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## THE UBAID PERIOD IN THE URBANISATION PROCESS; THE BIRTH OF URBANISM IN THE NEAR EAST (5500-3800 B.C.)

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### Introduction

The Ubaid culture, which takes its name from Tell-al Ubaid (fig. 1), a small settlement situated next to the city of Ur in southern Mesopotamia, is divided into five phases referred to as Ubaid 0-4. The earliest phase of this culture, Ubaid 0, is known only from Tell el-Oueili (fig. 1)<sup>1</sup>. Surviving for more than 1500 years, the Ubaid culture's later phases—Ubaid 2, 3 and 4—are more comprehensively known as compared to earlier periods.

It is widely held that the Ubaid culture, which emerged in southern Mesopotamia—an area that was rich in agricultural surplus but lacking in raw materials such as the metals, semi-precious stones and lumber that were necessary for technology—began to spread in the later Ubaid 3 and 4 phases, to Anatolia and Syria in the north, to the Persian Gulf in the south and to southwestern Iran in the southeast as a result of the establishment of trade colonies reflecting their own settlement model due to the densely trade relation with these regions of the Ubaidian trademen, and thus all of the regions displayed a cultural homogeneity in the architectural and material culture during this period<sup>2</sup>. Researchers Frangipane and Stein, however, oppose this view that commerce played a role in spreading the

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<sup>1</sup> Stein 1994: 36.

<sup>2</sup> Oates 1973: 172-175; Akkermans 1989: 349.

culture. Stein asserts that there is the replication of existing small systems, rather than the absorption of neighboring areas into a few expansionistic colonies<sup>3</sup>. Frangipane states that there was a gradual penetration of Ubaidian cultural elements into the northern areas and that the economy of the Ubaid societies essentially based on primary products—staple finance—rather than the manufacture or procurement of exotic materials—wealth finance—making it unlikely that the spreading reasons were not derived from the commercial aims. She further asserts that the spread of the culture must have arisen from their internal needs and the dynamics of relations within the southern communities themselves<sup>4</sup>. Yet, the reason of this culture established is still on debate.

### **The Urbanistic Characteristics of the Ubaid Society**

Urbanisation emerges from some structural changes occurring in the economic, technological, social and political organisation of societies. Urban societies, also called complex societies, exhibit some key characteristics among them two-level site-size hierarchies, the complex economy that consists of technological development and a high-degree of specialisation, public structures in administrative quality, social stratification and long-distance exchange. With the Ubaid Period, these fundamental characteristics peculiar to the urban societies begin to appear in the Near East.

The first salient urbanistic feature yielded in the Ubaid Period manifested itself on the socio-political structure. The first monumental public structures characterised as temples began to appear from the earliest phases of the culture at Eridu, Uruk and Tell Uqair in southern Mesopotamia and Tepe Gawra level XIII in northern Mesopotamia (figs. 2, 3). They are standart in plan—tripartite plan—and share same architectural features. The presence of temples indicates to the leaders that were mobilised both labor force in the construction of these structures and had a control over the movement of surplus<sup>5</sup>. Besides temples, large granaries uncovered Tell el-Queili and Tell Uqair, identified as the centralised storage of surplus because of their size very large for individual storage,

<sup>3</sup> Stein 1994: 43.

<sup>4</sup> Frangipane 2003: 147-149.

<sup>5</sup> Algaze 1993: 121; Frangipane 2002: 137, 139, 141; 2003: 149; Berman 1994: 24.

demonstrate that the existence of leaders who had control over the agricultural surplus<sup>6</sup>. The central accumulation and distribution of large amounts of subsistence goods requires institutions of political control and thus, redistributive institutions such as temples emerged<sup>7</sup>. Because these structures exhibit no apparatus related to administrative functions, some researchers assert, however, that control over accumulation of goods did not involve an economic and political aspect, but rather represented a simple ritual mobilisation of staple finance which is an economic system based on the control of land, water and labor force<sup>8</sup>.

