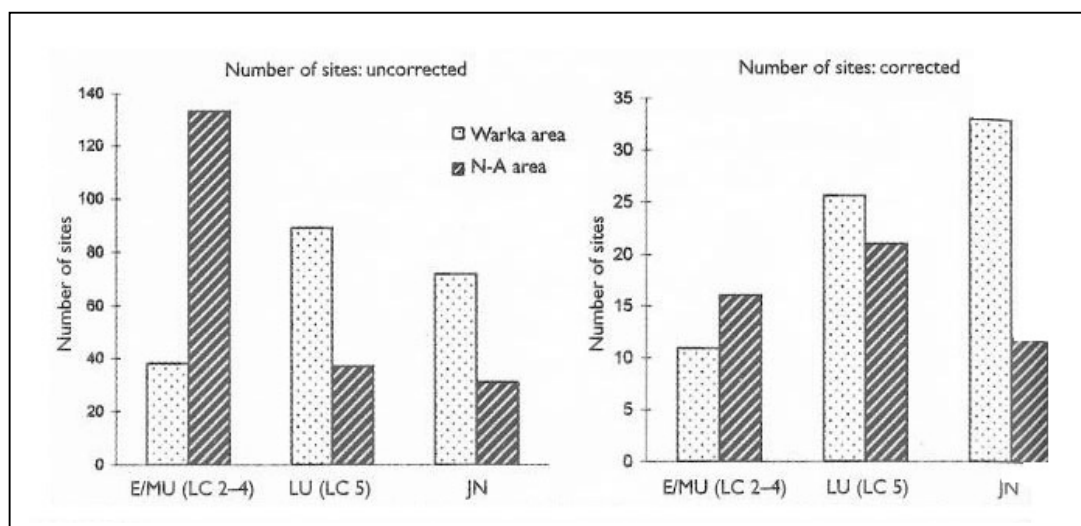


Figure 8: Numbers of sites in the Adad-Nippur and Uruk-Warka region (Pollock 2001: Fig. 6.11).

Figure 8 shows the result that Pollock (2001) produced after reviewing the same material as Adams (1981). She applied a new method (I will not go into this in detail) for analysis to avoid some of the problems that were caused by the uncertainties explained above. Her results to the left in fig. 8 showed that the population in the Adab-Nippur area did not decline, but had a slight growth, while the Uruk-Warka area faced substantial growth. Research also proved that the number of abandoned and founded sites dropped in the Adad-Nippur area about 3350 B.C, but increased in the Uruk-Warka area, indicating that settlements had become more volatile in this region (Pollock 2001, 2002).

Local and regional movements of people in south Mesopotamia can explain the pattern, because some regions grew and others declined (Adams 1965: 37, Pollock 2002: 68-69, 72, Wright 1981: 325-327, fig. 17-18). Regions were affected by major ecological factors such as the incident when the Euphrates shifted course about 3500 B.C, and was separated from the Tigris (Algaze 2005b: 10, Pollock 2002: 71-72, 76).

Former non-sedentary groups that settled down may also have contributed to the growth (Adams & Nissen 1972: 11), and climate changes rendered the conditions for subsistence (Hole 1994: 127-129, Nissen 1990: 55-56, 66-67, Nissen, Damerow & Englund 1993: 1-3). Though the previous Ubaid period had a wetter climate (Algaze 2005b: 10, Hole 1994: 127) it was highly suitable for agriculture, which means that sedentarization cannot be the only explanation for the population boom. Remains from non-sedentary groups are absent in south Mesopotamia, and therefore immeasurable, but in the adjacent southwest Iran where such groups are attested, the material indicated that these grew along with sedentary settlements (Pollock 2002: 69). I consider it likely that this trend occurred elsewhere in Mesopotamia, because assuming they were pastoral groups, they must have faced an economic growth with the exploitation and demand for secondary products. The evidence from south Mesopotamia, despite of the weaknesses in the data, shows that the whole region grew substantially in population during the Uruk period, and movements occurred between and within regions.

Fig. 9 describes a three-tiered settlement hierarchy, which developed in south Mesopotamia from 4000 – 3000 B.C. Small villages and hamlets surrounded larger towns and a central city (Algaze 2005b: 17, Adams 2002: 37, Pollock 2001: 187-194). This view of the Mesopotamian landscape may be criticized for being a modern construction of the ancient landscape, because it is an artificial view based

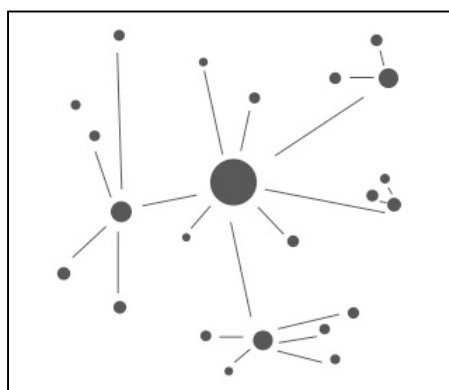


Figure 9: Three-tiered settlement

on our comprehension and access to data. Because of this, there have been different perceptions of the size of the settlement, and the number of the categories (Adams 1981, Algaze 2005b, Johnson 1975, Pollock 2001). I use a three-tiered hierarchy, because I find this as the best way to describe the relationship between the city and the countryside. Fig. 10 illustrates a sustaining area, which is the surrounding land, where a site's food is produced. Towns and cities, which are the middle and large sites in fig. 6, sometimes reached proportions where they became too large to sustain its own population with food from its near vicinity and therefore became dependent on smaller adjacent villages for extra food supplies (Pollock 2001: 194-195). This was

a source of conflict, because settlements in some areas became so closely settled or grew to a size, which resulted in competition for sustaining areas. Rural villages were in some cases put in a position where two towns or cities competed for its tribute. This explains why a site such as Abu Salabikh was fortified (Adams 2004: 49, Pollock, Steele & Pope 1991: 63-64, fig. 4), and why settlements became more volatile in the Uruk-Warka area. The dense population caused conflicts about land, which led the constant movements of settlements that had lost their land or were abandoned because the tribute demands had become unacceptable.

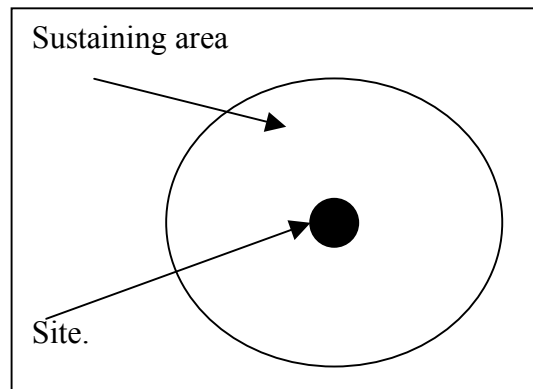


Figure 10: Sustaining area.

The south Mesopotamian societies developed an economy with three basic components: agriculture, pastoral nomadism and cities (Fig. 11). The agriculture was based on irrigation since the annual rainfall was too low (Adams 1981: 54-59, fig. 9 & 10, Pollock 1992: 304-305, Wright 1981: 324, fig. 17), and it constituted a year-round cycle, which

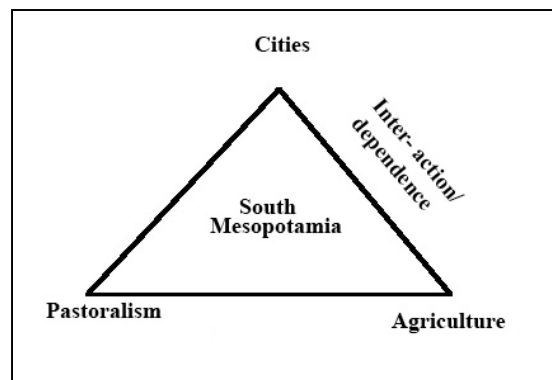


Figure 11: Economical triangle.

began with the preparation of the earth and sowing in autumn and ended with harvest in April/Mai after the annual flood (Charvat 2002: 117-118, Hole 1994: 137-138, Maisels 1998: Table 8.2, Potts 1997: 72-73). The harvest from irrigation farming is estimated to be about twice or thrice as effective as rain-fed farming, and could thus support a dense population. However, the irrigation systems required constant work for maintenance and reparations (Algaze 2001b: 201, 2005b: 9, Charvat 2002: 59, 128, Nissen 1990: 60), and the land had to be laid fallow to avoid salination. This became a more serious problem during the Uruk period, because the large-scale irrigation systems were more vulnerable to this than small-scale irrigation systems from the Ubaid period (Cordova 2007: 136-138). The practice followed in the

Dynastic and later periods was 50 % fallow land, while 50 % were cropped in a 2-year cycle (Potts 1997: 70-75). Since agriculture in the Uruk period was basically the same, it is reasonable to suggest that the same practice was followed then. Studies, although few have indicated that barley was the most common crop in the Uruk period (Charvat 2002:117, Wright 2001: 131), maybe because it was less vulnerable to salination (Adams 1965: 18). Wheat was also cultivated, along with flax and date palms (Jacobsen 1982: 53, Pollock 1990: 88, Safar, Mustafa & Lloyd 1981: 318-319, Wright & Pollock 1987: 319). Flax lost its importance when it was partially replaced by wool. In contrast the date palm became a key crop. Dates were an indispensable ingredient in the production of beer and wine, because it provided sugar (Wengrow 2006b: 31). The river and canal systems also supported local gardens and orchards throughout the year, and the landscape included marshes and tidal lagoons, which hosted wildlife that they could exploit (Adams 2004: 43, Algaze 2001b: 201).

In addition to agriculture south Mesopotamia had suitable pastureland in the nearby steppes and on the plains during fallowing and outside harvest season. Impressed tablets from Uruk-Warka and bone material have proved that caprids were the most common domesticates, but cattle and pig were also held. The slaughter age of caprids has indicated that they were held both for meat and secondary products (Green 1980, Englund 1998: 143-150, Liverani 2006: 37-38, Pollock 1990: 87-89, 1992: 312, 2002: 108-109). Pastoral nomads may have conducted this production, providing fertilizer to the fields, dairy products, goods and information. The groups may also have caused conflicts, because when they moved their flocks from the steppe towards the mountains due to lack of water in the long summer, they competed with sedentary settlements for land and water (Adams 1981: 63-68, 243, Pollock 2002: 70). To avoid conflict and competition with trespassing groups, it is possible that transhumance was practiced. Groups left the community for a few months a year to take the flocks to better pastures. In this way, settlements may easily have coordinated grazing herds with fields that were harvested or fallow and in need of fertilizer. This practice caused less competition or conflict with trespassing groups. They could also secure a steady supply for dung to be used as burning fuel (Pollock 1990: 88, Schwartz 2000: 249-251).

Administrative technology has indicated that cities fulfilled the role as centres that controlled portions of land and collected tribute in the form of pastoral and agricultural products (Nissen, Damerow & Englund 1993: 11-24, Englund 1998: 143-150). The city had to offer something in return to its allied communities. This could be services, protection or simply a guarantee for holding back raids. The temples in the Uruk cities offered services, which the rural populations became dependent on. The temples provided healing, and received prayers and offerings, which pleased the gods and secured the harvest. The city became a centre for the exchange of goods, and controlled long-distance trade and the distribution of luxury goods. An important export was bitumen. This was employed in a number of ways, and has been attested at sites in north Mesopotamia (Algaze 2001a: 52, Lindemeyer & Martin 1993: 241-251, Potts 1997: 100, Stein 1999: 141-142, 148-152, 2001: 288-289, Stephen & Peltenburg 2004: 175). Additional exports were probably textiles, leather products, dates, grain and fish (Algaze 2005a: 4, Charvat 2002: 130, Crawford 1973: 232-233). Metals, precious- and semi precious stones were imported. These were lacking in south Mesopotamia, but were found in surrounding areas such as the Zagros Mountains and Anatolia (Algaze 2005b: 9, 13, Bernbeck & Pollock 2005: 16, Heinrich 1982: 72, Oates & Oates 2004: 178-180, 187). Timber that was needed for the construction of larger buildings was also imported because it was easily accessible in nearby regions. They provided wood that was better suited for construction than the local types (Algaze 2005b: 13, Bernbeck & Pollock 2005: 16, Potts 1997: 109, fig. IV.7, Stein 1999: 83, Wright 2001: 133).

The south Mesopotamian landscape was shaped by the interaction between agriculture, pastoralism and cities. Since everything depended on the interwoven system of artificial canals that were attached to the main rivers, settlements were forced to cooperate or at least solve their differences, because they were fragile to ecological crises such as floods and salination, additional mistakes and conflicts could cause negative consequences for vast areas (Adams 1965: 17-18, 1974: 4, 2002: 36, Algaze 2005b: 9, Baines & Yoffee 2000: 226, Frankfort 1956: 53, Potts 1997: 12-15, Roux 1992: 7). Settlements that had exceeded the sustaining area and relied on additional supplies from rural sites were extra fragile. Settlement became more volatile, but urban centre that were established in the 4th millennium such as Uruk-Warka and Nippur tended to be long-lived (Adams 1981: 54, Pollock 2001: 194). A

reason for this may have been the demand for organization and administration of the irrigation system, which was the life nerve in south Mesopotamia. It was also the services it provided and the ideology that became attached to the cities (Postgate 2004: 26, 267). High yields, pastoral exploitation and the irrigation networks supported a dense landscape, but it also led to competition and conflicts on a regional and local level, between cities, villages and nomadic groups.

3.3: The north Mesopotamian landscape.

Settlements in north Mesopotamia above 10 ha.		
Site	Size in ha on main mound about 3700-3350 B.C	Size in ha on main mound about 3350-3100 B.C.
Tell Brak	40	40
Tell Hamoukar	15	13
Tell al-Hawa	33	33
Nineveh	?	40
Habuba Kabira	-	18
Tell Leilan	15	15

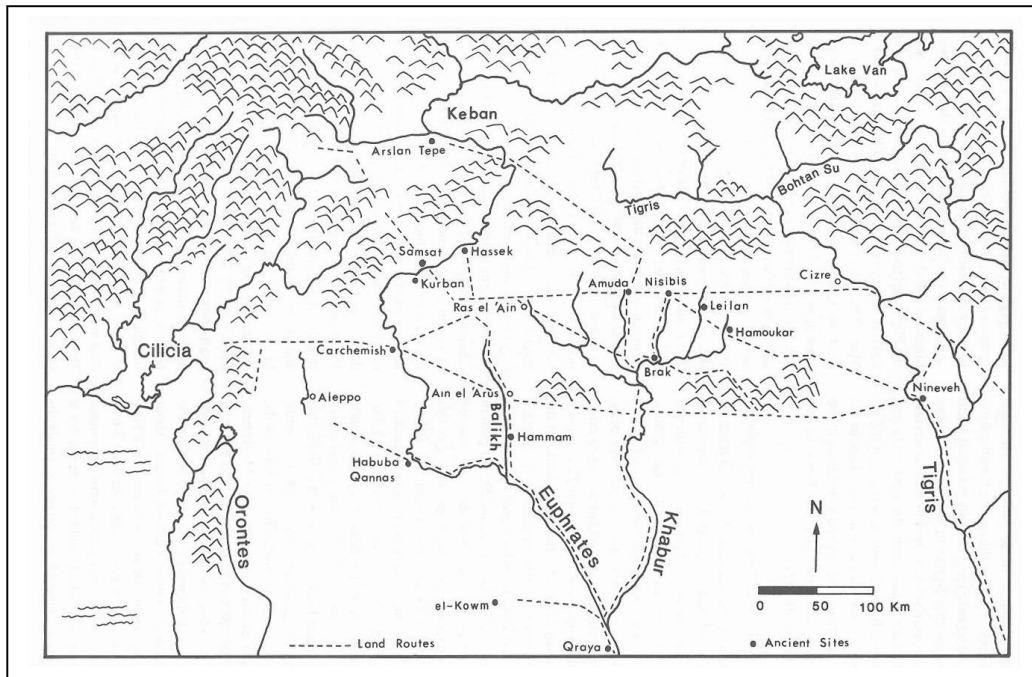
Table 3: Settlements in north Mesopotamia above 10 ha. (Algaze 2001a: 64-65, 2005: 18, Ball, Tucker & Wilkinson 1989: 1-5, Gibson et al 2002: 12, Gibson & Maktash 2000: 477, Lupton 1996, Oates et al 2007: 597, Schwartz 1988: xiii, 2001: 246-247, Stein 2001: 271, Ur, Karsgaard & Oates 2007: 1188, Weiss 1991: 704).

A pattern emerges when comparing number, size and distribution of the sites in north Mesopotamia. Small sites clustered around medium- sized communities in the vicinity of a central site, forming three-tiered hierarchy (Algaze 2005a: 19, Lupton 1996). This system differed from the densely populated landscape in south Mesopotamia, because the central sites were located in dispersed river valleys and basins. The study conducted by Lupton (1996) showed that the settlement pattern did not change significantly throughout the 4th millennium B.C, and as illustrated in table 3 the central sites maintained a constant size, surrounded by smaller occupations. The central sites had a long sequence of occupation from or before the Uruk period, and continued to be settled in the 3rd millennium B.C (Ball, Tucker & Wilkinson 1989, Gibson et al 2002, Gibson & Maktash 2000: 477, Gut 2004: 17, Ur 2002: 62-67,

Weiss 1991: 704). The exception was Habuba Kabira, because it was founded on virgin soil together with Jebel Aruda about 3350 B.C. These sites did not have a long occupation sequence and were abandoned about 3100 B.C (Wright & Rupley 2001: 102-103, fig. 3.13, 3.14). In the years they were occupied they were a part of a tiered settlement hierarchy in their area such as other settled areas in north Mesopotamia (Lupton 1996: 54, table 3.2).

Agriculture in north Mesopotamia was based on rain-fed farming and the most common crops were glume wheat and barley, while linseed and pulse were additional crops (Emberling & McDonald et al 2003: 27-32, table 1 & 2, Oates, J. 2004a: 120). North Mesopotamian settlements were mostly located well within the limit of an annual rainfall of 200 mm, but rain-fed farming is not totally reliable before an annual rainfall of 300 mm (Crawford 2006: 7, Eyre 2000: 177), placing Jebel Aruda and Habuba Kabira in a dangerous zone. This indicates that the settlements must have had additional strategies for subsistence. Husbandry was such an important resource, which may have been exploited both by sedentary communities and pastoral nomads (Akkermans & Schwartz 2004: 197, Emberling 2003: 262-265). Bone material has shown that sheep and goat were the most common animals, and they were exploited both for meat and secondary products. Pig and cattle were also evident, but in smaller quantities. An important additional food source was hunting and fishing (Akkermans & Schwartz 2004: 205-206, Emberling et al 1998: 27-29, table 1, Oates, J. 2004a: 120, Zeder 2003: 162-170).

An important factor in the forming of the north Mesopotamian landscape was trade, because the settlements lay close to areas with sources of raw materials: metals and stones such as copper, flint and obsidian (Oates & Oates 2004: 185). Sites were located in relation to these resources or along trade routes (Map 3).



Map 3: Map of trade routes in north Mesopotamia (Algaze 2005a: Fig. 21).

Tell Brak was located strategically along two trade routes. One that went from the mineral sources in Anatolia and southward, and another that went east-west through the Sinjar district to Nineveh. This route had also an upper course from Tell al-Hawa and westward through Tell Hamoukar and Tell Leilan. Habuba Kabira, Jebel Aruda and Sheikh Hassan were located in an area that linked them to a north-south route along the Euphrates (Algaze 2005a 42-48, Ball, Tucker & Wilkinson 1989: 11, Emberling 2003: 262, Lawler 2006: 1462, Lloyd 1938: 124, Oates, D. 1982: 62, 64). Tell Hamoukar was settled on marginal farming land. However, archaeological remains have indicated that a nearby obsidian ore was exploited during the 5th and 4th millennium B.C. The large quantities of obsidian here and at Tell Brak put the two sites into a trading network, which may have caused the prosperity of the sites (Lawler 2006: 1461, 2007: 1165, Oates et al 2007: 590-591). Hacinebi in south Anatolia has produced evidence from copper casting as early as 4000 B.C, and the material from about 3700 B.C suggests that it was connected to a network that stretched downwards to south Mesopotamia (Stein 1999: 138-153, 163). The rivers brought down the goods from the mountains. The east-west connections were land routes, and commodities had to be transported with donkeys. This animal became domesticated in the Uruk period, probably because of its transportation ability (Akkermans and Schwartz 2004: 206-207, Roaf 2003: 72, Sherratt 1983: 95-96).

The north Mesopotamian landscape was formed by the same actors as in the south, with an interaction between cities, pastoral- and agricultural economies (Fig. 11). The difference was the division of space. Cities and sites in the north were confined to more closed river valleys and basins, and not interwoven in an extensive irrigation system, which bound the south together. The settled areas had spaces of “air” between them, which caused lesser competition over sustaining areas. It was more or less each city or valley on its own, which had no neighbours to care for, because there was no irrigation system that could cause devastation for others. The landscape also left more room for pastoral groups that became less integrated in the economy, because they had larger areas to exploit, and could more easily avoid conflicts by passing around settled areas, which was inevitable in south Mesopotamia.

3.4: The ideological landscape.

North and south Mesopotamia shared some basic similarities in the way they interacted with their environment. The two regions’ settlements were located on plains with running rivers, surrounded by mountains and deserts. The agricultural cycle with wheat and barley became the main source of food, supplied by the secondary products from domestic animals, mostly sheep and goat, which they produced or achieved from nomadic groups. Both regions exploited in addition a wide range of wild resources. The city became the centre of authority, surrounded by smaller towns and villages that were patronized. The city controlled exchange and distribution of goods. Access to water was important for location of settlements, because it was needed as drinking water and for a number of other tasks, but agriculture, pastureland, trade routes and access to resources like raw materials, hunting prey and fish were also determining factors.

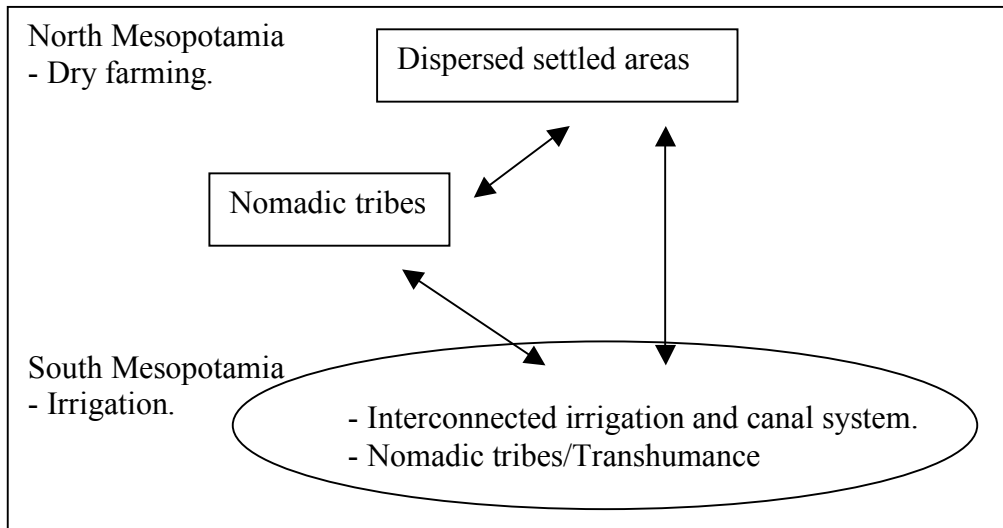


Figure 12: The Mesopotamia landscape.

Fig. 12 illustrates the major difference between south and north Mesopotamia – between irrigation and dry-farming. Wittfogel (1964) formulated the concept of hydraulic societies and oriental despotism, where water management was transformed into political power. This was certainly a crucial factor in the development of society in south Mesopotamia, because the irrigation systems were essential in order to produce grain, and these required much labour and organization even on a small scale (Oates, J. 1982: 481, Thuesen 2002: 61). However, it was not a prerequisite for political power, as Mann (1986) contrasted in his theories. These included a wider spectre of power bases (as discussed in chapter 2), but though Mann rejected Wittfogel, he also relied on irrigation as an important factor for the emergence of complex societies, and argued that the area remained backward in its development towards rank societies before the invention of irrigation (Ibid: 78). Excavations at Tell Brak and Tell Hamoukar proved that irrigation was not as important as considered in earlier interpretations, and other factors such as trade could be equally important.

Fig. 12 also illustrates a difference in the interaction with pastoral nomadic tribes. In south Mesopotamia herds were kept in a close relationship with settled communities, because agricultural fields served as grazing fields in some periods or years. In contrast to this, nomadic groups in north Mesopotamia lived outside the settled valleys and basins as autonomous groups. Since settlements were more dispersed in this region they may have suffered a greater threat from the nomadic groups, because they could not so easily alert alliance partners. The nomadic groups may have chosen

a different tactic in the densely populated south Mesopotamia, where defensive armies could be mustered faster than in the north. Here they probably had more interest in peaceful interaction, since they both had products the other needed, leading to interdependence between the nomadic and the sedentary population (Adams 1974: 2). The situation in north Mesopotamia with dispersed settled areas that kept their own herds, and pastures outside the settled areas where nomadic tribes could travel without interference, led to a different interaction with a less integrated relationship between the two populations. Thus the dispersed settlements in north Mesopotamia could be more tempting for attack and occupation, but the settlements were also lesser dependent, because they kept their own herds.

All these aspects are functional perspectives, but the landscape was also the subject of an ideological cognition and comprehension (Steadman 2005). E.g. irrigation agriculture was important for the south Mesopotamian ideology, because it connected the landscape in a symbiotic relationship where people were depended on each other. People in the south had collective tasks in a larger world, because they relied on others as a result of the interconnecting canal system from north to south. This resulted in a high degree of constant disagreements, wars, alliances and co-operations, resembling the situation during the early dynastic period (Dalley 2000: 413-414). This conditioned a common ideological comprehension of the landscape where the fertile plains became the centre of the world with the life-giving rivers, and the dangerous surroundings that could cause devastation to fields.

Cities with an ideologically important status are known from the Dynastic period (Postgate 2004: 271-272). However, a connection between city and ideology also existed in the Uruk period. This is indicated by the settlement continuity at urban sites, which were occupied for thousands of years. In the Adab-Nippur area the urban sites remained populated when the population in the hinterland declined. The temples in Eridu continued to be erected at even larger scales, despite a population in the city and the area that was volatile and unstable (Hole 1994: 132, note 16, Leick 2002: 17-18, Safar, Mustafa & Lloyd 1981: Fig. 3, Wright 1981: 325-327). A more direct evidence of the connection between settlement and ideology are the deliberate preservations of older temple foundations that were conducted at Eridu and Uruk-Warka. This indicates that former religious beliefs were preserved (Oates 1960).

Continuity between the temple and its area is also observed in the Anu Ziggurat area at Uruk-Warka, and in the temple area at Jebel Aruda (Heinrich 1982, van Driel 1979). The evidence underlines how people and villages in south Mesopotamia became connected to cities not only as inhabitants and patrons in a hierarchy, but also ideologically (Steadman 2005). Urban settlements with a long history became a focal point in people's ephemeral lives as something eternal. Monuments such as walls and especially temples, because these were re-erected at the same ground for centuries, may have acted as permanent expressions of the existing ideology that linked society and land (DeMarrais, Castillo & Earle 1996:19). The preservation of temple areas in the city can therefore be interpreted as a way to preserve the world they knew, and to continue the existing ideology and social relations.

A common comprehension of the landscape did not develop among citizens of north Mesopotamia, because the landscape was divided into dispersed settled areas. Settlements in the Uruk period grew up as regional centres or cities in areas that had some special favourable conditions in addition to farm- and pastureland. This could be trading or access to natural resources. Continuity was also important in the north Mesopotamian landscape, as proved by long stratigraphic sequences at some of the urban sites. The Eye Temple at Tell Brak revealed a comparable situation to the south Mesopotamian temples, because it was re-built in the same area several times before the Uruk expansion (Oates, D. 1987, Oates, J. 2004b), indicating an indigenous tradition.

3.5: Concluding remarks.

The ideological landscape in north and south Mesopotamia was somewhat different. The south had a collective world and the north a dispersed one. The regions shared ideological aspects such as the concept of continuity at urban settlements, and they exploited the same basic resources within tiered settlement hierarchies. To examine ideological connections and similarities further I will now turn to the settlement's internal organization and the division of social space.

CHAPTER 4: THE DIVISION OF SOCIAL SPACE.

In this chapter I will analyze the division of social space in Mesopotamia, and the changes that occurred throughout Uruk period. My focus is on the tripartite household, and the spatial organization of settlements, which shaped hierarchies, gender roles and ideology through interaction with agents in society.

4.1: The emergence of social hierarchies.

Social organization is connected to ideology in a dualistic relationship (Chapter 2). To get an understanding of this, it is crucial to examine the tripartite building tradition and its organization, because this structure shaped the social hierarchy, and constituted the gender roles. The tripartite household became common throughout Mesopotamia from the Ubaid period about 6000 B.C, and was used both in domestic and non-domestic architecture during the Uruk period (Forest 2005, Frangipane 2001: 309-311, Gosden 2004: 46-47, Maisels 1999: 152-156, Roaf 2003: 56). In the study conducted by Watson (1978) it was argued that the tripartite Ubaid household consisted of a nuclear family. However, the distribution of material, size of the household, administration technology and remains of production indicate that the household was constituted by an extended family with additional servants (Maisels 1990: 163-166, 1998: 161-169).

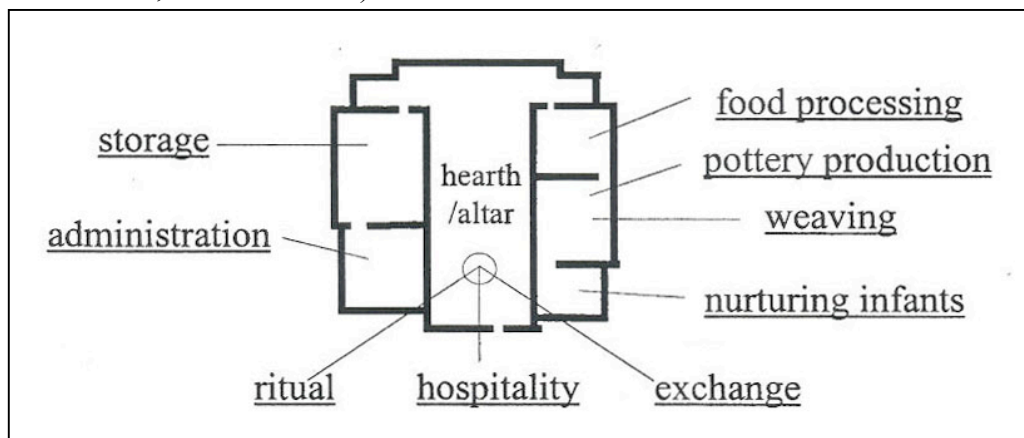


Figure 13: The tripartite Ubaid household (Wengrow 1998: 791, fig. 3).

