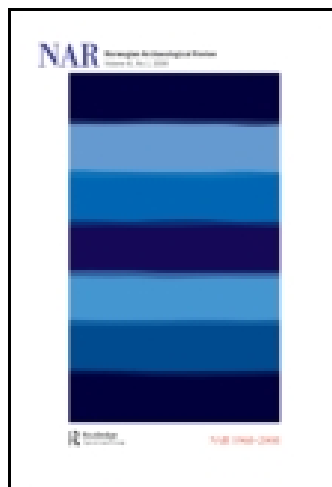




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The Uruk Expansion: Culture Contact, Ideology and Middlemen

Kjetil Sundsdal^a

^a Olaf Ryes vei 45, 5006, Bergen, Norway

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The Uruk Expansion: Culture Contact, Ideology and Middlemen

KJETIL SUNDS DAL

The Mesopotamian landscape was shaped by urbanization, population growth and trade during the 4th millennium BC. The Uruk expansion, an expansion of south Mesopotamian material culture to nearby and far-off regions started about 3700 BC. North Mesopotamian and Anatolian settlements formed a network with south Mesopotamia, which collapsed about 500 years later. This period has puzzled archaeologists for a century with different explanations being given for what this expansion was, how it happened and for what reasons. In this article I will focus on the interconnection between the two regions and how this may have created the expansion. I will use the archaeological material to study possible ideological changes. To explain how this happened I will show how the north Mesopotamian settlements functioned as middlemen in a trading network where they connected the resource-rich areas in Anatolia with the alluvial plains. The north Mesopotamian settlements exploited their position between the two regions where they could control the trading routes. This led to a lot of changes in the northern regions that do not necessarily mean that this was an occupied region or a region where decisions were dictated by leaders in south Mesopotamia.

INTRODUCTION

The Uruk period in the Middle East lasted a thousand years from 4000 to 3000 BC. This was a period of innovations, urbanization, economic and social transformations. A phenomenon within this period termed the 'Uruk expansion' lasted from 3700 to 3100 BC. South Mesopotamian pottery, architecture, art and administration technology such as the cylinder seal, spread to other regions where it replaced or accompanied local material traditions (Table 1). Uruk material appeared in the surrounding regions about 3700 BC, and became abundant about 3350 BC, before it disappeared about 3100 BC when local material cultures re-emerged (Lupton 1996, Schwartz 2001, Frangipane 2004, Algaze 2005a[1993]).

The dominating view of the expansion is that it happened as a result of processes in south Mesopotamia such as: economic expansion (McCorriston 1997, Stein 1999, Algaze 2005a [1993], 2005b), urbanization, centralization (Johnson 1975, Wright & Johnson 1975, Nissen 2001), war and emigration (Johnson 1988–1989). The importance of ideology in this period has been recognized by scientists (Charvat 2001:216, Algaze 2005b:3), but has not been thoroughly researched. Paul Collins (2000) argued that the Uruk expansion was conditioned by a unique ideology that had developed in south Mesopotamian communities and that the expansion of this ideology created the Uruk expansion. Stein and Özbek (2007) have maintained that the Uruk expansion was foremost a southern colonization,

Table 1. Local material culture traditions in Mesopotamia.

Material culture in Mesopotamia			
Year	South Mesopotamia	North Mesopotamia	South Anatolia
4000–3700 BC	Uruk	Local Chalcolithic	Local Chalcolithic
3700–3350 BC	Uruk	Uruk/local Chalcolithic	Local Chalcolithic
3350–3100 BC	Uruk	Uruk/mixed	Mixed/local Chalcolithic
3100–2900 BC	Jemdet Nasr	Local Early Bronze/Early Ninevite V	Local Early Bronze Age

Sources: Hansen (1965 [1954]), J. Oates (1985), Akkermans (1988), Schwartz (1988, 2001:237–242), Ball *et al.* (1989:31–32, figs 19–21), Weiss (1991:688), Oates & Oates (1993:170–174), Lupton (1996), Rova (1996, 2003a, 2003b), Stein *et al.* (1996:213–220), Nissen (2001), Rothman (2001: 2002:2–3, 60, table 1.1), Gibson *et al.* (2002), Ur (2002, 2010:402), Ball & Wilkinson (2003), Emberling & McDonald (2003:3–12), Mayo & Weiss (2003), Numoto (2003), Gut (2004:20–21), Oates (2004a), Philip (2004), Stein (2004), van Driel (2004), Algaze (2005a [1993]:89–90).

while an ideological system followed the spread of material culture during the Ubaid period 5800–4200 BC. In this article I will examine the importance of ideology during the Uruk expansion. If a new ideology spread to the north, how and why did this happen? To answer this, I will examine the relationship between the north and the south. Rather than focusing on the south, I will reverse the situation, and study how north Mesopotamian settlements acted to exploit their geographical position between resource-rich Anatolia and the south Mesopotamian alluvial plains.

**NORTH AND SOUTH MESOPOTAMIA:
URBAN NEIGHBOURS**

The geographical setting in this study is north and south Mesopotamia. This means the landscape between Anatolia in Turkey and southern Iraq (Fig. 1). South Mesopotamia became known as the cradle of civilization, while the north was its less advanced periphery (Lloyd 1978). This understanding was shaped by biblical archaeology and the focus on monuments, treasures and cultural trophies during the 1800s (Matthews 2003:1–12). Sites have been excavated during the 20th century and surveys have contributed to a better understanding of development during the second half of the 4th millennium BC (Adams & Nissen

1972, Adams 1981, Nissen 2004). However, the first half of the millennium is poorly understood because our knowledge is based only on surveys (Nissen 1993, Algaze 2008:164–165). More fieldwork is needed in Iraq, but this became impossible after the Iraqi wars broke out (Matthews 2003:198). Researchers then turned their focus on the periphery, and this changed the view of early urbanism. Excavations on sites in Syria, north Iraq and south Anatolia revealed evidence of complex urban societies in the early 4th millennium BC. Public buildings, temples, city walls, workshops and finely produced prestige goods as well as traces of mass production have been found. The urban centre of Tell Brak has also produced evidence of administrative technology where symbols have been used for accounting. All of this pre-dated the earliest findings of the equivalents in south Mesopotamia (Mallowan 1947, D. Oates 1985:164, Jasim & Oates 1986, Ball *et al.* 1989, Oates & Oates 1997, Emberling *et al.* 1998:1, Emberling & McDonald 2001:21–23, Frangipane 2001, Gibson *et al.* 2002, Rothman 2002, Ur 2002, 2010:393–401, Akkermans & Schwartz 2004, Oates 2004a, 2004b, Oates *et al.* 2007). The finds contested earlier anticipations of irrigation agriculture as a prerequisite for hierarchical power (Wittfogel 1964[1957]:12) and its importance for the