The temples were, however, found in the acropolis at Tepe Gawra level XIII display various characteristics that are different from those in the south (fig. 3). Contrary to those in the south, these structures each have a different layout and because of this, some researchers have claimed that the activities that took place in these structures were much more varied and greater in number than the activities conducted in the south<sup>9</sup>. Another feature of these structures that differentiates them from those in the south is the Well near the acropolis containing numerous seals made from imported valuable stones such as steatite, serpentine, lapis lazuli, agate, carnelian, hematite, diorite and obsidian<sup>10</sup>. This evidence indicates the existence of the centralised public institutions that co-ordinates economic and political processes and an administrative control includes the economy, the circulation of goods<sup>11</sup>. Such a system, where the temple evolves into an economic institution that was responsible of circulation of goods and the labor force, a centralised system within the temple that represents a political institution administering to religious, political and economic affairs, has been called as "Temple Economy" by A. Deimel, but it is very embryonic form in this period yet<sup>12</sup>.

<sup>6</sup> Stein 1994: 42; Frangipane 2002: 122; 2003: 149; Algazc 1993: 121; Huot 1989: 28-30; 1994: 118-119.

<sup>7</sup> Stein 1994: 41; Adams 1960: 28-29.

<sup>8</sup> Frangipane 2002: 141; Stein 1994: 41

<sup>9</sup> Frangipane 2002: 160.

<sup>10</sup> Tobler 1950: 32, 176.

<sup>11</sup> Frangipane 2002: 161; Matthews 2003: 104; Rothman 2002: 83.

<sup>12</sup> Makkay 1983: 1-2.

### **The Emergence of Extended Families in Economic Management: *Oikos***

Another administrative model that is seen in Ubaid society is a system where economic control over craft production and exchange as well as the movement of goods are managed not by a central public institution such as temple as centralised control but by some socio-economically dominant high status family groups, individual private houses, in the settlements. This elite-directed economic structure is described as "household-managed economy"<sup>13</sup>. Resources, production and labor in this societal structure are centralized in the hands of the most influential leaders, which called chieftain, agha or high level family or families of that society who represent a central authority. It is these chieftains/aghas instead of institutionalized administrators who decide on matters concerning the public. In this socio-political and economic organization, numerous households, each with its particular specialist economic function, were integrated into unitary economic unit controlled by powerful elite family or families who comprise the administrating class. The structure represents the earliest physical appearance of the *oikos*, and thus both temple and private *oikos* establishment developed side by side through the Ubaid Period.

In this household type of management, the seals that are administrative artefacts were used in a domestic context and the house of the managing household was differentiated from other houses by their layout, size and other architectural qualities and by the greater number of varied administrative apparatus as well as by the tools and raw materials related to production that they contained. These structures, characterised as "chieftain's house or ağa mansion" were unearthed at Tell Abada, Tepe Gawra level XII and Değirmen-tepe. Building A at Tell Abada, besides being the largest and most elaborate structure in the settlement and its location in the centre of the site, stands out in this respect with the objects it contains (fig. 4). Below the floors of the building were found the burials of 57 infants in urns indicating that the leader represented the entire society<sup>14</sup>. The unusual artefacts were encountered in the structure are the piles of mass pottery vessels that were discovered in a chest room, clay tokens of various shapes and sizes in pottery vessels—which were used for accounting

<sup>13</sup> Frangipane 1993: 159; 2000: 226; 2001: 322; Lamberg-Karlovsky 1999: 170, 174, 187.

<sup>14</sup> Frangipane 2002: 147; Jasim 1989: 80.

