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ORIGINI

*PREHISTORY AND PROTOHISTORY
OF ANCIENT CIVILIZATIONS*

XXXIX
2016

PREISTORIA E PROTOSTORIA
DELLE CIVILTÀ ANTICHE




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THE EARLY STAGES OF THE SUMERIAN CITY AT TELL ZURGHUL: NEW RESULTS FROM RECENT EXCAVATIONS

Davide Nadali*
 Andrea Polcaro**

ABSTRACT – *In February 2015 a joint archaeological expedition of Sapienza Università di Roma and Perugia University started excavations of the site of Tell Zurghul, in the Dhi-Qar, Iraq. The site, briefly investigated by R. Koldewey in 1887, has been identified with the Sumerian city of Nigin, the third city of the State of Lagash, mentioned in many inscriptions of Gudea as the place of the main III millennium BC temple of the goddess Nanshe, the Sirara.*

The first survey and excavations of two areas in 2015, Area A and Area B respectively, suggest that the foundation of the city can be dated back at least to the Ubaid Period. The article presents the results of the first campaign analysing the archaeological context and materials from Area B: the recent archaeological activities at Tell Zurghul are therefore presented and contextualized within the regional framework of the ancient State of Lagash, focusing on the development of urbanization and settlement patterns in Southern Mesopotamia.

KEYWORDS – Tell Zurghul, Ubaid, Southern Mesopotamia, Lagash

RIASSUNTO – Nel febbraio 2015, la missione archeologica congiunta della Sapienza Università di Roma e dell'Università degli Studi di Perugia ha condotto la prima campagna di scavo nel sito di Tell Zurghul, nel Dhi-Qar, Iraq. Il sito, già esplorato da R. Koldewey nel 1887, è identificato con la città sumerica di Nigin, il terzo centro urbano dello Stato di Lagash, citato in numerose iscrizioni dal sovrano Gudea come il luogo del più importante edificio sacro del III millennio a.C. (il Sirara) dedicato alla dea Nanshe.

La prima ricognizione e gli scavi condotti nel 2015 nelle aree A e B mostrano come la fondazione della città risalga almeno al Periodo Ubaid. L'articolo presenta i risultati della prima campagna di indagini concentrandosi sull'analisi del contesto archeologico e dei materiali provenienti dall'Area B: le recenti attività di scavo e studio a Tell Zurghul sono pertanto presentate nell'ambito della contestualizzazione del quadro dell'antico Stato di Lagash, con particolare riguardo per gli aspetti dello sviluppo dell'urbanizzazione e degli schemi insediamentali della Mesopotamia meridionale.

PAROLE CHIAVE – *Tell Zurghul, Ubaid, Southern Mesopotamia, Lagash*

1. INTRODUCTION¹

Recently, the resumption of archaeological excavations in Iraq offers the possibility of filling the long gap caused

by the wars the modern country of Iraq suffered since the end of the 1980s. In particular, new landscape investigations and surveys of the southern regions (Hammar, Dhi-Qar and Basra provinces)

¹ Davide Nadali wrote §§ 1 and 2; Andrea Polcaro wrote § 3; both are responsible for § 4.

(Hritz *et alii* 2012) allow completion of the knowledge of the occupation of central and southern Mesopotamia that was hitherto based upon the archaeological sites that had been already surveyed in the past, in the 1950s-1980s (Adams 1981; Adams, Nissen 1972; Gibson 1972; Wright 1981).

Indeed, the most recent results of the archaeological surveys revealed the existence of new sites and settlements that were once covered by former marshes: as a consequence, the new results also point to the possibility of studying the importance of paleoenvironmental evidence and data to describe the complexity of the Mesopotamian landscape and the changes it has suffered in the past right down to today. The reclamations of the former marshes in the 1980s and 1990s deeply affected the socio-economic and environmental situation of modern Iraq with repercussions on the archaeological sites and landscape: sites that were once covered by marshes can be investigated and surveyed collecting surface materials that have been re-exposed by the wind (including very old materials and artefacts that allowed archaeologists to map and reconstruct a diachronic pattern of occupation and urbanization in southern Mesopotamia across millennia) (Hritz *et alii* 2012; Pournelle 2013). In this respect, the environment of modern Iraq has changed significantly because of human actions: marshes have been dried and river courses diverted so that “new” archaeological sites could be detected and surveyed. Further archaeological explorations of these sites can definitely improve our knowledge of the occupation of southern Mesopotamia particularly in the most ancient period (Ubaid and Uruk) by showing the pattern of distribution of settlements: in particular,

the most recent surveys of so-far unexplored or little explored areas of southern Iraq (as in fact the Hammar, Dhi-Qar and Basra provinces) could be the occasion to investigate a portion of the southern alluvium in connection with the course of the Tigris, on the one hand, and the presence of large areas that were once covered by water (due to the presence of marshes and the original very proximity of the sea), on the other hand. Conversely, if environment has been affected by human interventions (with even drastic changes of the landscape of the regions), it is also true that the environment acts as a positive element in the selection, creation and development of urban settlements: southern Mesopotamia can in fact be seen as a good example of such an interaction showing where cities have been founded and how they were related to and depended on natural conditions. The landscape of water (what we could in fact label as a waterscape) of southern Mesopotamia encompassed not only the main rivers of the alluvium (Euphrates and Tigris that once ran closer together in the centre of southern Mesopotamia, Pournelle 2013: 27) but also the large numbers of either natural or artificial channels and the marshes as well as the northernmost location of the sea coast: this hydraulic system, that was sometimes adapted to exigencies such as, for example, agricultural exploitation of the land, caused the formation of new settlements that were mostly located along the same axis, so as to follow a waterway; moreover, marshes are not (at least not always) the result of channel formation but on the contrary they are a pre-existing natural condition that contributed to the formation and shape of cities. Therefore, marshes are not places of stagnant water