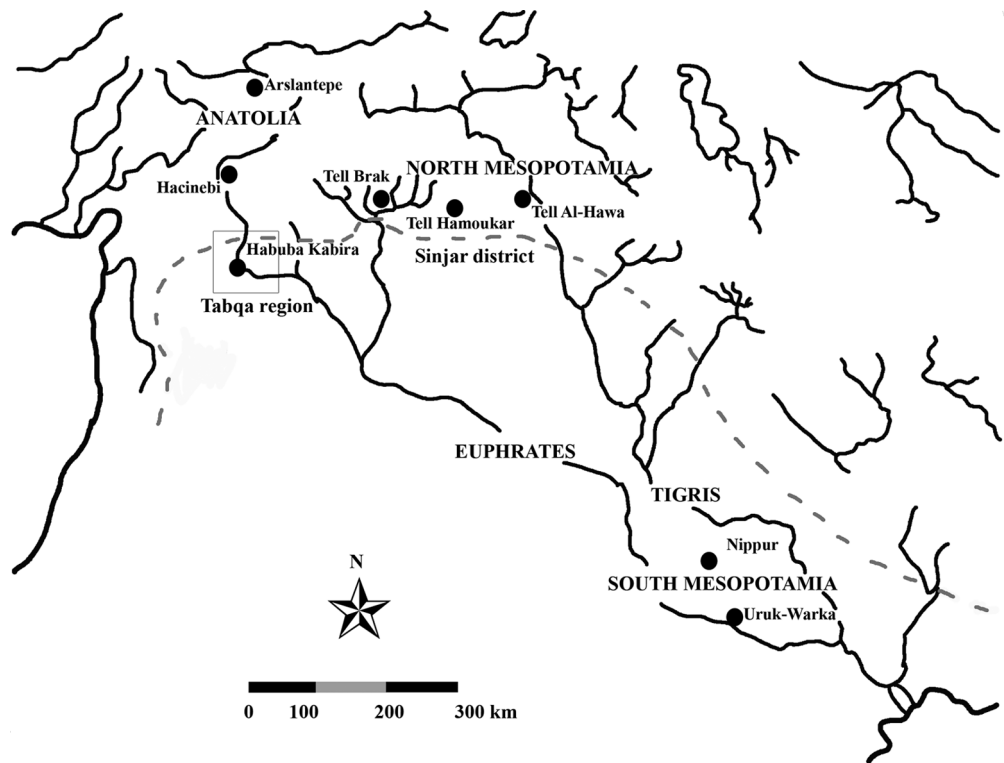


Fig. 1. *Mesopotamia. The map is based on Collins (2000: fig. 1) and Algaze (2005a[1993]: fig. 4).*

emergence of complex societies (Childe 1950:8). In Anatolia and Iran, excavations revealed complex societies that had advanced technology for the production of copper (Stein 1999, Frangipane 2001, Matthews & Fazeli 2004). This contradicted the assumption that copper processing was a south Mesopotamian invention and that raw materials were sent to the cities for the purpose of being processed into finished goods (Algaze 1989). It is now misleading to term north Mesopotamia as a periphery, because excavations here have revealed sites at the same level of complexity as societies in south Mesopotamia. The two regions must be considered as urban neighbours that influenced and affected each other. Only when accepting this is it possible to study how and why the Uruk expansion emerged and what impact it had on the economic, social and ideological spheres.

IDEOLOGY AND ARCHAEOLOGY

What is ideology and why is it important in archaeology and for the understanding of the Uruk expansion? Ideology is often used in politics. It is used to describe a system of ideas and values that a party or a side in a conflict believe in. According to Marx, ideology is a system of ideas that create a false reality to legitimize the difference between classes in a society, and the most extreme example of this is religion (Carver 1987:89–91, Cormack 1992:9–10). Ideology is needed to establish 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 the ruled. It can be used by a minority to hold sway over a whole society and can act to reproduce the same conditions (Miller 1989:63, Smith 2003:

108–109, Yoffee 2006:33). Political authority is created and preserved in a physical and social landscape defined by its agents (Smith 2003:5–21), and material culture can be used as an ideological mechanism to express power (Miller & Tilley 1984:vii, Pollock 2002:173–174, Hodder 2003[1986]:88, Ross 2005:333). These aspects are important in archaeology as material culture is embedded with this type of information through *materialization* of ideology into a physical reality such as objects, monuments, rituals, etc. (DeMarrais *et al.* 1996). An example is the tomb of Queen Puabi in the royal graves at Ur where mortuary rituals created a scene to consolidate power, maintain control and reproduce the existing conditions in society. Dozens of animals and peoples were lined up by the tomb and sacrificed as a well-arranged theatrical play (Smith 2003:1–4, Dickson 2006). An example from the Uruk period is found in its art. Representations of abundance were a common theme (Fig. 2), indicating that this was an important concept in society. Abundance in natural resources was both necessary and desired, perhaps to keep order in the cosmos (Winter 2007). Thus, the material culture in a society may reveal traces of existing

power–relations and how power was displayed and maintained. In this article I will use the term ‘ideology on a macro-level’ about ideologies concerning politics in societies and regions.

Another aspect of ideology is what I term ‘ideology on a micro-level’ or ‘social ideology’, because it involves actions by individuals that affect further actions and behaviour. Social ideology in a society contains a set of values and ideas that are used by people to organize their multitude of beliefs about what is essential to them – what is good or bad, right or wrong, and so on – and how to act accordingly. Social ideology can give meaning and act to constitute actors in a certain way in specific circumstances. It affects explanations, social arrangements, behaviour, understanding of the world and what is considered to be true or false. This is based upon memory, experiences, desires, expectations and a communicative engagement or discourse with others (Shanks & Tilley 1993[1987]:75, van Dijk 2000:8, Barrett 2006:152). Ideology on a micro-level may act to distinguish groups of people from others, to explain people to themselves as a group and to separate ‘us’ from ‘others’. Information about social ideologies is also *materialized* in the physical world. Pottery was made, decorated and used according to a social ideology that regulated, for example, eating habits. The sealings that were used on containers were decorated with motifs that can be interpreted as mental landscapes that visualized stories or ideas. Since pottery, sealings and other material culture were spread with trade throughout Mesopotamia, social ideologies were allowed to transform and adapt to new technologies, habits and social relations (Fig. 3).

These two aspects of ideology, macro and micro, are both important tools for analysing the archaeological material from the Uruk period. A combination of the two aspects can help to clarify the north Mesopotamian strategy of acting as middlemen between the resource-rich north and the southern alluvial plains. They allow us to study how new

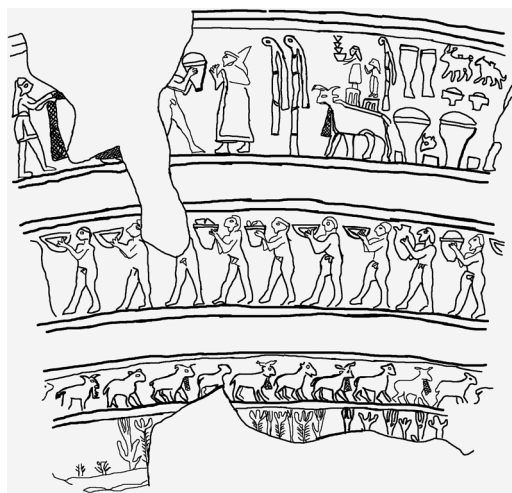


Fig. 2. *The Warka vase representing abundance. Redrawn from Bahrani (2002: fig. 1).*

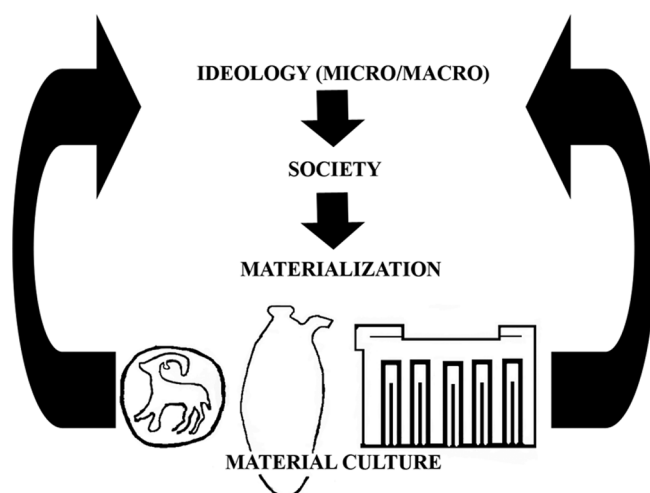


Fig. 3. *Theoretical approach. Ideology is materialized in material culture that again affects the ideology in society.*

materials and technology introduced during the expansion affected the societies in the north and the south. They are also useful in the study of the Uruk expansion's effects on politics: how societies reacted to the southern intrusion and how new rulers imposed themselves in a society.