function—clay proto-tablets and the status objects like the unique beakers, marble mace heads, marble vessels, palettes and special gypsum items<sup>15</sup>. This kind structure in Tepe Gawra level XII is the White Room which was first interpreted as a temple but which has been shown by latest research to be a residential structure<sup>16</sup>. It is the largest and most regular architectural structure as well as has the scarcest status objects such as gold and copper beads as well as infant and child burials underneath its floors (fig. 5)<sup>17</sup>. Although seals and sealings were also yielded in all other structures in the settlement, larger concentration of these materials as well as door-lock sealings that are a particular kind of evidence for administrative control were uncovered in this structure, suggesting that this building belongs to a socio-economically dominant family—the administrator of the settlement<sup>18</sup>. It also contained the wide variety of products or production tools like metal and flint tools and scarcest imported objects such as metals, which might imply that this building was also involved in the management of craft production and trading function, in other words existed a centralised economic function at site, carried out the White Room<sup>19</sup>. At Değirmentepe, which is the only Ubaidian trade colony we know, Building BC and Building I adjacent to BC from the south are examples of similar types of structures. These structures, located to the southwest of the settlement, are where control devices such as seals and clay sealings are concentrated (fig. 6)<sup>20</sup>. The original seals found in Building BC are particularly worthy of note<sup>21</sup>. The rich concentration of ceramics and particularly metallurgical activities and the numerous seals, seal impressions, token, bullae and stamped and unstamped lids associated with metal finds give the impression that these belonged to privileged families—the administrators—and copper production and its centrally management clearly appear to be a major function of Building I and BC<sup>22</sup>.

<sup>15</sup> Jasim 1985: 73, 173-174, 202; 1989: 79-83; Stein 1994: 38; Frangipane 2002: 147.

<sup>16</sup> Tobler 1950: 28; Frangipane 2002: 155; Rothman 1993: 167; 2001: 396; 2002: 77; 2002a: 59.

<sup>17</sup> *Ibid.*

<sup>18</sup> Rothman 2002: 74, 77, 82-83, 144; Frangipane 2002: 162.

<sup>19</sup> Rothman 2001: 396; 2002: 78, 80, 144.

<sup>20</sup> Esin 1994: 60-61; 2002: 84; Helwing 2003: 62, 65; Yener 2000: 35, 37-38.

<sup>21</sup> Helwing 2003: 62, 65; Yener 2000: 38.

<sup>22</sup> Esin 1994: 60-61; 1998: 670; 2002: 84; Helwing 2003: 62, 65; Yener 2000: 35, 37.

### Specialization and Exchange

Another important characteristic feature of urbanism have emerged on economy and the production technologies. Economic specialisation is the fundamental characteristic of urban societies. The existence of a complex division of labor and a wide range of craft specialisation point to economical complexity. Economic efficiency and control are various outcomes of specialisation that have been linked to the evolution of urbanism and states. Within this period, a high-level craft specialisation and technological development have appeared in many different branches. The most important fields where technological achievement encountered were the production of ceramic and metal. The Ubaid pottery is a uniform pottery style decorated with simpler patterns and fired at high temperatures of 1050-1150°C in a reducing atmosphere<sup>23</sup>. By the final phase of the period, the forerunner of the potter's wheel—the tournette or slow wheel—introduced as the most important technological innovation in ceramic production<sup>24</sup>. Thanks to tournette changed the labor organisation and thus appeared increasing amount of production, standardization and the full-time craft specialisation<sup>25</sup>. At some point in the 5<sup>th</sup> millennium the ceramic style have become standard in a vast geographical region from the Gulf in the south-east to the Mediterranean in the west. A higher output of standardized pottery forms indicates a progressive tendency towards to mass production and the industrialisation in ceramics. In particular, the type of unornamented, nearly standardised in shape and size and plain bowls recovered in the northern regions, the so-called 'Coba bowls', are the most significant indication of this type of manufacture<sup>26</sup>. Significant ceramic production centers of the period were Tell eth-Thalathat, Tell Songor B level I, Tell Abada levels I-II, Tepe Gawra level XVI, Tell el Queili, Tell al-Ubaid and Eridu (fig. 1)<sup>27</sup>. These settlements revealed numerous technically advanced pottery kilns, that were capable of reaching high temperatures and reflect different stages of ceramic production with their various types and sizes, besides simple ovens and pottery fire installations as well as the presence of large scale industrialised pottery production and highly skilled

<sup>23</sup> Streily 2001: 76.

<sup>24</sup> Thuesen 1992: 14; Algazc 1993: 120.

<sup>25</sup> Thuesen 1992: 13; Nissen 1989: 248; Matthew 2003: 406; Streily 2001: 76.

<sup>26</sup> Frangipane 2002: 167.