formed at the end of channels of irrigation derived from the main rivers, but they are sources of water that create a special environment of flora (reeds that were also used for building and the manufacture of objects) and fauna (fish were in fact a source of nourishment linked to the gods of the Sumerian pantheon, e.g. Enki and the goddess Nanshe who was worshipped in the city at Tell Zurghul, the ancient Nigin) (Pournelle 2013: 19-20; Wilkinson 2013; Wilkinson *et alii* 2015). Furthermore, channels and pools of water were also used as transportation networks creating real waterways for the moving of people and goods as well as being a component of religious ceremonies and festivals that occurred on due dates and occasions: in this respect, the hydraulic landscape of southern Mesopotamia worked as a preconditioning system that human actions adopted and adapted for specific uses and purposes. The foundation of cities is only one of the consequences of this exploitation that lasted for a long time in Mesopotamia across the millennia.

Despite the changes the landscape and environment experienced, waterways and marshes characterized southernmost Mesopotamia up to the first millennium, as Assyrian bas-reliefs representing the military campaigns of the Assyrian kings against Babylonian people show (Barnett *et alii* 1988: pls. 237, 454), and even in modern era as the accounts of travellers and scholars in the 19th and mid-20th centuries show.

It could therefore be said that formation of settlements in southernmost Mesopotamia are a derivation of the hydraulic landscape, benefiting from those natural sources; the following adaptation contributed to a more intensive exploitations of these resources allowing the growth of cities and territorial states, on the one hand, and causing sometimes the drastic changes we earlier referred to, on the other.

Cities, located within the hydraulic landscape of southernmost Mesopotamia, became important religious and political entities laying the foundations for the later

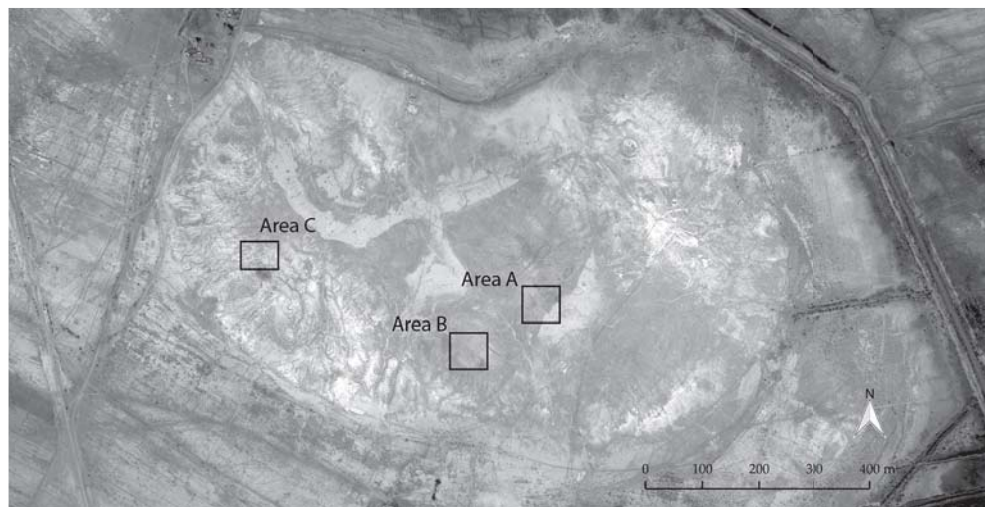


Fig. 1 – Air photo of Tell Zurghul, southern Iraq, Dhi-Qar Province (elaborated from Bing™ Maps Platform).



Fig. 2 – Map of Southern Mesopotamia (source: authors).

3rd millennium city-states of the Early Dynastic Period that were also provided with harbours along the channels and on the sea, precisely to control and manage the itineraries of exchange and movement of goods and people, not only within the Mesopotamian alluvium but also encompassing the neighbouring regions of Iran and the Gulf.²

The new surveys in the most southern area of Mesopotamia not only complete the archaeological research made in the area of Ur, Eridu and Uruk in the south and in the area of Nippur in north-central Mesopotamia but also broaden the horizon of the research to the eastern and

south-eastern regions of the alluvium. In this respect, the on-going excavations at Tell Zurghul (figs. 1-2), in the region of ancient Lagash (al-Hiba), will definitely open new trends of research that were partially started at the end of the 1990s (Carter 1989-90), just before the cessation of archaeological research in Iraq because of the events of the First Gulf War. In particular, the results of the first campaign at Tell Zurghul show the importance of the region of Lagash from the most ancient phases of Mesopotamian history (fig. 3), particularly in the formation of cities, with the possibility of linking and comparing not only northern (central) and southern-

² Indeed, exchanges between southern Mesopotamian centres and the Gulf are known since the Ubaid Period (Frifelt 1989; Matthews 2001; Carter 2006).