TRADE, TRADING ROUTES AND NATURAL RESOURCES

The resource situation in north and south Mesopotamia is the key to analysing the contact between the two regions during the Uruk period (Fig. 4). Settlements in north Mesopotamia formed a pattern connecting sites and resources. They were often located along trade routes or close to areas with sources of raw materials: timber, bitumen, metals, minerals and stones such as copper, flint, obsidian and basalt. Tell Brak was strategically located along two main trade routes: one that went from Anatolia and southward and another that went east–west through the Sinjar district to Nineveh. This route also had an upper course that went through Tell Al-Hawa. Habuba Kabira and the other Uruk settlements in the Tabqa region were linked to a

north–south route along the Euphrates (Lloyd 1938:124, Oates 1982:62–64, Ball *et al.* 1989:11, Emberling & McDonald 2003:262, Algaze 2005a[1993] 42–48, fig. 21). It is most likely that the rivers were used to bring goods from the Anatolian sites southwards, because this was the fastest way to travel. The east–west connections were land routes where commodities had to be transported with donkeys (Sherratt 1983:95–96, Wright 2001:127, Roaf 2003[1990]:72, Akkermans & Schwartz 2004:206–207). As Fig. 4 illustrates, additional natural minerals and metals such as gold, turquoise, tin and lapis lazuli were received from regions further away.

Tell Hamoukar was settled on marginal farming land. However, archaeological remains indicate that the site was an important centre for the production and redistribution of obsidian during the 4th millennium BC. Remains from obsidian and flint manufacturing were also found at Tell Brak, indicating production and distribution of tools. This trade may have generated prosperity, giving the two sites an important position (McMahon & Oates 2007:150–152, Oates *et al.* 2007:590–591, Ur 2010:394, 399). A comparison has been made of obsidian remains

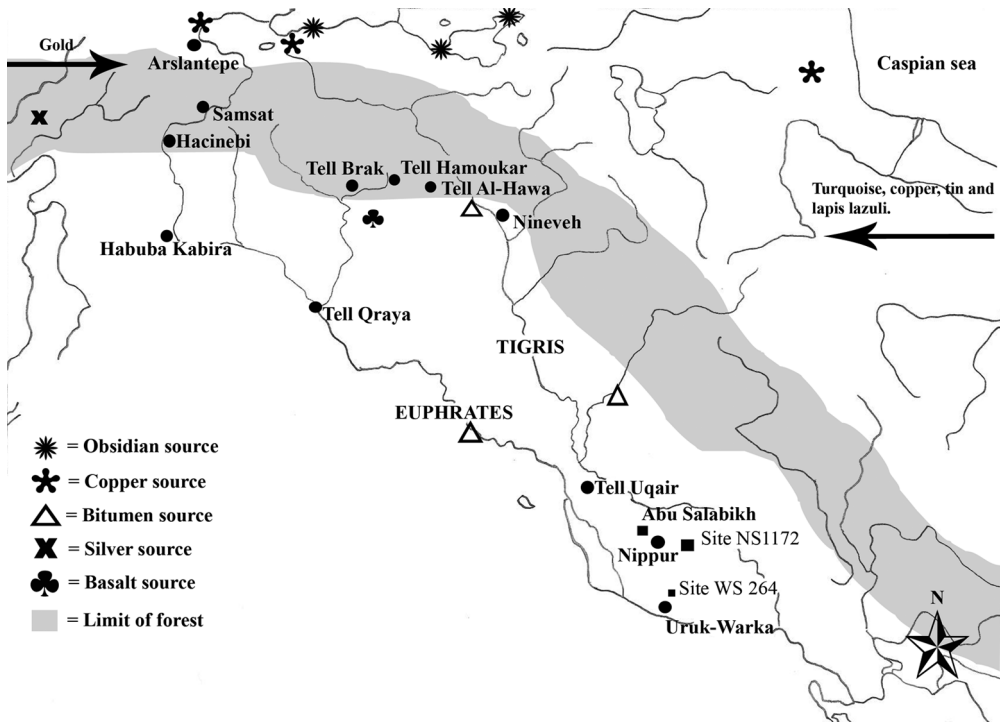


Fig. 4. Map of resources (Stein 1999, Algaze 2005a[1993], Oates & Oates 2004). The map is based on Collins (2000: fig. 1) and Algaze (2005a[1993]: fig. 4).

from Tell Brak and Tell Hamoukar dated to 4100–3800 BC. The results imply that the obsidian at Tell Brak was obtained from different suppliers. It varies in quality and appears in medium quantities. The quantities at Tell Hamoukar are larger and have a lot of unworked nodules from a specific obsidian source. The site also produced huge quantities of obsidian from all stages in the manufacturing process. This indicates that the site probably had direct access to an obsidian source in the eastern Taurus mountains of Anatolia and possibly served as a seasonal home for semi-sedentary groups from Anatolia (Khalidi *et al.* 2009).

Copper was an important metal during the Uruk period and was used to make luxury goods, but also tools and weapons. Hacinebi in south Anatolia has produced evidence from copper casting as early as 4000 BC, and Uruk material from about 3700 BC suggests that the site was connected to a network that

stretched down to south Mesopotamia (Stein 1999:138–153, 163). Arslantepe, situated further up in Anatolia was a highly developed society with specialization in crafts and metallurgy prior to the Uruk expansion. From about 3400 BC, the archaeological material indicates contact with south Mesopotamia, linking the site to the Uruk trading network (Frangipane 2001:325–340, 2004). During the Uruk expansion, several sites in this region became influenced by the Uruk culture, and access to the nearby copper sources was probably the main motivation.

The settlements in south Mesopotamia were located in a region that lacked the natural resources needed for the production of tools, luxuries and monumental buildings (Potts 1997:91–119, Stein 1999:83, Wright 2001:133, Algaze 2005b:13, Bernbeck & Pollock 2005:16). Minerals, timber and stones had to be imported, and a wide range of such imports has been

attested in south Mesopotamia. Excavations at Uruk-Warka attested several finished objects, but also raw materials that had to be forged by craftsmen in the city (Lindemeyer & Martin 1993, Forest 1999:67–73, Algaze 2008:95). The irrigated alluvial plains in south Mesopotamia gave high and steady yields that supported a dense population. They also supported resources such as fish, wild game and a wide range of vegetables and agricultural products. In addition the southern plains had suitable pastureland for caprids in the nearby steppes and on the plains during fallowing and outside harvest season. From these resources south Mesopotamia processed several products that in turn were consumed or stored and exported, such as dried or salted fish, textiles and leather goods (Nissen 1990:58–60, Englund 1998:143–150, Algaze 2001b:207, Charvat 2002[1993]:116–122, Adams 2004:43, Rothman 2004:79, Liverani 2006[1998]:32–38, Pournelle 2007:35–37, 57–59, Algaze 2008:41–49). Another important resource that south Mesopotamia possessed was bitumen. This was used for a range of practical purposes such as in ceramic and tool production, boat- and house-building. Chemical analyses of bitumen found in north Mesopotamia indicate that this may have been exported from the south (Lindemeyer & Martin 1993:241–251, Potts 1997:100, Stein 1999:141–142, Charvat 2002[1993]:123). Settlements in south Mesopotamia also specialized in trade with raw materials obtained from the north. A study of sites in the Adab-Nippur area has shown that sites with obsidian seem to concentrate along one side of the river channels. The site NS 1172 reached the size of a city (Pollock 2001:201), and may have functioned as a centre that controlled the redistribution of obsidian to other cities and regions in south Mesopotamia. There are also indications of sites that specialized in a certain production such as WS 264, a village in the vicinity of Uruk-Warka. Hundreds of cores and blades were observed in a survey and interpreted as evidence for specialized stone working (Adams & Nissen 1972:230).