<sup>27</sup> Jasim 1985: 208; 1989: 88; Streily 2001: 76-78; Moore 2002: 74-76.

craftsmanship<sup>28</sup>. A further technological development in ceramic production was some experimentation that was carried out in the production. This can be observed in the green-colored pottery, also called greenware, at Tepe Gawra levels XIII and XII<sup>29</sup>. This pottery may be produced with the addition of a calcium-rich ferruginous clay, an oxidising firing atmosphere and temperatures higher than 1,050°C, which implies another technology, pyrotechnology, and highly skilled craftsmanship<sup>30</sup>. Green wares were used as burial gift at Tepe Gawra level XII, indicating a high status value of these wares (Ibid). Non-vessel green coloured pottery forms such as clay sickles and axeheads that was the copies of metal axeheads were also found in southern Mesopotamia in this period<sup>31</sup>.

Another a high degree of specialisation and technological development exhibited on mining. This was manifested not in southern Mesopotamia, which was poor in metal resources, but in the richer regions in the north. Değirmentepe, which was purposely located near copper deposits in the southeastern range of the Taurus Mountains, was an important metallurgical center whose economy based on mining and export of these metals. Metallurgical activity was carried out all structures of the settlement and the copper ores and slags as well as crucibles, hearths and smelting furnaces uncovered in the buildings demonstrate an intensive production of the raw materials mined<sup>32</sup>. Analysis of the slags has shown that the copper was smelted at temperatures reaching nearly 1200°C<sup>33</sup>, thus demonstrating the impressive level of technological development reached at site. Analysis results also suggest that sulphide ores were smelted and crucibles were utilized to melt and/or smelt copper<sup>34</sup>. In addition to copper derived from sulphide ores, arsenic rich ores may have also been used. A certain amount of experimentation with polymetallic ores was also carried out at site<sup>35</sup>. At Tepe Gawra level XIII, worked metal—a single copper awl that was hammered—was firstly discovered and four crudely smelted copper objects

<sup>28</sup> Streily 2001: 74-77; Jasim 1985: 53-54; Moore 2002: 76.

<sup>29</sup> Kayani 1997: 134.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> Esin 1986a: 145; Özbal 1986: 112; Özdoğan 2002: 117; Yakar 2002: 19.

<sup>33</sup> Esin 2002: 84.

<sup>34</sup> Yener 2000: 35.

<sup>35</sup> Yakar 2002: 19; Yener 2000: 43.

at level XII<sup>36</sup>. The greenware axeheads served as copies of metal axeheads at site suggest that formative copper metallurgy<sup>37</sup>.

Other specialized products which appeared in a concentrated manner during the period were weaving and the manufacture of stone tools. In addition, production took place not only in houses but was also carried into the workshops. At Tepe Gawra level XII, some of the rooms in all houses were used as workshops. Numerous spindle whorls, stone tools, wood-working celts, obsidian and craft tools were discovered in these rooms, showing that the site encompassed extensive activity in weaving, woodworking and knapping tools<sup>38</sup>. Yet, the small curved rooms along the entry street in the northwestern of settlement were workshops where craft activities were carried out because they were filled with crafts tools and adjoining storerooms stored objects for the craft goods, such as imported lapis, gold and obsidian blades (fig. 5)<sup>39</sup>. At Abu Husaini, the lithic industry is very extensive and stone tools were manufactured in the houses. From the many axes and the production of mace-heads found in a room of one of the houses, it can be seen that this house was only used for industrial purposes<sup>40</sup>. At Tell Abada, Building G appears to be a special workshop in which stone tools like digging stick-weights, loom weights, spindle whorls, various grinding stones and baked clay figurines were produced (fig. 4)<sup>41</sup>. On the other hand small bowls of highly polished stone (marble), pendants, basketry and matting manufacture, weaving and flint-knapping were other household specialisation<sup>42</sup>. At Değirmentepe, some rooms of the houses were used as workshops for specialised craft productions, such as copper and pottery production, chipped stone industry, flint tool, bone implements, weaving and stone-flaking. Thus, Building BH represent an atelier devoted solely to the production of chipped stone artefacts and Building BY-I used for seal cutter and stone tool production (fig. 6)<sup>43</sup>.