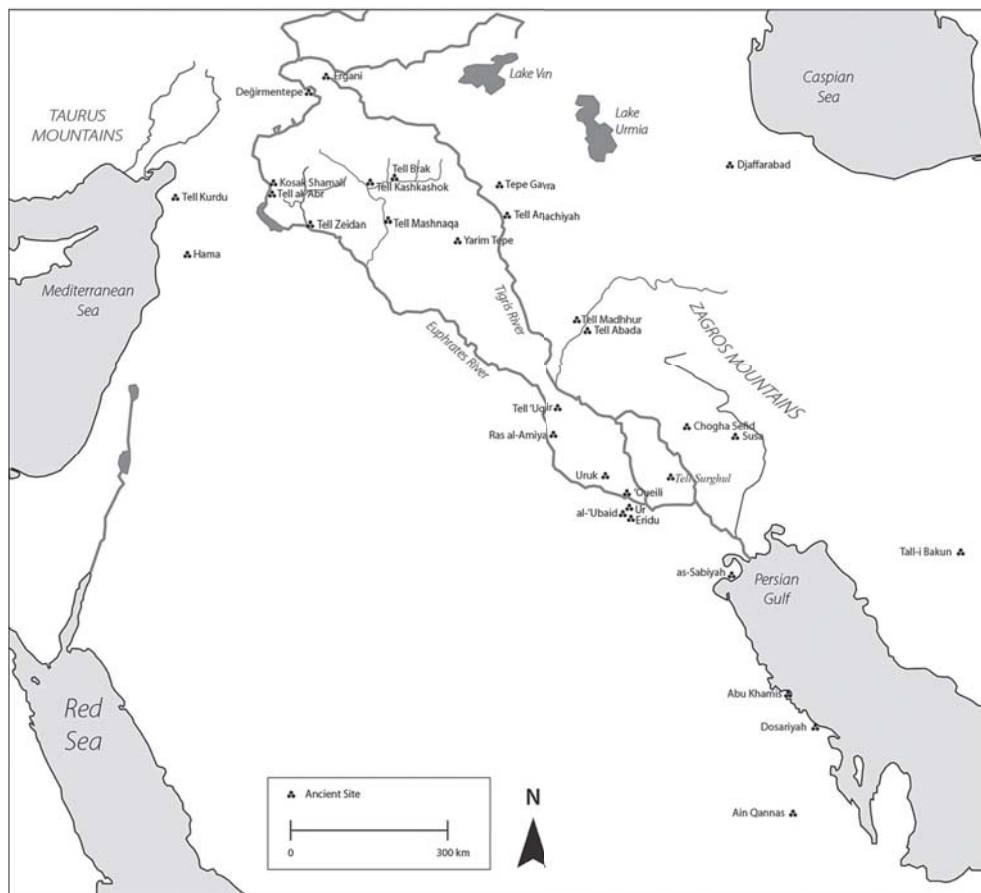


Fig. 3 – Map of the main Ubaid sites (elaboration after Stein 2010: fig. 2.1).

most Mesopotamia but also western (Uruk, Ur, Eridu and Oueili) and eastern Mesopotamia.³ Is the development in the region of Lagash, with channels derived

from the Tigris and pre-existing marshes (actually being a point of contact with the ancient Gulf), different to the western area around Ur and Eridu or, more plausibly,

³ Indeed, the archaeological knowledge of the Ubaid Period in southernmost Mesopotamia is not only poorly documented (Huot 1987: 295; 1989: 19), but it is in fact limited to the sites of Ur, Eridu, Oueili, Uruk and al-Ubaid itself (Stein 2010): up to now, the sequence of occupation of Eridu has delivered information and archaeological data on Ubaid material culture and architecture (Safar *et alii* 1981); the discovery of the cemeteries at Ur and Eridu provided further evidence on the funerary traditions and the implications on the complexity and organization of Ubaid societies (Wright, Pollock 1987; Stein 1994: 41-43); the most recent archaeological researches at Oueili definitely contributed to a re-evaluation of the Ubaid Period concerning the chronological phases (Ubaid 0-4), material culture (pottery and clay figurines), lithics and tools, architecture and the exploitation and impact of the environment in the analysis of socio-economic development and progress (Huot ed. 1983; Huot 1992; Huot ed. 1996). Unfortunately, the Ubaid archaeological evidence from Tello is not reliable (Huot 1987: 296).



Fig. 4 – Mound B as seen from the top of Mound A, from the North (© MAIN – Missione Archeologica Italiana a Nigin).

is it a complementary process of urbanization and growth showing a pattern of occupation along waterways, on the edge and fluid “border” between marshes and sea and on the route to the East?

The analysis of the landscape where the cities of the ancient State of Lagash grew up allows us to reconsider the role and importance of the presence (one might even say the predominance) of water around the sites (Huot 1989: 22): indeed, sites are surrounded by water and settlements emerge as islands from the water. The old view of the hydraulic society of Wittfogel (1955; 1957) applied to ancient Mesopotamia no longer fits with the archaeological evidence:⁴ in this respect, the complex hydraulic system of southern Mesopotamia is not a derivation of city-states and political powers that

transformed and used water to build their socio-economic system; in fact, it might be now said that the contrary is true, that the waterscape of southern Mesopotamia worked as a prerequisite or even a fundamental condition to make city-states grow and enlarge their power to form a regional and territorial state. In fact, the hydraulic landscape of southern Mesopotamia contributed to the birth and the economic growth of cities in the Ubaid Period marking the development of social complexity (Stein 1994: 42; 1996: 27).