Fig. 13 describes the division of space in a tripartite building from the Ubaid period. Generally the north side of the house was associated with storage and administration. The south side was associated with food preparation, pottery production, weaving and

nurturing. The central hall served as a place for interaction and hospitality, and contained a hearth that probably was used for cooking. Excavations also revealed cultic activities in the central hall. Thus the tripartite house was a large self-sufficient unit, fulfilling all functions that the inhabitants needed as home, workshop and shrine (Maisels 1998: 148-162, Roaf 1989: 103-137, Wengrow 1998: 786-787, 790-791, fig. 3). Agriculture in Mesopotamia was risky and the settlements must have developed a system that secured the survival of a family during a bad year, against accidents or unpredicted crises like death or sickness within a household. They had to secure enough labour and income to maintain subsistence and alliances, and to obtain raw materials for production. Dense kinship network where domestic households were tied together by obligatory assistance is a known strategy in agricultural societies. Another important strategy may have involved feasts and redistribution of transformed food products. In bad times when the household could not provide for their inhabitants they could seek help through kinship and alliances (Maisels 1998: 185, Joffe 1998: 303).

The growth into larger settlements during the Ubaid period conditioned changes in the division of social space. The situation called for decision-making on a level above the household. This became organized with a *head of the house* who represented the household in the community. The households at Tepe Gawra in north Mesopotamia were transformed about 4300 B.C from large households into smaller units that consisted of nuclear families. To minimize the number of persons who participated in decision-making in the community, *the head of the house* had to represent a larger group than one household. This person became a representative for several households that formed a group (probably a kin), and the representatives formed together an elite. The competition between groups in society resulted in consolidation of power between a few important households. These marked their position by being larger, solidly built with thick walls, decorated with buttresses and niches, and sometimes located on terraces that elevated the building from the surroundings (Forest 2005: 188-190). A similar hierarchy seems to have developed at Qalinj Agha. Excavations revealed two tripartite buildings that differed from the others by their size and buttressed facades (Al-Soof 1969: 5-9, pl. IV). The situation at Tepe Gawra also changed in another important way. The elite residences were first distributed throughout the settlement, before they became concentrated in the same area (Forest

2005: 190). When seen in the light of the developments of Tell Brak discussed below, it becomes clear that this development resulted from the establishment of an elite that controlled the entire community.

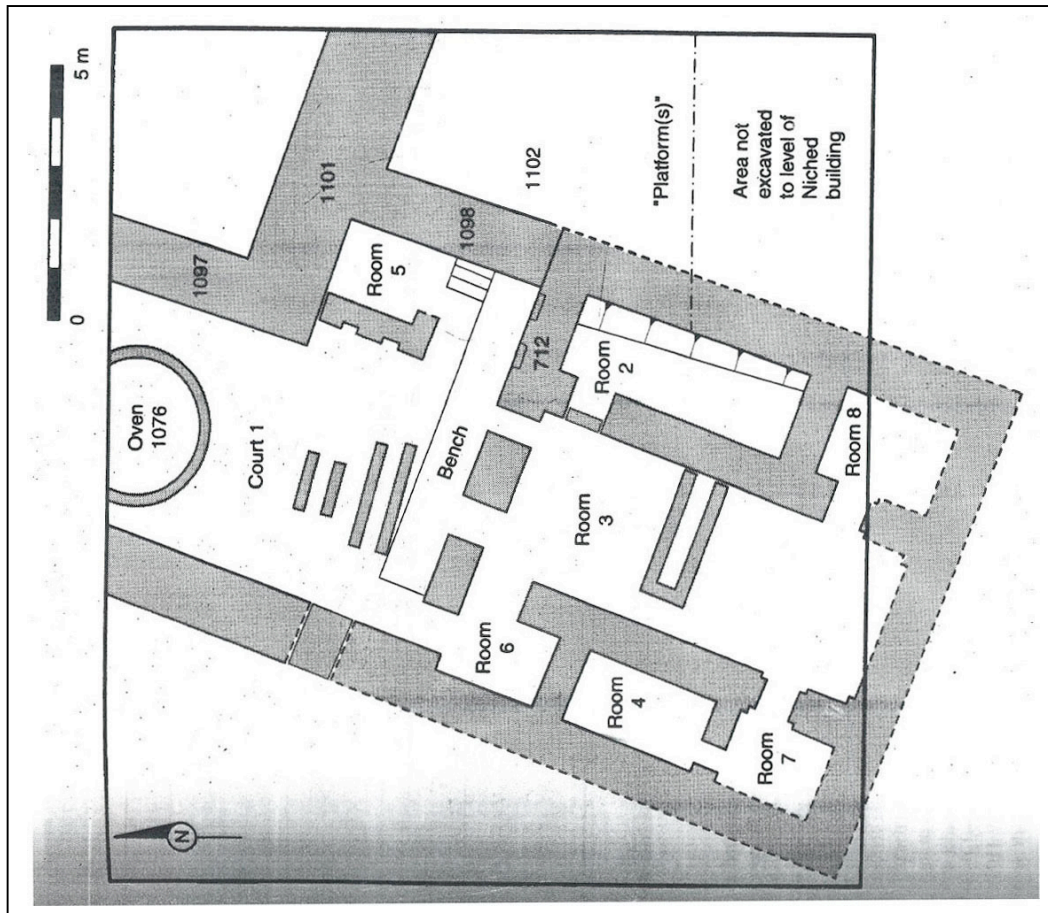


Figure 14: Public hall and courtyard at Tell Brak (Emberling & McDonald et al 2001: Fig. 4).

Excavations at Tell Brak have revealed elite buildings in the same area from 4000-3500 B.C. This is based on the findings of precious stones, metals, and finely made objects in large decorated and solid houses, some of which were built upon terraces. A niched building and courtyard (Fig. 14) that remained in use from 3800-3500 B.C (TW level 18-16) was probably used for feasting or at least involved grand scale food production. The complex was located near courtyards that contained several large ovens, hoards of mass-produced pottery plates and animal bones. The ovens had been rebuilt several times, proving that the area had served the same purpose for a long time (Emberling & McDonald et al 2001: 22-27, 2003: 8-9, Oates & Oates 1993: 174, 178, Oates J. 2004b, Oates et al 2007: 594-596). A similar organization was discovered at Tell Hamoukar. Two niched tripartite buildings were located near an area that contained ovens of a size that indicated a grand scale food production. Seals

and impressions were found in substantial amounts, confirming involvement with the administration of goods (Gibson et al 2002: 27-29). The evidence suggests that the niched public buildings at Tell Hamoukar and Tell Brak served as elite residences or public buildings that an elite controlled and used for the administration of goods and to arrange feasts. The area at Tell Brak was associated with an elite through centuries, indicating that the ruling positions were secured through inheritance within a kin. Through alliances with surrounding villages an elite secured control over the city and its hinterland. The surrounding villages were organized like Qalinj Agha, which was ruled a family of kin. They chose a *head of the house* who represented the village in the interconnection with its patron city or town. Through the exchange of gifts and tribute, the elites in the cities and villages guaranteed each other's positions in a tiered settlement hierarchy.

The economical situation in the Uruk period with the triangle interaction described in chapter 3 led to changes in the household organization. New professions and specialists were needed to handle production, administration and exchange. It can be argued that household activities were transferred into public agencies – to central institutions and specialists, of which there were many according to the profession list (Nissen 1990: 79-83, fig. 31). Cylinder seals, depicting people working in groups (Amiet 1980: pl. 120 1609, pl. 123 1634-1635, Strommenger 1980a: Abb. 55), substantial amounts of impressed tablets and mass-produced pottery suggest that production was overseen and coordinated by an elite or administration (Bernbeck & Pollock 2002: 184-185, Englund 1998, Nissen 1986, Nissen Damerow & Englund 1993, Oates, J. 2004a: 116-119, Szarzynska 1994). The lithic evidence gives this interpretation further support, because cores for stone tool production were found mostly at larger sites (Pollock 2001: 201). A small site in the vicinity of Uruk-Warka revealed an abundance of cores that certainly exceeded the local needs (Adams & Nissen 1972: 230). This indicates that the city controlled the settlement, which functioned as a specialized centre for lithic production. Obsidian was found mostly at large settlements or at smaller sites that were concentrated along the main river channel of the Euphrates (Pollock 2001: 201, fig. 6.5). This suggests that the import may have been controlled and distributed from sites along the river. The distribution of lithics at Tell Brak resembles the situation in the south. Cores were found in a nearby area, while remains of such production were scarce within the city (Emberling

et al 1998: 30-37). The evidence of workshops-, shops- and pottery at Tell Brak suggest that grand scale production and specialization existed in the city throughout the 4th millennium B.C (Oates, J. 2004a, Oates & Oates 1997, Oates et al 2007). Evidence from Tepe Gawra and Jebel Aruda strengthens this impression, because certain activities were confined to specific areas, households or facilities (Rothman 1994: 102-106, fig. 2-3, van Driel 2004: 194, fig. 1-3). Remains of metal processing have been found both at small sites and in larger cities (Algaze 2001b: 208-209, Charvat 2002: 125, Frangipane 2001: 313-316, Oates & Oates 2004: 185), and pottery workshops in south Mesopotamia seem to have been limited to smaller settlements (Charvat 2002: 124, Pollock 1990: 87, Pollock, Steele & Pope 1991: 62, 67-68, fig. 3). The evidence shows that the Uruk communities exploited economical niches such as the trade and production of certain commodities. This was conducted by specialized agencies both in cities and at smaller sites. However, the evidence from Abu Salabikh and Qalinj Agha showed that households produced at least some part of its own subsistence. Spindle whorls and lithics at Abu Salabikh were found over the whole site, and the households at Qalinj Agha included a wide range of activities. This proves that some settlements still had dispersed production with economically depended households (Maisels 1998: 162-164, 1999: 160, Pollock 2001: 204-207, Pollock & Bernbeck 2002: 192, Pollock, Steele & Pope 1991).

The evidence shows that production was not necessarily elite controlled and centralized into cities. It was also decentralized and conducted by independent craftsmen or households in a village or city. Agencies may have controlled production and the distribution of certain raw materials or commodities, dependent on the site's access to materials, its location, social position and organization. The subsistence, which in the Ubaid period was secured through the interconnection between large households (Maisels 1998: 185-187), became on Uruk settlements secured through a system where small domestic households provided offerings and tribute to a central elite in form of labour, goods and materials (Collins 2000: 64).

4.2: Temples and monumental architecture – A common tradition.

Monumental architecture from the Uruk period 4000-3100 B.C						
Time	Site	Building	Orientation	Niches & grooves	Cone mosaic/ central hearth	Whitewash/ Altar
LC 3	Hammam et-Turkman	Burned building	N/NE–S/SW	Yes		
LC 3	Tell Brak	Niched building	NE–SW	Yes		
LC 3	Tepe Gawra	Temple fig. 5.58	NE–SW	Yes		–/Yes
LC 3	Tepe Gawra	Temple fig. 5.63	NW–SE	Yes		–/Yes
LC 4	Tell Hamoukar	Niched building	N/NW–S/SW	Yes		
LC 4	Tell Brak	White Eye temple	N–S	Yes	Yes/–	Yes/Yes
LC 5	Jebel Aruda	Grey temple	N/NW–S/SW	Yes		Yes/Yes
LC 5	Jebel Aruda	Red Temple	N/NW–S/SW	Yes		–/Yes
LC 5	Habuba Kabira	North building	N/NE–S/SW	Yes	Yes/Yes	
LC 3	Eridu	Level VIII-VI	NE–SW	Yes		–/Yes
LC 5	Eridu	Level I-II	NE–SW		Yes/?	??
LC 5	Khafajeh	Sin temple I-III	NW–SE	Yes	Yes/–	Yes/Yes
LC 5	Tell Uqair	Painted temple	NW–SE	Yes	Yes/–	Yes/Yes
LC 5	Uruk-Warka	White temple	NW–SE	Yes	Yes/–	Yes/Yes
LC 5	Uruk-Warka	Temple C	NW–SE	Yes		
LC 5	Uruk-Warka	Stone cone temple	NE–SW		Yes/–	
LC 5	Uruk-Warka	Limestone temple	NE–SW	Yes		
LC 5	Uruk-Warka	Temple D	NE–SW	Yes		
LC 5	Uruk-Warka	Temple F & H	NW–SE	Yes	–/Yes	
LC 5	Uruk-Warka	Temple G	NE–SW	Yes	–/Yes	

Table 4: Monumental architecture from the Uruk period 4000-3100 B.C (Delougaz & Lloyd 1942: 8-21, pl. 1-3, Heinrich 1982: 63-65, 68-72, 74-75, 78-79, 82-86, 91-93, Lloyd, Safar & Frankfort 1943: 138-139, pl. IV, V, VIII, XV, IX, XVI, XVII, XXVIII, Mallowan 1947: 32, 1967: 10-15, fig. 1-2, Meijer 1988: 76-77, Perkins 1977: 110-111, 120-124, fig. 14, Rothman 2002: 121-123, 128-132, fig. 5.54, 5.58, 5.63, Safar, Mustafa & Lloyd 1981: 79-80, Strommenger 1980a: 43-44, abb. 24, van Driel & Driel-Murray 1979: 2-14, 1983: Map 1). The temples are depicted in appendix A fig. A1-13.

When household activities were moved into the public sphere, rituals and administration were conducted by central agencies. These became temples and were constructed with a tripartite plan, giving birth to the metaphor of the temples as god's household. The buildings functioned as a household that served the whole community, to which tribute was paid (Maisels 1998: 183, 1999: 163, Robertson 2000: 448-450, Rothman 2002: 102, Wengrow 1998: 791-792). Of the monumental buildings in table 4 there are only those with altars that can be interpreted as temples, but it is likely that also this criterion is insufficient. The temple was invented as a part of the movement of household activities into the public, and the ritual activities that had been carried out in the Ubaid household had not involved an altar. A central fireplace may have been equally important, because such was found in the central hall of the domestic households (Strommenger 1980a: 37-38, Abb. 15-16, Wengrow 1998: 791), and in monumental architecture from the Uruk period (Heinrich 1982). This makes it hard to separate between secular monumental construction and temples. The division may also be unnecessary, because a distinction between the secular and the religious was non-existent in Dynastic Mesopotamia (Pollock 2002: 186, Selz 2002: 112). The monumental structures must be interpreted as central agencies that fulfilled public tasks. These included ritual activities as indicated by the altars, but also common household tasks such as cooking, administration, storage and hospitality. The constructions must therefore be understood as competing and dominating agencies in society. They functioned as households and constituted the upper class in the social hierarchy.

The monumental buildings (table 4) shared many features such as decoration with niches and grooves, tripartite plans, location on a terrace and/or height. However, white gypsum coating and cone mosaic was restricted to south Mesopotamian architecture from about 3350 B.C. Despite this, the evidence suggests that the population in north and south Mesopotamia shared a common building tradition, inherited from the Ubaid period and the tripartite household. The similarities indicate that they shared social beliefs connected to the institutions that emerged in urban societies in both north and south Mesopotamia prior to, and during the Uruk expansion. This assumption can be discussed further by analyzing the material context in the central agencies.

4.3: Legitimation of power.

The lion and the leopard are symbols that have been found in context with monumental architecture at sites in south and north Mesopotamia prior to and during the Uruk expansion, indicating similar social representations. A lion seal was found in the niched building at Hammam et-Turkman (Meijer 1988: 77, van Loon 1988: 665, pl. 200, fig. 3), and the elite controlled areas at Tell Hamoukar and Tell Brak contained lion and leopard sealings (Emberling & McDonald et al 2003: 9, fig. 11, 13, Gibson et al 2002: 17, 20, 27-30, fig. 9-10, 21, Reichel 2002: Fig. 6-7, 12). Tell Brak also revealed lion seals from 4000 B.C (TW level 19). These were found in the same area as the *niched building* inside a house made of massive walls. The building contained quantities of flint, obsidian and other stones, together with finished products. There was also a high-quality drinking vessel made of obsidian and white marble (Oates et al 2007: 591-593, fig. 9-10). This material links the lion seals at Tell Brak to an elite ideology, because they are found in an area associated with an elite for several centuries. The seal that was similar to the Lion Hunt Stele (Fig. 15b) from 3000 B.C, found at Uruk-Warka in level III (Amiet 1980: Pl. 40. 611, Strommenger 1964, 384, pl. 18), strengthens my interpretation further. The depictions showed people who are engaged in a fight with lions, displaying the power to control the wild. Sealings from Tell Hamoukar and Tell Brak also depicted lions that killed other animals, in one case a goat and in the other a small mammal (Gibson et al 2002: 28-29, fig. 23, Oates et al 2007: fig. 10). These scenarios may have been highly

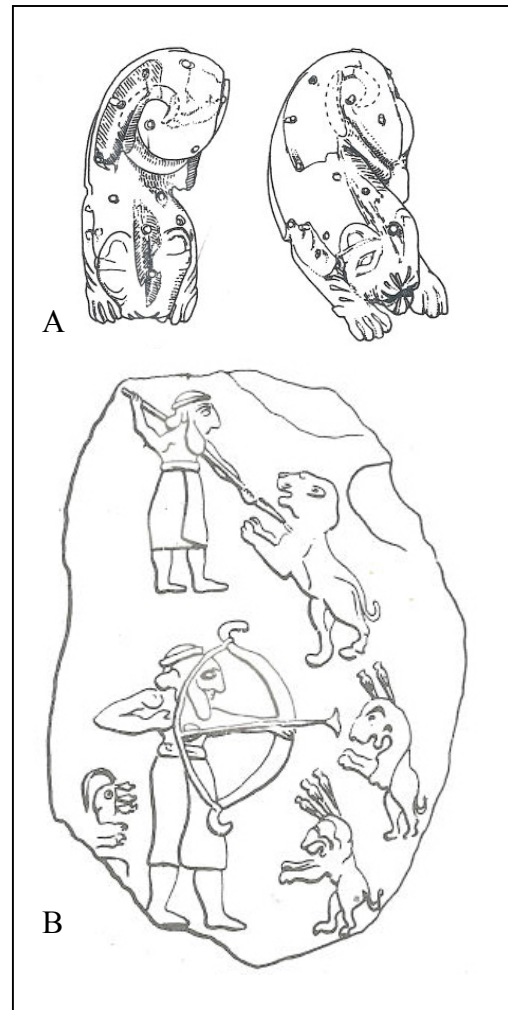


Figure 15: A: A leopard seal from Tell Hamoukar (Gibson et al 2002: Fig. 10). B: The Lion Hunt Stele from Uruk-Warka (Amiet 1980: pl. 40 611).

Strommenger 1964, 384, pl. 18), strengthens my interpretation further. The depictions showed people who are engaged in a fight with lions, displaying the power to control the wild. Sealings from Tell Hamoukar and Tell Brak also depicted lions that killed other animals, in one case a goat and in the other a small mammal (Gibson et al 2002: 28-29, fig. 23, Oates et al 2007: fig. 10). These scenarios may have been highly

realistic, because such animals were feared. They posed a threat to the flocks of caprids, which was an important economical resource.

Lions and leopards were also associated with monumental architecture about 3200 B.C within the south Mesopotamian culture. Jebel Aruda revealed 20-30 sealings that were found discarded beside a door in the temple area. All had the impression of the same seal depicting a lion (Fig. 16A, van Driel & Driel-Murray 1979: 14, van Driel 1983: 48-49). Seals and sealings depicting lions were also found in both the White Temple area, and the Eanna area at Uruk-Warka (Fig. A20). Of special interest were two sealings (Fig. 16B-C): one depicting a person who held a lion in each hand with a stranglehold, and one depicting a person together with two lions. The sealings symbolized power and control of the lions, resembling the symbolism that was used at Tell Brak 4000 B.C.

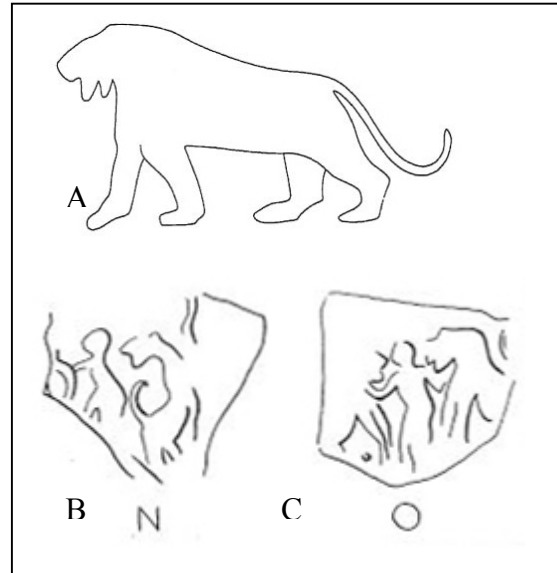


Figure 16: A: The lion seal from Jebel Aruda (van Driel 1983: Fig. 26). B-C: Sealings depicting humans and lions together (Amiet 1980: Pl 13bis. N-O).

The findings reviewed above are interesting because they show similar representations across time and space in north and south Mesopotamia. The lion was used as a symbol of power within south Mesopotamian culture about 3200 B.C, but also within north Mesopotamian culture long before the written sources of Mesopotamian mythology, where these animals were viewed as dangerous and feared (Bottéro 2004: 39, Porada 1950: 225). The depictions symbolized the power to control, and they were used to legitimize power in society (Collon 1996: 17). The role lions and leopards had in south Mesopotamian temples about 3200 B.C supports this theory. A leopard and a young lion were sacrificed in the White Temple, and laid down in its east corner (Heinrich 1982: 65), and in the Painted Temple at Tell Uqair a leopard was painted on the platform and the podium in the central hall (Lloyd, Safar & Frankfort 1943: 141, pl. X-XI).

A quality that a leader had to possess, according to Mesopotamian mythology, was the ability to control and tame the wilderness. In the epic of Gilgamesh, the wilderness represented by the character Enkidu was tamed by Gilgamesh, and turned into a city dweller (Kovacs 2004). This belief existed in north and south Mesopotamia during the Uruk period, because the lions and leopards that were displayed in material culture or used in sacrifices were found in context with monumental architecture that had a central function at the site. The elite used the symbols as agencies to legitimize power by displaying their ability to control and tame the wilderness (Oates et al 2007: 593). By using lions and leopards they symbolized a power that they possessed, a power that gave them the right to rule. The ancient Mesopotamians used these symbols as agencies, because they were good to think with. They were ideal to demonstrate elite ideology since they symbolized strength and fear. The symbolism associated the elite with the power to protect, and the right to rule. Rituals that involved the sacrifice lions and other animals may be interpreted as rituals that legitimized brutality towards neighbouring cities or disloyal citizens, because the religious violence were transcended in to legitimate political aggression (cf. Bloch 1992: 6-7). Temples may have been used to display victory after violent conflicts. The *Riemchen* temple in the Eanna area revealed deposits of weapons (Heinrich 1982: 72), suggesting a material manifestation of power, violence and victory that was to be associated with a dominant elite.

The monumental construction, the symbolism, ceremonies and rituals were agencies that accumulated ideological power by associating the elite with the strength of lions. They marked their social position physically by excluding and included people from enclosed or terraced temple areas. E.g. the upper terrace of the Painted Temple at Tell Uqair had only one stairway, while the lower terrace had three (Sandars 1979: 124, fig. 40). The regulated access marked a social division between those with access to the upper terrace, to lower terrace and those without. The lion symbolism and the a physical separation of people in the social space can be seen as symbolic violence (Bourdieu 1996) that in turn reproduced the elite ideology in Mesopotamian societies.

4.4: Social organization.

Spatial organization of the social space at urban sites during the Uruk period can be described as in fig. 17. The outer circle includes domestic households, while rich and influential households constitute the second, and the inner circle represents the upper elite. This model resembles description of Uruk societies in southwest Iran (Wright 2000: 183). The social space was separated between the elite in the upper area, and the people in the surrounding domestic households.

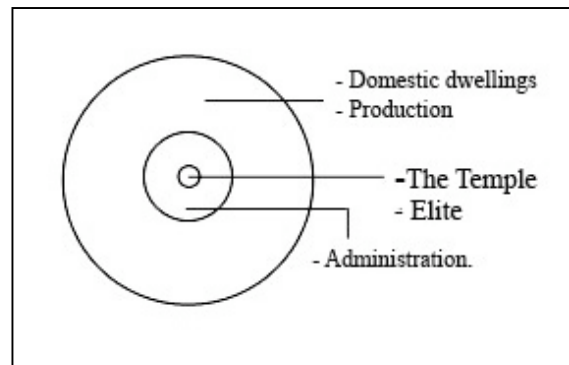
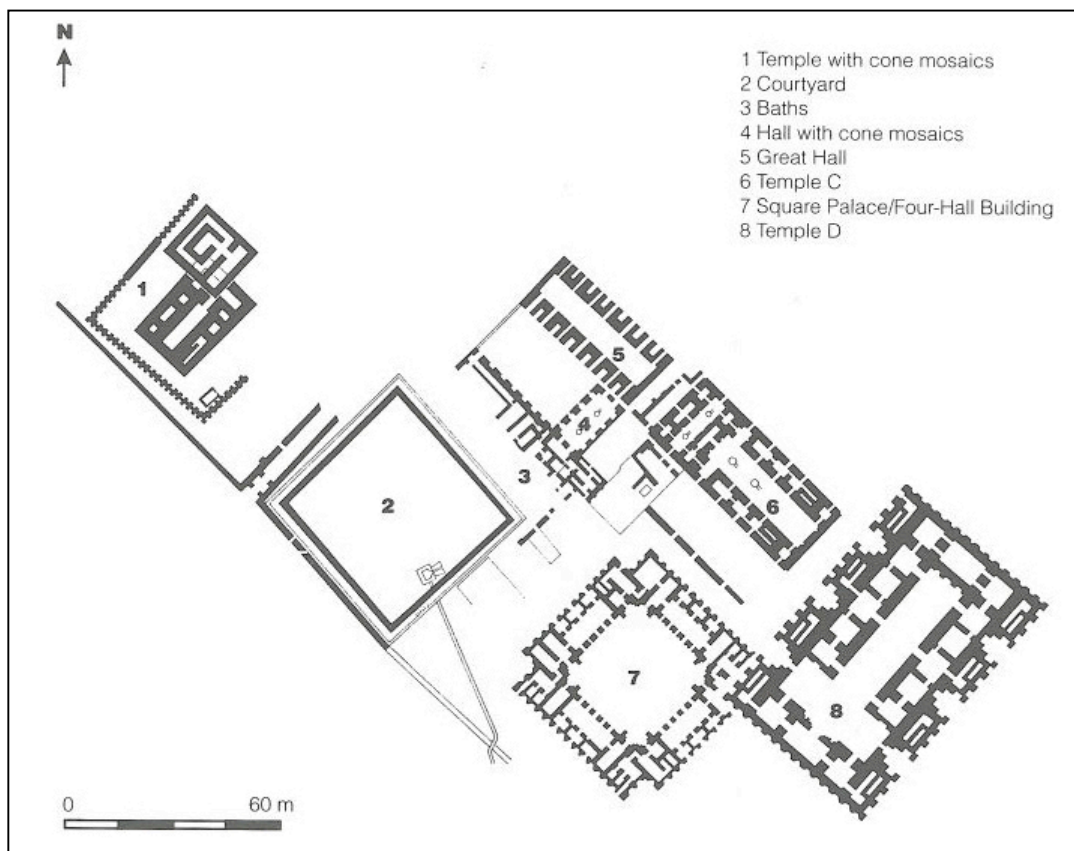


Figure 17: Spatial organization of the social space.

The model in fig. 17 illustrates the situation at Tell Brak and Tell Hamoukar, because these sites revealed public structures and elite buildings that were centrally located on the settlement, and were associated with administration and control of goods. A temple has not yet been discovered or was never built at Tell Hamoukar, while one was constructed at Tell Brak. The White Eye Temple revealed at least five levels of occupation (Oates, J. 2004b). This indicates a social organization and divisions of space that was similar to the temple organization in south Mesopotamia.

Uruk-Warka had in addition to the Anu ziggurat area with the White Temple (Fig. A1), also another public area called the Eanna (Map. 4). The constructions were first interpreted as temples, because of their form and monumentality. This fitted the early interpretations of the Uruk society as a temple state. However, it's likely that at least some of these buildings were not temples, e.g. the Square Palace, the Great Hall and the Hall with cone mosaic. These do not resemble temples in their architectural form, and they did not contain any evidence from sacrifices or actions that indicated cultic activities. Many of the buildings in the Eanna area had fireplaces, and it is possible that the area was used for public feasts and meals (Heinrich 1982, Liverani 2006: 61, Nissen 1990: 96-101, Roaf 2000: 432). This interpretation is strengthened if accepting the re-interpretations of the metal workshop adjacent to the Eanna area as a cooking area (Charvat 2002: 124). It should be emphasized that the fireplaces may have been

used for cultic activities as discussed earlier. However, there is convincing evidence of administration and control, because the area revealed substantial amounts of cylinder seals and impressed tablets that were used for bookkeeping (Englund 1998, Nissen 2001: 155, Rothman 2004: 100). Though the evidence stems from rubbish dumps, it showed that the Stone Cone Temple and the Riemchen Building were the only buildings without tablets. They were also separated from the rest with a wall (Nissen 1986: 318-320, fig. 1, Nissen, Damerow, Englund 1993: 6, fig. 5). To summarize, the Eanna area was a public area with buildings that fulfilled functions like administration, feasts, meetings and exchange, as well as rituals (Leick 2002: 49-52, Nissen 2001: 154-155).



Map 4: The Eanna area at Uruk-Warka (Yoffee 2006: Fig. 9.15). Additional figures are found in the appendix figures A2-3.