<sup>36</sup> Rothman 2001: 379; 2002: 81; Tobler 1950: 211.

<sup>37</sup> Kayani 1997: 140.

<sup>38</sup> Rothman 1993: 167; 2001: 394; 2002: 78-79; 2002a: 59.

<sup>39</sup> Rothman 2001: 387; 2002: 77-79; 2002a: 59; Rothman, Blackman 1990: 33; Rothman, Peasnell 2000: 106.

<sup>40</sup> Tusa 1980: 225; Kubba 1998: 12.

<sup>41</sup> Kubba 1985: 174, 208.

<sup>42</sup> *Ibid.*

<sup>43</sup> Esin 1998: 670, 673; Arsebük 1986: 136.



Although the economy was so diversified, the economic structure that existed in the Ubaid polity did not exhibit the economic model of wealth finance where urbanized societies produced prestige objects for elites and exotic materials were produced or obtained through trade. An indication of this is that there is no evidence of prestige objects, wealth items or luxury production and centrally located attached specialists who focused on such production<sup>44</sup>.

Trade had already been existent since earliest times, this period however marks the advent of the increased and organised long-distance trade as other major step towards urbanism. The important commercial goods of the period were ceramics, metals and textiles. Tell eth-Thalathat, Tell Songor B level I and Tell Abada level I were important pottery production towns dealt with the commercial manufacture of pottery with the great variety of kiln types that range from simple to sophisticated, pointing to large-scale industrial production of ceramics<sup>45</sup>. Değirmentepe was a metallurgical town whose economy relied on the procurement, production and export of metals. Large-scale industrial metal production was carried out at the site, suggesting production completely directed for trade. The discovery of imported goods such as copper, gold, lapis lazuli and obsidian at Tepe Gawra levels XIII-XII and Tell Abada as well as Abu Husaini are another indicators of widespread exchange relations between the regions<sup>46</sup>. Another important exchange good of the period, textiles, is seen to have been produced at Tell Abada, Tepe Gawra level XII and Değirmentepe. The numerous spindle whorls, loom bases and other craft tools related to weaving found at all the houses in these settlements suggest that weaving was widely practiced and an important craft that was carried out for export rather than local consumption, beyond the individual needs, having a commercial significance. Especially Tepe Gawra level XII is a textile town in this period<sup>47</sup>. The production of chipped stone tools at Değirmentepe was another large-scale manufacture for commercial purposes. Thousands of flakes of stone chips and waste flakes found at the

<sup>44</sup> Stein 1994: 41; 1996: 28-29; Earle 1990: 66-67.

<sup>45</sup> Strcily 2001: 76-77; Jasim 1985: 208.

<sup>46</sup> Rothman 2001: 379; 2002: 8, 79, 81; 2002a: 59; Rothman, Peasnell 2000: 106; Jasim 1985: 210-211.

<sup>47</sup> Rothmann 1993: 167.

courtyards and workshops<sup>48</sup>, would seem to indicate that these were also being exported. In addition, the numerous seals and sealings uncovered in all settlements indicate the existence of a recording system related to widespread metal commercial trade. At Tepe Gawra XIII numerous seal impressions and seals made from valuable stones such as steatite, serpentine, lapis lazuli, agate, carnelian, hematite, diorite and obsidian have been imported from distant source<sup>49</sup>. Tepe Gawra level XII was unearthed one clay sealing that was not from that Gawran clay source, which implies that it probably had the relation of trade with other regions<sup>50</sup>. However, management of products, production and trade did not take the form of a public institution or institutionalized administrator elites as would be expected in urbanized societies, but was rather carried out by certain privileged families or *oikos*.