Within this framework, taking the hydraulic landscape into account, the recent investigations at Tell Zurghul point to the study and analysis of the formation of cities in Southern Mesopotamia, looking at this perspective from the east (the region of Lagash): actually, the results

⁴ For a critical reappraisal and comment on Wittfogel’s theory, see Liverani 2013: 162-168.

of the excavations in Area B at Tell Zurghul (fig. 4) allow us to focus on the Ubaid Period with interesting new perspectives not only in the debate about chronology (following the chronological pattern established by J. Oates, 1960), but also in the understanding of the formation of cities in the alluvium and the development of cultural features in the material culture (pottery and tools, e.g. the use of obsidian, Healey 2010) and architecture (Sievertsen 2010). For what precisely concerns the development and diffusion of Ubaid cultural features in Southern Mesopotamia, J. Oates observed that “It is tempting to see some confirmation of the role which may have been played by the marsh-dwelling communities in the formation of al ‘Ubaid-Sumerian culture, in the traditional temple offerings at Eridu and Lagash. The finds at Eridu, and at a considerably later period at Lagash, show that in these places the people dedicated to Enki his portion of their goods, not in the form of grain or meat, the basic form of wealth among farming communities, but in fish, the product of river, lagoon, and marsh - a tradition which is hardly likely to have been derived from a population principally dependent on the success of their fields and flocks” (1960: 50). As a consequence, the ongoing research in the area of the ancient state of Lagash can fill the gap in the knowledge of the expansion and presence of the Ubaid culture in the alluvium, thus allowing the establishment of not only correspondence and relationships between Northern and Southern Mesopotamia, but also between Western (Eridu) and

Eastern (Lagash) parts of the southern alluvium. The environment of the area of Lagash, particularly rich in water (waterways and marshes), surely affected the development and formation of cities and the economy of ancient societies with a combination of different factors and elements (the exploitation of water sources not only for agriculture).

2. THE AREA OF LAGASH AND THE LANDSCAPE OF TELL ZURGHUL

The main cities of the ancient region of Lagash were explored at the end of the 19th century and in the mid-1970s: Tello, the ancient city of Girsu, was excavated by a French expedition that led to the discoveries mainly dated to the 3rd millennium BC (Early Dynastic Period and the Neo-Sumerian Period);⁵ the city of Lagash has been excavated by the American expedition directed by Donald Hansen (1978; 1983) with the discoveries of large sectors and monumental buildings of the city dated to the Early Dynastic Period; Tell Zurghul was very briefly excavated by Robert Koldewey in 1887 (fig. 5): the German archaeologist made soundings in long narrow trenches in several parts of the city, concentrating on the two main mounds of the site; he collected archaeological materials (pottery, cylinder seals and fragments of Gudea’s inscriptions) but he concluded that Tell Zurghul was mainly a necropolis based on the evidence of burials (Koldewey 1887; Huh 2008: 246).

Extensive surveys have not been carried out: exceptions are the survey made on

⁵ For a general overview of the French archaeological works at Girsu, see Parrot 1948.



Fig. 5 – The trench of R. Koldewey on the northern side of Mound A, from the North (© MAIN – Missione Archeologica Italiana a Nigin).

the mound of ancient Lagash (Carter 1989-90) and the recent explorations made by Abdulmir al-Hamdani between 2003 and 2009 in the region of Lagash (al-Hamdani 2014; Hritz *et alii* 2012: 40-41). While the survey of the mound of Lagash mainly confirmed the great extent and importance of the city in the Early Dynastic Period, the research conducted by al-Hamdani revealed that the area was occupied in the Late Ubaid Period, with settlements of no more than 3 hectares, mainly located around the city of Girsu and Bad-Tibira as well as Lagash itself and the southern city of Tell Zurghul/Nigin: indeed, the results of the survey of al-

Hamdani shows that many settlements occupied the ancient region of Lagash, having the shape of turtlebacks emerging from the water. In fact, the settlement dated to the Late Ubaid Period (Ubaid 4) so far excavated at Tell Zurghul seems to have the characteristic of a small turtleback mound (slightly bigger than 0.5 hectares at about 4 m height above the surrounding area): further explorations in the area would in fact clarify the real extent of the mound and the settlement dated to the Ubaid 4 Period (it cannot be excluded that the mound was originally larger and that other areas in the site were occupied in the Late Ubaid).⁶

⁶ Excavations in Area A revealed the existence of a room presumably belonging to a larger administrative building where more than 40 vessels (conical bowls) have been recovered that can be dated to the final Late Uruk Period or even to the beginning of the Jemdet Nasr. The topography of the area suggests that the layers of the end of the 4th/beginning of the 3rd millennium BC cover previous structures that could therefore be dated to the most ancient phases of the Chalcolithic and Ubaid Period. The main mound of Tell Zurghul (labelled Mound A) already explored by R. Koldewey with a narrow trench from the top (9 m deep) can in fact be interpreted as a multi-layered and terraced mound that has been continuously levelled and rebuilt up to the last phase of occupation (Neo-Sumerian Period: the temple of the goddess Nanshe, built by king Gudea, probably occupied the top of the mound).