The excavations at Uruk-Warka have been limited to the Anu Ziggurat and the Eanna area, and we know very little of the domestic occupation that surrounded the city centre. The organization of the city is better understood when seen in the light Habuba Kabira/Tell Qannas and Jebel Aruda (Fig. A4-6). The two sites must be seen in relation to each other. The buildings at Tell Qannas revealed structures that resembled

south Mesopotamian temples. They lacked altars, but revealed fireplaces similar to those found in ordinary houses at the site, and in public constructions in the Eanna area. There was also an oven-like-structure in the south building, indicating that cooking was conducted in the area (Akkermans & Schwartz 2004: 191, Heinrich 1982: 83-86, Strommenger 1980a: 41-44). Jebel Aruda, lying only 8 km to the north revealed two clearly defined temples that were erected in an enclosed area, viewable from all parts of the settlement. Domestic households, constituted by large tripartite building complexes, surrounded the temples (van Driel 2004), implicating that the site was reserved for an elite, possibly those who ruled the region (Schwartz 2001: 248).

The evidence reviewed above thus describes the division between the two inner circles in fig. 17, because it reflects the division between restricted temples and more publicly accessed areas. The restricted temples were such as the White Temple at Uruk-Warka, The Painted Temple at Uqair, the temples at Jebel Aruda and at Eridu. They were located upon a platform level that only could be reached by a stairway.

Their solitary position and regulated access was very different from the more open areas such as Tell Qannas and the Eanna area, separating the upper social classes into an upper and a lower stratum. The Warka Vase found at Uruk-Warka, and dated to about 3200-3100 B.C (Fig. 18), can illustrate the social hierarchy further. It portrays a hierarchy from the bottom to the top: water at the lowest band, then fields of grain, animals, a procession of men, and prominent

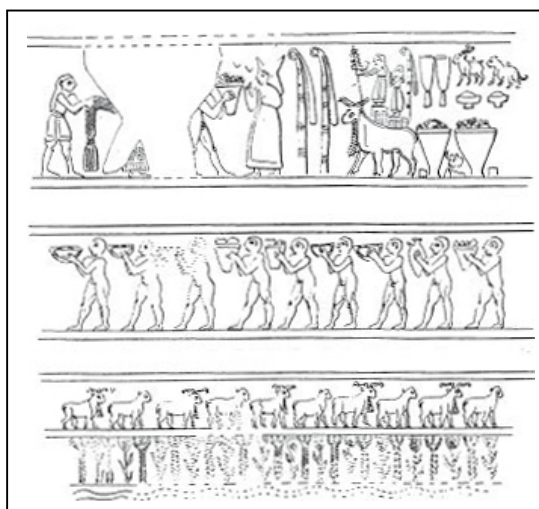


Figure 18: The Warka Vase (Amiet 1980: Pl. 45. 644).

persons receiving tribute (Bahrani 2002: 16-18, Frankfort 1965: 16, Lindemeyer & Martin 1993: Taf. 19-25, Schmandt-Besserat 2007: 41-44). The upper band represented the upper elite, who controlled the restricted temples, while the second band represented *heads of the houses*, bringing forth tribute from serving households. They were probably involved in the administration of areas such as Tell Qannas and the Eanna. The lower bands of the vase represented production, which was maintained by the common people. The division social space can thus be divided in

three. The temple was the upper unit governed by an elite. The next level was an administration section, which was constituted by an assembly of citizens, presumably from certain influential households. The third social level included domestic residences, craftsmen and surrounding villages. These were households and agents of lesser importance, which were dependent on the higher social classes.

The upper level of the social hierarchy in the community was a central agency, controlled by an elite. It may have consisted of a council of elders who were selected from an assembly of citizens (Jacobsen 1943: 165-167), which I argue were *the heads of the houses* from influential and rich households in the city. Such households constituted the second level of organization, and controlled administration, parts of the production and the distribution of goods. These households can be compared with what Mann termed *leading families with access to the resources of temples and palaces* (1986: 84-85), although I argue that these agents did not constitute the upper elite. Agents on this social level extracted surplus of tribute and labour from the outer circle, and used it to maintain administration and support specialized production (Liverani 2006: 62, Pollock 2001: 218). When agents in this social space became too numerous, they selected an upper elite. The influential households became the elites' source of power, because they controlled the production and flow of goods. They also competed for influence on and selection of the upper elite.

I argue that the outer circle of fig. 17 also included small surrounding villages. These had internal stratification, but were dominated by a city or town in its near vicinity. The agencies were independent self-serving units or elite controlled facilities (Collins 2000: 64, Pollock 2001: 218). They could be specialities such as stone tool producers or controlled the distribution and trade with certain commodities e.g. obsidian. The three-level division of social space was crucial in Mesopotamian societies, because it established an elite power that did not directly rely on the producers. The clients in the lower social stratum of society were connected to an intermediate level of patrons. This was an extension of the Ubaid system where households had external non-familiar servants. Influential Uruk households dominated other households in a patron-client relationship. In this way power was concentrated and distributed among agents the upper two levels. They maintained social positions and status by forming collective power, which means that they joined in a corporate entity with a common

goal to dominate others (Mann 1986: 6-7, Miller & Tilley 1984b: 7). They developed a system with an upper elite (the inner circle of fig. 17), who supervised the system and had authority to resolve disputes between the competing households. The agents in the lower strata did not constitute a common entity, because they were tied to different patrons. This prevented them from join together in corporate power. And if they did, they met joined forces from the elites, who had a common goal despite of the competition between them.

4.5: Reconstitution of gender roles in Uruk societies.

It can be argued that the tripartite household was based on a dichotomy between men and women where male and female spheres of activities were physically separated (Fig. 13). The dichotomy was inherited from the Halaf and Ubaid periods where activities such as weaving and food processing were conducted in round houses, while storage of grain and administration were conducted in rectangular compounds with symbolism such as herding, hunting, wild- and domestic animals, and female figurines (Wengrow 1998). The construction of the tripartite household became an action that reaffirmed the gender division in society. The existing gender roles from the Ubaid household were reconstituted when household activities were transferred in the Uruk period from the private to the public. Cylinder seals from south Mesopotamia revealed depictions of work such as pottery making and weaving. The depictions were of women, because they inherited the responsibilities and tasks from the household economy, and conducted them in a public sphere. In contrast the men depicted on cylinder seals were shown in conflict, ritual, working or hunting activities (Pollock & Bernbeck 2000, Bernbeck & Pollock 2002: 186-187, table 1). This dichotomy thus resembles the functional and symbolic gender division in the Ubaid and Halaf periods. Textual evidence from the Dynastic periods has indicated that the 4th millennium households were organized patrimonial (Diakonoff 1974: 7-8, Gelb 1979: 75, Maisels 1998: 175, 189, Postgate 2004: 92). This is supported by my interpretation of the Warka Vase, because the persons that represented influential households in band 2 (Fig. 18, A19) were depictions of men. This correlates with the man's task to control storage and administration in the household, making him responsible for bringing tribute to the temple. When the temple became a central institution in the Uruk period, it adopted tasks such as storage, administration and

rituals – activities that in the Ubaid period were confined to the male sphere within the household. This contributed to the constitution of male authority in Mesopotamian societies (Wengrow 1998: 792). In this context cylinder seals were used as agencies to reconstitute the gender roles in society, and to reaffirm the dichotomy between man and woman through depictions of male and female activities.

4.6: The division of social space.

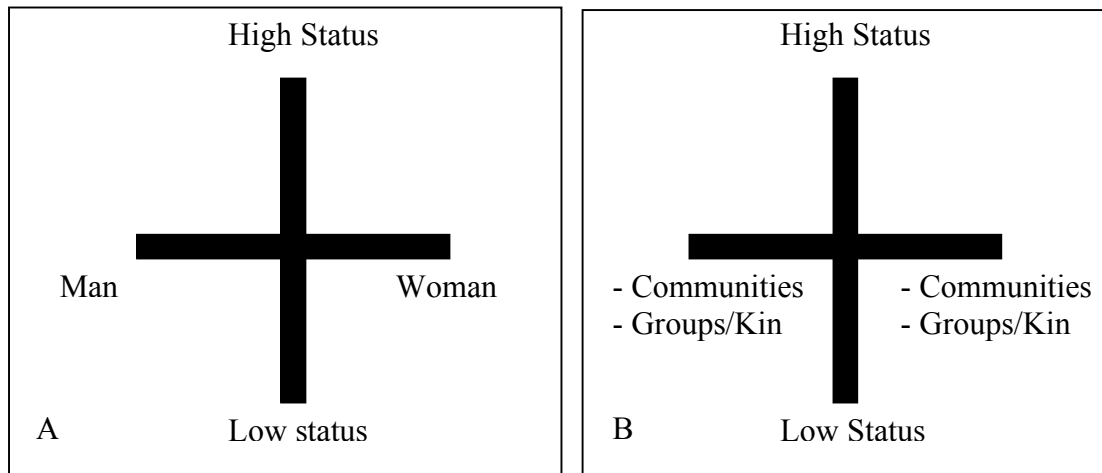


Figure 19a-b: The division of social space.

The illustration in fig. 19a describes the division of social space between status in the vertical axis and gender in the horizontal. The division between the sexes in households and society did not reflect a division of status, but a differentiation that was based on activity domains as argued above. Though male authority was established, women maintained their status from the group or household they were affiliated with. The division between high and low status is vertical, because it reflects the division in the household from *the head of the house*, as the person with highest status, and to non-kin servants of the lowest status. This division was adopted in Uruk societies. The tripartite plan in public architecture served as an agency to maintain a division of the social space vertical and horizontal. It legitimized elite power, and maintained the gender division in society. This division of the social space is reflected in the depiction on the Warka Vase (Lindemeyer & Martin 1993: Taf. 25). The third and fourth band can be seen as the producers representing the non-kin servants, the second band as the household with male authority, and the upper band as the elite or the *head of the household*.

Material culture was used as an agency in the social realm (Larick 1999, Pfaffenberger 1999). Uruk household was based on a division between servant and chief – men and women, and the plan was used to symbolize the division, reproducing existing ideology through re-buildings. When societies became larger in the Uruk period, central halls or temples were built with the same plan to symbolize a similar division of social space. Within a household ideology was confirmed through daily actions. In hierarchical societies public feasts and rituals became social action that functioned as an agency to reaffirm the ideology. In this way they reaffirmed and constituted ideology in the community.

Fig. 19b describes the division of social space in a community. The vertical axis describes relation between settlements in a tiered hierarchy where cities had the highest status and rural villages the lowest. Rich and influential households formed elites. They constituted themselves as one unit, as shown in the examples from Tell Brak and Tepe Gawra where public buildings and rich households clustered together. Less influential households constituted the intermediate level, while poor labourers and perhaps slaves constituted the lowest. The division of social space were not only constituted by gender and status, but there was also a division between communities in the same level of hierarchy, and between groups and kin within the society. These groups may have been based on kin, but also on profession. Tradesmen, carpenters, smiths, farmers etc may have formed groups within society in relation to each other. This interpretation is supported by the evidence from Tepe Gawra where certain seals were connected to specific activities or buildings (Rothman 1994: 102-103). Groups and agencies based on economical niches created a common identity across former family-relations and challenged kin as the basis of identity and social position.

It can be argued that social position and group affiliation were communicated through the distribution of seals (Rothman 1994), but why would they do so (Pittman 1994: 123)? If seals were used within a branding economy as Wengrow (2008) has argued it supports my interpretation as communication of social position, because trademarks are used to symbolize status and position – comparable to the way commodities and brands are used to display status, ideology and group affiliation today. The seals were used as agencies in social practices that involved commodities. Critics of the branding theory emphasized that seals were used in local storage and distribution, and

functioned to seals doorways and documents. There were also the restriction of seal use to certain officials and offices, which indicate other functions than brands (Rova 2008: 25). However, as Wilk (2008) has pointed out, there is no division between function and meaning. 'The seals as brands may be interpreted within in the context to display, maintain and obtain cultural capital (Ibid: 26). In this way the seals were used to accumulate social capital. Seals were used in the administration of local and regional goods, as brands and quality control, and to mark authority. However, all these functions involved a social aspect. They were agencies in society that were used in the negotiation of social position, status and power – within local and regional contexts. Sealings were materializations of ideology and were used as symbols that could communicate both vertical and horizontal relations in society (DeMarrais, Castillo & Earle 1996: 18). E.g. the sealings with lion symbols that were found in central agencies displayed authority, because it was associated with the upper elite. The goods they distributed became associated with the central agency as a brand of commodities with a certain quality. The seals also displayed authority, because it was sealed by the central agency, and were reserved for someone to break. Through these functions the sealings produced and re-produced social position and power of the central agency. The result could also have reversed affects by spreading fright and uproar, because the commodities they distributed had bad quality or the central agency were known as cruel. This explains why they communicated social position. It was because the commodities and the products that were received and consumed by others were intended to be associated with the agents who had produced them. They marked their social position into their products, because they used it as an agency to acquire social capital through recognition and reputation. This could be transferred into economical power, because if their products were good, they could receive more in exchange. In this way social position was not necessarily defined by the group itself, but through interaction with others. Social positions were not static, but dynamic in a process where they were constantly changed and reaffirmed through competition and recognition between producers and consumers.

4.7: Concluding remarks.

Uruk societies in north and south Mesopotamia have revealed similarities in their division of social space. A main reason for this comparable process was their common inheritance from the tripartite Ubaid household. When activities were transferred from the private to the public material, culture was used as an agency to display group affiliation, status and gender. This was communicated within a branding economy through the exchange of goods and commodities. Elites used symbols of strength such as the lion and leopard, and the central agencies exclude and include groups in society. The social organization was based a client-patron relationship between agents in a community, and between settlements in a tiered hierarchy. This regulated and controlled the distribution and production of goods, reproducing the division of social space. I now turn to the Uruk expansion, and to the changes that occurred in material culture through interaction between the two regions.

CHAPTER 5: MATERIAL CULTURE, INTERACTION AND IDEOLOGY.

This chapter aims to outline the changes that occurred in material culture during the Uruk expansion, the social context and the impact on ideology. New technologies, products and trading connections affected production, consumption and ideology. During the Uruk expansion several south Mesopotamian material culture were adopted in north Mesopotamia and Anatolia. I will discuss the interaction, and the transference of ideology through changes in technology and material culture.

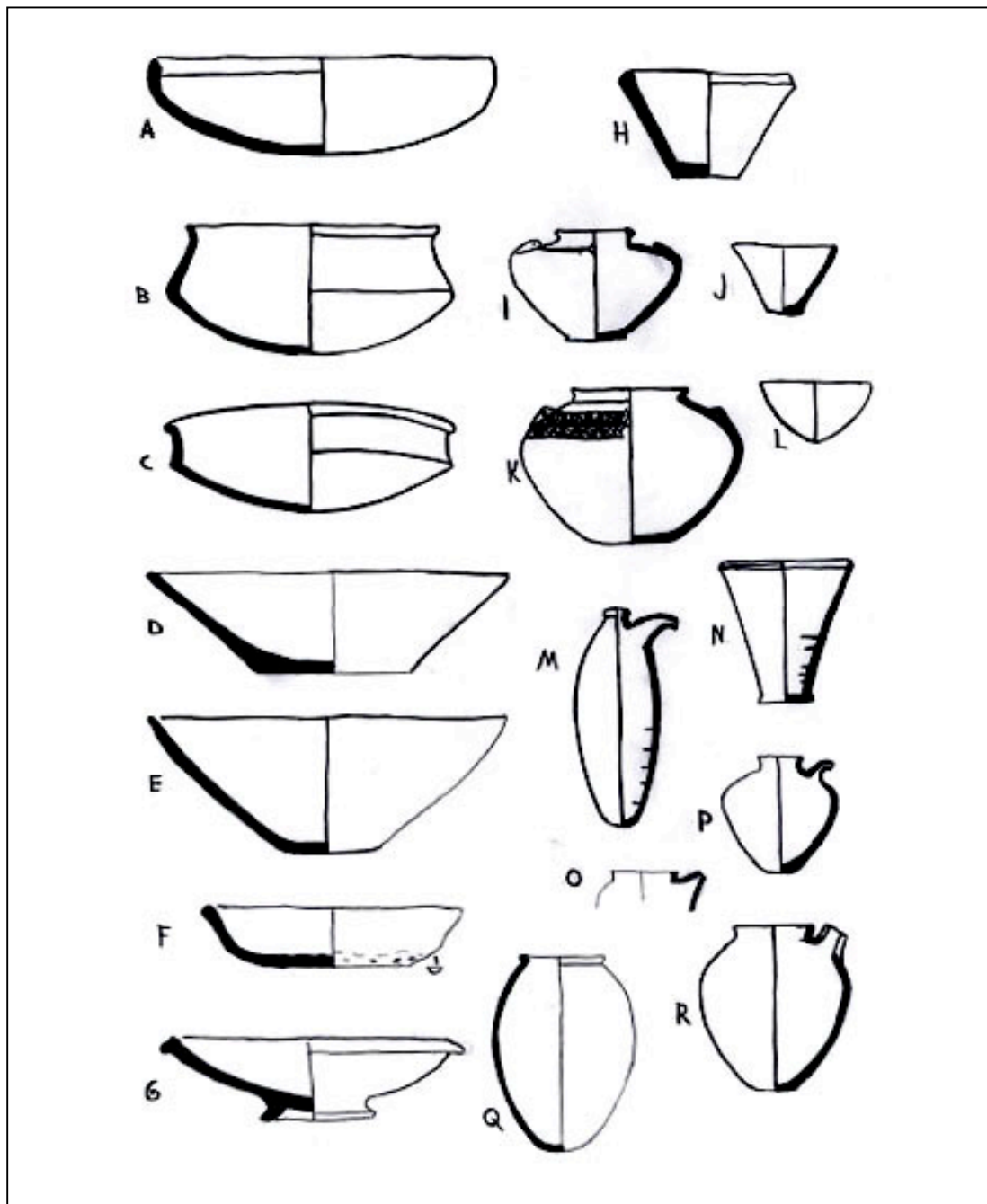


Figure 20: A-G: North Mesopotamian *chaff ware*. H-R: South Mesopotamian *Uruk ware*.

FIGURE 20: POTTERY OF NORTH MESOPOTAMIAN *CHAFF WARE* AND SOUTH MESOPOTAMIAN *URUK WARE*.

North Mesopotamian chaff ware: A-E:

A: Hammerhead bowl: Drawn from Oates, J. 1985: Fig. 1.5.

B-C: Carinated casseroles: Drawn from Oates, J. 1985: Fig. 1.3-4.

D: Coba bowl: Drawn from Oates, J. 1985: Fig. 3.44.

E: Coba bowl: Drawn from Akkermans 1988: Plate 99.24.

F: Plate (with incised symbol): Drawn from Oates & Oates 1993: Fig. 54.66.

G: Footed plate: Drawn from Oates & Oates 1993: Fig. 52.46.

South Mesopotamian types of pottery:

H: Bevelled rim bowl: Drawn from Oates, J. 1985: Fig. 3.40.

I: Four-lugged pot/jar: Drawn from Gut 2004: Fig. 17.8

J: Conical cup with string-cut bases: Drawn from Gut 2004: Fig. 17.7

K: Incised four-lugged jar: Drawn from Gut 2004: Fig. 17.10.

L: Beaker with pouring lips: Drawn from Emberling & McDonald et al 2003: Fig. 3.4.

M: Spouted bottle: Drawn from Nissen 2001: Fig. 5.5m.

N: Flowerpot: Drawn from Nissen 2001: Fig. 5.5k

O: Spouted jar: Drawn from Nissen 2001: Fig. 5.5d

P: Drooping-spouted jar: Drawn from Nissen 2001: Fig. 5.5f

Q: Ovoid jar: Drawn from Emberling & McDonald et al 2003: Fig. 3.8.

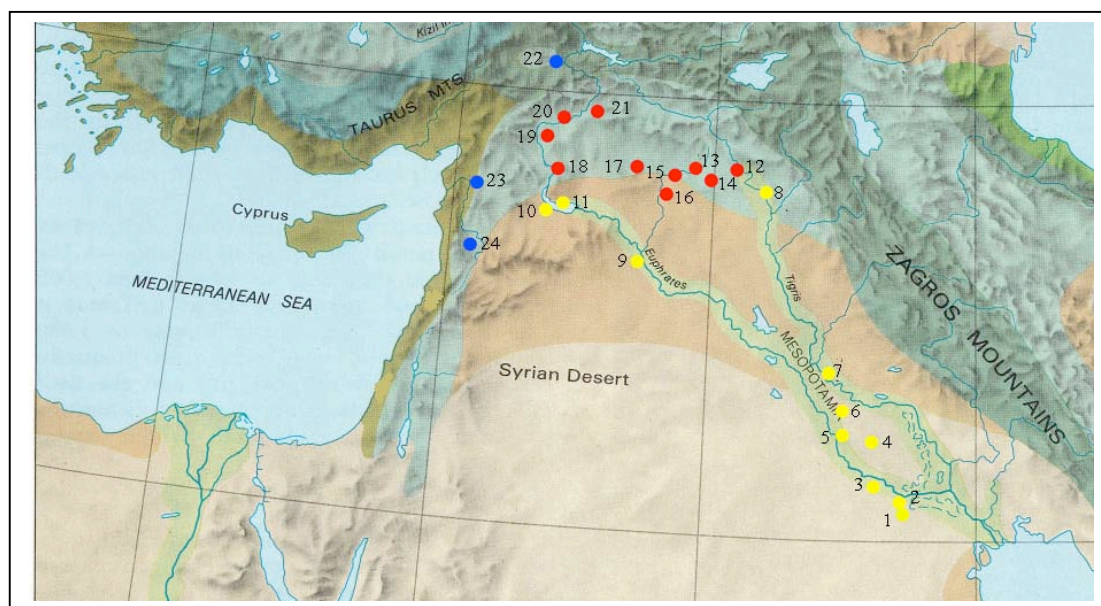
R: Spouted jar: Drawn from van Driel 2004: Fig. 4.JA1923.

5.1: The south Mesopotamian material intrusion.

Distribution of <i>Uruk</i> and <i>Chaff</i> ware.			
Sites/area	Middle Uruk LC 3 3900-3600 B.C	Middle Uruk LC 4 3600-3350 B.C	Late Uruk LC 5 3350-3100 B.C
Tell Brak	Chaff ware	Mixed	Uruk ware
Tell Hamoukar	Chaff ware	Chaff-ware. Shift to Uruk ware.	Uruk ware/mixed
Tell Leilan	Chaff ware	Mixed	Mixed
Habuba Kabira	-	-	Uruk ware
Jebel Aruda	-	-	Uruk ware
Sheikh Hassan	-	Uruk ware	Uruk ware
Jerablus	-	Chaff ware	Uruk Ware
North Jazira	Chaff ware	Mixed	Uruk ware/ mixed**
Nineveh	Chaff ware/mixed	Mixed	Uruk ware
Hacinebi	Chaff ware/mixed	Mixed*	-
Hammam et-Turkman	Chaff ware	-	-
Tepe Gawra	Chaff ware	-	-
Tell Kuran	Chaff ware	Mixed	Mixed
Mashnaqa	Chaff ware	Mixed	Mixed
Tell Qraya	-	Uruk ware	Uruk ware
Samsat	Chaff ware	Chaff ware	Mixed
Hassek Höyük	Chaff ware	Chaff ware	Mixed
Kurban Höyük		Chaff ware	Mixed

Table 5: Distribution of *Uruk* and *Chaff* ware. *The *Uruk* ware at Hacinebi was restricted to specific areas, and the local pottery to others. ***Uruk* ware has been found and used to determine a late Uruk occupation, while a relation with *chaff* ware is still uncertain (Algaze 2005a: 89-90, Akkermans 1988, Emberling & McDonald 2003: 3-12, Ball, Wilkinson & Tucker 1989: 31-32, fig. 19-21, Gut 2004: 20-21, Lupton 1996, Oates & Oates 1993: 170-174, Oates, J. 2004a: 111-121, Rothman 2001: 382-383, 2002: 2-3, 60, table 1.1, Schwartz 2001: 237-242, Stein et al 1996: 213-220, 2004, Weiss 1991: 688).

Table 5 shows the changes in the distribution between *Chaff* and *Uruk* ware (Fig. 20) that occurred in north Mesopotamia from about 3900 to 3100 B.C. In north Mesopotamia these wares had no intermediates, and no transformations of traits from one type to another have yet been discovered. The pots were either a *chaff* pot or *Uruk* pot, making it highly unlikely that the appearance of *Uruk* ware represented acculturation (Oates, J. 2004b). Instead transformations of traits between *Uruk* and local wares have been found higher up in Anatolia (Frangipane 2004). This will be discussed in chapter 5.4. In the earliest period from 3900 to 3600 B.C few sites in the north contained *Uruk* ware. Two exceptions were Nineveh and Hacinebi where it occurred together with the more abundant *chaff* ware (Gut 2004: 20, Lupton 1996, Stein 1996, 1999). After 3600 B.C *Uruk* ware appeared on several sites, but mostly mixed with local *chaff* ware. An exception was Sheikh Hassan, which contained a full assemble of *Uruk* ware. The site also revealed cylinder seals at this time, contrasting other north Mesopotamian sites where stamp sealings were the common technology (Collins 2000: 36, Schwartz 2001: 241, Wright & Rupley 2001: 104-105).



Map 5: Pottery Distribution based on table 5. Yellow dots: Sites with Uruk ware. Red dots: Sites with *chaff* and *Uruk* ware. Blue dots: Sites with local ware and minor Uruk influences. 1: Eridu. 2: Ur. 3: Uruk-Warka. 4: Nippur. 5: Abu Salabikh. 6: Tell Uqair. 7: Khafajeh. 8: Nineveh. 9: Tell Qraya. 10: Habuba Kabira/Jebel Aruda. 11: Sheikh Hassan. 12: Tell al-Hawa. 13: Tell Hamoukar. 14: Tell Leilan. 15: Tell Brak. 16: Mashnaqa. 17: Tell Kuran. 18: Jerablus. 19: Hacinebi. 20: Samsat/Kurban Höyük. 21: Hassek Höyük. 22: Arslantepe. 23: Tell Judeidah. 24: Hama (Edited after Map (Roaf 2003: 22).

The situation changed dramatically about 3350 B.C as seen in table 5, and illustrated in map 5. The material culture at Habuba Kabira and Jebel Aruda were entirely south Mesopotamian. Analysis of the pottery from Jebel Aruda to determine the location of the clay source indicated that some of the finer vessels were imported from south Mesopotamia (van Driel 2004: 195). The sites also revealed southern construction techniques, using the same type of mudbricks called *riemchen* and clay cone decoration (Schwarz 2001: 242, 248, Mellaart 1979: 29, Lupton 1996: 39-41). These technologies were also used at Tell Brak about 3350 B.C, and some of the sites' *Uruk ware* was indistinguishable from specimens at Habuba Kabira (Emberling & McDonald et al 2003: 3, Oates, D. 1982: 64, Oates & Oates 1993: 172). Test pits and excavations at Tell Brak showed a wide distribution of *Uruk Ware* at the site 3350 B.C, but it was not so abundant as ceramics from the previous periods (Emberling et al 1998: 24-26, fig. 26).

The evidence from Tell Brak may be interpreted as an elite take-over by south Mesopotamians. However, a violent occupation of the site, and dominance by coercive power is unlikely, because the distance between the south and the north made it impractical and expensive to organized and support armies. It can be argued that an army set out from Habuba Kabira, but this explanation fails due to the fact that the southern influence at Tell Brak began before Habuba Kabira was settled, and nearly all settlements in north Mesopotamia adopted the *Uruk ware* without traces of warfare. Except for a few city walls there are little evidence to support conclusions of violence confrontations between north and south Mesopotamians. Instead there are examples as Hacinebi where they lived in peace side by side. The only way south Mesopotamia could the north was by ideological power, meaning that new social representations had to be adopted in the north. The material at Tell Brak may be interpreted as the result of a strategy where local elites used south Mesopotamian material to legitimize power (Wattenmaker 1990). This presupposed relations with the south, which made the strategy effective among the people, e.g. by evoking fear, strength and awe when their elite was associated with south Mesopotamia. However, this interpretation does not explain the material distribution at sites such as Tell Hamoukar where landscape surveys showed that *Uruk ware* dominated in the surrounding villages (Ur 2002: 64-67). The distribution indicates that the introduction of the *Uruk ware* represented something more than just an elite takeover and south

Mesopotamian control – it represented changes that had consequences for the whole community technological and ideological. Sites with *Uruk ware* are therefore interpreted as sites that were exposed to south Mesopotamian culture and ideology, which they adopted through material culture and technology during the Uruk expansion.

Stamp and cylinder seals in north Mesopotamia and Anatolia.			
Site:	Middle Uruk LC 3 3900-3600 B.C	Middle Uruk LC 4 3600-3350 B.C	Late Uruk LC 5 3350-3100 B.C
Tell Hamoukar	Stamp seals only	Mixed	Mixed
Tell Brak	Stamp seals only	Mixed	Cylinder seals dominant
Habuba Kabira/ Jebel Aruda	–	–	Cylinder seals dominant
Sheikh Hassan			Cylinder seals dominant
Jerablus	?	?	Cylinder seal
Tepe Gawra	Stamp seals only	–	–
Hacinebi	Stamp Seals*	Mixed	?
Arslantepe	Stamp seals only	Stamp seals only	Stamp seals only

Table 6: Stamp and cylinder seals in north Mesopotamia and Anatolia. * A mix with stamp and cylinder seals was apparent from 3700 B.C (Emberling & McDonald et al 2003: 14-21, Oates & Oates 1993: 172, Frangipane 2001, Gibson et al 2002: 17-20, 27-31, Pittman 2001: 418-441, Peltenburg & Wilkinson 2008: 26-27, Stein 1999: 126-128, 143, 2004: 150-153, Stephen & Peltenburg 2004: 176).