SOUTHERN INFLUENCES IN NORTH MESOPOTAMIA

Fig. 5 illustrates the geographical distribution of settlements with a local north Mesopotamian material culture, those with an Uruk culture and those with a mixed material culture about 3700 BC. Local material dominated Anatolia and the north Mesopotamian plains, while the Uruk material was limited to south Mesopotamia, except for a few sites in the north with mixed contexts. A trading diaspora was established at Hacinebi where a group of people with a south Mesopotamian culture settled down among the local Anatolians. The two groups at the site kept their cultures and customs separate, but traded and interacted with each other (Stein 1999, 2001, Stein & Özbal 2007). Important changes occurred in the north Mesopotamian settlement pattern between 3800 and 3600 BC. Hammam et-Turkman was burned and abandoned just prior to the intrusion at Hacinebi (Meijer 1988:74–77). Several sites were abandoned in the Tigris piedmont including Tepe Gawra and Grai Resh in the Sinjar district. Tell Al-Hawa decreased in size when Uruk ware appeared in the material culture at the site and in the region (Ball *et al.* 1989, Lupton 1996:56–58, Rothman 2001:381–382). An Uruk intrusion about this time is also evident at Nineveh. However, this site grew in size, and became an important centre in the trade along the Tigris (Algaze 1986, 2005b:18, Gut 2004:20–21). Against this background it is reasonable to assume that the centre for trade in the region shifted from Al-Hawa to Nineveh. Though the archaeological material at both sites suggests a close connection with the south (Gut 2004:20–21), Nineveh was more strategically located than Al-Hawa, because it was located further south along the Tigris where several trading routes met. From this position Nineveh could control the northern route from Hamoukar and Al-Hawa and the southern route through the Sinjar district, and serve as a centre for trade and further transportation of goods (Algaze 2005a[1993]:46–48).

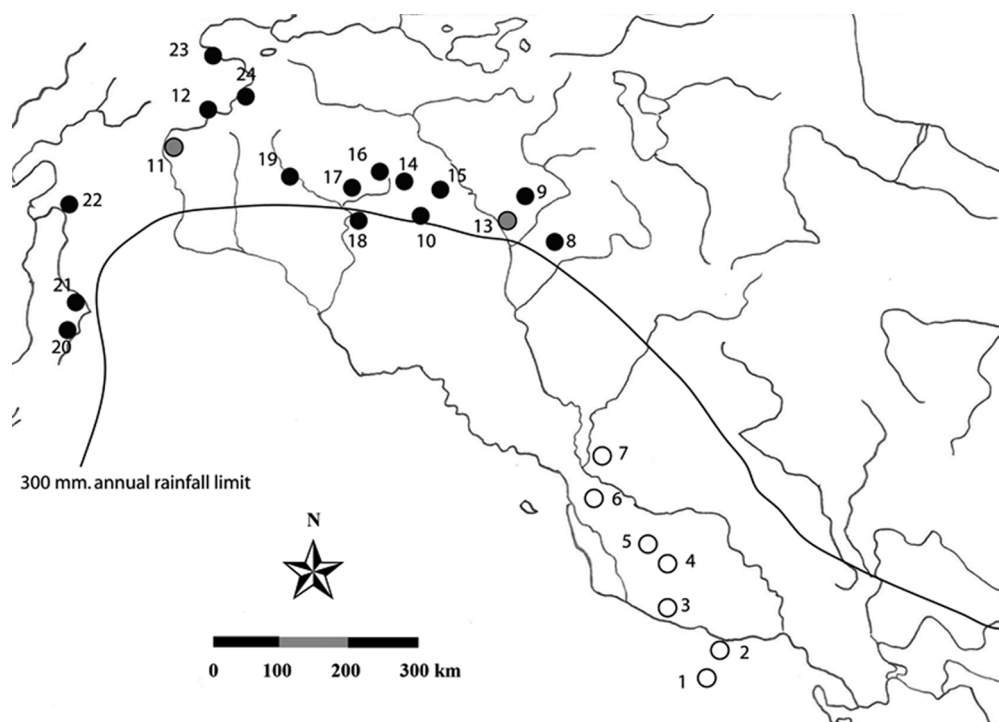


Fig. 5. Mesopotamia 3700 BC. White dots: sites with south Mesopotamian material culture. Black dots: sites with local material culture. Grey dots: sites with a mix of local and south Mesopotamian material culture. 1: Eridu; 2: Ur; 3: Uruk-Warka; 4: Nippur; 5: Abu Salabikh; 6: Tell Uqair; 7: Khafajeh; 8: Qalinj Agha; 9: Tepe Gawra; 10: Grai Resh; 11: Hacinebi; 12: Samsat; 13: Nineveh; 14: Tell Hamoukar; 15: Tell al-Hawa; 16: Tell Leilan; 17: Tell Brak; 18: Mashnaqa; 19: Tell Kuran; 20: Tell Nebi Mend; 21: Hama; 22: Tell Judeidah; 23: Arslantepe; 24: Hassek Höyük. The map is based on Collins (2000: fig. 1) and Algaze (2005a [1993]: fig. 4).

Neuron activation analysis of sealing clay from Hacinebi in Anatolia has proved a link to south Mesopotamia (Stein 1999:143), indicating that the colony shipped the goods they had produced or traded southwards. It is likely that the goods that went both downstream and upstream passed Nineveh, as this site had gained an important strategically position and because there are no indications of trading settlements along the Euphrates at this time.

Major changes occurred about 3500 BC as illustrated in Fig. 6. Sheikh Hassan was founded about 3500 BC in the uninhabited Tabqa region and Tell Qraya in the area where the Khabur river merge with the Euphrates, creating a connection between

south Mesopotamia and the upper Euphrates areas (Algaze 2001a:41–42, Schwartz 2001:248–251). Uruk material also appeared at a number of sites on the north Mesopotamian plains from Tell Brak in the west to Nineveh in the east. Hacinebi was abandoned between 3400 and 3300 BC (Stein *et al.* 1996:213–220, Stein 2001:299). The peak of south Mesopotamian influence was reached in the late Uruk period as Figure 7 illustrates. About 3350 BC, the Uruk culture became dominant at strategically located sites such as Tell Brak, Jerablus and Tell Hamoukar. In addition the city of Habuba Kabira and the settlement Jebel Aruda were established in the Tabqa region along the Euphrates (Schwartz 2001:248–253, Akkermans &