Fig. 6 – Marshes on the western side of Tell Zurghul (© MAIN – Missione Archeologica Italiana a Nigin).



Fig. 7 – Presence of an old pool of water at Tell Zurghul (© MAIN – Missione Archeologica Italiana a Nigin).

The extensive presence of water is not only, as already said, documented by the study of the archaeological landscape: indeed, in the 1920s when Dougherty (1925-26: 56) visited Tell Zurghul, he could reach the main mound only by boat; and again in 1989-90 when Black (1989-90) visited the site during the survey at al-Hiba, Tell Zurghul was surrounded by marshes (in fact, Black notes that no direct road existed between Lagash and Tell

Zurghul, only 7 km south-east from al-Hiba, and that it was necessary to travel around the marshes). Nowadays, although the environment has greatly changed, the site can be reached from the modern town of Duayeh on a paved road that passes through marshes and water pools; from Tell Zurghul, it is still possible to see quite large water pools to the north and west that become larger during the season of heavy rain in November-December (figs. 6-7).



Fig. 8 – The relief of the western side of Tell Zurghul, from South-West (© MAIN – Missione Archeologica Italiana a Nigin).

For that reason, the shape and morphology of the site could have changed over time due to the enlargement of water pools that could flow through the site: it is interesting to note that the western side of the site is in fact characterized by a raised topographic feature about 200 m long and 150 m wide (fig. 8): the nature of this structure is still unclear.⁷

3. THE EXPLORATION OF AREA B

The site of Tell Zurghul, ancient Nigin⁸, is located in Iraq, in the Dhi-Qar

province, 7 km south-east from al-Hiba, ancient Lagash (figs. 2, 9). The morphology of the site is characterized by the presence of two main mounds, denominated Mound A and Mound B (fig. 10). In 2015 Sapienza University of Rome and Perugia University started a new excavation project of the site, opening three main areas (Area A, Area B and Area C) with the purpose of better understanding the nature of the mounds and the occupation of the site.

A trench of 10 x 5 m in Area B has been opened on the top and the western slope of Mound B, next to Koldewey's sounding

⁷ A survey in the area has been conducted during the first campaign in 2015, while further explorations with soundings and trenches will in fact precisely aim to clarify the nature of the long topographic feature on the western edge of the site. At the beginning, just from a quick observation, we thought it may be a bank of an ancient canal (maybe the "Canal going to Nigin" quoted by Gudea in his inscriptions, Rost 2011): however, with the dimensions of 200 x 150 m, it does not sound like the sort of linear banks which represent ancient canals elsewhere (see Rost, Hamdani 2001 and Wilkinson *et alii* 2015).

⁸ The Sumerian name of the site NINA^{KI} was object of debate, alternatively read as Nina or Nigin (see Edzard 2000: 322). In any case this name is present from the Jemdet Nasr Period (Heimpel 1998: 152) and it could not coincide with the name of the settlement during the Ubaid and Uruk periods.