### **Social Stratification**

The settlements of the Ubaid period point to the social hierarchy indicating the presence of different social and economic classes in society, as another crucial urbanistic characteristic. A complex society are made up of large diverse socio-economic classes pointing out the heterogeneous society—the social complexity. The settlements of this period display signs that there were other families of higher social and economic status outside of the administrator family. Buildings B and J at Tell Abada were significantly different from the other structures in the settlement in terms of size, architectural characteristics and the objects uncovered in them, demonstrating some differences in economic and social status among the inhabitants (fig. 4). Building B covered 210 m<sup>2</sup> in size and contained objects identified as status objects, such as large ceramic beakers, marble vessels, pendants, mace heads and large marble studs, were uncovered<sup>51</sup>. The other largest structure in the settlement, occupying an area of 215 m<sup>2</sup>, was Building J. Again differing in architectural style from other structures, this structure contained status objects such as mace heads, pendants and large studs all made of marble<sup>52</sup>. Social differences were also exhibited on

<sup>48</sup> Esin 1986: 87; 2002: 84; Harmankaya et al. 1998: Değirmentepe.

<sup>49</sup> Tobler 1950: 32, 176; Jawad 1965: 39-40.

<sup>50</sup> Rothman 2002: 8; 2002a: 60.

<sup>51</sup> Jasim 1985: 202.

<sup>52</sup> Ibid.

labor organisation. Frangipane asserts that the first mass produced bowls unique to the northern regions, the Coba bowls, was related to the distribution of meals or food rations to the workers who worked for the wealthier families<sup>53</sup>. A large amount of these bowls were revealed at Değirmentepe<sup>54</sup>. At Tepe Gawra level XII, the structure opposite the small curved workshops in the northwestern of the settlement had piles of crude serving vessels, which were the precursors of the beveled rim bowls of the Uruk Period, and Rothman says that these vessels may be associated with ration system<sup>55</sup>. A look into the mortuary data of the period, however, shows that the social hierarchy was very little reflected in the burial. The large necropolises found in Eridu and Ur do not contain enough evidence of the existence of social differentiation<sup>56</sup>. There are no diverse funerary practices or significant funerary goods indicating the evidence of a noble class in these cemeteries. Only a few pottery vessels and some obsidian beads have been yielded as burial gifts in majority of the graves and only a copper spear-head was discovered in one grave at Ur, which can maybe ascribe to the social status<sup>57</sup>. Other burials with slight traces of social inequalities have been encountered at Tell Abada, Tepe Gawra level XII, Tell Arpachiyah and Değirmentepe. Infant burials at Tell Abada, included only a necklace made of frit and carnelian beads, a female figurine and a painted cup uncovered near child burials<sup>58</sup>. At Tepe Gawra level XII, grave goods consisted of a few pots and the unidentified objects in child and infant burials underneath the floors of tripartite houses<sup>59</sup>. The cemetery at Tell Arpachiyah consists of 45 graves which contains mainly pottery vessels and occasionally one or two beads<sup>60</sup>. At Değirmentepe, only one funerary gift of a Coba bowl was found with an adult grave among the graves located into a burial pit<sup>61</sup>. Yet, the evidences of rank society do not confirm a high degree of socio-economic stratification as exercised in urban societies.

<sup>53</sup> Frangipane 2000: 227; 2001: 322; 2002: 167; 2003: 150.

<sup>54</sup> Esin 1986: 82; 2002: 167.

<sup>55</sup> Rothman 2002: 75; 2002a: 59; Rothman, Peasnell 2000: 106.

<sup>56</sup> Stein 1994: 39; Pollock 1999: 20; Akkermans 1989: 362; Wright, Pollock 1984: 328.

<sup>57</sup> Wright, Pollock 1984: 327; Akkermans 1989: 358-359

<sup>58</sup> Jasim 1985 : 202.

<sup>59</sup> Rothman 2002a: 60.

<sup>60</sup> Akkermans 1989: 354.

<sup>61</sup> Esin 1985: 254.

### Conclusions

As has been shown, the Ubaid Period occupies a significant place in the process of urbanisation. The period has been characterised by important social, economic and political organisation influencing the rise of urbanism and played a crucial role in the formation process of the urbanisation. It has heralded the hall-marks of urbanism and regarded as a formative time on the road towards urbanism in the Near East. With this period, the first signs of nascent changes towards urbanism such as political and economic centralisation based on the control over products and labor, reckoning system that was tied to the development of the redistributive economy, socio-economic hierarchy, complex economy and organised trade have begun to burgeon. Yet, these are complex societies, albeit a lesser/low degree, economically and administratively and this period may be identified as *the Proto-Urban Period* that is the incipient period that paved the way for the first true cities and urban societies.