The Uruk expansion involved changes in the administrative technology, and the distribution between stamp and cylinder seals are illustrated in table 6. The distribution at Tell Brak is interesting, because the stamp seals were gradually replaced and appeared in very few numbers compared to the cylinder seals after 3350 B.C. In addition to cylinder seals Nineveh, Habuba Kabira and Hacinebi revealed clay envelopes

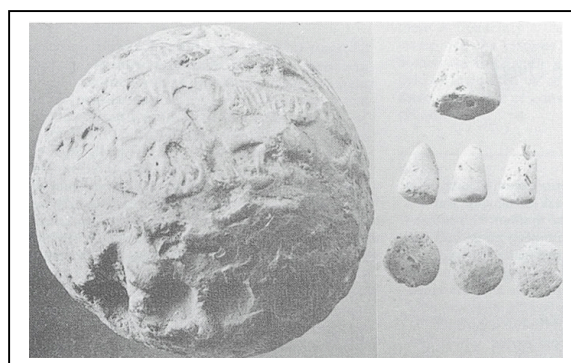
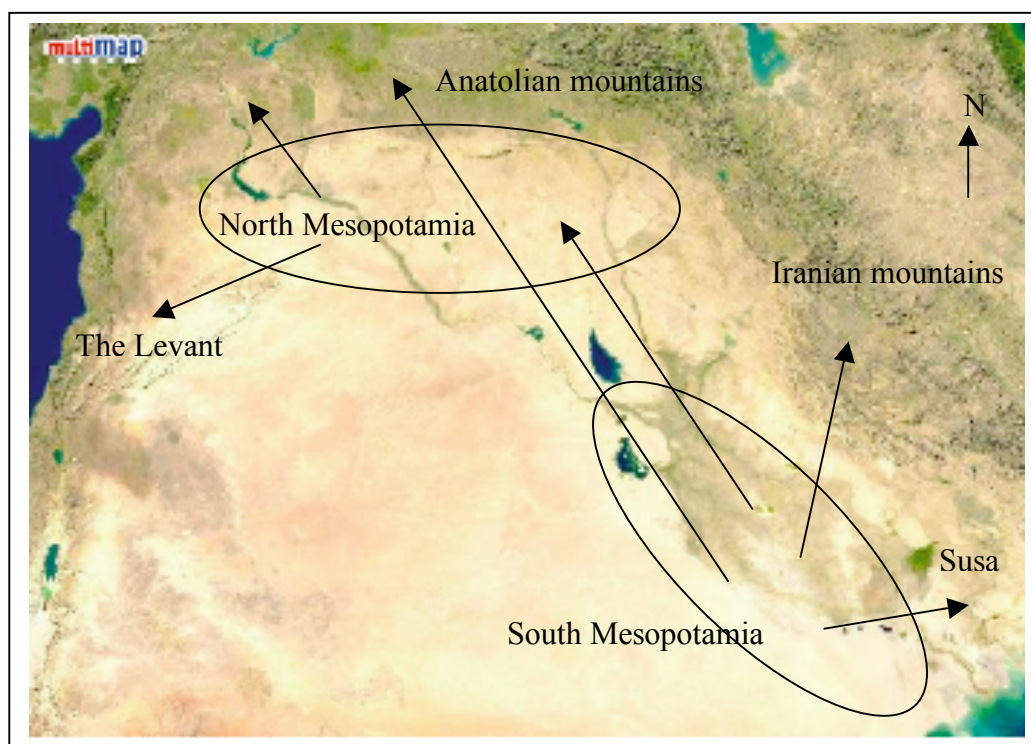


Figure 21: Hollow clay ball and tokens (Collon 2005: Fig. 491).

(hollow clay balls with tokens inside: Fig. 21) and impressed tablets that were similar to specimens from south Mesopotamia and southwest Iran about 3200 B.C (Algaze 1986: 130, Englund 1998: 48-49, Jasim & Oates 1986: 348-349, Stein 1999: 143, Stein et al 1996: 230-231). Cylinder seals became the dominating technology, or were used alongside stamp seals, depending whether the site was on the north Mesopotamian plains or further up in the Anatolian mountains. Sites such as Hassek Höyük, Kurban Höyük and Samsat revealed south Mesopotamian cylinder seals, ceramics and clay cones for decoration of houses (Algaze 2005a: 86-91, table 1, Frangipane 2001: 317, 323, fig. 9.2, Lupton 1996: 43-45, Nissen 2001: 164-165). A comparison between sites in Anatolia and on the north Mesopotamian plains shows that the regions reacted differently to the south Mesopotamian influence in the way the included or excluded new elements. This will be discussed later.



Map 6: The spread of south Mesopotamian material culture.

The spread of the south Mesopotamian material during the Uruk expansion can be summarized as in map 6. The points show how material culture penetrated from south Mesopotamia and into adjacent regions. The markers towards the east indicate influences towards the Iranian mountains and the plains in southwest Iran. At Susa the architecture changed and *Uruk ware* constituted the ceramic repertoire from about 3800 B.C (Potts 1999: 52-55, fig. 3.7). However, these relations will not be discussed in

this thesis, because I focus on the north Mesopotamian relations. The pointers from north Mesopotamia into Anatolia and towards the Levant describe the relations, which existed about 3350-3100 B.C. The material has shown contact between sites in Anatolia such as Hacinebi and Habuba Kabira in north Mesopotamia. *Uruk material* was also discovered west in Syria, along the coast of the Levant and in Egypt. These finds indicate trading connections, because they appeared as single artefacts in context with local materials (Mark 1998, Wengrow 2006b).

The close connection between south Mesopotamian and north Mesopotamia ended with the late Uruk period. At about 3100-3000 B.C the occupation at Sheikh Hassan, Habuba Kabira, Jebel Aruda and Tell Qraya ceased after they had been inhabited for only a couple of centuries (Akkermans & Schwartz 2004: 184-203, Collins 2000: 1, Schwartz 2001: 233-242, 261). *Nineveh V pottery* replaced the *Uruk ware* and became abundant throughout north Mesopotamia in the early 3rd millennium. The south Mesopotamian *Jemdet Nasr ware*, which became abundant in the south about 3100-3000 B.C were only represented at Tell Brak in two levels before it was replaced by the *Nineveh V ware*. It has not been found elsewhere in north Mesopotamia, except for possibly a few sherds at Umm Qseir (Oates & Oates 1993: 168-170, Rova 1996: 19-22, Schwarz 1988: xviii-xix, 2001: 243-244). Many of the motifs that decorated the Ubaid-like ware from about 4000 B.C at Tepe Gawra re-emerged in the *Nineveh V ware*, indicating a conscious reminder of a common past (Rothman 2002: 149).

The evidence reviewed above have shown that substantial changes in material culture occurred in north Mesopotamian between 4000 and 3000 B.C. Explanations of these developments have focused on movements of people, trade and economical expansion. The evidence from Hacinebi showed clearly that a group with south Mesopotamian material culture moved in and settled down within the local community (Stein 2004). The *Uruk material* from sites such as Habuba Kabira and Jebel Aruda also suggests a movement of south Mesopotamians into the north (Schwartz 2001: 255), but to assume that movements can explain the whole phenomenon is too simplistic. People moved between regions in south Mesopotamia, and the Uruk-Warka area had a major growth caused partially by immigration. The substantial material from various sites in Anatolia and north Mesopotamia, and especially the distribution around Tell Hamoukar indicate that the material must be

considered in a wide perspective, which combines several explanations. This thesis focus on ideology, and to answer my questions on this topic it is necessary to examine the conditions in which ideology eventually spread, because technology, ideology and material culture were closely related to economy and social interaction.

5.2: New economical roles in north Mesopotamia.

To understand the material changes in north Mesopotamia it is crucial to examine the relationship between the two regions and the roles they played. In the first half of the 4th millennium B.C, settlements in north Mesopotamia became *middlemen* in the trade between south Mesopotamia and resource rich communities in Anatolia. The two regions were connected by the Euphrates and the Tigris. These were excellent for the transport of goods, and it was possible to travel as much as 1000 km on a raft in 20 days from the Taurus Mountains to lower Mesopotamia (Algaze 2005b: 8, Wright 2001: 127). The regions were early inter-connected through trade, which can be explained by the different resource situation between the north and the south (Algaze 2001b: 200-209, 2005b: 15-16, Oates & Oates 2004: 177-185). However, this does not explain the massive adoption of pottery and administrative systems, because the north was not a periphery. They had urban settlements, an equally advanced system for administration and complex social structures.

The trade between the north and the south accelerated in the beginning of the 4th millennium. The ongoing urbanisation created increased demand for commodities, but also for luxury goods such as finished products of metals- and precious stone, because these were important in the struggle for social power and positions. The demand in south Mesopotamia offered an opportunity for northern communities to establish a connection between the south and the resources, giving them an important position in the middle. This led to competition and rivalry between settlements in north Mesopotamia that wanted to control the trade. This assumption is based on evidence of war, violence and settlement hiatus in Mesopotamia during the 4th millennium B.C. Regional centres such as Hammam et-Turkman and Tepe Gawra were destroyed by fire at 3800 and 3700 B.C, and not resettled before in the 3rd millennium B.C (Akkermans 1988: 287, 314, Meijer 1988: 74-77, Rothman 2002: 4, 139, 148, van Loon & Meijer 1988: 698, table 152, Wright & Rupley 2001: 98-99, fig. 3.10). I

interpret these incidents as the result of competition. The settlements were not resettled, because they were ousted, and had lost their importance in the trading network. Direct evidence of warfare in north Mesopotamia was found at Tell Majnuna, which lies only 500 m from Tell Brak. Mass graves revealed individuals, mostly young men, who had suffered a violent death. The pottery from graves indicated that it happened about 3800 B.C (Lawler 2007: 1164). Tell Hamoukar and Tell Brak both suffered from destruction 3500 and 3600 B.C. Excavations at Tell Hamoukar revealed about 1200 sling bullets and 120 larger clay balls in context with extensive destruction, collapsed walls and an ensuing fire, destroying the site before it was reoccupied (Gibson 2005, Lawler 2006: 1458, 1462, 2007: 1164-1165). Evidence of fires about 3600 B.C at Tell Brak, along with clay balls that could have been used as ammunition indicate violent confrontations. A courtyard revealed a treasure deposit buried beneath the floor. The burned buildings and the precious materials that were left or hidden may have been the result of a stressed situation, which caused the people to flee or leave (Emberling & McDonald et al 2003: 8-9, fig. 12 table 5, Emberling & McDonald 2002: 949, fig. 3, Lawler 2006: 1462-1463, 2007: 1164, Oates, J. 2004b).

The evidence reviewed stemmed from the time between 3800-3500 B.C, which correlates with the Uruk expansion and the appearance of *Uruk ware* in north Mesopotamia. The political instability on north Mesopotamia settlements may have been caused by their new role as *middlemen*. The accelerating demand for products in the south gave prosperity to the region, leading to rivalry and competition between powerful agents who fought to control the trading routes. The intrusion of south Mesopotamian material in north Mesopotamia and Anatolia may have taken place as part of the process, where the goal was to establish a connection that secured steady supplies of goods and materials to the south. Further disruptions in north Mesopotamia may have been triggered by the involvement of south Mesopotamian settlers as indicated by the evidence at Tell Hamoukar. *Uruk ware* became dominant after the level of destruction, maybe as a result of southern settlers taking control after a war (Gibson et al 2002: 30, 2005). The establishment at Sheikh Hassan and the shift at Tell Hamoukar can be explained as the result of weakened elites in the north. This offered an opportunity for south Mesopotamia to establish close alliances with the elites who sought to re-establish control and authority, and perhaps to get protection

from further disruptions. The south Mesopotamian intrusion in the north must also be seen in light of relations in the south. War and conflicts, ecological crisis, and the need for new pastures and northern products can explain the major intrusion about 3350 B.C (Adams 2004: 50, McCorrison 1997: 534, Schwartz 2001: 260). The contact was intensified, but it must not be considered as a major phenomenon at every site in north Mesopotamia and Anatolia, because there were also sites that were abandoned such as Hacinebi (Stein 2001: 299, Stein et al 1999: 220-222). It was thus a change in contact, and Pittman (2001) has postulated that the trade route that went from Hacinebi through Tell Brak diminished in importance about 3350 B.C. I disagree with this conclusion because Tell Brak showed extensive evidence of south Mesopotamian material and cylinder seals, indicating that the site had an important position. I would rather propose that the south Mesopotamian dominance in the north reduced the need for enclaves such as Hacinebi – a site that was close to the natural resources. Instead they controlled the *middlemen* that was seated in north Mesopotamian centres such as Tell Hamoukar, Habuba Kabira, Tell Brak, Tell al-Hawa and Tell Leilan. These were cities that had a major intrusion of south Mesopotamian material about 3350-3100 B.C. An important aspect in my opinion, and the reason why north Mesopotamia gained importance as *middlemen* was because the area had many cultural similarities as discussed in chapter 4. Even more important was the knowledge they possessed about their neighbours in south Mesopotamia and in Anatolia. They were located between the south Mesopotamian demanders and the Anatolia suppliers. They probably knew the south very well considering what they needed and how connections could be arranged. They also knew the culture and possibly the language, making them better suited than agents in Anatolia to settle deals (cf. Anfinset 2005: 15-16). In contrast to the south Mesopotamians, they also knew the societies in Anatolia, their culture, language and geography. They knew how and where they could obtain the resources and the materials. In this way societies in north Mesopotamia became *middlemen* geographically, economically and cultural.

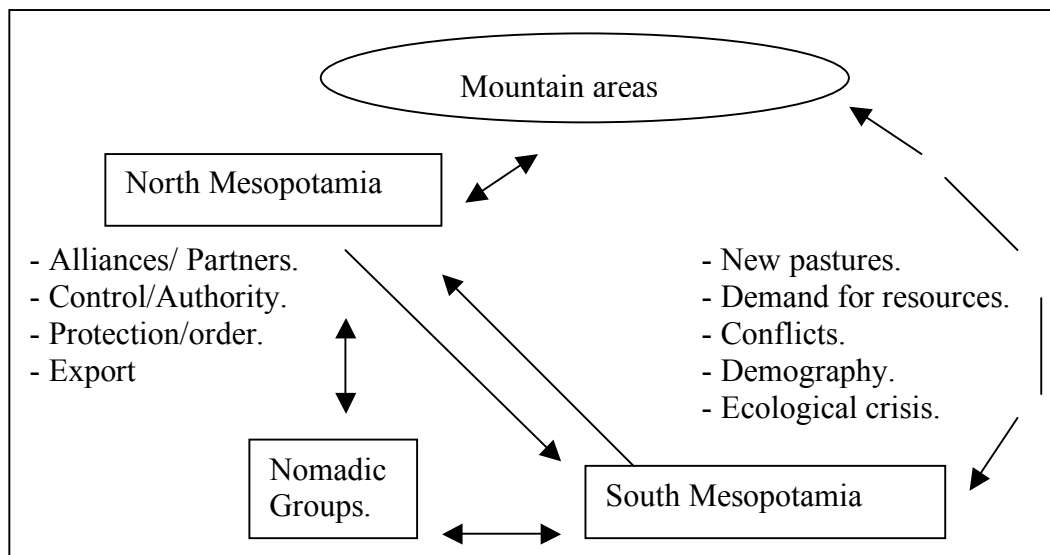


Figure 22: North and south Mesopotamian interaction.

Fig. 22 describes the interaction and the factors that created the Uruk expansion. The two regions faced a situation where groups in the north looked southwards, and groups in the south looked northwards, because they each saw a potential in close interaction. North Mesopotamia had a close and natural connection with the mountains in Anatolia, which had resources that south Mesopotamia was interested in. Anatolian elites may have welcomed agents who wanted to obtain and distribute copper to societies further south, because they wanted to avoid inflation as a result of overproduction without export (Sherratt 2004: 85). In return for copper they could get exotic products from the south. Most of the trade went through agents in north Mesopotamia, but the south also interacted directly with the mountain areas as indicated in fig. 22 by the stitched line. Archaeological evidence of this is indicated by the finds at Hacinebi and other sites in Anatolia with *Uruk ware* (Lupton 1996: 41-50, Marfoe & Algaze 1990: 424-425). North Mesopotamian agents may have brought some of the Uruk ware, but clay source analyses of pottery and clay balls indicate direct contacts with southwest Iran (Stein 1999: 143, Stein et al 1996: 230-231). Nomadic groups probably played an important role, because they may have brought goods between the regions and across plains in areas where there was no waterway transport possible. Through their nomadic lifestyle and position between settlements and resources in the periphery, and between the north and the south, they may have acted as intermediaries (cf. Anfinset 2005: 16). Nomadic groups offered pastoral products that cities and villages demanded, and they may have acted as an important factor to consider when alliances were formed. The interaction during the Uruk

expansion resulted in a major intrusion of south Mesopotamian material culture into north Mesopotamia, but was ideology transferred in the same way?

5.3: Mass-produced pottery and common ideology.

The monumental buildings from the Uruk period demanded extensive labour to be constructed, but also to acquire and produce the building materials such as mudbricks (Oates, D. 1990: 389-390). It is estimated that to build the western part of the terrace in the Eanna area at Uruk-Warka, 1500 people had to work daily for 5 years (Selz 2002: 116). When considering the additional public buildings and terraces on the site, which were torn down and re-erected in a short span of time, the labour forces that were constantly required must have been immense. The ability to muster workers was certainly evident at other sites both in north and south Mesopotamia where monumental architecture was erected during the Uruk period. The abundance of bevelled rim bowls (Fig. 20. H) in public areas (Nissen 2004: 5, van Driel 1979: 12) indicates that they stemmed from organized collective labour. The bowls contained rations or were used as bread moulds in large-scale food production. They first appeared in the beginning of 4th millennium B.C, indicating that at this time; labour was set into a centrally administrated system (Nissen 1990: 83-85, Pollock 1992: 317, Zagarell 1986). In north Mesopotamia and Anatolia, the distribution of mass-produced pottery indicates the existence of a comparable system of grand-scale food consumption for labourers. The production of *chaff ware* was standardized, and types such as coba bowls, resembling the bevelled rim bowls, and pottery plates have been found in abundance in the time before the Uruk expansion (Akkermans & Schwartz 2004: 187-190, Frangipane 2004: 123-125, Oates et al 2007: 591-593).

The view of workers can be explained by the interaction between material culture and ideology. In both regions mass-produced pottery gives the impression of crudely made vessels that were made simply to fulfil a function such as to feed workers. This implies that the consumption of food for the majority of people was an impersonal ephemeral routine (Wengrow 2001: 171). This change affected the workers, who consumed from crude vessels, because they became associated with an impersonal mass-product. It alienated workers from other citizens, which eventually led to the consideration of workers as a resource that could be exploited in the same manner as

domestic animals (Algaze 2001b: 211-212). This in turn legitimated the exploitation of female and male workers, which was conducted in Uruk-Warka about 3200 B.C. Impressed tablets have been interpreted as accountings of slaves or captive workers (Ibid: 212, Englund 1998: 176-181, fig. 65-68). New motives on cylinder seals also appeared in this period, confirming this view. People were depicted in captivity or performing repetitive work in groups (Fig. 23 and A14-15). Some of these seals were first assigned to the Jemdet Nasr period, but have been re-dated to about 3200 B.C (Amiet 1980: Pl. 19-21, pl. 123. 1634-1635, Brandes 1979: Taf. 1-13, Matthews 1992: 200, 2008: Pers. Comm. 2008, Pollock & Bernbeck 2002: 186-187, van Driel 1983: 36, 46-47, fig. 2, 20-23).

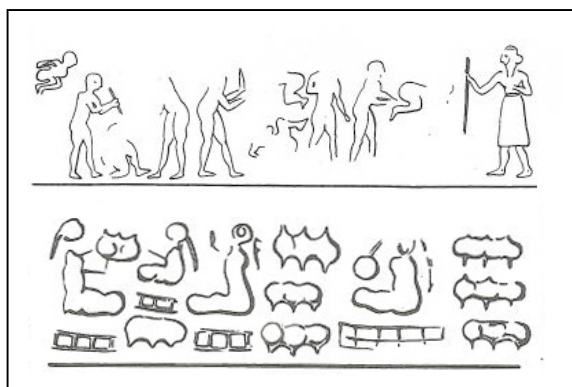


Figure 23: Cylinder seals depicting captives above (Amiet 1980: Pl. 47. 660), and workers below (Ibid: Pl. 20. 337).

The exploitation of workers was not a south Mesopotamian phenomenon. It also occurred in north Mesopotamia. Each region produced crude pottery with the same purpose: to support employees with food. I argue that this indicate a similar view of their workers, stemming from the interaction between material culture and ideology, and the association between worker, crude pottery and consumption. This leads to the conclusion that the intrusion of bevelled rim bowls and mass-produced *Uruk ware* for food consumption into north Mesopotamia does not represent any changes in social representations, because such pottery was also common in north Mesopotamian *chaff ware* prior to the Uruk expansion. The technology that was used to mass-produce pottery was the fast potter's wheel, indicating a similar production process. The regions also had a common division of labour that stemmed from the Ubaid household where the ceramic production was a female sphere. Based on this evidence it can be argued that similar social representations attached to technology, division of labour and consumption produced a comparable ideology in the north and the south. There were however other categories of pottery and material remains that suggests the intrusion of new social representations in the north.

5.4: New social representations.

The bevelled bowl was an open container that was used in on-site activities, and not in the transportation of goods (Wengrow 2008: 19). The measurement of the bevelled rim bowl was quite standardized into three sizes, considering its wide distribution and the quantities it appeared in (Johnson 1975: 304, Nissen 1990: 83-84, Potts 1997: 151-153). Some specimens did not follow the standard sizes, but the form remained the same (Beale 1978, van Driel & Driel Murray 1983: 25), indicating that there was a common understanding of the size and the form of the bowl. This implies that a measuring system based on social representations of size and volume was introduced along with bevelled rim bowl.

Spouted containers that were used to hold liquids and conical cups that were used for drinking (Fig. 20. I, L, M, O, P, R) provide crucial information about new social representations. These shapes did not occur in north Mesopotamian prior to the Uruk expansion (Emberling & McDonald et al 2003: 3, fig. 3, Lupton 1996, Stein et al 1996: 234-236), and represented a new element in consumption, because the forms and usage differed from the previous ceramics. The new features can be connected to new ideology if following Sherratt's (2004) interpretation of societies in Europe. With new technologies and ceramics followed new social representations of the individual in contrast to the earlier focus on the collective (Ibid: 90). The introduction of the spouted jars and conical cups can be understood when examining patterns and distribution in north Mesopotamia.

At Tell Brak spouted *Uruk ware* was introduced about 3400 B.C, but a few spouted specimens appeared in the *chaff ware* about 3500 B.C. The ceramics in this level showed contact with Sheikh Hassan and revealed one south Mesopotamian vessel (Oates & Oates 1993: 172, 188-192, fig. 49-51, Oates, J. 2004a: 116). This explains the appearance of the spouted shapes as a result of contacts and influences from south Mesopotamia through Sheikh Hassan. The contact with the south Mesopotamian culture introduced new costumes and technology for consumption.

The spouted shapes, which constituted a substantial part of the ceramics, may have been used for storage and carriage of beer and wine. Grapes were cropped in adjacent

regions by the fourth millennium (Wengrow 2006b: 31, fig. 1.5), and date palms were cultivated in south Mesopotamia where texts from the end of the fourth millennium B.C showed that eight types of beer were produced (Nissen, Damerow & Englund 1993: 43-46). Beer and wine have been attested in jugs and vessels from Godin Tepe in Iran about 3350-3100 B.C (Charvat 2002: 119, Joffe 1998: 300, 303-304), and chemical remains of grape wine were found inside a spouted vessel from Uruk-Warka (Wengrow 2008: 19). The interpretation of the spouted vessels as containers of alcoholic beverages is supported by the reason for the invention of them. This may have been the result of the beverages' demand for preservation to avoid souring during carriage, an especially serious problem in the hot Middle Eastern climate.

The spouted shapes' and conical cups' association with *Uruk ware* and lack of comparable types in *chaff ware* indicate that the existing drinking habits in north Mesopotamia changed from about 3500-3400 B.C. The spouted jars introduced new drinks that were consumed from the contemporarily introduced conical cups. The relation between the two types was discovered at Jebel Aruda where several sets of conical cups were found together with a spouted jar (van Driel 2004: 195, fig. 10). Beer and wine were introduced into people's habits, because of the new economical situation. Agents from south Mesopotamia wanted to secure the supply of goods, and agents in the north had interests in supplying these agencies. In this context, feasts became the most important strategy to establish alliances. The tradition was inherited from the Ubaid period where hospitality had served as an insurance against bad times. When household activities were transferred into the public, feasts were conducted in public courtyards or halls. These served to maintain alliances between settlements.

The feasts that was arranged to establish contact from 3500 B.C introduced a new element, which was the public consumption of alcoholic beverages. It is likely that alcoholic drinks were consumed locally already in the Ubaid period (Wengrow 2008: 16), but the difference was the ideology that followed during the Uruk period. North and south Mesopotamia became interconnected through the distribution and consumption of the drinks, which were kept in spouted mass-produced jars (Ibid). An ideology emerged, which spurred from a total change in social representations connected to consumption (Stephen & Peltenburg 2004: 176). This is proved by the widely adoption of the new ware, which was used as a complementation to the local

chaff ware even in small villages (Ur 2002: 64-67). This proves that drinking was more than just a habit for interacting elites. The mass-produced spouted jars and drinking cups indicate something more important than mass-production of ceramics. It suggests mass consumption of the liquids that were contained within the pottery, and large portions of these liquids were alcoholic drinks. The wide consumption of alcohol resulted in new social representations that probably involved rules of conduct connected to the toxic effects.

Architectural evidence from sites on the north Mesopotamian plains has shown that new construction technology was introduced about 3500 B.C. This differed from older traditions, and buildings were constructed with new types of mudbricks or laid in a new way (Algaze 1986: 126-127, fig. 1, 2005a: 37, fig. 16, Collins 2000: 36, Peltenburg & Wilkinson 2008: 27, Stephen & Peltenburg 2004: 176). This is interesting when comparing with Hacinebi, because this site revealed a different situation. The houses in the areas with *Uruk material* did not show sign of new mudbrick technology, but had remains of clay cone decoration (Stein et al 1996: 213-220). This combination of construction technology was the result of interaction with the local population. They probably produced the mudbricks, because the Uruk enclave at the site did not have resources to produce their own bricks, which was a process that involved much labour (Oates, D. 1990). The houses had decoration with clay cones (Stein 1999: 139), which they could have manufactured and installed on their own. This contrasts with the changes on the north Mesopotamian plains from 3400 B.C. where new production and building technology were introduced. This involved the whole community, opposed to the situation at Hacinebi where traditions and culture generally were held separate (Ibid: 166-167, 2001: 279-299).

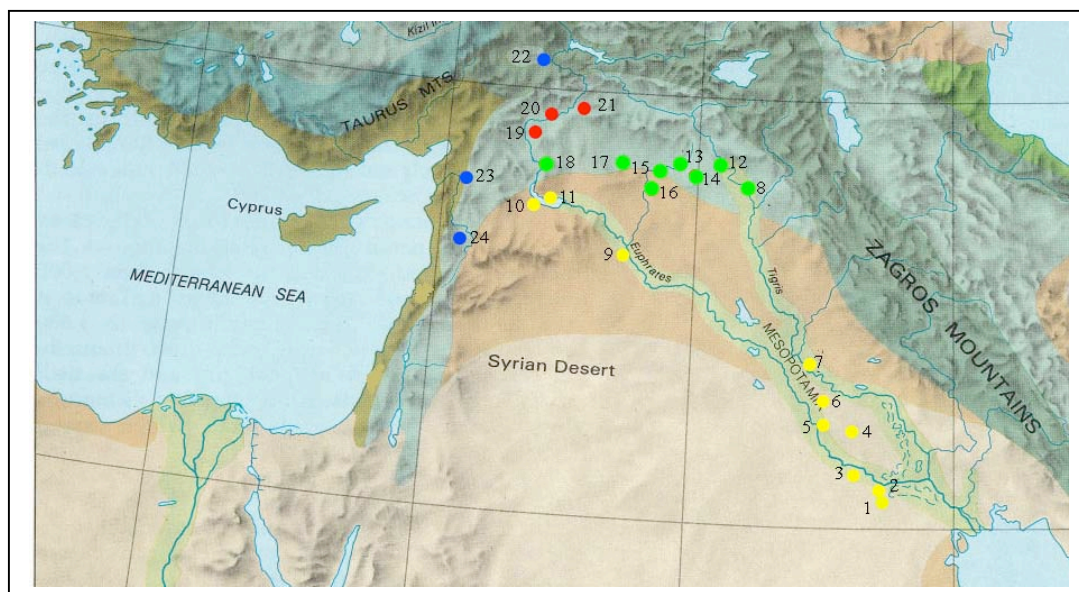
Following the analysis by Holly Pittman (2001) who has established a chronological, technological and stylistic framework for cylinder and stamp seals, it can be argued that ideological changes occurred during the Uruk expansion. The drilling technology appeared simultaneously in the north and the south, but the association between this and cylinder seals indicate that it was developed in the south (Ibid: 419). The spatial distribution of the new technologies revealed an interesting pattern, because they were adopted differently. During the Uruk expansion north Mesopotamia adopted the cylinder seal technology along south Mesopotamian iconography, while Anatolia

maintained its own tradition. However, there are examples from Habuba Kabira and Arslantepe where cylinder seals had south Mesopotamian iconography, but were cut with a technology that was used to manufacture Anatolian stamp seals (Ibid: 418-441, fig. 11.19-30, Stein et al 1996: 230-233). The material clearly shows how sites such as Habuba Kabira were connected with Anatolian sites. The emulation of south Mesopotamian iconography into Anatolian technology may have been the result of expressions and communication between two different cultures. However, this theory cannot be applied without critics. A few northern seals have been found in the south, but there is no evidence of emulation of northern iconography into south Mesopotamian technology (Pittman 2001: 441). This indicates that there was no need for the south to use other means of communication than the existing modes. A glyptic seal was not used to express specific information in a transaction of goods, but was rather a mark that was used by the producers as their brand (Wengrow 2008). It can be argued that the glyptic seals were thus used as symbols to communicate social position and affiliation between polities (DeMarrais, Castillo & Earle 1996: 18). The adoption of south Mesopotamian iconography into the north indicates that the south determined the means of communication. Thus the transformation and emulation into Anatolian and north Mesopotamian sites depended on their reliance and connection with southern polities that had become the central agencies in the trading network.