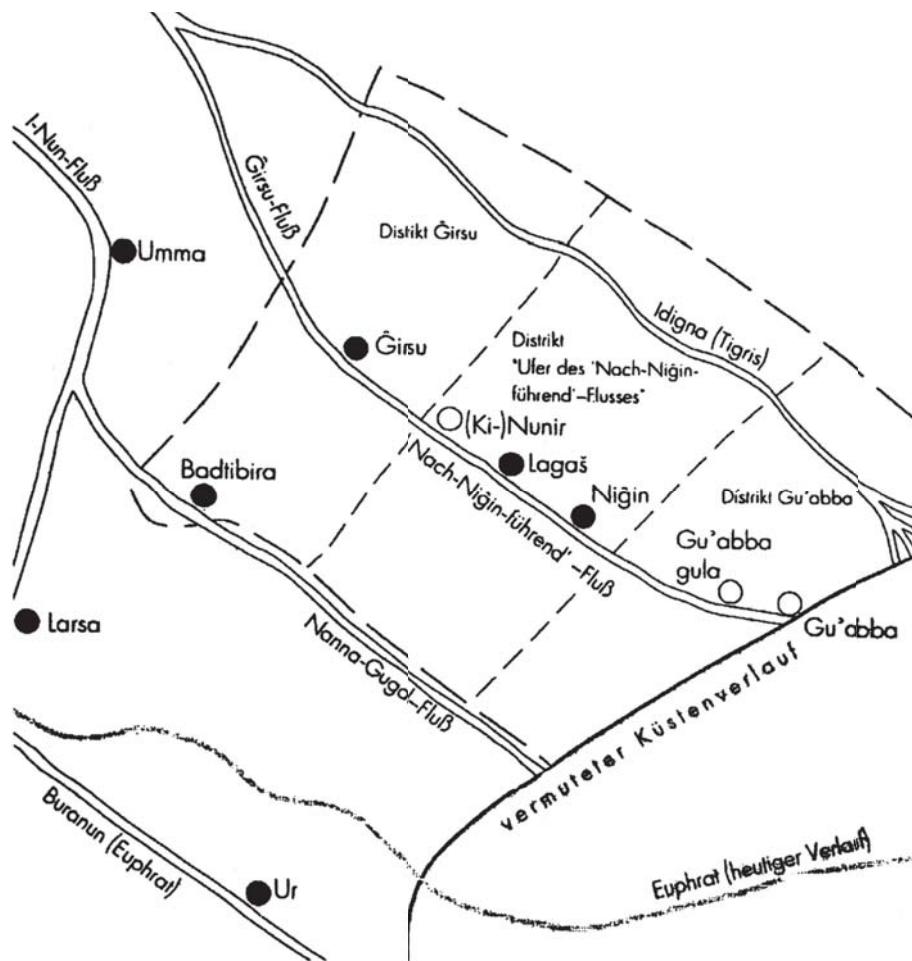


Fig. 9 – Topographical map of the Lagash region (after Huh 2008: fig 3c).



Fig. 10 – View of Tell Zurghul from West: Mound A (left) and Mound B (right) (© MAIN – Missione Archeologica Italiana a Nigin).



Fig. 11 – General view of Area B after cleaning, with the cut of the Koldewey trench (© MAIN – Missione Archeologica Italiana a Nigin).

(fig. 11).⁹ To date, 2 phases - each one with 2 sub-phases - have been detected, all dated to the Ubaid 4 period (ca. 5300-4500 BC), according to the pottery assemblage recovered, although the recovery of Late Uruk and Jemdet Nasr pottery sherds on the surface of the area suggests later occupation whose architectural remains are completely lost. Furthermore, the cleaning of the area and the removal of the topsoil allowed the identification of the limits of Koldewey's trench (P.31) and the accumulated layers probably corresponding to Koldewey's

excavation dump, characterized by a considerable amount of pottery sherds dated to the Ubaid 3-4 periods.

Phase 1

The removal of the Koldewey dump and several eroded layers allowed the exposure of the first architectonic phase (Phase 1a-b) (fig. 12). It consists of two mud-brick walls, oriented north-south (W.26) and east-west (W.28) respectively, partially cut by the sounding of the German archaeologist. The first one (W.26), 1.02 m wide, is preserved for a length of 6 m and it forms with the second one (W.28) the corner of a room. The building technique shows an alternating use of mud-bricks and layers of *pisé*. The beaten earthen floor L.27, to the east of and associated to W.26, was covered by a thin layer of ash, where pottery sherds, animal and fish bones and charcoal have been recovered and collected.

The sub-phase 1a corresponds to the destruction and the collapse of these two walls. The pottery assemblage recovered clearly belongs to the chronological and cultural phase of Ubaid 4, finding a precise comparison with the contemporary phase of occupation of the site of Oueili.¹⁰ It shows a preponderance of Simple Ware and Simple Painted Ware (fig. 13), with a prevalence of open shapes, such as bowls, cups or (deep) plates. In particular the most representative shapes are painted deep plates with slight incurved flattened rim (SG.15.B.11/14), bowls and beakers with thin slightly flaring decorated sides

⁹ Koldewey made one of his soundings on the top of Mound B toward the southern slope, reaching a depth of 4 m and collecting materials dated from late Ubaid to the Ur III period (Huh 2008: 245-246).

¹⁰ For the Ubaid 4 pottery from Oueili see Lebeau 1983a: 81-131; 1983b. Similar materials have been recovered at Girsu (de Genouillac 1934: pls. 27-28; Parrot 1948: 35-40). Ubaid pottery fragments were also collected by Koldewey on the surface of the site (Huh 2008: cat. nos. 159-160, Taf. 11).

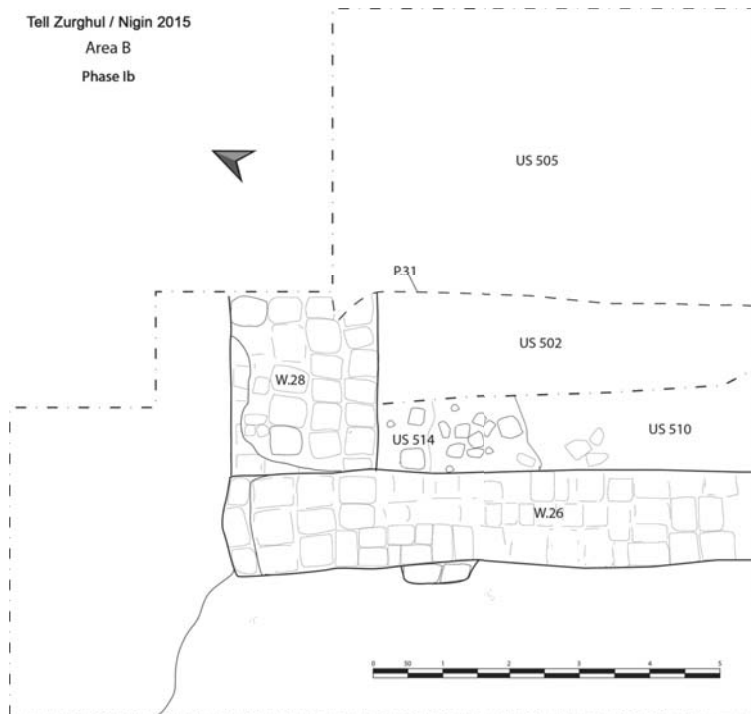


Fig. 12 – Area B, plan of Phase 1 (© MAIN – Missione Archeologica Italiana a Nigin).