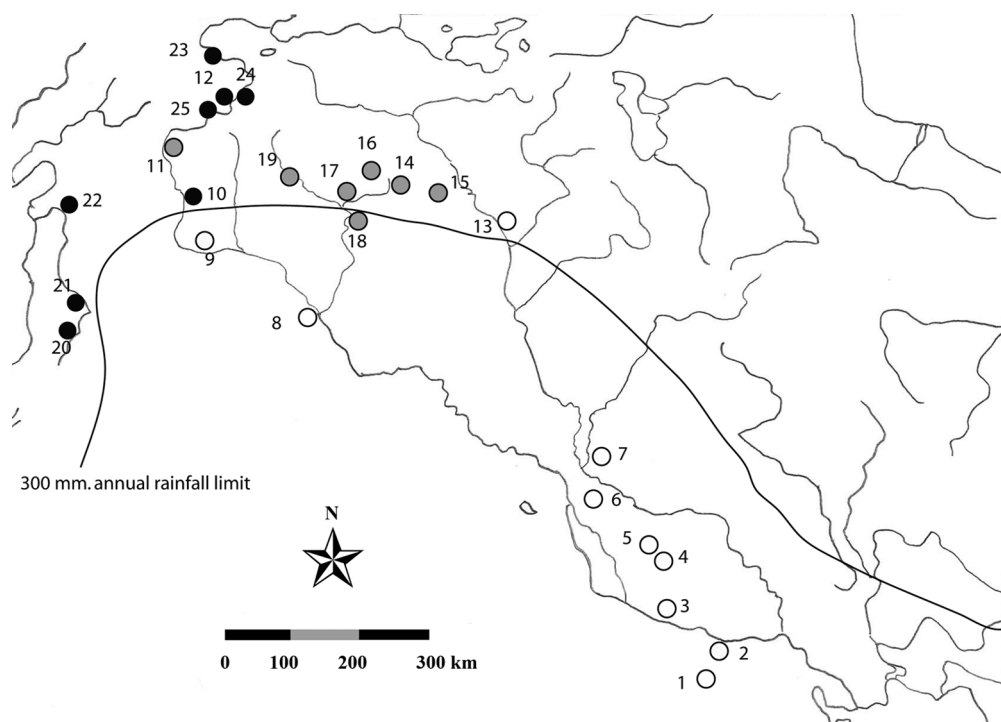


Fig. 6. *Mesopotamia 3500 BC*. White dots: sites with south Mesopotamian material culture. Black dots: sites with local material culture. Grey dots: sites with a mix of local and south Mesopotamian material culture. 1: Eridu; 2: Ur; 3: Uruk-Warka; 4: Nippur; 5: Abu Salabikh; 6: Tell Uqair; 7: Khafajeh; 8: Tell Qraya; 9: Sheikh Hassan; 10: Jerablus; 11: Hacinebi; 12: Kurban Höyük; 13: Nineveh; 14: Tell Hamoukar; 15: Tell al-Hawa; 16: Tell Leilan; 17: Tell Brak; 18: Mashnaqa; 19: Tell Kuran; 20: Tell Nebi Mend; 21: Hama; 22: Tell Judeidah; 23: Arslantepe; 24: Hassek Höyük; 25: Samsat. The map is based on Collins (2000: fig. 1) and Algaze (2005a[1993]: fig. 4)

Schwartz 2004:190–203, Stephen & Peltenburg 2004:174–175).

During the period between 3600 and 3350 BC new agents emerged in the trading network, which changed the old situation. According to Algaze (2001b), south Mesopotamia had an export driven economy that was generated by the abundance of certain resources and the lack of others (Algaze 2001b:207–208). This created an environment where south Mesopotamia became more interested in peripheral resources. New routes of network and communication became important while others lost their position. When Habuba Kabira and Jebel Aruda were established they had a south Mesopotamian material culture. This indicates that sites had very tight bonds with

the south or even may have been populated by southern people (van Driel & Driel-Murray 1979, Strommenger 1980, Lupton 1996: 54–56, Schwartz 2001:248, 255, Algaze 2008:70–73). The sudden appearance of Uruk material at settlements was not only special to the Tabqa region. It happened at several settlements that were located along the main trading routes. Abandoned settlements were re-founded and emerged with a distinct Uruk culture or the Uruk culture appeared after a short break in habitation such as at Tell Hamoukar (Sürenhagen 1986, Lupton 1996, Gibson *et al.* 2002, Ball & Wilkinson 2003:337, Stein & Özbal 2007:339–340). About 3100–3000 BC south Mesopotamian influence declined, and Uruk material

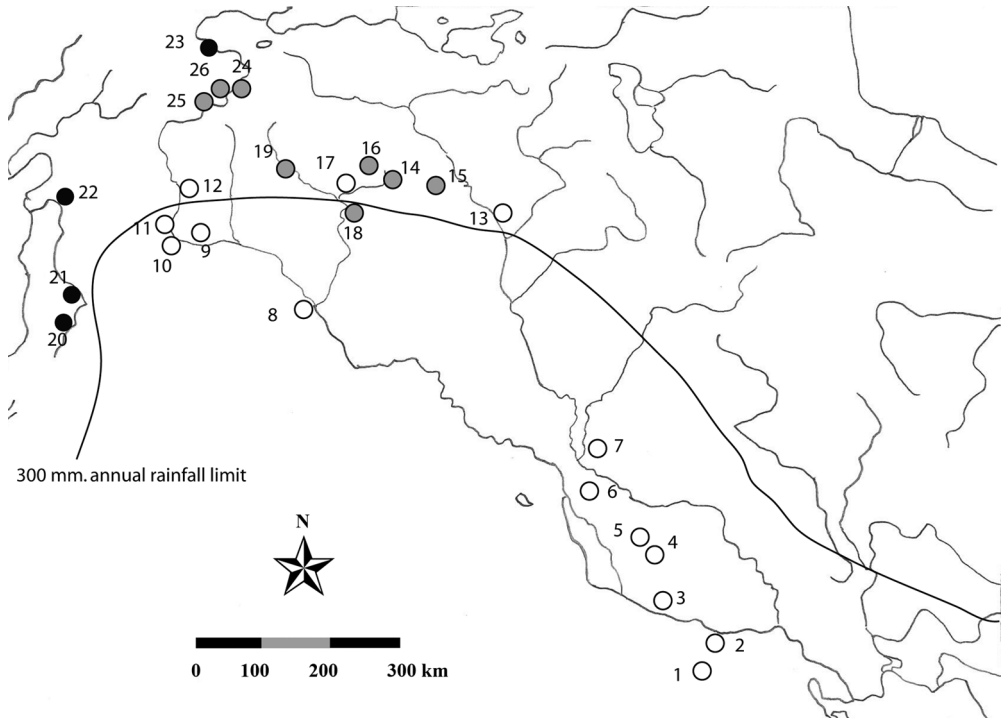


Fig. 7. Mesopotamia 3350 BC. Sites with south Mesopotamian material culture. Black dots: sites with local material culture. Grey dots: sites with a mix of local and south Mesopotamian material culture. 1: Eridu; 2: Ur; 3: Uruk-Warka; 4: Nippur; 5: Abu Salabikh; 6: Tell Uqair; 7: Khafajeh; 8: Tell Qraya; 9: Sheikh Hassan; 10: Habuba Kabira; 11: Jebel Aruda; 12: Jerablus; 13: Nineveh; 14: Tell Hamoukar; 15: Tell al-Hawa; 16: Tell Leilan; 17: Tell Brak; 18: Mashnaga; 19: Tell Kuran; 20: Tell Nebi Mend; 21: Hama; 22: Tell Judeidah; 23: Arslantepe; 24: Hassek Höyük; 25: Samsat; 26: Kurban Höyük. The map is based on Collins (2000: fig. 1) and Algaze (2005a[1993]: fig. 4.)

disappears from the archaeological record from Anatolia to south Mesopotamia. It was replaced by several different material cultures. In some regions, the pottery reverted to forms of decorations that resembled the old Ubaid types. In others, new forms of pottery emerged that were either local or influenced by contact with new groups of people (Nissen 2001: 174–175, Rothman 2002:149, Ur 2010:404).