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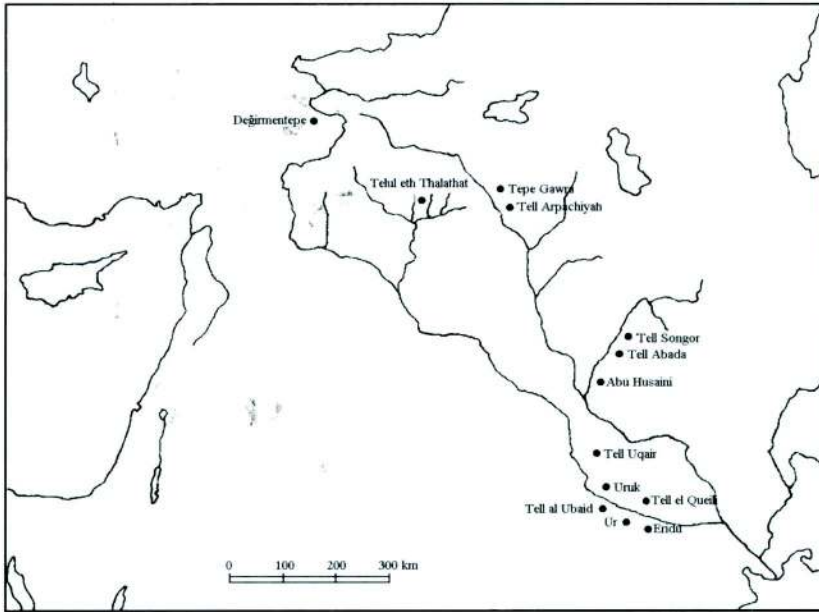


Fig. 1 - Sites mentioned in the text.

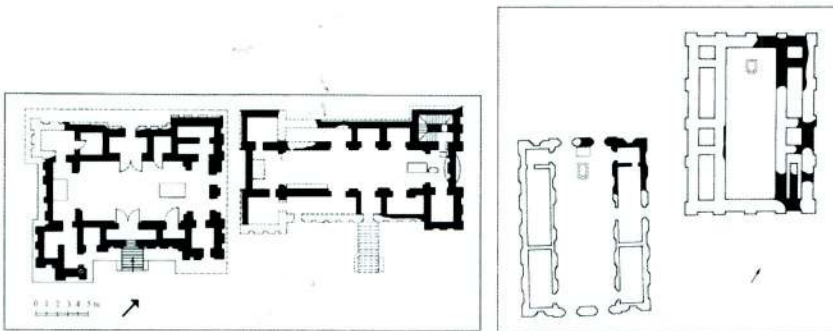


Fig. 2 - Eridu VII, VI and Uruk Temples. After Kubba 1998, Roaf 1984.

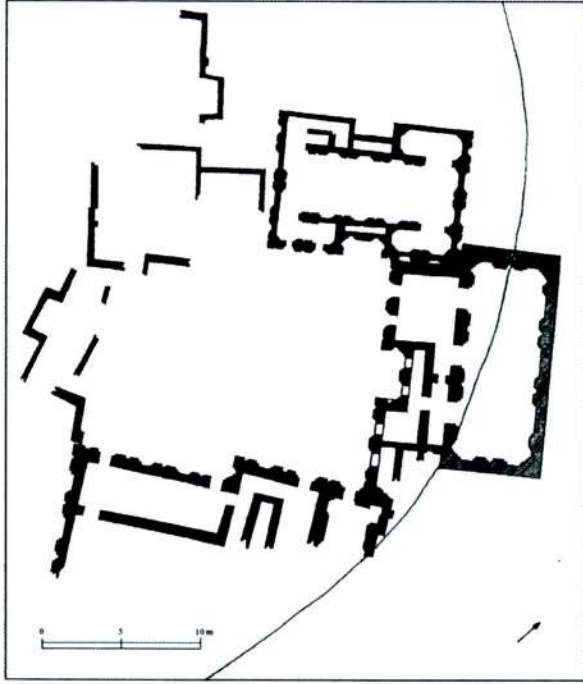


Fig. 3 - Tepe Gawra Level XIII. After Kubba 1998.