The change in north Mesopotamian ceramics went faster than the change in glyptic (Pittman 2001: 419), because seals were used as expressions of social positions, which eventually changed after they had adopted new modes of consumption that was catalyzed by the *Uruk ware*. An interesting pattern emerges when analysing the distribution of *Uruk ware* in relation to Anatolia sites such as Arslantepe. This site had a local ware prior to the Uruk expansion, but about 3300 B.C, a few *Uruk ware* spouted bottles appeared (Frangipane 2004: 128), indicating perhaps that the site was connected to the trading network, which involved distribution and consumption of alcoholic beverages. More interesting is the local pottery, because according to Frangipane it maintained an Anatolian impression, but with some Uruk influences in form and decoration (Ibid: 128-129). This contrast the situation in north Mesopotamia where the *Uruk ware* replaced the local wares or were used together, but with no emulation of traits (Oates, J. 2004b). Sites in north Mesopotamia with a mixed *Uruk/Chaff* assemble can thus be interpreted as a result of agents in society, who

decided to maintain the local ceramic tradition to preserve their local culture. This happened because the north was subject to south Mesopotamian influences in a larger degree than sites in Anatolia. They may have imported technology and *Uruk ware* for practical reasons, but the local tradition was not replaced or mixed with new technologies, as was the case in Anatolia.

Drawing on the theoretical perspectives from chapter 2, pottery can be interpreted as an agency to maintain the local culture in north Mesopotamian societies. The Nineveh V ware resembled 500 years older pottery from Tepe Gawra. This clearly illustrates the importance of pottery as a cultural agency. It involved maintenance of the existing ideology in society, because social representations are used to separate groups and create group affiliation. Ceramic in Mesopotamian societies was an important agency in the creation and re-creation of culture and ideology. This is because pottery was used by everyone within society and was distributed through trade and movements, affecting technology, ideology and affiliation between adjacent and distant regions and settlements.



Map 7: Ideological influence in north Mesopotamia. Yellow dots: South Uruk settlements. Green dots: North Mesopotamian settlements. Red dots: Anatolian sites with Uruk influences. Blue dots: Sites with minor Uruk influences. 1-24: As in map 5 (Edited after Map (Roaf 2003: 22)).

Map 7 summarized the results from my analysis. The sites in north Mesopotamia and Anatolia reacted differently to the interaction with south Mesopotamia. The contact

brought new ceramics and social representations from the south to north, and rendered existing representations. However, the symbolism in monumental buildings was the same and there were also other symbols that indicate ideological connections between the areas from before the expansion. Eye idols are small figures with two eyes, and these have been found in the north and the south during the Uruk expansion. It has been argued that these represented a local north Mesopotamian tradition. This is supported by the extensive finds of Eye idols in the Eye Temple at Tell Brak (Mallowan 1947: 32-36, Oates & Oates 2002: 150-154), the exact same types at Tell Hamoukar (Lawler 2006: 1462), and the findings at Hama in western Syria (Mallowan 1947: 34). This last area was only vaguely influenced by south Mesopotamian culture during the expansion (Schwartz 2001, Thuesen 1989: 436). This assumption has been contested by findings in south Mesopotamia. Eye idols from Uruk-Warka, Ur and Khafajeh suggest that the two regions shared a common belief (Oates 2004: 183). However, it does not prove this link, because similar symbols may have different meanings, and the contrast between single finds in south Mesopotamia and the hoards within the temple at Tell Brak cannot be ignored. Especially interesting is the findings of Eye idols at Tell Brak in pits with south Mesopotamian material from 3350 B.C (Emberling et al 1998: 6, fig. 6g-n, 7, Oates & Oates 1997: 292-295, fig. 10, 14), suggesting that the south Mesopotamian settlers adopted north Mesopotamian culture. This was perhaps an attempt to connect ideologically with the local people and the elite. This argument is strengthened by the evidence from the Eye temple, because it was re-built about 3200 B.C. Eye idols were then preserved in a layer of mortar, indicating a connection between older tradition, and the new temple with south Mesopotamian characteristics such as clay cones and white plaster. In turn, this supports Emberling's statement that the south Mesopotamians dominated Tell Brak ideologically (Lawler 2006: 1463).

5.5: Concluding remarks.

The Uruk expansion was not a south Mesopotamian conquest, but the result of forces in the south and the north, which interconnected the regions. North Mesopotamia became *middlemen* in the trading network, because of their favourable position between south Mesopotamia and Anatolia. They adopted south Mesopotamian ideology and culture through social interaction, involving consumption of beer and

wine during public feasts. However, it should be emphasized that the regions shared similar perceptions of the landscape, the division of social space and an elite ideology. This was probably the reason why sites in Anatolia and north Mesopotamia were affected differently by the Uruk expansion. It was because north Mesopotamia had close cultural connections before the expansion, and they used this in the trade between agents in Anatolia and in the south. The economical situation and the close social relations resulted in the adoption of new technologies and social representations in north Mesopotamia.

CHAPTER 6: POLITICS AND IDEOLOGY.

The Uruk expansion had brought changes in social representations and ideology to north Mesopotamia as a result of the close interaction between the north and the south. This chapter analyses changes in politics and ideology in the end of the 4th millennium B.C, and the implications it had for the Mesopotamian world and its neighbours.

6.1: Changes in the political landscape.

The South Mesopotamian landscape was exposed to ecological and political crises. These could cause devastation of the interconnected irrigation and canal system, which was crucial in the production of food. This established the fear of destruction that became basic in Mesopotamian religion. People could not control the outside powers, but hard work and dedication to the gods could ease their living (Glassner 2000: 1820-1821, Hole 1994: 140, Jacobsen 1977). The protection and assurance of good harvest became a task that could be transformed into political power. This explains the establishment of the temple as household, because this unit had been the safety insurance in Ubaid societies. The household metaphor was maintained through the tripartite plan and the temple was organized as a household. It had a *head of the house* that was a deity that guaranteed good harvest and protection. In practice a powerful elite ruled the temple. As payment to maintain the god's goodwill, protection and security, the temple required a share of the harvest to secure the next season. The temple established ideological power since the people became dependent on the deity for subsistence. This was transferred into political power by demanding extra tribute that was legitimated as a demand from the god. Thus the temple received labour that was used to build monuments, commodities that sustained labourers and specialists, and other offer-gifts that were or could be used to obtain prestige goods. The establishment of the temple as a household for the whole community created a communal identity, dissolving the old kin relations (Oates, J 1982: 474), which earlier had formed a basis for power. The elite was formed across such relations as Forest has illustrated with the changes at Tepe Gawra (2005: 190), and it emerged as an own class. Their purpose was to maintain power and hegemony over the city, but also over the hinterland. The city gained an ideologically important position, because it housed

the deity, who protected the city and the surrounding land. They developed an inter-dependent relationship where the city needed additional supplies to be sustained, and the hinterland needed protection and services.

The tribute that was paid to the temple obliged the ruling elite with duties towards both people and deities (Bottéro 2004: 114, 126, Postgate 2000: 396, 398, 2004: 117-128, 262-266, Wiggermann 2000: 1859). Crop failure, floods, storms, diseases and other phenomena that may have caused starvation, death and misfortune worked two ways in these societies. The ruling elite could blame the citizens for having evoked the deities' wrath as a result of sins or lacking tribute, while the inhabitants could blame the elite for gluttony, since it was the elite that was responsible for serving the deity in the temple. It legitimized the power to rule, but also the power to uproar if the people thought the misfortune was caused by mismanagement. People, who felt that the tribute demands were too high, could react by moving to other areas. This may have caused the situation with volatile settlements in the Warka area about 3200 B.C (Pollock 2001: 213-214).

Baines and Yoffee (2000) have described the situation in south Mesopotamia at the end of the 4th millennium B.C as competing city-states with local lords and an intern struggle for power within the city between palace and temple. This was a result from the early Mesopotamian division of social space where the intermediate agents between the rulers and the ruled created changes in the balance of power. The competition between palace and temple may have originated from the struggle between groups and agents in the social space, who supported different elites. The public agencies functioned as households, and they attached households of lower status as clients, which they controlled and protected in the same way as the *head of the house* had ruled the single household. This created the situation in Uruk-Warka about 3200 B.C with a high building frequency and a number of public households. This situation can be interpreted as an intern struggle for power. Groups in the intermediary level displayed wealth through erection of monumental structures, and emerged as powerful agencies in the political landscape. This was a result of an economical advantage gained from the trading connections and alliances with north Mesopotamian societies. They were able to obtain utility- and prestige goods through steady connections, but they also were able to trade their local resources and products

(Algaze 2001b: 207). The accumulated wealth from local resources such as grain, fish and secondary products could be transferred into political power through the exchange with north Mesopotamian goods. Central agencies could also accumulate social power by storing the products as protection against bad times. However, agents that obtained non-local products from exchange with local products could use this to buy status and influence, serving the same purpose – as an insurance against bad times. This new economical order conditioned a transition in social order and ideology between 3350-3100 B.C when the south Mesopotamian influence in north Mesopotamia reached its peak (Ibid: 207-209). A change happened because the establishment of south Mesopotamian agencies in resource rich areas eased the access to non-local resources. More people obtained materials such as copper, which previously was reserved for the upper elite. The extended access to raw materials transformed the usage of them. E.g. at Habuba Kabira copper was used to forge fishing hooks and needles (Strommenger 1980a: 55, abb. 40, 42). However, copper remained valuable, and was perhaps an indicator of status. This is indicated by the findings inside the Riemchen temple at Uruk-Warka. Hoards of arrowheads in flint and obsidian were found along with two spearheads made of metals (Heinrich 1982:72, Charvat 2002: 102, 125), perhaps belonging to former military officers. Copper became an important economical factor, and was obtained and sold in bigger quantities as stable goods. In addition it did not lose its luxury value, because the metal could be re-transformed into to luxury goods through craftsmen who forged artefacts that gained new value. This led of course to increased demand for copper, but also to the demand for additional luxury currencies since copper had become more common. Craftsmen gained economical and social capital, because they were indispensable agents in metal processing. Elites became depended on the smith's ability to produce luxury goods and to exploit new types of metals such as bronze, silver and gold, combined and decorated with precious stone such as Lapis Lazuli, carnelian and torques. The products and craftsmen were new agencies in a changing economy where the currencies changed after availability. Control of trade and metal processing became effective agencies to maintain social positions in society, because social and ideological capital were displayed and gained from wealth measured in valuable artefacts.

The expanded demand for foreign products involved new agents in north and south Mesopotamian societies, because it created a space for new agencies to handle the products for export and import. A large middle class of traders and specialists emerged as indicated by the profession list (Nissen 1986: 326-329). There were also a need for labourers to conduct mass-production in south Mesopotamia as indicated by depictions of repetitive work and bookkeeping of workforces (Adams 2004: 46, 52, Englund 1998: 176-181, Pollock & Bernbeck 2002: 186-187). The economical advance could be transferred by agents into social and political power, because they could afford to support clients, servants and specialists. This increased their power further through e.g. the erection of a new temple, a larger house or manufactured goods. The new economical situation created a new political and social order. Influential households, which, as I have argued, participated in the administration and selection of the upper elite, became so many and so powerful that they threatened the old system by forming large fractions that became competitors for political power.

The upper class had to respond to the changes in the political landscape about 3200 B.C. I base this interpretation on the changes witnessed in the pictography. New motives in the pictographic material were a prominent person (often bearded and skirted), captives or slaves, supervision and repression, and processions towards temples with tribute and repetitive labour (Appendix: Fig. A14-18, Amiet 1980, Brandes 1979, Bahrani 2002: Fig. 1, Frankfort 1970: 34-35, Pittman 2001, Schmandt-Besserat 1993). These seals were agencies in the struggle for power



Figure 24: Prominent person stands with a staff in the middle of the picture (Amiet 1980: Pl. 13bis. A).

and social space between fractions in cities like Uruk-Warka. The old system with an upper elite that was constituted by a council of elders, selected by an assembly of citizens was disrupted. Social contradictions in Uruk societies became excessive about 3200 B.C as a result of the competition between agents in the struggle for social space. It happened as an indirect result of the trading network with the north. Because of the economical advance and new agencies the capital flow changed, unbalancing the client-patron system that had secured a stable rule. Social groups may have formed fractions that supported different officials in the assembly of citizens, causing

corruption and in-efficiency. The upper elite was fractioned into contradicting groups that no longer had a common goal. The seals depicting a prominent person (This person was also depicted on the upper band of the Warka Vase if one accepts the reconstruction in Fig. A19) can be interpreted as a ruler or the highest-ranking person in society (Dittmann 1986: 337, Schmandt-Besserat 1993: 201). This indicates that a system with a single ruler had emerged, who perhaps was selected by an assembly of citizens, as was the norm in the dynastic period (Postgate 2000: 397). New social representations were needed to sustain a new ideology. The new motives of dominance and repression suggest that the elite relied on coercion and personal power. This was based on the ruler's qualities to mobilize collective support and belief (Miller, Rowlands, Tilley 1989: 6). To legitimize the right to rule, besides using coercion or threats, power was sanctified through a ritual that invoked the power of the divine (cf. Rothman 2001: 358). The ritual involved marriage between the ruler and the city deity who dwelled in the temple. The marriage was celebrated in a New Year festival that was held as a celebration of the plenty from the fields, and it was held to assure fertility during the next agricultural cycle (Bahrani 2002, Jacobsen 1976, Wiggermann 2000: 1868). The New Year feast involved, like the depiction on the second band at the Warka Vase indicates, subordination from households, which brought forth tribute and thus accepting the ruler. Through this ritual they confirmed and maintained the existing social roles within society.

6.2: Expansion of the landscape – Political and ideological.

The ideological landscape in south Mesopotamia changed towards the end of the 4th millennium B.C. The competition between interacting settlements had an ideological aspect, because the settlements created separate city-identities that emerged as communal identity and replaced kin-relations. The cities achieved unequal or different status, and were associated with a patron deity who protected the city (Postgate 2004: 26, 267, Wiggermann 2000: 1868-1869). South Mesopotamia, which was comprehended as the centre of the civilized world began to split up into fragmented local identities. These worshiped a patron deity for the city and created their own local ideology, which described the city and the relationship to other cities.

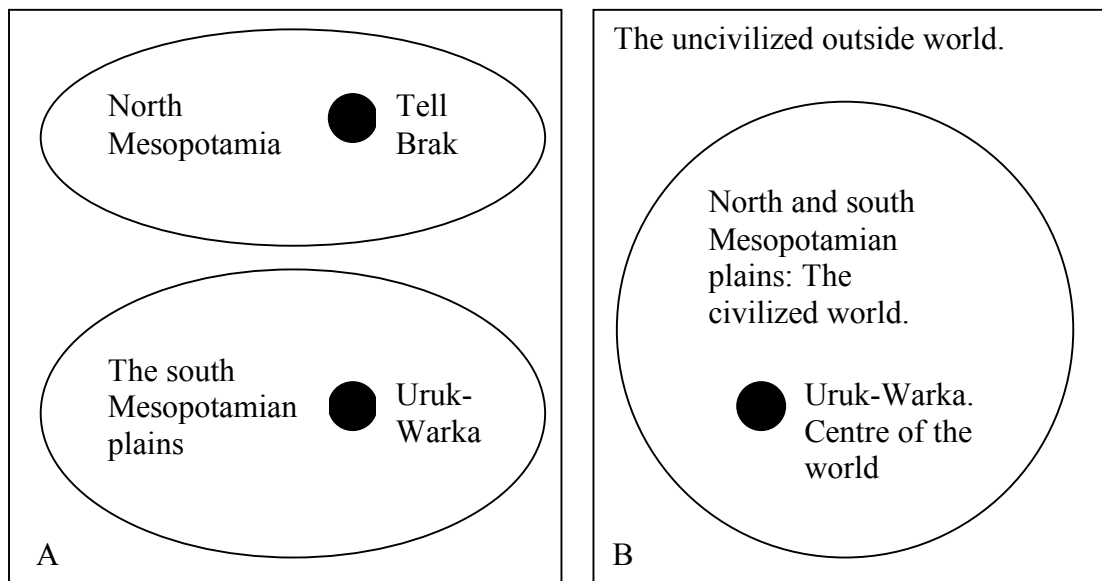
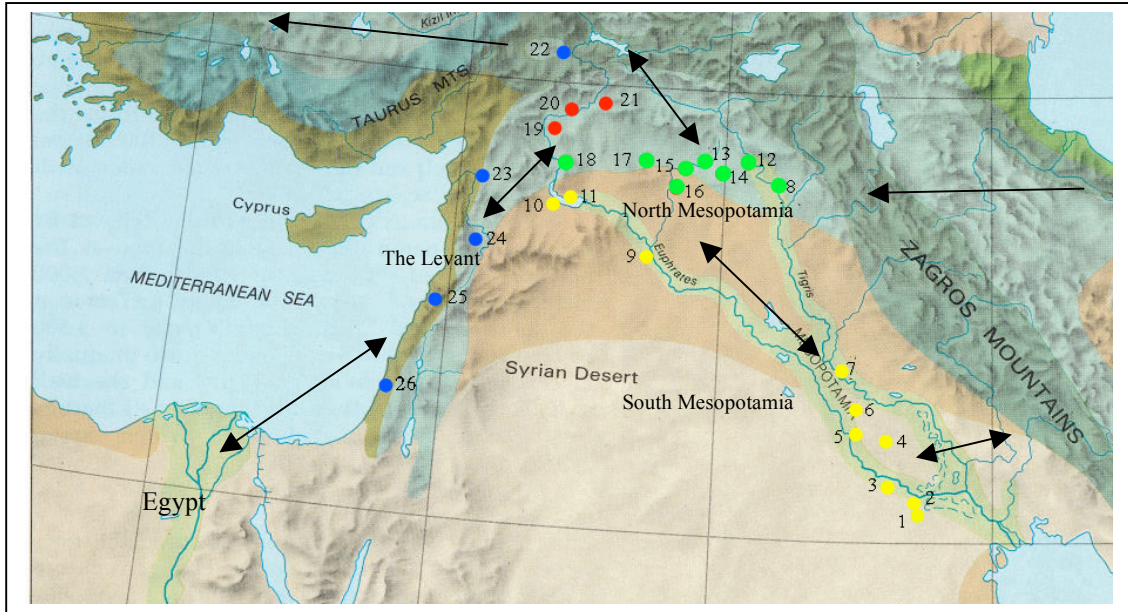


Figure 25a: The comprehension of the landscape before 3350 B.C, and figure 25b: The comprehension in the end of the 4th millennium B.C.

The comprehension of the landscape affected north Mesopotamia, because the region was incorporated in the south Mesopotamian ideology as illustrated in figure 25a-b. This was an ideological expansion of the south Mesopotamian landscape, and a way to incorporate the north Mesopotamian allies as members in the civilized world. In this sense one can describe the situation at Tell Brak as ideologically dominated by south Mesopotamia (Lawler 2006: 1463). However, the situation was more complex and such a one-way explanation misses an important element. Tell Brak wanted to be dominated. The site adopted south Mesopotamian ideology, because of the new situation where the site gained its power from trade with south Mesopotamia. The centre in the north Mesopotamian world had been Tell Brak with its size, temples, long occupation and central position in the region. During the Uruk expansion and at least by 3350 B.C when south Mesopotamian culture dominant in the north, Uruk-Warka was established as the centre of the comprehended world. The fertile plains in the two regions became the civilized world, which was surrounded by the uncivilized.



Map 8: Mesopotamia and its adjacent regions. Yellow dots: South Uruk settlements. Green dots: North Mesopotamian settlements. Red dots: Anatolian sites with Uruk influences. Blue dots: Sites with minor Uruk influences. 1-24: As in map 5-6. 25: Byblos. 26: Azor (Edited after Map (Roaf 2003: 22)).

Map 8 illustrates the situation in the late Uruk period from about 3350 B.C. The pointers summarize the interaction between north and south Mesopotamia, but they also describe a wider contact network with adjacent regions that were affected. Lapis Lazuli, a precious stone, was imported from its only source in Afghanistan (Algaze 2005a: 77). The stone was exported to sites in north and south Mesopotamia, but it was also transported to Egypt. Pottery from Egypt has been found at Habuba Kabira and along the Levantine coast, indicating trading connections between the regions. Cylinder seals with Uruk motives were found in Egypt, and there were also a tomb that was influenced by Mesopotamian construction technology (Mark 1997, Wengrow 2006b: 38-40). It is interesting to note that consumption, metallurgy, art and graves changed in Egypt contemporary with the Uruk expansion, indicating ideological and social changes (Wengrow 2006b). This may be related to the changes in technology, society and ideology, which spread from south through north Mesopotamia along the Fertile Crescent and into Anatolia and to the Levant. The production and consumption of beer and wine were important in this process as argued in chapter 5. The cultivation of the ingredients that was needed to produce alcoholic drinks catalyzed the process, because it was conducted in the region from the hills that surrounded south Mesopotamian and to the Levantine coast (Ibid: 31, fig 1.5). The domestication

of the donkey and the invention of the cart, were also important, because goods could be transported more easily. Pastoral nomadism contributed to the expanded contact and the spread of new products and technology, because they were intermediate agents in the trading network. This implies the spread of ideology, because social representations connected to production and consumption followed the technology in a dualistic relationship. Ideology and social representations were formed and reconstructed through agents and their social action. However, ideology also spread because agents who travelled such as traders and nomadic groups brought and spread ideas through direct contact involving the telling of stories- and myths.

CHAPTER 7: SUMMARY.

Different perspectives have uncovered several aspects of the societies in north and south Mesopotamia during the Uruk period, from economy to ideology. In this thesis I have approached archaeological material from the Uruk period as agency, and interpreted remains as expressions of ideology, social relations and power. Ideology was embedded into material culture through a process of interaction between agents and technologies in society. This created and transformed ideology and the social world in Uruk societies. The tripartite house plan reaffirmed the perception existing gender roles, affected the creation of social hierarchies, and the division of social space.

The regions shared similarities in the economy, constituted by the interaction between cities, agriculture and nomadism. Settlements were organized in a hierarchy where cities dominated their hinterland of villages and towns. These systems were confined to dispersed valleys and basin in the north, while they often overlapped each other in the densely populated south, which was interconnected through the irrigation system. In north Mesopotamia settlements were situated strategically along trade routes or in the vicinity of important natural resources such as obsidian and copper.

The tripartite division of the social space can be used to describe the relations between groups in society. The social structure was transferred from the household to public during the urbanization process, and the transformation of production and activities from households to specialised workshops and agencies. The gender division is one aspect, but there were also social divisions between groups such as different crafts, occupations and families.. There were also divisions between settlements in a tiered hierarchy, because they had different status in relations to each other. The city became the central agency with an elite, who had a power based on loyal clients within the city, and in the hinterland where local rulers paid tribute to their city patrons. Settlements in a city's vicinity may also have been socially divided vertical, because they may have specialised in certain productions, crafts and trades. Settlements exploited different niches as documented at the stone-tool producing site in the vicinity of Uruk-Warka, and along the Euphrates where sites controlled the distribution and trade with obsidian.

During the Uruk expansion it was easy for south Mesopotamian communities to establish connections with in north Mesopotamia, because the societies shared some of the social representations that constituted their ideology. They had similar architecture derived from the tripartite Ubaid household, and it was used to construct temples and elite buildings. Central agencies used the same symbolism to display power, and sealings have been interpreted as marks or brands that were used in a branding economy. They communicated social position and status between citizens and settlements, because they were associated with certain persons, groups or quality.

The Uruk expansion affected north Mesopotamian societies, which became middlemen in the trade between south Mesopotamia and Anatolia. Their knowledge of geography, resources, demands, culture and language were crucial factors for how south Mesopotamian materials became dominant in the north. New social representations and customs spread came with new allies, technologies and products. This affected especially north Mesopotamian settlements. They adopted south Mesopotamian ideology through close connections with southern societies, but also with southern agents who moved into the region. The relationship gained prosperity to societies in both areas, but it also disrupted the balance of power in the south. New agencies struggled for power and positions in the social space, leading to violence and coercive means of power. This changed the political landscape, and disrupted old ideologies, leading to changes in the contact between the north and the south in the final centuries of the 4th millennium B.C.

BIBLIOGRAPHY.

- Adams, R. M.
1965 *Land behind Baghdad*. The university of Chicago press, Chicago and London.
- 1974 The Mesopotamian social landscape: A view from the frontier. In *Reconstructing complex societies*, edited by C. B. Moore, pp. 1-11. Henry N. Sawyer company, inc.
- 1981 *Heartland of cities. Surveys of ancient settlement and land use on the central floodplain of the Euphrates*. The university of Chicago Press, Chicago and London.
- 2002 Steps towards regional understanding of the Mesopotamian plain. In *Material culture and mental spheres*, edited by A. Hausleiter, S. Kerner and B. Müller-Neuhof, pp. 33-48. Ugarit-Verlag, Münster.
- 2004 Reflections on the early southern Mesopotamian economy. In *Archaeological perspectives on political economies*, edited by G. M. Feinman and L. M. Nicolas. The university of Utah press, Salt Lake City.
- Adams, R. M. and H. J. Nissen
1972 *The Uruk countryside. the natural setting of urban societies*. The university of Chicago press, Chicago and London.
- Akkermans, P. M. M. G.
1988 The period V pottery. In *Hammam et-Turkman I. Report on the university of Amsterdam's 1981-84 excavations in Syria* edited by M. N. v. Loon, pp. 287-349. vol. 1. 2 vols. Nederlands Historisch-Archaeologisch Instituut te Istanbul.
- Akkermans, P. M. M. G. and G. M. Schwartz
2004 (2003) *The Archaeology of Syria. From complex hunter-gatherers to early urban societies (ca. 16000-300 B.C)*. Cambridge university press.
- Al-Soof, B. A.
1969 Excavations at Tell Qalinj Agha (Erbil). Summer 1968. Interim report. *Sumer. A journal of archaeology and history in Iraq* XXV(1):3-42.
- Algaze, G.
1986 Habuba on the Tigris: Archaic Nineveh reconsidered. *Journal of near eastern studies* 45(2):125-137.
- 1989 The Uruk expansion: Cross-cultural exchange in early Mesopotamia. *Current Anthropology* 30(5):571-608.
- 2001a The prehistory of imperialism. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 27-83. School of American research press, Santa Fe.
- 2001b Initial social complexity in southwestern Asia. The Mesopotamian advantage. *Current Anthropology* 42(2):199-233.
- 2005a (1993) *The Uruk world system. The dynamics of expansion of early Mesopotamian civilization*. 2nd ed. The university of Chicago press, Chicago and London.
- 2005b The Sumerian takeoff. *Structure and dynamics: eJournal of anthropological and related sciences* 1(1):1-41.
- Amiet, P.
1980 *La Glyptique Mésopotamienne archaïque*. Centre national de la recherche scientifique, Paris.

- Amiet, P., C. D. Noblecourt, A. Pasquier, F. Baratte and C. Metzger
1981 *Art in the ancient world. A handbook of styles and forms*. Faber and Faber, London and Boston.
- Anfinset, N.
2005 *Secondary products, pastoral nomads and the introduction of metal: The 5th and 4th millennia BC in the southern Levant and northeast Africa*. Unpublished PhD. Department of archaeology. University of Bergen, Bergen.
- Arroyo-Kalin, M. A.
2004 An ongoing outcome, a surrounding world: Materiality, agency and history. In *Rethinking materiality- The engagement of mind with the material world*, edited by E. DeMarrais, C. Gosden and C. Renfrew, pp. 73-81. McDonald institute for archaeological research, Cambridge.
- Bahrani, Z.
2002 Performativity and the image: Narrative, representation, and the Uruk Vase. In *Leaving no stones unturned. Essays on the ancient near east and Egypt in Honor of Donald P. Hansen*, edited by E. Ehrenberg, pp. 15-22. Eisenbraus, Winona Lake.
- Baines, J. and N. Yoffee
2000 (1998) Order, legitimacy, and wealth. In *Archaic states*, edited by G. M. Feinman and J. Marcus, pp. 199-260. School of American research press, Santa Fe.
- Ball, W., D. Tucker and T. J. Wilkinson
1989 The tell Al-Hawa project. Archaeological investigations in the north Jazira 1986-87. *Journal Iraq* 51:1-66.
- Barrett, J. C.
2006 (2001) Agency, the duality of structure, and the problem of the archaeological record. In *Archaeological theory today*, edited by I. Hodder, pp. 141-164. Polity press, Cambridge.
- 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.
- Bernbeck, R.
2005 The past as fact and fiction. From historical novels to novel histories. In *Archaeologies of the middle east. Critical perspectives*, edited by S. Pollock and R. Bernbeck, pp. 97-121. Blackwell publishing.
- Bernbeck, R. and S. Pollock
2002 Reflections on the historiography of 4th millennium Mesopotamia. In *Material culture and mental spheres*, edited by A. Hausleiter, S. Kerner and B. Müller-Neuhof, pp. 171-204. Ugart-Verlag, Münster.
- 2005 A cultural historical framework. In *Archaeologies of the middle east. Critical perspectives*, edited by S. Pollock and R. Bernbeck, pp. 11-40. Blackwell publishing.
- Blanton, R. E.
2000 (1998) Beyond centralization: Steps toward a theory of egalitarian behavior. In *Archaic states*, edited by G. M. Feinman and J. Marcus, pp. 135-172. School of American research press, Santa Fe.
- Bloch, M.
1992 *Prey into hunter. The politics of religious experience*. Cambridge university press, Cambridge.
- Bottéro, J.
2004 (2001) *Religion in ancient Mesopotamia*. The university of Chicago press, Chicago.