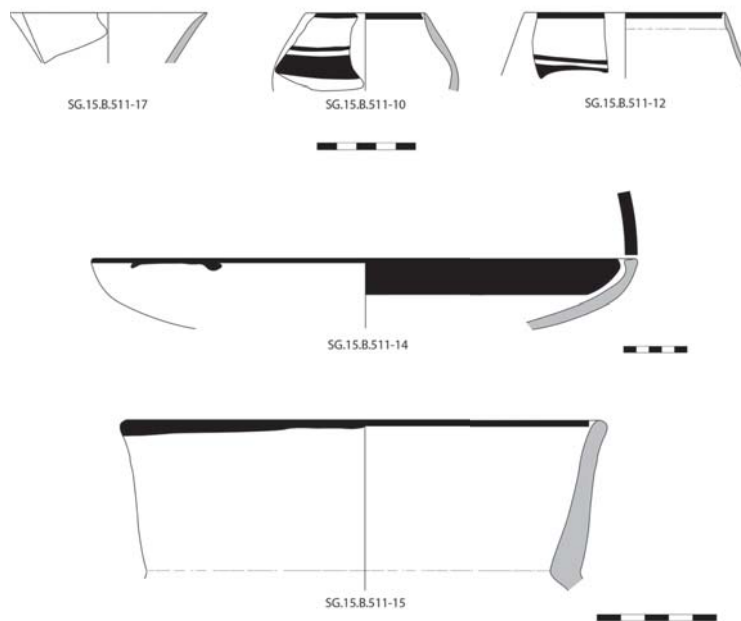


Fig. 13 – Area B, selection of pottery of Phase 1 (© MAIN – Missione Archeologica Italiana a Nigin).

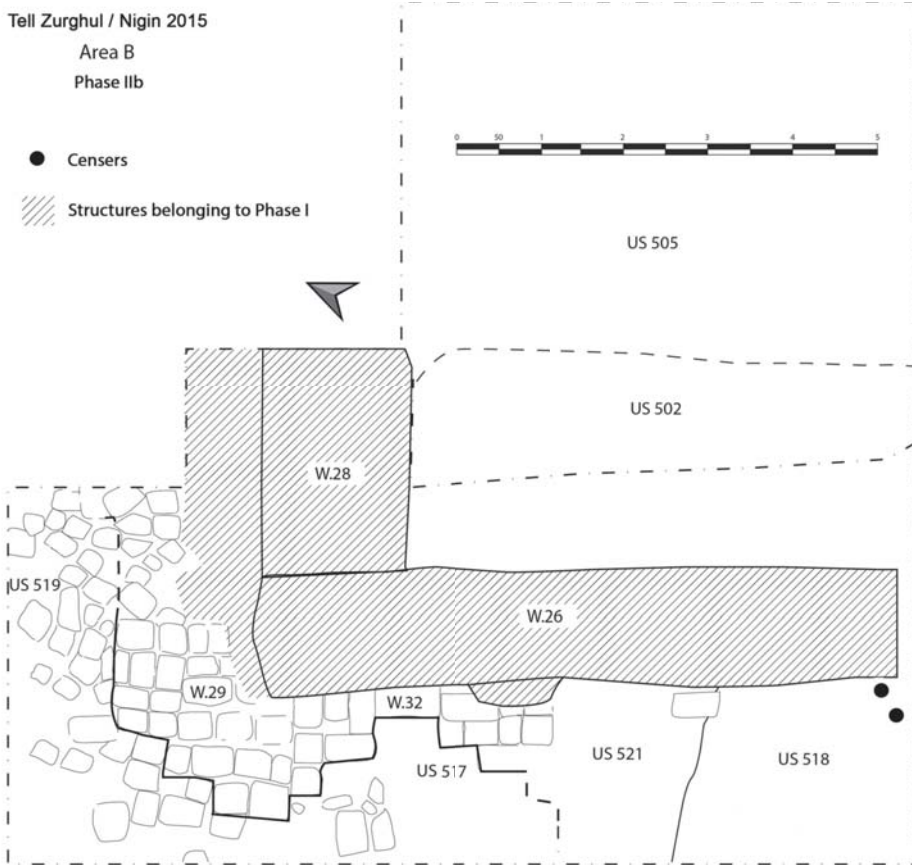


Fig. 14 – Area B, plan of Phase 2 (© MAIN – Missione Archeologica Italiana a Nigin).

(SG.15.B.11/17) and deep bowls with curving sides, often carinated, and large bowls with thick sides (SG.15.B.11/10; SG.15.B.11/12). Furthermore, a typical Ubaid 4 baked “clay nail” (with curved termination) has been found in Phase 1a (Lebeau 1983a: 135, pl. C4-5; Stein 2010: 23).