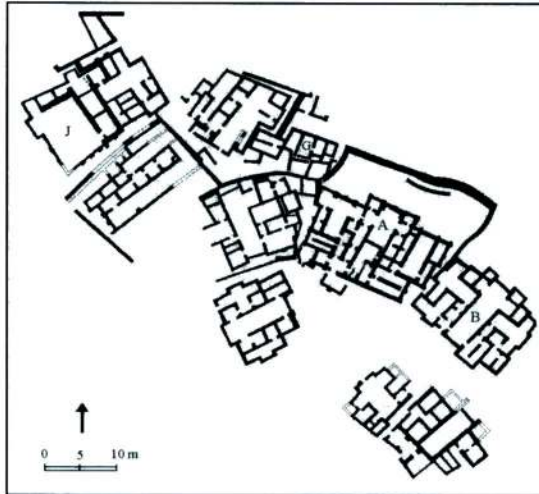


Fig. 4 - Tell Abada Level II. After Jasim 1989.

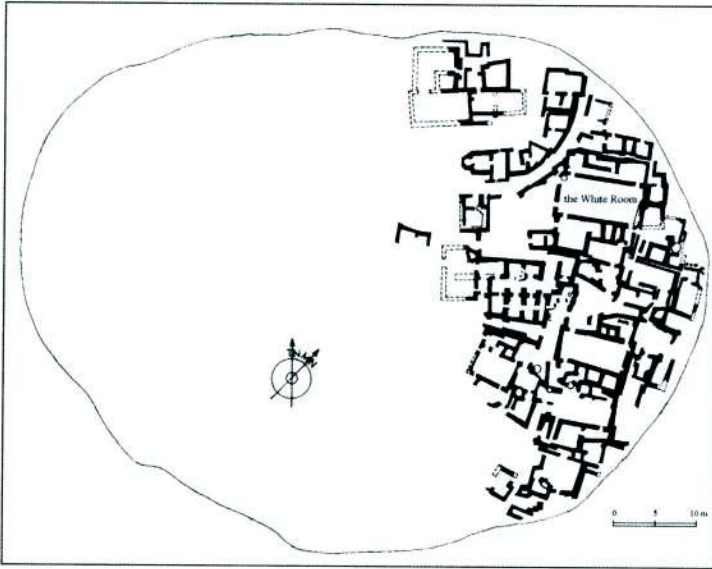


Fig. 5 - Tepe Gawra Level XII. After Rothman and Blackman 1990.

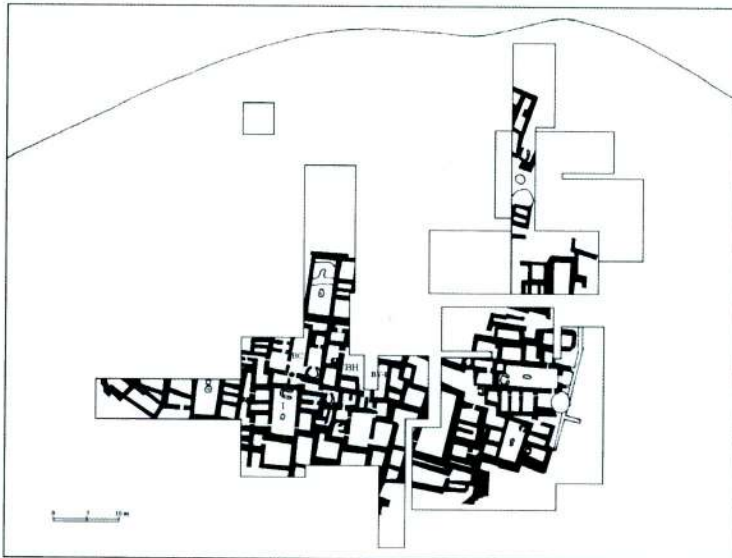


Fig. 6 - Değirmentepe. After Esin 1998.