- Bourdieu, P.
1996 *Symbolisk makt*. Pax forlag A/S, Oslo.
- Brandes, M. A.
1979 *Siegelabrollungen aus den archaischen bauschichten in Uruk-Warka I & II*. Franz Steiner verlag GMBH, Wiesbaden.
- Charvat, P.
2001 Comment on Algaze 2001b. *Current Anthropology* 41(2):216.
—
2002 (1993) *Mesopotamia before history*. Routledge.
- Childe, G.
1928 *The most ancient east*. Kegan Paul, Trench, Trubner & CO., LTD, London.
—
1937 (1936) *Man makes himself*. Watts & Co., 5 & Johnson's court, Fleet street, E.C.4, London.
—
1950 The urban revolution. *The town planning review* 21:3-17.
—
1968 (1925) *The dawn of European civilization*. Lowe & Brydone, London.
- Chilton, E. S.
1999 One size fits all. Typology and alternatives for ceramic research. In *Material meanings. Critical approaches to the interpretation of material culture*, edited by E. S. Chilton, pp. 44-60. The university of Utah press, Salt Lake City.
- Collins, P.
2000 *The Uruk phenomenon. The role of social ideology in the expansion of the Uruk culture during the fourth millennium BC*. Bar international series 900. Hadrian books Ltd.
- Collon, D.
1996 Depictions of priests and priesesses in the ancient Near East. In *Priests and officials in the ancient Near East*, edited by K. Watanabe, pp. 17-46. Universitätsverlag C. Winter, Heidelberg.
—
2005 (1987) *First impressions. Cylinder seals in the ancient Near East*. The British museum press, London.
- Cordava, C. E.
2007 (2005) The degradation of the ancient Near Eastern landscape. In *A companion to the ancient near East*, edited by D. C. Snell, pp. 125-141. Blackwell publishing.
- Crawford, H.
1973 Mesopotamia's invisible exports in the third millennium B.C. *World archaeology* 5(2):232-241.
—
2006 (1991) *Sumer and the Sumerians*. Cambridge university press, Cambridge.
- Dalley, S.
2000 (1995) Ancient Mesopotamian military organization. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 413-422. vol. I. IV vols. Hendrickson publishers, New York.
- Dark, K. R.
2002 (1995) *Theoretical archaeology*. Antony Rowe Ltd, Eastbourne, London.
- Delougaz, P. and S. Lloyd
1942 *Pre-Sargonid temples in the Diyala region*. The university of Chicago press, Chicago.

- DeMarrais, E.
2004 The materialization of culture. In *Rethinking materiality- The engagement of mind with the material world*, edited by E. DeMarrais, C. Gosden and C. Renfrew, pp. 11-22. McDonald institute for archaeological research, Cambridge.
- DeMarrais, E., L. J. Castillo and T. Earle
1996 Ideology, materialization, and power strategies. *Current Anthropology* 37(1):15-31.
- Diakonoff, I. M.
1974 *Structure of society and state in early dynastic Sumer*. Monographs of the ancient near east 1:3. Udenca publications, Malibu.
- Dickson, D. B.
2006 Pulic transcripts expressed in theatres of cruelty: The royal graves at Ur in Mesopotamia. *Cambridge archaeological journal* 16(2):123-144.
- Dittmann, R
1986 Seal, sealings and tablets. In *Gamdet Nasr. Period or regional style. Papers given at a symposium held in Tübingen November 1983*, edited by U. Finkbeiner and w. Rölling, pp. 332-366. Dr. Ludwig reichert verlag, Wiesbaden.
- Dobres, M.-A.
2000 *Technology and social agency. Outlining a practice framework for archaeology*. Blackwell publishers.
- Dobres, M.-A. and C. R. Hoffman
1999 Introduction: A context for the present and future of technology studies. In *The social dynamics of technology. Practice, politics and world views*, edited by M.-A. Dobres and C. R. Hoffman. Smithsonian institution press, Washington and London.
- Earle, T.
2002 *Bronze age economics*. Westview press.
- Emberling, G.
2003 Urban social transformations and the problem of the “first city.” New research from Mesopotamia. In *The Social Construction of Ancient Cities*, edited by M. Smith, pp. 254-268. Smithsonian Press, Washington D.C.
- Emberling, G., J. Cheng, T. B. Larsen, H. Pittman, T. B. B. Skuldboel, J. Weber and H. T. Wright
1998 Excavations at Tell Brak 1998: Preliminary report. *Journal Iraq* 61:1-41.
- Emberling, G., H. McDonald and e. al
2001 Excavations at Tell Brak 2000: Preliminary report. *Journal Iraq* 63:21-54.
- 2003 Excavations at Tell Brak 2001-2002: Preliminary report. *Journal Iraq* 65.:1-77.
- Englund, R. K.
1998 Texts from the late Uruk period. In *Mesopotamien. Späturuk-Zeit und Frühdynastische Zeit*, edited by J. Bauer, R. K. Englund and M. Krebernik, pp. 15-233. Universitätsverlag Freiburg schweiz Vandenhoeck & Ruprecht Göttingen, Vandenhoeck & Ruprecht Göttingen.
- Eyre, C. J.
2000 (1995) The agriculture cycle, farming, and water management in the ancient near east. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 175-190. vol. I. IV vols. Hendrickson publishers, New York.
- Falkenstein
1974 *The Sumerian temple*. Monographs in history: Ancient near East 1:1. Udenca publications, Malibu.

- Forest, J.-D.
 2005 The state: The process of state formations as seen from Mesopotamia. In *Archaeologies of the middle east. Critical perspectives*, edited by S. Pollock and R. Bernbeck, pp. 184-206. Blackwell publishing.
- Frangipane, M.
 2001 Centralization in greater Mesopotamia. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 307-347. School of American research press, , Santa Fe
 —
 2004 (2002) "Non-Uruk" developments and Uruk-linked features on the northern borders of greater Mesopotamia. In *Artefacts of complexity. Tracking the Uruk in the Near East.*, edited by J. N. Postgate, pp. 123-148. British school of archaeology in Iraq, Cambridge.
- Frankfort, H.
 1932 *Archaeology and the Sumerian problem*. The university of Chicago press, Chicago and London.
 —
 1956 *The birth of civilization in the Near East*. Anchor books, New York.
 —
 1965 (1939) *Cylinder seals. A documentary essay on the art and religion of the ancient Near East*. The Gregg pres ltd, London.
 —
 1970 (1954) *The art and architecture of the ancient orient*. Yale university press, New Haven & London.
- Gelb, I. J.
 1979 Household and family in early Mesopotamia. In *State and temple economy in the ancient Near East*, edited by E. Lipinski, pp. 1-98. vol. 1. 2 vols. Orientaliste, Leuven.
- Gibson, M.
 2005 University of Chicago-Syrian team finds first evidence of warfare in ancient Mesopotamia. Web page: <http://www-news.uchicago.edu/releases/05/051216.hamoukar.shtml>. Accessed: 03.12.2007.
- Gibson, M., A. Al-Azm, C. Reichel, S. Quntar, F. J. A, L. Khalidi, C. Hritz, M. Altaweel, C. Coyle, C. Colantoni, J. Tenney, G. Aziz and T. Hartnell
 2002 Hamoukar: A summary of three seasons of excavations. *Akkadica* 123:11-34.
- Gibson, M. and M. Maktash
 2000 Tell Hamoukar: Early city in northeastern Syria. *Antiquity* 74:477-478.
- Giddens, A.
 1986 (1984) *The constitution of society*. university of California press, Berkeley & Los Angeles.
- Glassner, J.-J.
 2000 (1995) The use of knowledge in ancient Mesopotamia. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 1815-1824. vol. III. IV vols. Hendrickson publishers, New York.
- Gosden, C.
 2004 *Archaeology and colonialism. Cultural contact from 5000 B.C to the present*. Cambridge university press, Cambridge.
- Green, M. W.
 1980 Animal husbandry at Uruk in the archaic period. *Journal of near Eastern studies* 39(1):1-35.
- Gut, R.
 2004 (2002) The significance of the Uruk sequence at Nineveh. In *Artefacts of complexity. Tracking the Uruk in the Near East*, edited by J. N. Postgate, pp. 17-48. British school of archaeology in Iraq, Cambridge.

- Götzelt, T.
2002 Non-trivial machines, resonance and segments: Early social systems and their environments. In *Material culture and mental spheres*, edited by A. Hausleiter, S. Kerner and B. Müller-Neuhof, pp. 79-83. Ugarit-Verlag, Münster.
- Hansen, D. P.
1965 (1954) The relative chronology of Mesopotamia. Part II. The pottery sequence at Nippur from the middle Uruk to end of the Old Babylonian period (3400-1600 B.C). In *Chronologies in the old world archaeology*, edited by R. W. Ehrich, pp. 201-213. The university of Chicago press, Chicago and London.
- Heinrich, E.
1982 *Tempel und Heiligtümer in alten Mesopotamien*. Verlag Walter de Gruyter & co, Berlin.
- Hodder, I.
1987 The contextual analysis of symbolic meanings. In *The archaeology of contextual meanings*, edited by I. Hodder, pp. 1-10. Cambridge university press, Cambridge.
—
2003 (1986) *Reading the past*. Cambridge university press, Cambridge.
- Hole, F.
1994 Environmental instabilities and urban origins. In *Chiefdoms and early states in the Near East. The organizational dynamics of complexity*, edited by G. Stein and M. S. Rothman, pp. 121-151. Prehistory press, Madison.
- Håland, G. and R. Håland
1999 *I Begynnelsen*. Aschehous verdenshistorie Bind 1. Aschehoug.
- Jacobsen, T.
1943 Primitive democracy in ancient Mesopotamia. *Journal of near eastern studies* 2(3):159-172.
—
1976 *Treasure of darkness*. Yale university press, New Haven and London.
—
1977 (1946) Mesopotamia. In *The intellectual adventure of ancient man. An essay on speculative thought in the ancient Near East*, edited by H. Frankfort, H. A. Frankfort, J. A. Wilson, T. Jacobsen and W. A. Irwin, pp. 123-219. The university of Chicago press, Chicago and London.
—
1982 *Salinity and irrigation. Agriculture in antiquity. Diyala basin projects: Report on essential results, 1957-58*. Undena publications, Malibu.
- Jasim, S. A. and J. Oates
1986 Early tokens and tablets in Mesopotamia: New information from Tell Abada and Tell Brak. *World archaeology* 17(3):348-362.
- Joffe, A. H.
1998 Alcohol and social complexity in ancient western Asia. *Current Anthropology* 39(3):297-322.
- Johnson, G. A.
1975 Locational analysis and the investigation of Uruk local exchange systems. In *Ancient civilization and trade*, edited by J. A. Sabloff and C. C. Lamberg-Karlovsky, pp. 285-337. University of New Mexico press, Albuquerque.
—
1988-89 Late Uruk in greater Mesopotamia: Expansion or collapse? *Origini: Preistoria e protostoria delle civiltà antiche* 14:595-611.
- Kovacs, M. G.
2004 (1985) *The epic of Gilgamesh*. Stanford university press, Stanford.

- Kramer, S. N.
1970 (1963) *The Sumerians. Their history, culture and character*. The university of Chicago press, Chicago.
- Lamberg-Karlovsky, C. C.
1974 Comment on Adams 1974. In *Reconstructing complex societies. An archaeological colloquium.*, edited by C. B. Moore, pp. 12-13. Henry N. Sawyer company, inc.
- Larick, R.
1999 Towards the architecture of households service in New England, 1650-1850. In *The social dynamics of technology. Practice, politics and world views*, edited by M.-A. Dobres and C. R. Hoffman, pp. 71-101. Smithsonian institution press, Washington and London.
- Lawler, A.
2006 North versus south. Mesopotamian style. *Science* 312:1458-1463.
—
2007 Murder in Mesopotamia? *Science* 317:1164-1165.
- Leick, G.
2002 (2001) *Mesopotamia. The invention of the city*. Penguin books, London.
- Lindemeyer, E. and L. Martin
1993 *Uruk kleinfunde III*. Verlag Philipp von Zabern, Mainz am Rhein.
- Liverani, M.
2005 Imperialism. In *Archaeologies of the middle east. Critical perspectives*, edited by S. Pollock and R. Bernbeck, pp. 223-243. Blackwell publishing.
—
2006 (1998) *Uruk. The first city*. Equinox, London.
- Lloyd, S.
1938 Some ancient sites in the Sinjar district. *Journal Iraq* 5:132-142.
—
1978 *The Archaeology of Mesopotamia. From the Old Stone Age to the Persian Conquest*. Thames and Hudson Ltd, London.
—
1980 (1947) *Foundations in dust*. Thames and Hudson Ltd, London.
- Lloyd, S., F. Safar and H. Frankfort
1943 Tell Uqair: Excavations by the Iraq government directorate of antiquities in 1940 and 1941. *Journal of Near Eastern studies* 2(2):131-158.
- Lupton, A.
1996 *Stability and change. Socio-political development in the north Mesopotamia and south-east Anatolia 4000 – 2700 B.C.* BAR. Hadrian books Ltd, Oxford.
- Maisels, C. K.
1990 *The emergence of civilization*. Routledge, London and New York.
—
1998 (1993) *The Near East. Archaeology in the “cradle of civilization”*. Routledge, London and New York.
—
1999 *Early civilization of the old world*. Routledge, London and New York.
- Mallowan, M. E. L.
1947 Excavations at Brak and Chagar Bazar. *Journal Iraq* 9:1-87.
—
1967 The development of cities. From al-Ubaid to the end of Uruk 5. In *The Cambridge ancient history*, edited by I. E. S. Edwards, C. J. Gadd and N. G. L. Hammond, pp. 3-83. vol. 1. 2 vols. Cambridge university press, Cambridge.

- Mann, M.
1986 *The sources of social power. A history of power from the beginning to A.D. 1760* 1. 2 vols. Cambridge university press.
- Marfoe, L. and G. Algaze
1990 Kurban Höyük and its wider context: An outline of settlement history. In *Town and country in Southwestern Anatolia*, edited by G. Algaze, pp. 421-432. vol. II: The stratigraphic sequence. The oriental institute of the university of Chicago, Chicago.
- Mark, S.
1998 (1997) *From Egypt to Mesopotamia. A study of predynastic trade routes*. Chatham publishing, London.
- Matthews, R.
1992 Jemdet Nasr: The site and the period. *The biblical archaeologist* 55(4):196-203.
—
2003 (2003) *The archaeology of Mesopotamia – theories and approaches*. Paperback ed. Routledge.
—
2008 Personal communication. 21.01.
- McCorrison, J.
1997 The fiber revolution. Textile extensification, alienation, and social stratification in ancient Mesopotamia. *Current Anthropology* 38(4):517-535.
- Meijer, D. J. W.
1988 Tell Hammam: Architecture and stratigraphy. In *Hammam et-Turkman I. Report on the university of Amsterdam's 1981-84 excavations in Syria*, edited by M. N. Van Loon, pp. 69-127. vol. 1. 2 vols. Nederlands Historisch-Archaeologisch Instituut te Istanbul.
- Mellaart, J.
1979 Early urban communities in the near east, c. 9000-3400 B.C. In *The origins of civilization*, edited by P. R. S. Moorey, pp. 22-33. Clarendon press, Oxford.
- Miller, D.
1989 The limits of dominance. In *Domination and resistance*, edited by D. Miller, M. Rowlands and C. Tilley, pp. 63-79. Unwin Hyman inc, London.
- Miller, D., M. Rowlands and C. Tilley
1989 Introduction. In *Dominance and resistance*, edited by D. Miller, M. Rowlands and C. Tilley, pp. 1-26. Unwin Human inc, London.
- Miller, D. and C. Tilley
1984a *Ideology, power and prehistory*. Cambridge university press, Cambridge.
—
1984b Ideology, power and prehistory: an introduction. In *Ideology, power and prehistory*, edited by D. Miller and C. Tilley, pp. 1-15. Cambridge university press, Cambridge.
- Nissen, H. J.
1986 The archaic texts from Uruk. *World archaeology* 17(3):317-334.
—
1990 (1988) *The early history of the ancient near east. 9000-2000 B.C.* Paperback ed. Translated by E. Lutzeler and K. J. Northcott. The university of Chicago press, Chicago.
—
2001 Cultural and political networks in the ancient near east during the fourth and third millennia B.C. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 149-179. School of American research press, Santa Fe.

- 2004 (2002) Uruk: Key site of the period and key site of the problem. In *Artefacts of complexity. Tracking the Uruk in the Near East*, pp. 1-16. British school of archaeology in Iraq, Cambridge.
- Nissen, H. J., P. Damerow and R. K. Englund
 1993 *Archaic Bookkeeping. Writing and techniques of economic administration in the ancient Near East*. Translated by P. Larsen. University of Chicago press, Chicago.
- Oates, D.
 1982 Tell Brak. In *Fifty years of Mesopotamian discovery*, edited by J. Curtis, pp. 62-71. The British school of archaeology in Iraq, London.
- 1985 Excavations at Tell Brak 1983-84. *Journal Iraq* 47:159-173.
- 1987 Different traditions in Mesopotamian temple architecture in the fourth Millennium B.C. In *Préhistoire de la Mésopotamie. La Mésopotamie préhistorique et l'exploration récente du djebel Hamrin*, edited by J.-L. Huot, pp. 379-383. Colloques internationaux, éditions du CNRS, Paris.
- 1990 Innovations in Mud-Brick: Decorative and structural techniques in ancient Mesopotamia. *World archaeology* 21(3):388-406.
- Oates, D. and J. Oates
 1993 Excavations at Tell Brak 1992-93. *Journal Iraq* 55:155-199.
- 1997 An open gate: Cities of the fourth millennium B.C. *Cambridge archaeological journal* 7(2):287-296.
- 2002 The reattribution of middle Uruk materials at Brak. In *Leaving no stones unturned. Essays on the ancient near east and Egypt in Honor of Donald P. Hansen*, edited by E. Ehrenberg, pp. 145-154. Eisenbraus, Winona Lake.
- 2004 The role of exchange relations in the origins of Mesopotamian civilization. In *Explaining social change: Studies in honour of Colin Renfrew*, edited by J. Cherry, C. Scarre and S. Shennan, pp. 177-192. McDonald institute of archaeological reserach, Cambridge.
- Oates, J.
 1960 Ur and Eridu, the prehistory. *Journal Iraq* 23:32-50.
- 1982 (1977) Mesopotamian social organization: Archaeological and philological evidence. In *The evolution of social systems*, edited by J. Friedman and M. Rowlands, pp. 457-485. Gerald Duckworth and Co. Ltd.
- 1985 Tell Brak. Uruk pottery from the 1984 season. *Journal Iraq* 47:175-186.
- 2004a (2002) Tell Brak: the 4th millennium sequence and its implications. In *Artefacts of complexity. Tracking the Uruk in the Near East*, edited by J. N. Postgate, pp. 111-122. British school of archaeology in Iraq, Cambridge.
- 2004b Archaeology in Mesopotamia: Digging Deeper at Tell Brak. BA lecture. Web page: <http://www.mcdonald.cam.ac.uk/projects/brak/BAlect.htm> Accessed: 01.11.2007.
- Oates, J., A. McMahon, P. Karsgaard, S. A. Quntar and J. Ur
 2007 Early Mesopotamian urbanism: a new view from the north. *Antiquity* 81:585-600.
- Oppenheim, L. A.
 1977 (1964) *Ancient Mesopotamia. Portrait of a dead civilization*. Revised ed. University of Chicago press, Chicago and London.

- Peasnell, B.
2002 Burials from Tepe Gawra. In *Tepe Gawra: Evolution of a small prehistoric center in northern Iraq*, edited by M. S. Rothman, pp. 171-234. University of Pennsylvania museum, Philadelphia.
- Peltenburg, E. and T. J. Wilkison
2008 Jerablus and the land of Carchemish. Excavation and survey in Syria. *Current world archaeology* 3(27):24-33.
- Perkins, A. L.
1977 (1949) *The comparative archaeology of early Mesopotamia*. The university of Chicago press, Chicago.
- Pfaffenberger, B.
1999 worlds in the making: Technological activities and the construction of intersubjective meaning. In *The social dynamics of technology. Practice, politics and world views*, edited by M.-A. Dobres and C. R. Hoffman, pp. 147-165. Smithsonian institution press, Washington and London.
- Pittman, H.
1994 Response to Rothman 1994. In *Archives before writing*, edited by P. Ferioli, E. Fiandra, G. G. Fissore and M. Frangipane, pp. 121-123. Centro internazionale di ricerche archeologiche antropologiche storiche, Roma.
- 2001 Mesopotamian intraregional relations reflected through glyptic evidence in the late chalcolithic 1-5 periods. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 403-443. School of American research press, Santa Fe.
- Pollock, S.
1990 Archaeological investigations on the Uruk mound, Abu Salabikh, Iraq. *Journal Iraq* 52:85-93.
- 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(3):297-336.
- 2001 The Uruk period in the southern Mesopotamia. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 181-231. School of American research press, Santa Fe.
- 2002 (1999) *Ancient Mesopotamia. The Eden that never was*. Cambridge university press, Cambridge.
- 2005 Archaeology goes to war at the news stand. In *Archaeologies of the middle east. Critical perspectives*, edited by S. Pollock and R. Bernbeck, pp. 78-96. Blackwell publishing.
- Pollock, S. and R. Bernbeck
2000 And they said, let us make gods in our image. Gendered ideologies in ancient Mesopotamia. In *Interpreting the body: Insights from anthropological and classical archaeology*, edited by A. Rautman, pp. 150-164. University of Pennsylvania press, Philadelphia.
- Pollock, S., C. Steele and M. Pope
1991 Investigations on the Uruk mound, Abu Salabikh, 1990. *Journal Iraq* 53:59-68.
- Porada, E.
1950 A leonine figure of the protoliterate period of Mesopotamia. *Journal of the American oriental society* 70(4):223-226.
- Postgate, J. N.
2000 (1995) Royal ideology and state administration in Sumer and Akkad. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 395-412. vol. I. IV vols. Hendrickson publishers, New York.
- 2004 (1992) *Early Mesopotamia. Society and economy at the dawn of history*. Routledge, London & New York.

- Potts, D. T.
 1997 *Mesopotamian civilization. The material foundations*. The Athlone press, London.
- 1999 *The archaeology of Elam. Formation and transformation of the ancient Iranian state*. Cambridge University press, Cambridge.
- Redman, C. L.
 2002 Understanding the socio-natural system. In *Material culture and mental spheres*, edited by A. Hausleiter, S. Kerner and B. Müller-Neuhof, pp. 85-94. Ugarit-Verlag, Münster.
- Reichel, C.
 2002 Administrative complexity in Syria during the 4th millennium B.C. – the seals and sealings from Tell Hamoukar. *Akkadica* 123:35-56.
- Roaf, M.
 1989 Social organization and social activities at Tell Madhur. In *Upon this foundation. The Ubaid reconsidered. Proceedings from the Ubaid symposium Eslinore May 30th - June 1st 1988*, edited by E. F. Hendrickson and I. Thuesen. The Carsten Niebuhr institute of ancient near eastern studies, Copenhagen.
- 2000 (1995) Palaces and temples in ancient Mesopotamia. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 423-442. vol. I. IV vols. Hendrickson publishers, New York.
- 2003 (1990) *Cultural atlas of Mesopotamia and the ancient Near East*. Checkmark books, Bilbao.
- Robertson, J. F.
 2000 (1995) The social and economic organization of ancient Mesopotamian temples. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 443-454. vol. I. IV vols. Hendrickson publishers, New York.
- Ross, J. C.
 2005 Representations, reality, and ideology. In *Archaeologies of the middle east. Critical perspectives*, edited by S. Pollock and R. Bernbeck, pp. 327-350. Blackwell publishing.
- Rothman, M. S.
 1994 Seal and sealing findspots, design, audience, and function: Monitoring changes in administrative oversight and structure at Tepe Gawra during the fourth millennium B.C. In *Archives before writing*, edited by P. Ferioli, E. Fiandra, G. G. Fissore and M. Frangipane, pp. 97-119. Centro internazionale di ricerche archeologiche antropologiche storiche, Roma.
- 2001 The Tigris piedmont, eastern jazira, and highland western Iran in the fourth millennium B.C. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 349-401. School of American research press, Santa Fe.
- 2002 *Tepe Gawra: The evolution of a small prehistoric center in northern Iraq*. University of Pennsylvania museum, Philadelphia.
- 2004 Studying the development of complex society: Mesopotamia in the late fifth and fourth millennium BC. *Journal of archaeological research* 12(1):75-119.
- Roux, G.
 1992 (1864) *Ancient Iraq*. Penguin books, London.
- 2001 (1992) Did the Sumerians emerge from the sea? In *Everyday life in ancient Mesopotamia*, edited by J. Bottéro, pp. 3-23. The Johns Hopkins university press, Baltimore.
- Rova, E.
 1996 Ceramic provinces along the middle and upper Euphrates: Late chalcolithic - Early bronze age, a diachronic view. *Baghdader mitteilungen* 27:13-37.
- 2008 Comment on Wengrow 2008. *Current Anthropology* 49(1):24-25.

- Safar, F., M. A. Mustafa and S. Lloyd
1981 *Eridu*. Baghdad: State organization of antiquities and heritage.
- Said, E. W.
1978 *Orientalism*. Pantheon books, New York.
- Sandars, N. K.
1979 The religious development of some early societies. In *The origins of civilization*, edited by P. R. S. Moorey, pp. 103-127. Clarendon press, Oxford.
- Schiffer, M. B.
1999 *The material life of human beings. Artefacts, behavior, and communication*. Routledge, London and New York.
- Schmandt-Besserat, D.
1993 Images of Enship. In *Between the rivers and over the mountains*, edited by M. Frangipane, H. Hauptmann, M. Liverani, P. Matthiae and M. Mellink, pp. 201-219. Gruppo editoriale internazionale-Roma.
—
2007 *When writing met art. From symbol to story*. The university of Texas press, Austin.
- Schwartz, G. M.
1988 *A ceramic chronology from Tell Leilan. Operation I*. Yale Tell Leilan research 1. Yale university press, New Haven & London.
—
2000 (1995) Pastoral nomadism in ancient western Asia. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 249-258. vol. I. IV vols. Hendrickson publishers, New York.
—
2001 Syria and the Uruk expansion. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 233-264. School of American research press, Santa Fe.
- Selz, G. J.
2002 Political history: Aspects of conflicts and their management before the Old Babylonian period. In *Material culture and mental spheres*, edited by A. Hausleiter, S. Kerner and B. Müller-Neuhof, pp. 107-141. Ugarit-Verlag, Münster.
- Shanks, M. and C. Tilley
1993 (1987) *Social theory and archaeology*. Polity press, Cambridge.
- Sherratt, A.
1981 Plough and pastoralism: Aspects of the secondary products revolution. In *Economy and society in prehistoric Europe*, edited by A. Sherratt, pp. 158-198. Edinburgh university press.
—
1983 The secondary exploitation of animals in the old world. *World archaeology* 15(1):90-104.
—
2004 Material resources, capital and power. In *Archaeological perspectives on political economies*, edited by G. M. Feinman and L. M. Nicolas, pp. 79-103. The university of Utah press, Salt Lake City.
- Smith, A. T.
2003 *The political landscape. Constellations of authority in early complex societies*. University of Californi Press, Berkeley, Los Angels & London.
- Steadman, S. R.
2005 Reliquaries on the landscape: Mounds as matrices of human cognition. In *Archaeologies of the middle east. Critical perspectives*, edited by S. Pollock and R. Bernbeck, pp. 286-307. Blackwell publishing.
- Stein, G.
1999 *Rethinking world systems – Diasporas, colonies and interaction in Uruk Mesopotamia*. The university press.

-
- 2001 Indigenous social complexity at Hacinebi (Turkey) and the organization of Uruk colonial contact. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 265-305. School of American research press, Santa Fe.
-
- 2004 (2002) The Uruk expansion in Anatolia: A mesopotamian colony and its indigenous host community at Hacinebi, Turkey. In *Artefacts of complexity. Tracking the Uruk in the Near East*, edited by J. N. Postgate, pp. 149-171. British school of archaeology in Iraq, Cambridge.
- Stein, G., R. Bernbeck, C. Coursey, A. McMahon, N. F. Miller, A. Misir, J. Nicola, H. Pittman, S. Pollock and H. T. Wright
- 1996 Uruk colonies and Anatolian communities: An interim report on the 1992-1993 excavations at Hacinebi, Turkey. *American journal of archaeology* 100(4):205-260.
- Stephen, F. M. K. and E. Peltenburg
- 2004 (2002) Scientific analyses of Uruk ceramics from Jerablus Tahtani and other middle-upper Euphrates sites. In *Artefacts of complexity. Tracking the Uruk in the Near East*, edited by J. N. Postgate, pp. 173-190. British school of archaeology in Iraq, Cambridge.
- Stone, E. C.
- 2000 (1995) The development of cities in ancient Mesopotamia. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 235-248. vol. I. IV vols. Hendrickson publishers, New York.
- Strommenger, E.
- 1964 *5000 years of the art of Mesopotamia*. Harry N. Abrams, inc, New York.
-
- 1980a *Habuba Kabira. Eine Stadt vor 5000 Jahren*. Verlag Phillip von Zabern, Mainz am Rhein.
-
- 1980b The chronological division of the archaic level of Uruk-Eanna VI to III/II: Past and present. *American journal of archaeology* 84(4):479-487.
- Szarzynska, K.
- 1994 Archaic Sumerian tags. *Journal of cuneiform studies* 46:1-10.
- Thuesen, I.
- 1989 Diffusion of Ubaid pottery in to western Syria. In *Upon this foundation. The Ubaid reconsidered. Proceedings from the Ubaid symposium Eslynore May 30th - June 1st 1988*, pp. 419-437. The Carsten Niebuhr institute of ancient near eastern studies, Copenhagen.
-
- 2002 Canals, irrigation and beyond - a comment and reflection based on the contribution by Robert McC Adams. In *Material Culture and mental spheres*, edited by A. Hausleiter, S. Kerner and B. Müller-Neuhof, pp. 55-65. Ugarit-Verlag, Münster.
- Trigger, B.
- 1997 (1989) *A history a archaeological thought*. Cambridge university press, Cambridge.
- Ur, J. A.
- 2002 Settlement and landscape in northern Mesopotamia: The Tell Hamoukar survey 2000-2001. *Akkadica* 123:57-88.
- Ur, J. A., P. Karsgaard and J. Oates
- 2007 Early urban development in the near east. *Science* 317:1188.
- Van de Mieroop, M.
- 1999 (1997) *The ancient Mesopotamia city*. Oxford university press, Oxford.
- van Dijk, T. A.
- 2000 (1998) *Ideology: A multidisciplinary approach*. Sage publications, London.