The role of pastoral nomads is an important aspect that is often left out of discussion of the Uruk period. This is because there are only few and scattered remains of such groups, making their impact on society hard to comprehend. However, in southwest Iran, remains of nomadic groups indicate that such groups grew during the Uruk period (Pollock

2002:69). It has been proposed that nomadic tribes had an important role in the contact between this region and the Iranian highlands during the 4th millennium BC (Matthews & Fazeli 2004), and there is no reason why this could not be the case for the Anatolian route. There was plenty of space for pastoral nomads on the fringes of the Fertile Crescent where farming was not sustainable, in the areas near the Taurus and Zagros mountains, along the rivers of Euphrates and Tigris and on fields in the south during fallowing (Adams 1981: 63–68, Pollock 2002:70, Schwartz 2000: 249–253). The evidence also confirms that secondary products such as milk and wool were exploited and had become an integrated part of the Uruk economy. The pastures were

probably an important factor in the establishment of the settlements in the Tabqa area including Habuba Kabira. This area was well suited for pastoral nomads during the Uruk period and in following periods (Sherratt 1983, McCorriston 1997, Porter 2002:24–25). Another point to add is that the north Jazirah region suffered a decline in population after a peak before the Uruk expansion, and a possible explanation for this is increased nomadic pastoralism (Kouchoukos & Wilkinson 2007:17–18).

Nomadic tribes were probably connected to the Uruk economic network, but it was not necessarily a cultural and political incorporation (Porter 2002:24–25). An ethnographic study of nomadic tribes in Iran has shown how sedentarization often became a natural solution among rich or poor tribe members. These peoples could be assimilated into the sedentary community (Barth 1965:101–111) or continue to consider themselves as part of a nomadic tribe as, for example, in Sukha, a village in the vicinity of Palmyra (Castillo 2007:143–144). This was probably also the case during the Uruk period, meaning that the cities in north Mesopotamia in particular had pastoral nomadic inhabitants or families with close ties to nomadic groups. The triangle economy, characteristic of the Middle East, can be used as a model for interpreting economic relations during the Uruk period (Fig. 8). The important centres in the south and the north were dependent on agents to transport and deliver the goods. Settlements in the south such as NS 1172 that exploited their riverside position and redistributed obsidian must have been connected to a network that ensured the transportation. It is then necessary to ask who delivered the obsidian to agents along the river and who took goods in return?

Transport from the north to the south on the rivers was fast, but the way upstream took much longer (Wright 2001:126–127). As mentioned earlier, the goods that went through Nineveh and downstream to the south had their counterparts that went upstream. This

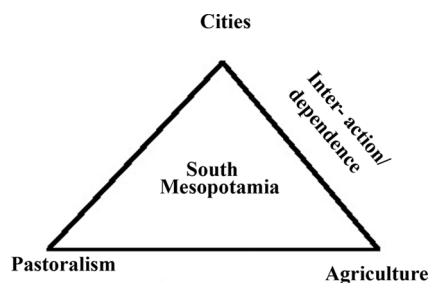


Fig. 8. *The economic triangle.*

is an impressive distance, which it is unlikely they covered with caravans. It would have been much more economical and beneficial for both parties that the goods went through a third party. This transport offered an economic opportunity for pastoral nomads, because they could easily combine transportation of goods with their lifestyle as herders. Nomadic tribes acted as middlemen in the Uruk network and were an important economic factor as well as contributing to bringing the southern and northern cultures closer together. This created a new force of power in the Uruk world. Their position as trading agents, along with good conditions for the herds, could have created a surplus, and hence a situation that made the pastoralists settle down. In the cities they could continue their work with trade and become influential members of the sedentary section of society.

THE MIDDLEMEN BETWEEN THE MOUNTAINS AND THE ALLUVIAL PLAINS

The changes during the 4th millennium BC can be interpreted as a result of competing interests and agents within a trading network where new routes had been established. The north Mesopotamian settlements and nomadic tribes functioned as middlemen in the trade, administering the routes and the flow of products during the 4th millennium. The settlements could demand taxes from goods that were to be transported further south. We know from written sources that taxation was

practised in south Mesopotamia by the late Uruk period (Green 1984), and there is no reason to believe that this was not practised in the north.

During the 4th millennium BC there was an increasing use of administration technology such as seals and also numerical tablets in north Mesopotamia. The use of sealing technology was common in cities and villages, and has been found in elite, domestic and midden contexts, indicating a widespread concern about the control of property and goods (Gibson *et al.* 2002, Ur 2010:379). Stamp seals represent the north Mesopotamian tradition, while cylinder seals generally are associated with the south Mesopotamian Uruk culture. Both types were used to seal containers such as bags, vessels and baskets, but also architectural units such as doors and windows. This was to restrict access to goods and raw material, because only authorized personal could break the sealings (Frankfort 1965[1939]:1–2, fig. 1, Emberling & McDonald 2003:14, Rothman 2004:83–88). Table 2 shows how the use of administration technology changed. After 3500 BC, the south Mesopotamian cylinder seal became the dominating technology, but at some sites in the north it was used alongside stamp seals. 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 BC (Jasim & Oates 1986:348–349). In addition to seals, clay envelopes (hollow clay balls with tokens inside) and numerical tablets were used for record keeping from about 3350 BC. Finds of such in north Mesopotamia were similar to specimens in south Mesopotamia (Algaze 1986:130, Englund 1998:48–49, Stein *et al.* 1996:230–231, Stein 1999:143). In contrast to the north Mesopotamian material, almost no foreign sealings have been found in south Mesopotamia (Pittman 2001:441).

The archaeological material clearly indicates that settlements in north and south Mesopotamia used the same numerical system and had a similar practice concerning administration, control and trading with goods. This system spread between the sites that participated in the trade, explaining the distribution of south Mesopotamian seals in the north and also why there are almost no finds of foreign seals in south Mesopotamia. Middlemen in the north acted on behalf of clients or agents in south Mesopotamia. They adopted the south Mesopotamian system for record-keeping, taxation and transaction of goods. The north Mesopotamian agents also dealt with other systems, as in cases where they received goods from contacts who operated with a local system, indicating that these middlemen had good knowledge of their trading partners. The close connections created a common system for handling of goods. It was based on south Mesopotamian

Table 2. Stamp and cylinder seals in north Mesopotamia and Anatolia

Site	3900–3600 BC	3600–3350 BC	3350–3100 BC
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 seals dominant
Tepe Gawra	Stamp seals only	–	–
Hacinebi	Stamp seals*	Mixed	?
Arslantepe	Stamp seals only	Stamp seals only	Stamp seals only

Note: *A mix of stamp and cylinder seals was apparent from 3700 BC (Oates & Oates 1993:172, Stein 1999:126–128, 143, 2004:150–153, Pittman 2001:418–441, Gibson *et al.* 2002:17–20, 27–31, Emberling & McDonald 2003:14–21, Frangipane 2004, Stephen & Peltenburg 2004:176, Peltenburg & Wilkinson 2008:26–27).

technology because this region was the biggest actor designing the rules. The new technologies were intended to satisfy demands for administration of goods as sealings and tablets are found in contexts clearly indicating management of goods. The sealings were used to control the content and ensured that the receiver found what he expected in the container (Gibson *et al.* 2002, Wengrow 2008:15–18, Ur 2010:397).