- van Driel, G.
 1983 Seals and sealings from Jebel Aruda 1974-1978. *Akkadica* 33:34-62.
- 2004 (2002) Jebel Aruda: Variations on a late Uruk domestic theme. In *Artefacts of complexity. Tracking the Uruk in the Near East*, edited by J. N. Postgate, pp. 191-205. British school of archaeology in Iraq, Cambridge.
- van Driel, G. and C. van Driel-Murray
 1979 Jebel Aruda 1977-1978. *Akkadica* 12:2-28.
- 1983 Jebel Aruda. The 1982 season of excavation, interim report. *Akkadica* 33:1-26.
- van Loon, M. N.
 1988 The seals and seal impressions. In *Hamam et-Turkman I. Report on the university of Amsterdam's 1981-84 excavations in Syria* edited by M. N. Van Loon, pp. 661-668. vol. 2. 2 vols. Nederlands Historisch-Archaeologisch Instituut te Istanbul.
- van Loon, M. N. and D. J. W. Meijer
 1988 Conclusions. In *Hamam et-Turkman I. Report on the university of Amsterdam's 1981-84 excavations in Syria* edited by M. N. Van Loon, pp. 697-701. vol. 2. 2 vols. Nederlands Historisch-Archaeologisch Instituut te Istanbul.
- Verhoeven, M.
 2005 Ethnoarchaeology, analogy, and ancient society. In *Archaeologies of the middle east. Critical perspectives*, edited by S. Pollock and R. Bernbeck, pp. 251-285. Blackwell publishing.
- Watson, P. J.
 1978 Architectural differentiation in some near eastern communities, prehistoric and contemporary. In *Social archaeology. Beyond subsistence and dating*, edited by C. L. Redman, M. J. Berman, E. V. Curtin, W. T. Langhorne Jr, N. M. Versaggi and J. C. Wanser, pp. 131-158. Academic press, New York.
- Wattenmaker, P.
 1990 On the Uruk expansion. *Current Anthropology* 31(1):67-69.
- Weiss, H.
 1991 Archaeology in Syria. *American journal of archaeology* 95(4):683-740.
- Wengrow, D.
 1998 "The changing face of clay:" Continuity and change in the transition from village to urban life in the Near East. *Antiquity* 72:783-795.
- 2001 The evolution of simplicity: Aesthetic labour and social change in the neolithic near east. *World archaeology* 33(2):168-188.
- 2006a Approaching ancient orientalizations via modern Europe. In *Debating orientalizations*, edited by C. Riva and N. C. Vella, pp. 31-47. Equinox publishing Ltd, London.
- 2006b *The archaeology of Egypt. Social transformations in north-east Africa, 10.000 to 2650 B.C.* Cambridge university press, Cambridge.
- 2008 Prehistories of commodity branding. *Current Anthropology* 49(1):7-34.
- Wiggermann, F. A. M.
 2000 (1995) Theologies, priests, and worship in ancient Mesopotamia. In *Civilizations of the ancient Near East*, edited by J. M. Sasson, pp. 1857-1870. vol. III. IV vols. Hendrickson publishers, New York.
- Wilk, R.
 2008 Comment on Wengrow 2008. *Current Anthropology* 49(1).

- Wittfogel
 1964 (1957) *Oriental Despotism. A comparative study of total power*. Yale university press, New Haven & London.
- Wobst, M. H.
 2005 (2000) Agency in (spite of) material culture. In *Agency in archaeology*, edited by M.-A. Dobres and J. E. Robb. Routledge, London & New York.
- Wright, H. T.
 1981 The southern margins of Sumer. Archaeological survey of the area of Eridu and Ur. In *Heartland of cities. Surveys of ancient settlement and land use on the central floodplain of the Euphrates*, edited by R. M. Adams, pp. 297-338. University of Chicago press, Chicago.
- 2000 (1998) Uruk states in southwestern Iran. In *Archaic states*, edited by G. M. Feinman and J. Marcus, pp. 173-197. School of American research press, Santa Fe.
- 2001 Cultural action in the Uruk world In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 123-147. School of American research press, Santa Fe.
- Wright, H. T. and G. A. Johnson
 1975 Population, exchange, and early state formation in southwestern Iran. *American anthropologist, New series* 77(2):267-289.
- Wright, H. T. and S. Pollock
 1987 Regional socio-economic organization in the southern Mesopotamia: The middle and later fifth millennium. In *Préhistoire de la Mésopotamie. La Mésopotamie préhistorique et l'exploration récente du djebel Hamrin*, edited by J.-L. Huot, pp. 317-329. Colloques internationaux, éditions du CNRS, Paris.
- Wright, H. T. and E. S. A. Rupley
 2001 Calibrated radiocarbon age determinations of Uruk-related assemblages. In *Uruk Mesopotamia & its Neighbors – cross-cultural interactions in the era of state formation*, edited by M. S. Rothman, pp. 85-122. School of American research press, Santa Fe.
- Yoffee, N.
 2006 (2005) *Myths of the archaic state*. Cambridge University press, Cambridge.
- Zagarell, A.
 1986 Trade, women, class, and society in ancient western Asia. *Current Anthropology*. 27(5):415-420.
- Zeder, M. A.
 2003 Food provisioning in Urban societies. A view from northern Mesopotamia. In *The Social Construction of Ancient Cities*, edited by M. Smith, pp. 156-183. Smithsonian Press, Washington D.C.

APPENDIX.

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FIGURES A1-A18.

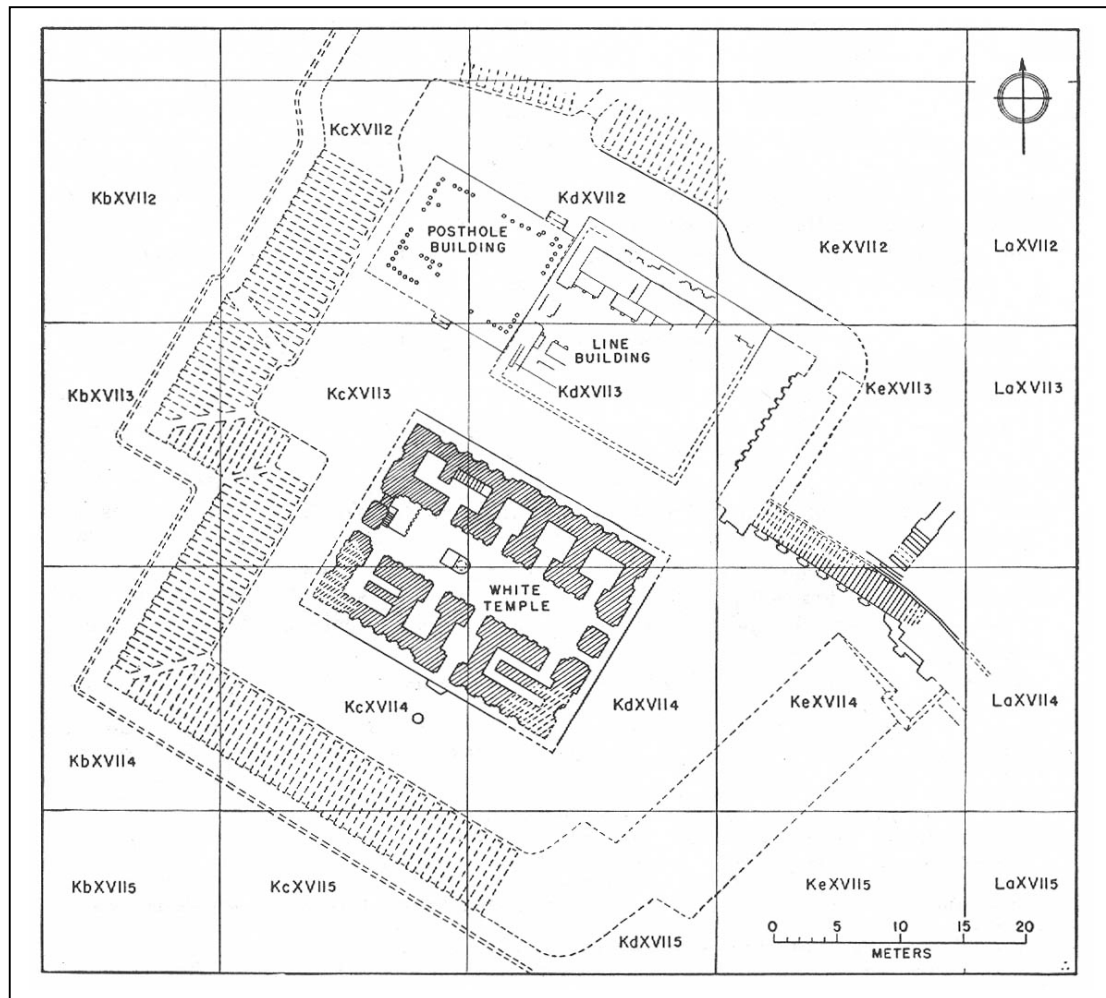


Figure A1: The Anu Ziggurat area at Uruk-Warka (Perkins 1949: Fig 14).

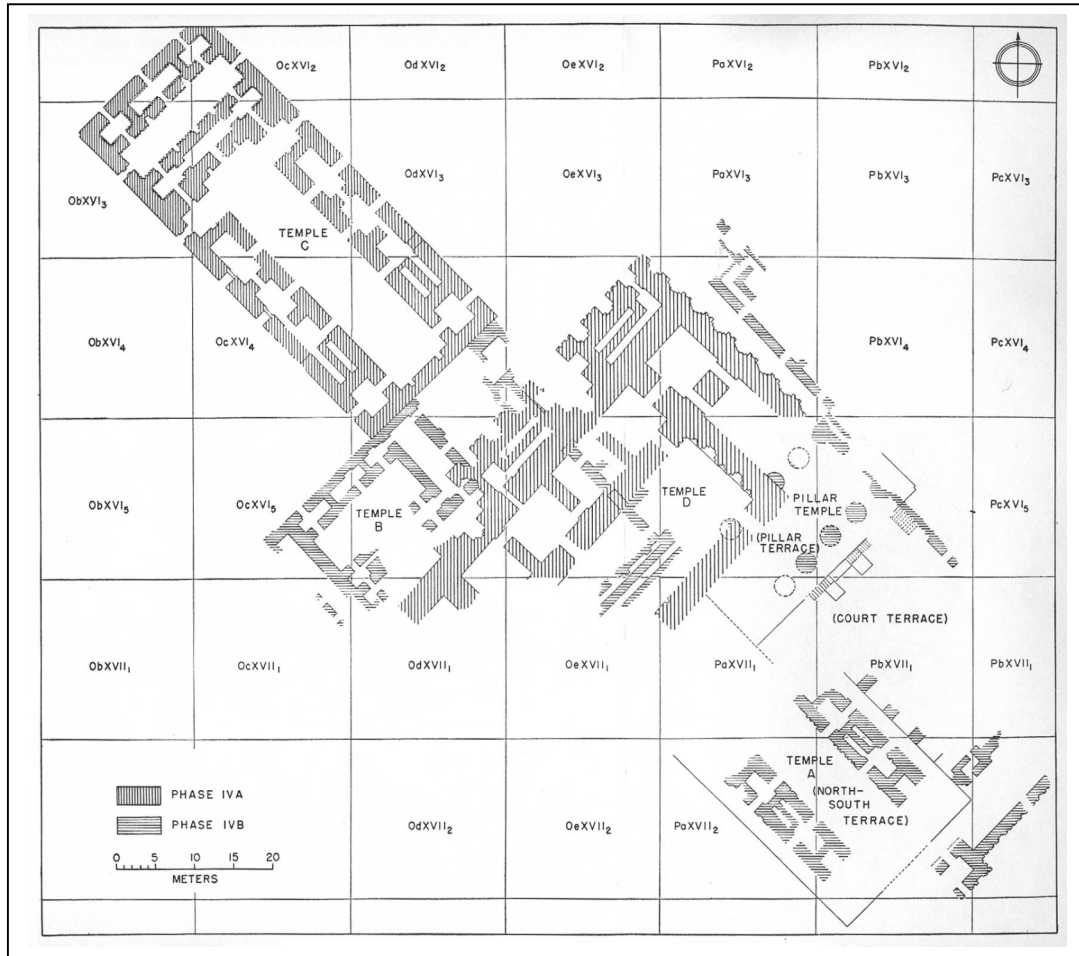


Figure A2: The Eanna area at Uruk-Warka (Perkins 1949: Fig 16).

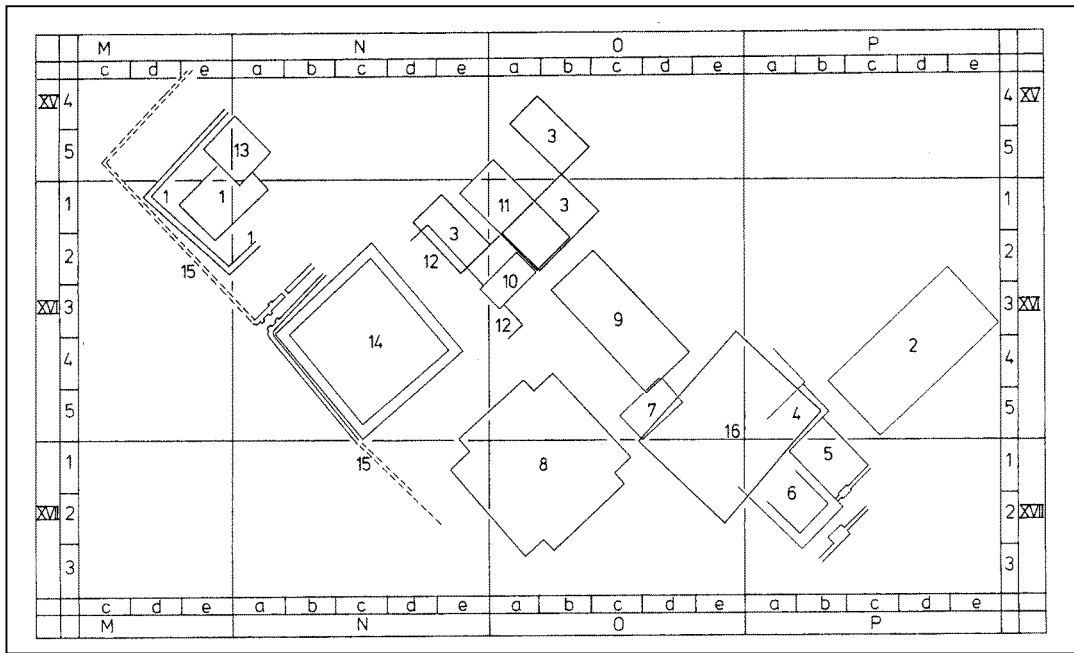


Figure A3: The Eanna area at Uruk-Warka (Heinrich 1982: Abb 112).

Buildings listed:

- | | |
|----------------------------------|----------------------------------------|
| 1: Stone cone temple | 2: Limestone temple |
| 3: The three temples F, G & H | 4: Round pillar terrace |
| 5: Mosaic courtyard | 6: North-south terrace with building A |
| 7: Building B | 8: Square palace/Four-Hall building |
| 9: Temple C | 10: Hall with Cone mosaic |
| 11: Great Hall | 12: Baths |
| 13: The <i>riemchen</i> building | 14: Courtyard |
| 15: First Temonswall | 16: Temple D |

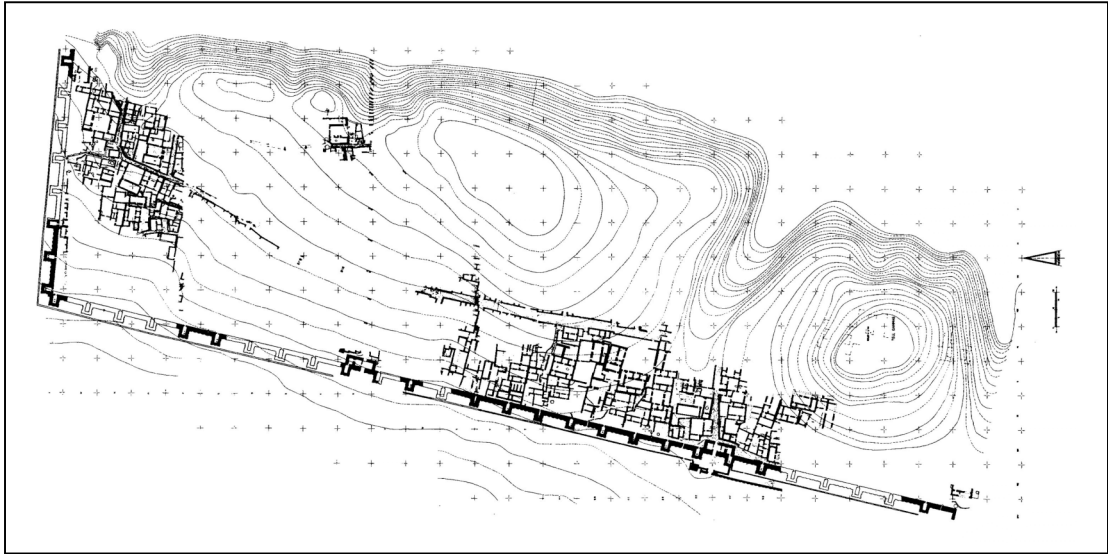


Figure A4: Habuba Kabira (Heinrich 1982: Abb 128).

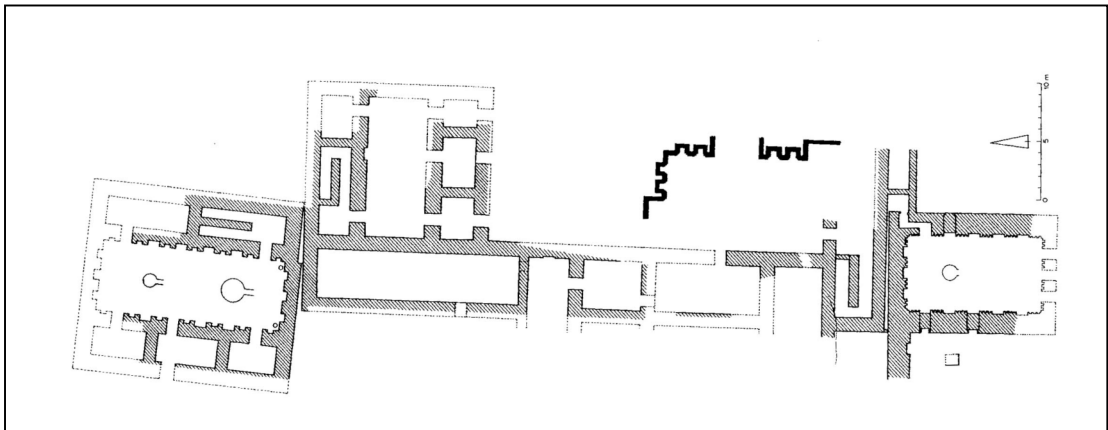


Figure A5: Tell Qannas at Habuba Kabira (Heinrich 1982: Abb 129).

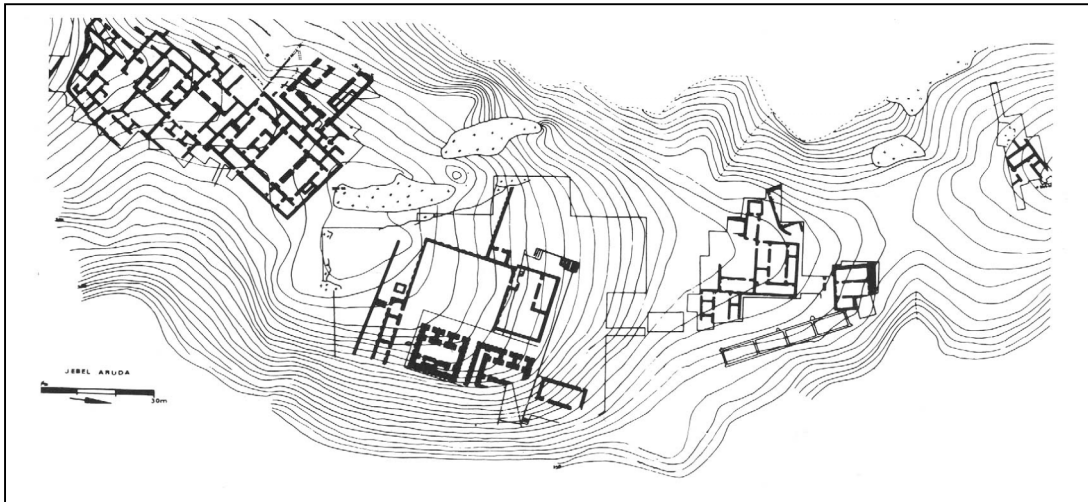


Figure A6: Jebel Aruda (Strommenger 1980a: Abb 54). A wall surrounded the buildings in the centre of the figure as the lines indicate. The tripartite buildings within the area are the Red Temple to the right and the Gray Temple to the left.

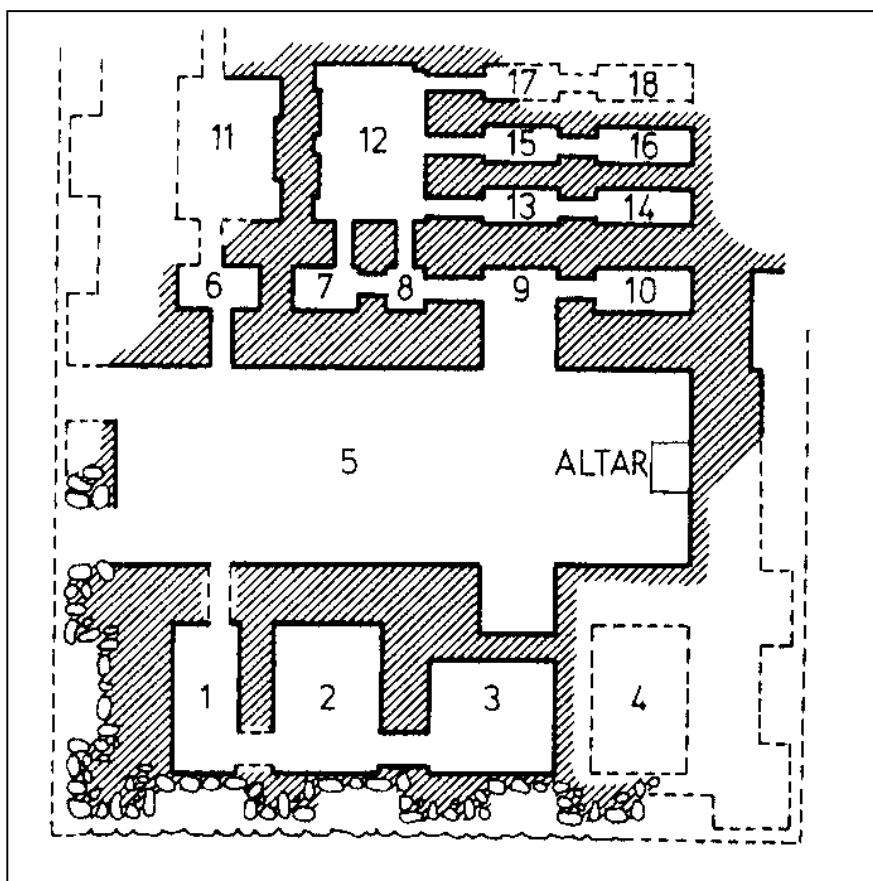


Figure A7: The White Eye Temple at Tell Brak (Heinrich 1982: Abb 143).

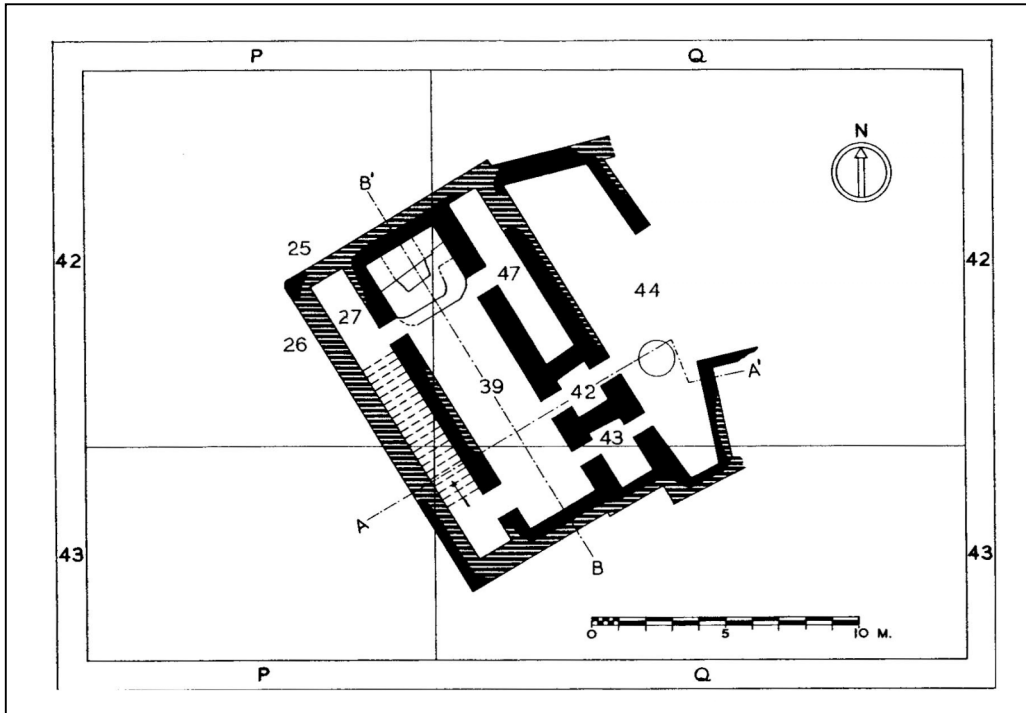


Figure A8: Sin Temple level I (Delougaz & Lloyd 1942: Plate 2A).

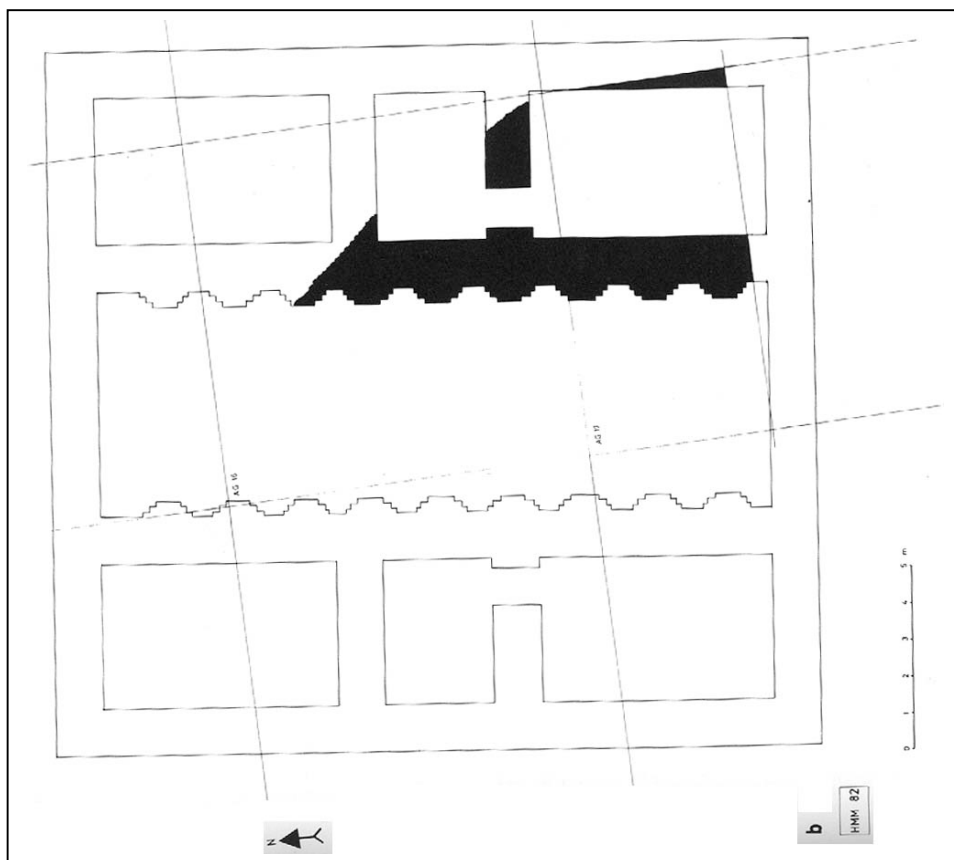


Figure A9: The Nighed building at Hammam et-Turkman (Meijer 1988: Fig 29b).