One reason for the need to account for goods may have been taxation, as this was a source of a potentially big income in north Mesopotamia. The region was positioned between the resource-rich mountains and the southern alluvial plains, located between the south Mesopotamian demanders and the Anatolian suppliers. The settlements were, as shown, closely connected to trading routes and rivers, surrounded by large plains that were exploited by nomadic tribes who combined their lifestyle with transportation. The north Mesopotamian middlemen probably knew the south very well in terms of what the southerners needed and how the exchange of goods could be arranged. They also knew the culture and possibly the language, making them better suited than agents in Anatolia to settle deals. In contrast to the south Mesopotamians, the north Mesopotamians also knew the societies in Anatolia, their culture, language and geography. These people knew how and where they could obtain the resources and the materials. In this way communities and especially nomadic tribes in north Mesopotamia acted as middlemen geographically, economically and cultural – a situation that suited them because they could exploit their natural geographical position to gain prosperity, income and power.

THE MICRO-LEVEL: NEW IDEOLOGIES IN THE 4TH MILLENNIUM BC

A common understanding of the depictions on sealings was needed to assure commutative acts between two agents (Rothman 1994:

99–100). Because the same administration technology and sealings were used in north and south Mesopotamia, a common symbolic system must have existed to interpret the messages. Wengrow (2008) has proposed an interesting view on the connection between sealings and trade. He interpreted the sealings 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 without this they would make no sense as trademarks. The depictions on the seals may have become mental landscapes that evoked assumptions of the society they came from. Ideas and stories could then be exported beyond the borders of the homeland, and to other regions where they inspired changes in social ideologies.

The technology of making seals reveals a pattern that helps us understand how administrative technology spread and developed. The drilling that was used to carve pictures was invented together with the cylinder seal, for which it was especially suited. This technology was adopted differently in north Mesopotamia, and reveals an interesting pattern. During the Uruk expansion, north Mesopotamia adopted the cylinder seal and drilling technology along with 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 (Stein *et al.* 1996:230–233, Pittman 2001:418–441, fig. 11.19–30). The material clearly shows that sites such as Habuba Kabira were connected with Anatolian sites, but, more important, it shows that south Mesopotamian iconography found its way into sites in Anatolia with local material culture. This may have been the result of expressions and communication between two different cultures. Not only were south

Mesopotamian ideas and stories presented to Anatolian sites, but they were adopted and used in local administrative technology. In contrast to this, only a few northern sealings have been found in the south, and there is no evidence of emulation of northern iconography in south Mesopotamian technology (Pittman 2001:441). This implies that there was no need for the south to use means of communication other than the existing modes. The sealings that were used throughout the Uruk network could symbolize and communicate social position and affiliation between polities (cf. DeMarrais *et al.* 1996:18). The adoption of south Mesopotamian iconography in the north indicates that the south determined the means of communication. Thus transformation and emulation in Anatolian and north Mesopotamian sites depended on their reliance and connection with southern settlements that had become central in the trading network.

The central place of south Mesopotamia in the trading network and its influence through the administrative system led to the spread of south Mesopotamian motifs into adjacent regions where they were incorporated. This may have acted as a catalyst for the different regions in Mesopotamia to connect to the

south and to accept this region's dominant position, spurring changes in ideologies on a micro-level since south Mesopotamia became the world's reference point. It was not only an economic centre, but a place from which knowledge and technology originated. It was the origin of the religion and myths that were displayed on the sealings that followed the goods throughout Mesopotamia and adjacent regions.

Alcoholic drinks were probably already consumed locally in the Ubaid period (Wengrow 2008:16), but the difference in the Uruk period is their massive adoption in society and the ideology that followed. The ceramic types that are connected to alcoholic beverages did not occur in the local pottery of north Mesopotamia, but came with the southern Uruk culture (Fig. 9), indicating a major change in consumption. Beer and wine were introduced into people's habits. In the Uruk trading network, these beverages may have been important in social arrangements that acted as a strategy to establish alliances, maintain trade routes and secure goodwill from local leaders. The tradition of social arrangements to maintain bonds can be seen as an inheritance from the Ubaid period where hospitality had served as an insurance against bad times (Joffe

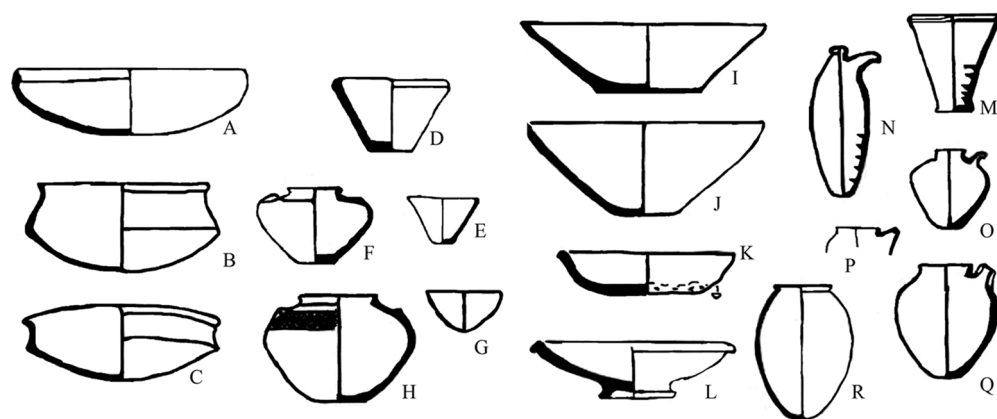


Fig. 9. Typical types of chaff (A–C and I–L) and Uruk ware (D–H and M–R). Redrawn from J. Oates (1985:figs 1.3–5, 3.44), Akkermans (1988:pl. 99.24), Oates & Oates (1993:figs 52.46, 54.66), Nissen (2001:fig. 5.5), Emberling & McDonald (2003:fig. 3), Gut (2004:fig. 17) and van Driel (2004:fig. 4.JA1923).

1998:303, Maisels 1998:185). The new pottery was widely adopted, and was used as a complement to the local Chalcolithic wares even in small villages (Ur 2002:64–67). It also appeared suddenly all over the region with a full set of Uruk types. It did not come as a slow transformation where some types or traits were selected and then incorporated into the local tradition, as was the case with the Ubaid material (Stein & Özbal 2007).

The mass-produced spouted jars and drinking cups may tell us something more important than just mass production of ceramics. The material suggests mass consumption of the liquids that were contained within the pottery. Large portions of the liquids were alcoholic drinks, and the wide adoption of the ceramic types indicates that drinking was more than just a habit for interacting elites. One of the reasons for excessive alcoholic consumption may have been problems with polluted water around large cities caused by, e.g., sewers and the leather industry. The wide consumption of alcoholic beverages was a new element in Mesopotamian settlements, which must have called for rules that regulated what was socially acceptable and what not. It is also likely that these drinks became important elements in rituals and social arrangements followed by social rules of how to behave. This may have caused new ideas about consumption, which were embedded into society as social rules, leading to ideological changes on the micro-level that interconnected the north and south Mesopotamian peoples.

Figure 10 illustrates the sites that, according to my interpretation of changes in technology and material culture, saw changes in their ideology. The reason behind the pattern is that the north Mesopotamian settlements functioned as middlemen in the trade between the regions. Goods were sent to the south by rafts on the rivers, while goods were brought to the north with trading caravans or pastoral nomadic tribes that filled the function of transporters. The opportunity to function as middlemen offered to the north Mesopotamian settlements implies that the Uruk culture was

brought to the region by their own choice. This resulted in ideological changes on a micro-level that probably had consequences for rules and behaviour in the north and the south before the close connections faded in the early 3rd millennium BC.

THE MACRO-LEVEL: THE POLITICAL LANDSCAPE IN THE 4TH MILLENIUM BC

The political landscape was reconstructed during the Uruk expansion with different spatial dimensions. The political landscape after 3350 BC was constituted by a close connection between polities in the north and the south – by the two urban regions with surrounding rural areas. Societies outside this world were connected through the trading network and among nomadic tribes that travelled between the different polities and regions, carrying goods and producing necessary secondary products. The power that lay in the control of the trading routes is the key to analysing how ideologies may have changed during the Uruk period. Societies in north Mesopotamia embraced the southern culture because they saw an economic advance in controlling the flow of goods, giving them prosperity and power. By adapting the Uruk culture leaders could materialize a southern ideology to associate themselves with the Uruk world that had an important symbolic position as the centre of the world. This could in turn legitimize a position that gave them the ability to exercise political and military power.

Though the south Mesopotamian cylinder seals and their style were adopted by north Mesopotamian societies during the Uruk expansion, some ideological concepts seem to have existed in both regions earlier, such as the concept of abundance. A brief examination of sealings (Frankfort 1965[1939], Brandes 1979, Amiet 1980, Pittman 2001, Rothman 2002) shows that motifs expressing this theme were common in north Mesopotamia prior to the expansion, thus indicating similarities in the social ideologies between the north and the

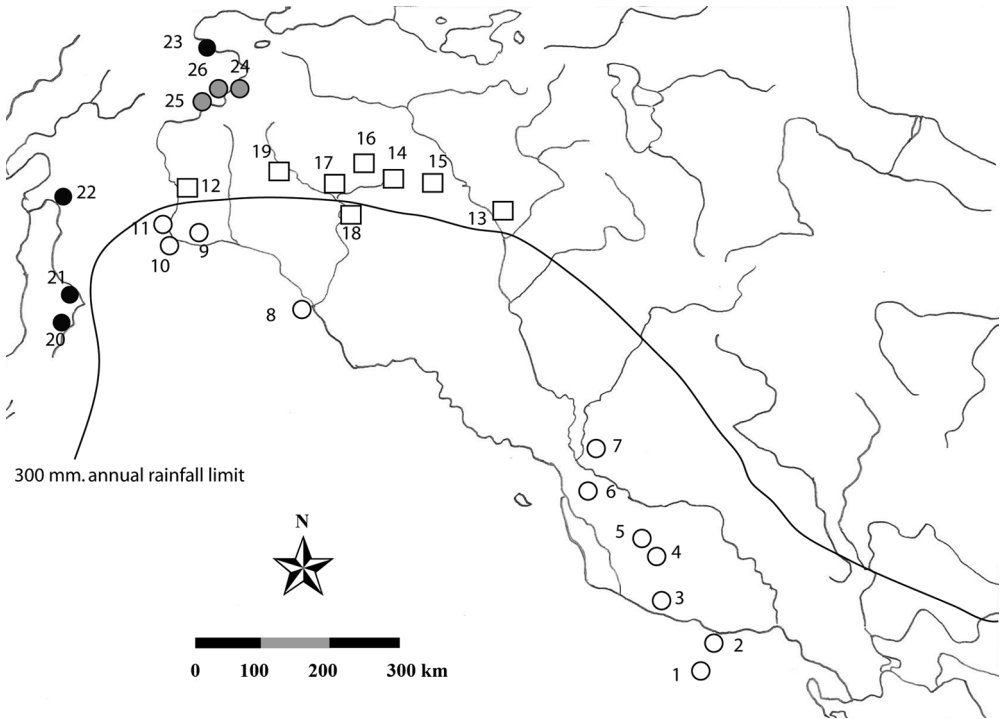


Fig. 10. Ideological influence in Mesopotamia 3200 BC. White dots: south Mesopotamia sites. Black dots: sites with minor south Mesopotamian influences. Grey dots: sites with a local and south Mesopotamian mix. White squares: north Mesopotamian Uruk sites. 1: Eridu; 2: Ur; 3: Uruk-Warka; 4: Nippur; 5: Abu Salabikh; 6: Tell Uqair; 7: Khafajeh; 8: Tell Qraya; 9: Sheikh Hassan; 10: Habuba Kabira; 11: Jebel Aruda; 12: Jerablus; 13: Nineveh; 14: Tell Hamoukar; 15: Tell al-Hawa; 16: Tell Leilan; 17: Tell Brak; 18: Mashnaga; 19: Tell Kuran; 20: Tell Nebi Mend; 21: Hama; 22: Tell Judeidah; 23: Arslantepe; 24: Hassek Höyük; 25: Samsat; 26: Kurban Höyük. The map is based on Collins (2000: fig. 1) and Algaze (2005a [1993]: fig. 4.)

south already in the early 4th millennium BC (Fig. 11). The same pattern is observed when we examine depictions of lions from the Uruk



Fig. 11. Sealings with goats from Tepe Gawra level VIII (3700 BC) and Uruk-Warka layer V-IV (3200 BC). Redrawn from Amiet (1980:pl. 9, 174) and Rothman (2002:pl. 60, 2966).

period (Fig. 12). In some cases, sealings depict lions or men hunting lions – a symbolism that is found in the archaeological material at north Mesopotamian sites in layers dated to before the Uruk expansion (Meijer 1988:77, van Loon 1988:665, pl. 200, fig. 3, Gibson *et al.* 2002:17–30, Reichel 2002:6–12, Emberling & McDonald 2003:9, Oates *et al.* 2007:591–594). Archaeological material displaying the lion symbolism is also found in layers dated to the late 4th millennium BC both in the north and in the south (Amiet 1980, van Driel & Driel-Murray 1979:14, van Driel 1983:48–49). Unfortunately, we lack evidence from the early 4th millennium BC in south Mesopotamia to complete the comparison.



Fig. 12. A cylinder sealing with lions. Redrawn from Amiet (1980:pl. 11, 196A).

The new political landscape probably created new opportunities for agents to exploit different economic niches and combine these to achieve personal prosperity and climb in the social hierarchy. However, we see little evidence of personal prestige in the archaeological material, perhaps because the society stressed social equality. Some luxury material from Tell Brak has been found dated to the early 4th millennium BC (Oates *et al.* 2007, Ur 2010), but there are generally no rich graves or treasuries connected to the elite during the 4th millennium BC either in the south or in the north. It seems clear that the temple institution controlled and redistributed the resources in society as it is associated with administrative functions. An examination of monumental architecture and central areas at Mesopotamian settlements indicate that the temple institution existed both in north and in south Mesopotamia before the Uruk expansion, and it was based on the tripartite household as in domestic houses in the regions (Perkins 1977[1949], Safar *et al.* 1981, Heinrich 1982, Oates 1987, Meijer 1988, Maisels 1998, 1999, Rothman 2002, Lloyd & Müller 2004[1972], Oates 2004b, Oates & Oates 2004). Thus there are no indications of ideological changes on the macro-level during the Uruk expansion. The archaeological material implies that there were already similarities in the social ideology between the regions prior to expansion, and there is no evidence of changes in how power was gained and legitimized.

Political power was probably achieved through personal or family connections and doings among those who controlled the temple and its administration. The ability to do well in temple politics may have rested with the ability to gain income for the temple through trade and dealings with allied societies or pastoral nomadic groups.

CONCLUSIONS

The Uruk expansion was more than just a southern economic expansion in north Mesopotamia. It was a total expansion that involved ideologies, trading network, economy and production in both north and south Mesopotamia. Adjacent resource-rich regions such as Anatolia were drawn into a large trading network where goods were exchanged through different types of agents who acted as middlemen. This system of trade and interconnection created a new political and social landscape in which new impulses were able to flow between societies. The interaction between the south and their middlemen in the north led to the development of a new ideology that can be termed the Uruk ideology since the south was the centre of reference in the world. The expansion was not conditioned by a south Mesopotamian ideology, but it came as a result of an expanding world where societies with different views and beliefs were tied more closely together.

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