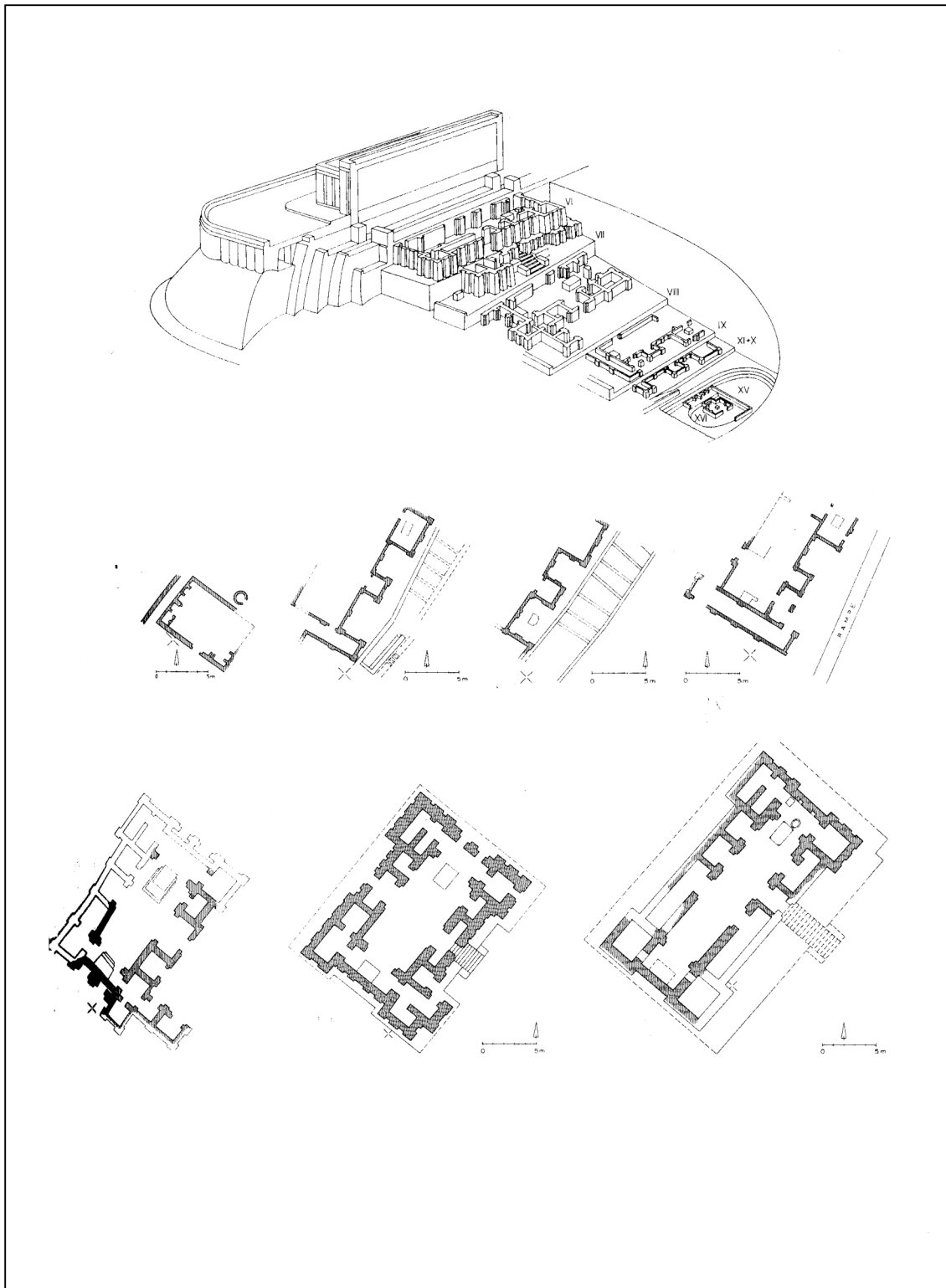


Figure A10: The temples at Eridu (Heinrich 1982: Abb 60, 62-68). The uppermost figure is an illustration of the stratigraphic sequence of the temples. In the middle from the left: Level XV, XI, X, IX. At the bottom from the left: Level VIII, VII, and VI.

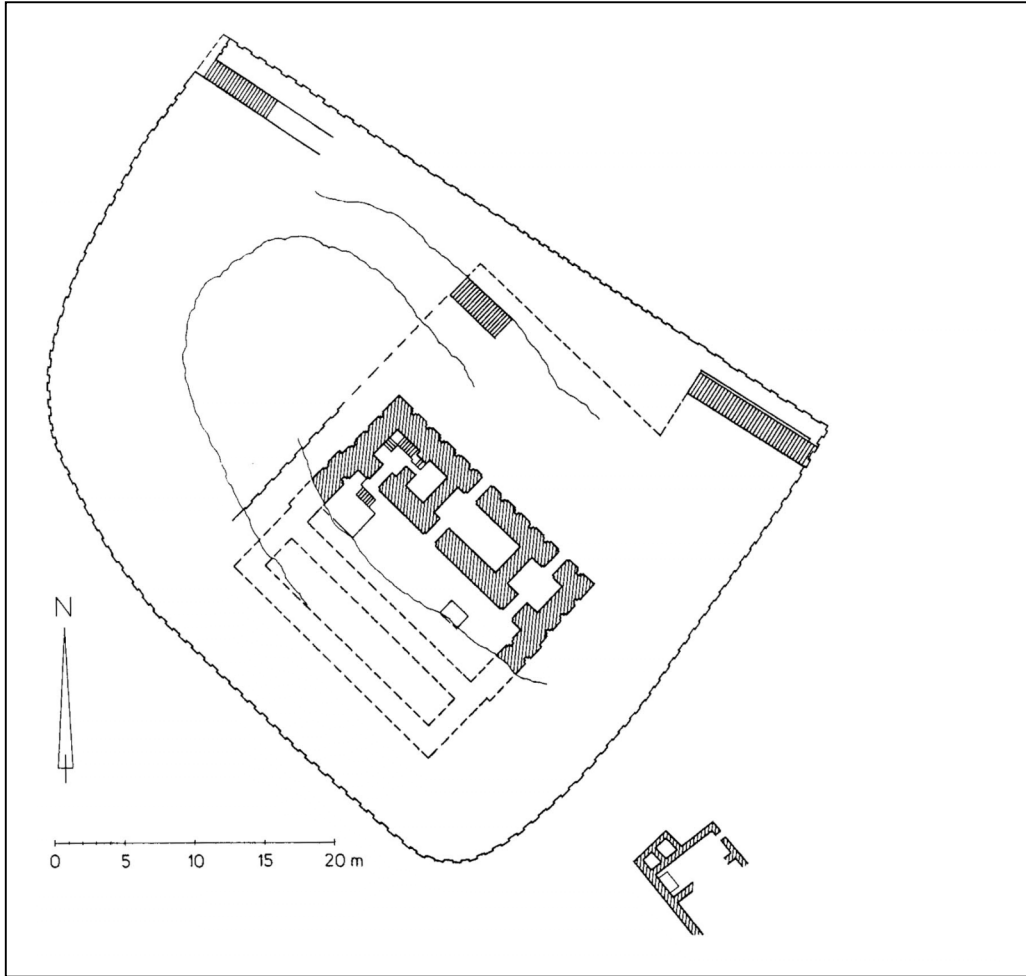


Figure A11: The White Temple at Tell Uqair (Heinrich 1982: Abb 105).

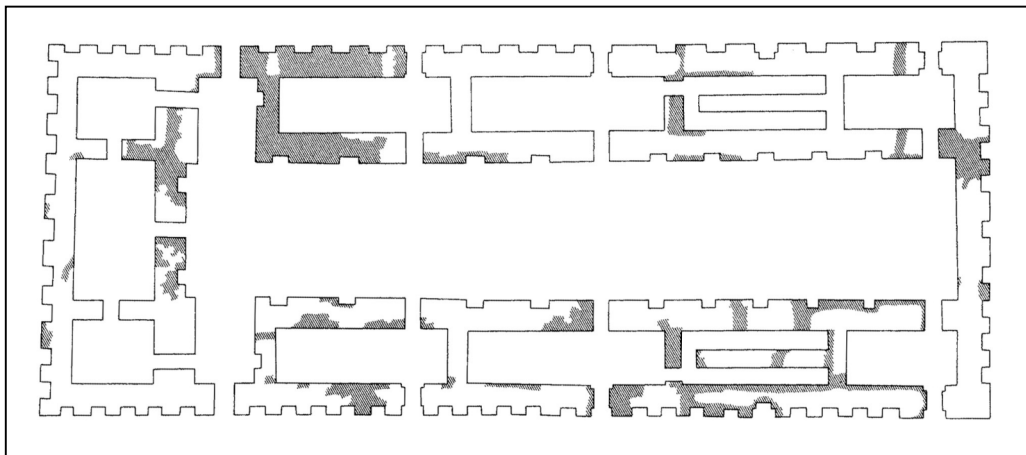


Figure A12: The Limestone temple at Uruk-Warka (Heinrich 1982: Abb 114).

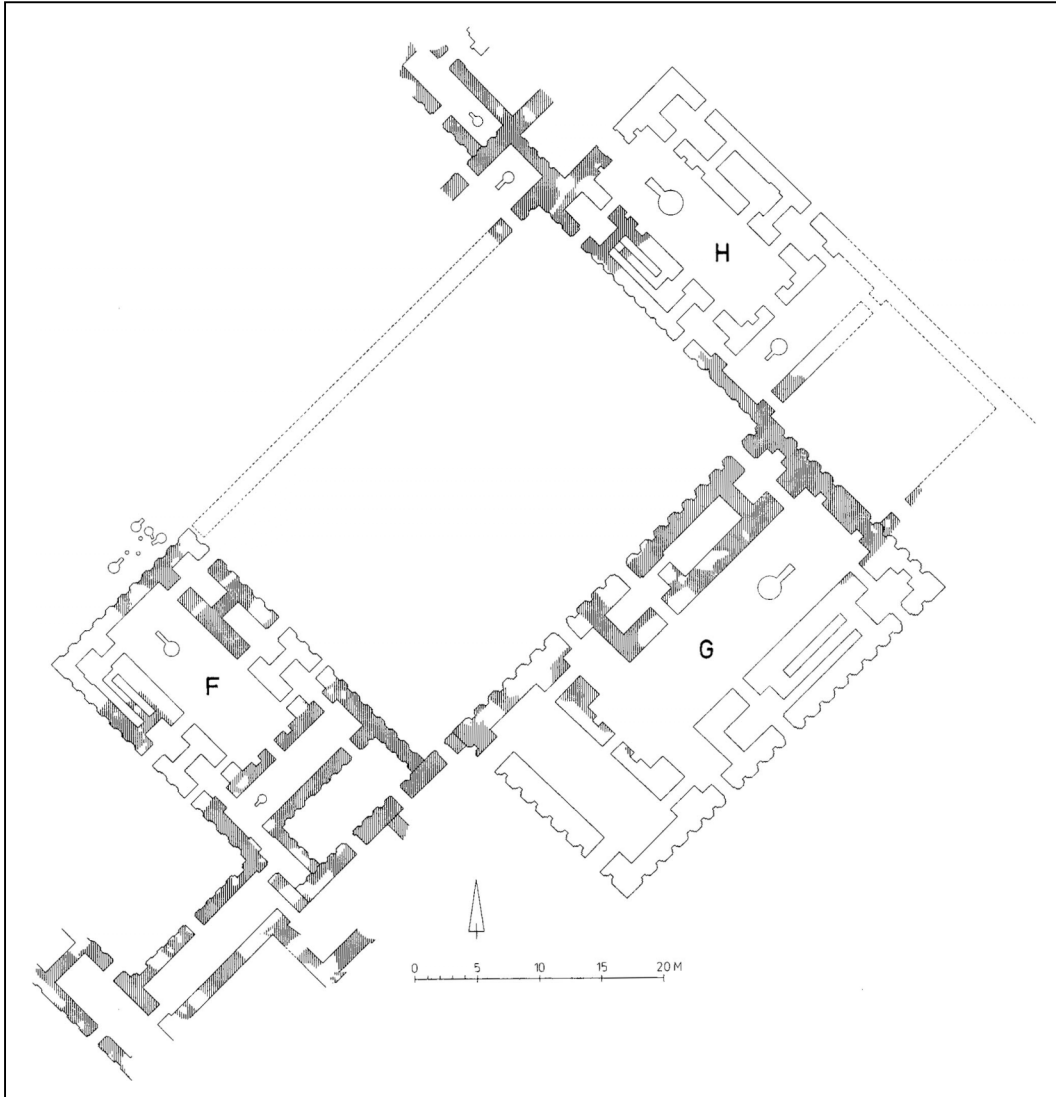


Figure A13: The three temples F, G & H at Uruk-Warka (Heinrich 1982: Abb 116).

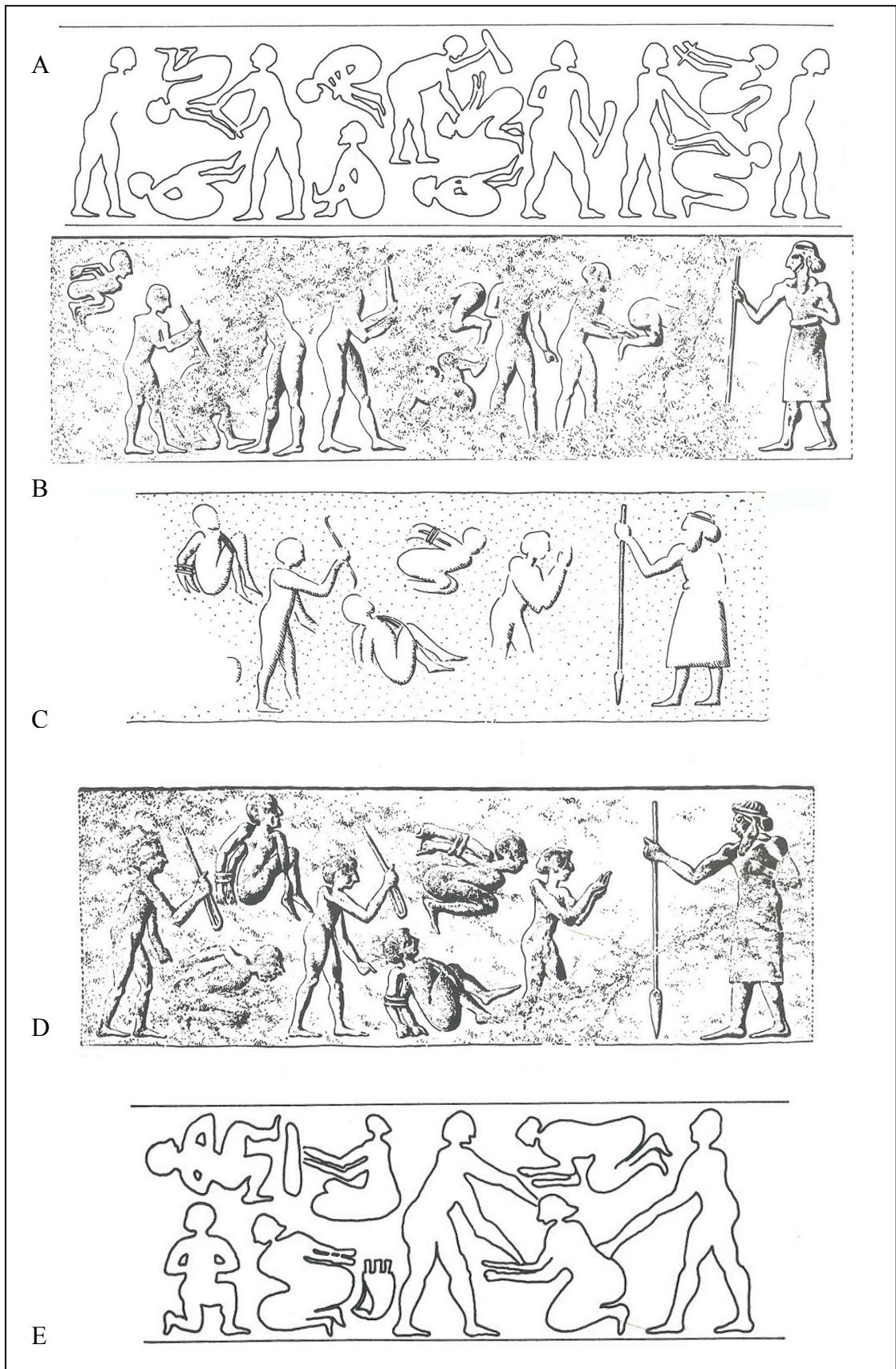


Figure A14: A-E: Cylinder seals depicting prisoners (Brandes 1979: Tafel 1, 3, 6, 10).

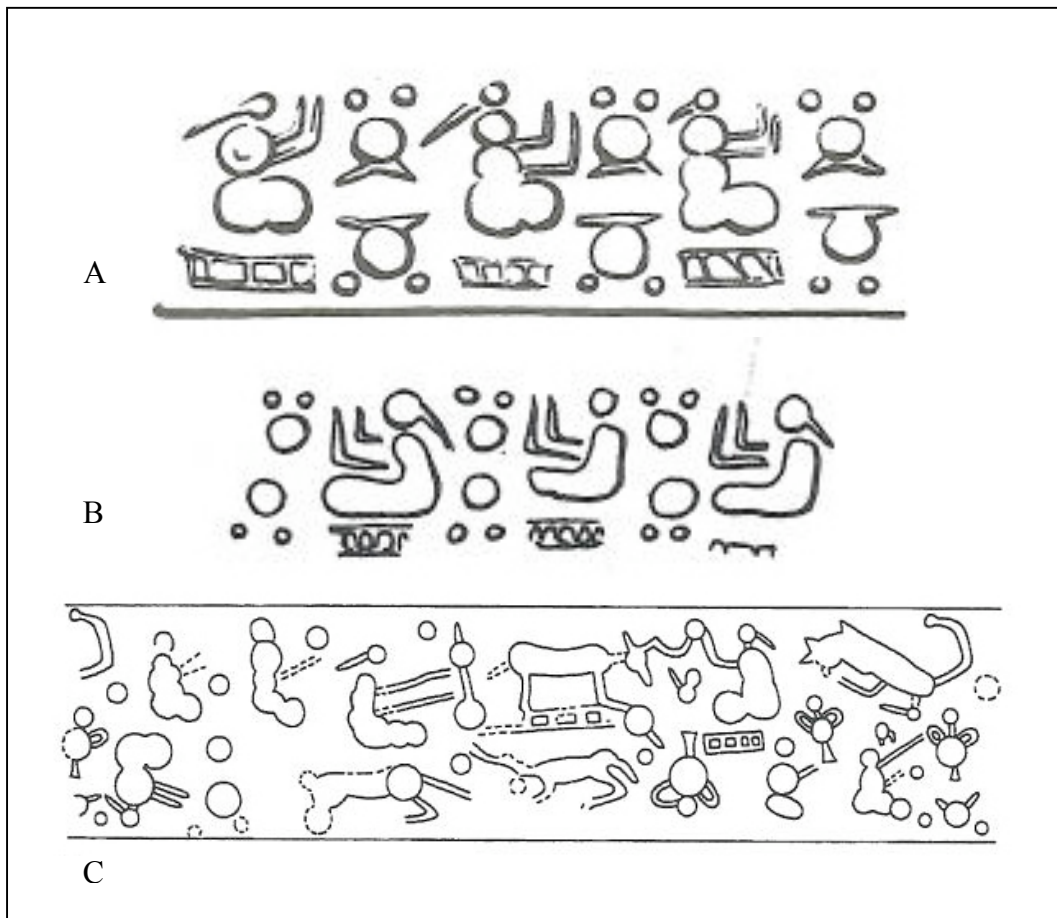


Figure A15: A-C: Cylinder seals depicting workers (A-B: Amiet 1980: Pl 20. 334, pl 123. 1634, C: Van Driel 1983: Fig 2).

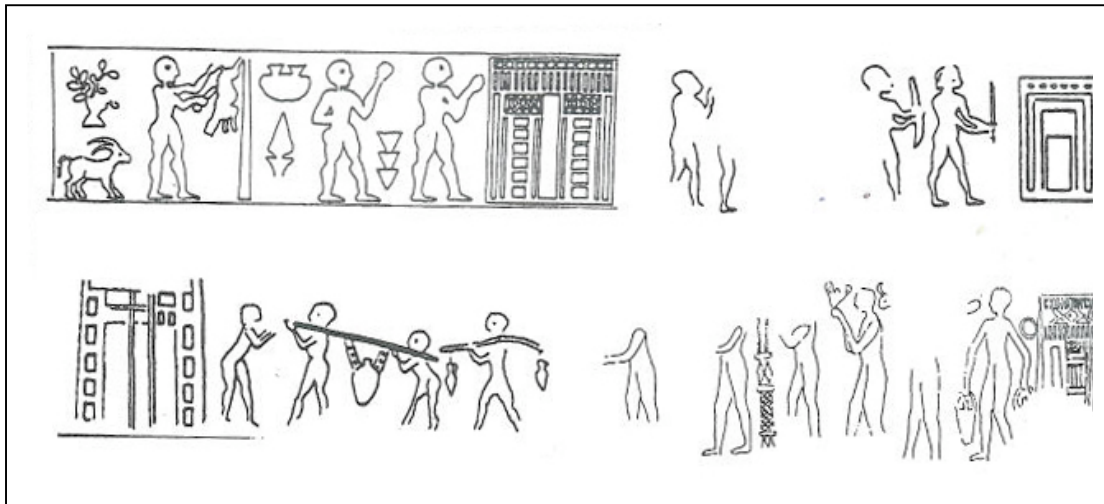


Figure A16: Cylinder seals depicting temple processions (Pittman 2001: Fig 11.24).

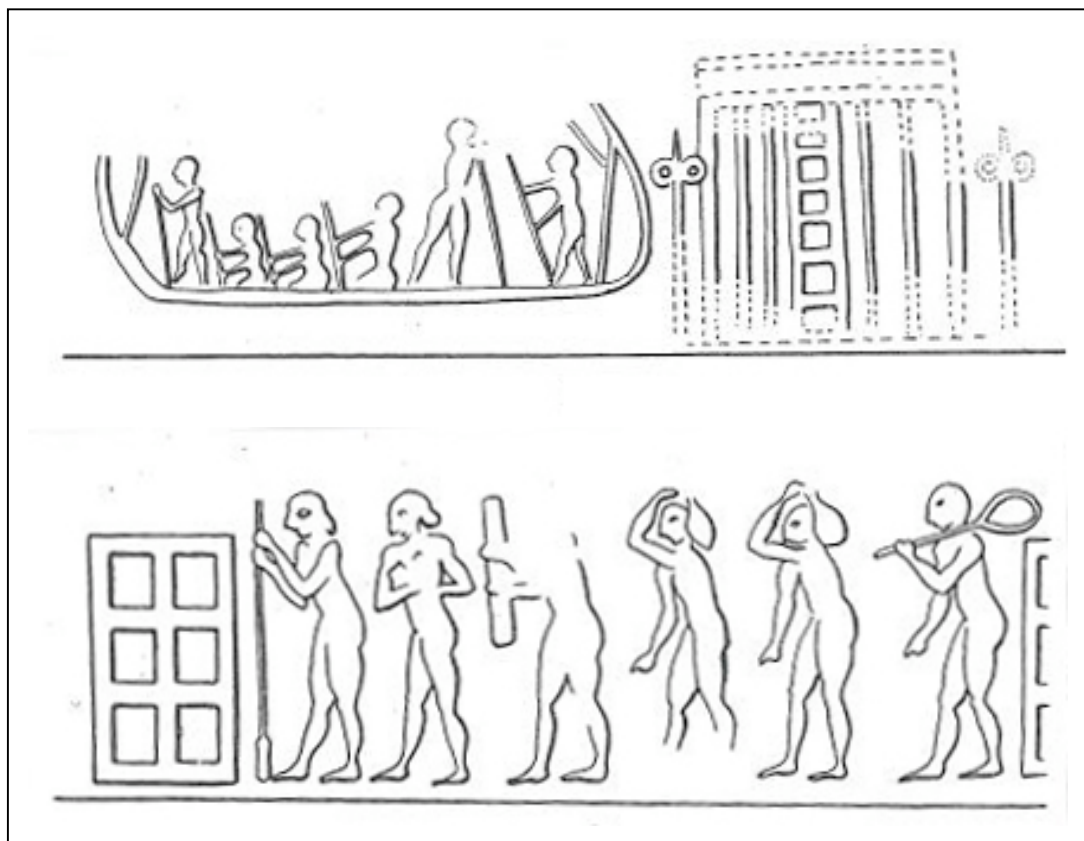


Figure A17: Cylinder seals depicting temple processions (Amiet 1980: Pl 11. 203b, pl. 13bis. E).



Figure A18: Cylinder seal depicting a prominent person in a boat, and with a temple in the background. (Pittman 2001: Fig 11.23e).

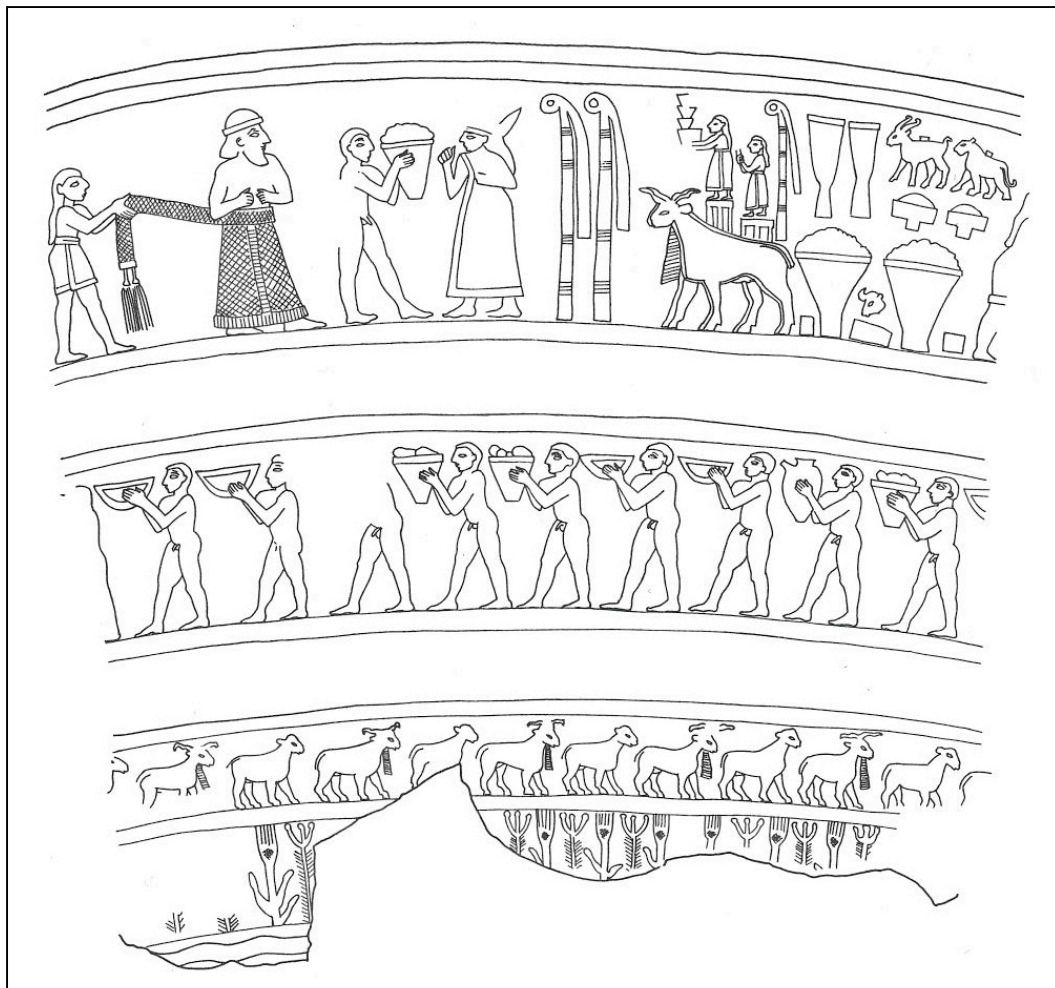


Figure A19: The Warka Vase with the upper band re-constructed (Bahrani 2002: Fig 1).

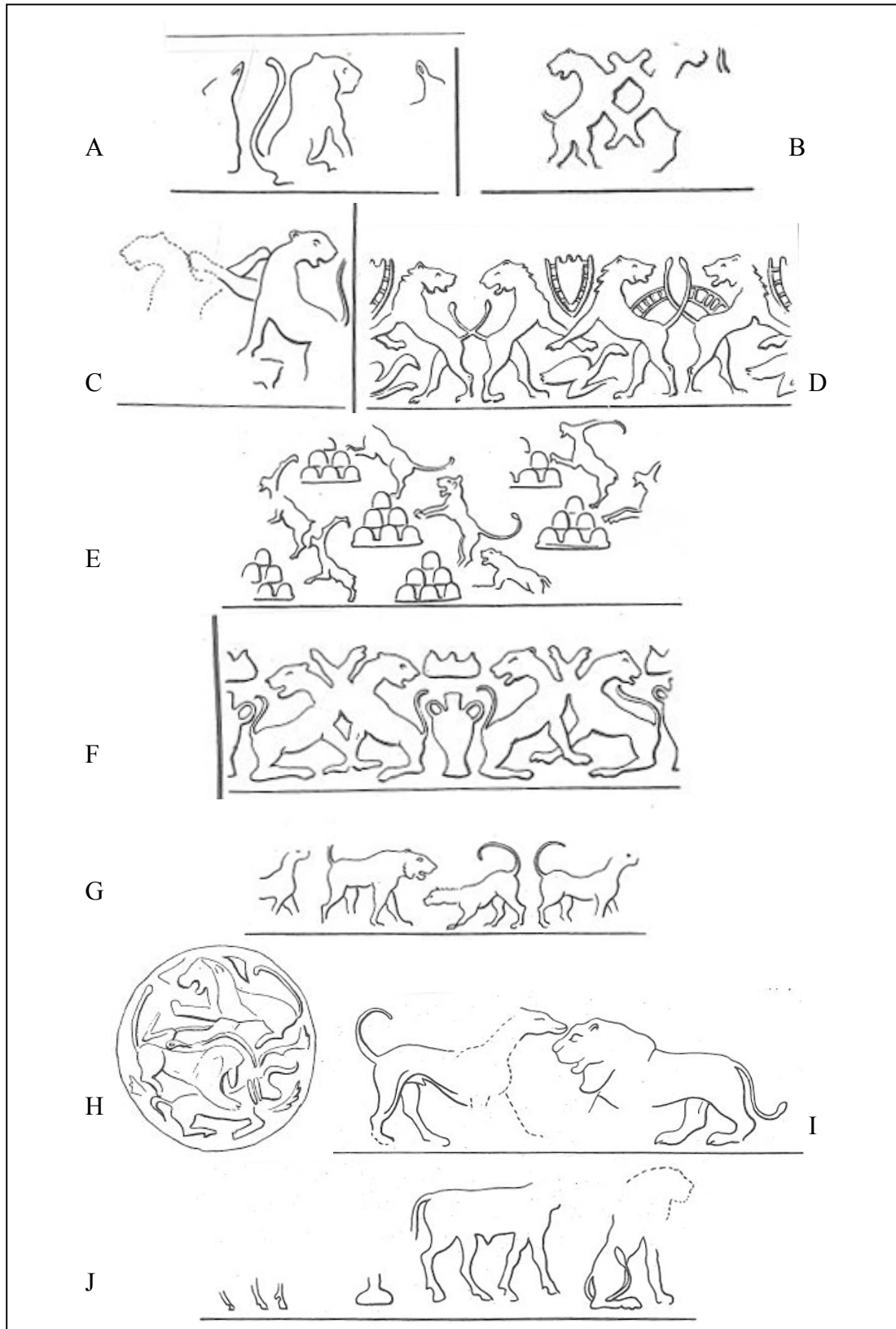


Figure A20: A-J: Seals depicting lions, Eanna area (Amiet 1980: Pl. 9. 177-180, pl. 10. 192, pl 11. 196a, 196c, 197, 199, pl 12. 218).