Phase 2

The removal of L.27 allowed the exposure, in the eastern part of the area, of a previous phase (Phase 2b), with two substantial mud-brick walls - W.29, east-

west oriented, and W.32, north-south oriented - both decorated with niches and buttresses and made of pinkish and greenish mud-bricks (fig. 14). Only their northern and western façades have been excavated, the southern and eastern ones still being covered by the later structures of Phase 1b. To date, no floor associated with Phase 2b has been recovered. As in Phase 1, the sub-phase 2a corresponds to the destruction and the collapse of the two walls. From an architectural point of view, the mud brick pattern of the building of Phase 2 can be compared with the typical

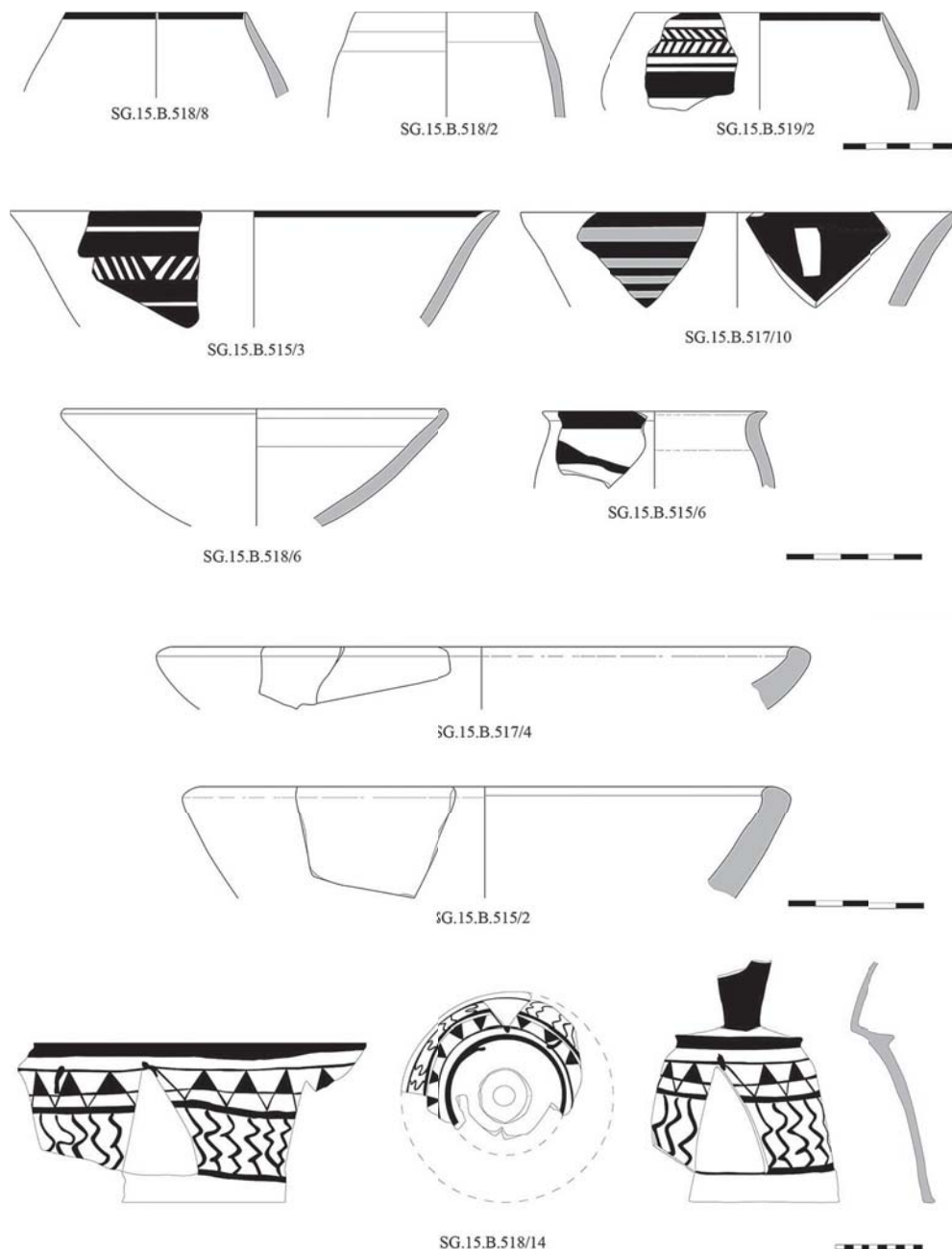


Fig. 15 – Area B, selection of pottery of Phase 2 (© MAIN – Missione Archeologica Italiana a Nigin).



Fig. 16 – Area B, pottery of US 515, Phase 2 (© MAIN – Missione Archeologica Italiana a Nigin).



Fig. 17 – Area B, pottery of US 519, Phase 2 (© MAIN – Missione Archeologica Italiana a Nigin).



Fig. 18 – Group of censors recovered *in situ* in Area B (© MAIN – Missione Archeologica Italiana a Nigin).

dimensions of the mud-bricks of the Ubaid period, ranging between 45-42 x 24-22 x 8-7 cm.¹¹

The pottery assemblage from Phase 2 clearly also belongs to the Ubaid 4 period (figs. 15-17). Simple Ware is principally represented, while the presence of Simple Painted Ware is reduced (as is typical for the passage from Ubaid 3 to Ubaid 4: see Oates 1960: 39; Lebeau 1983: 83). As in Phase 1, open shapes are the most

represented, in particular the deep bowls with curving sides, often carinated, and large bowls with thick sides (SG.15.B.518/8; SG.15.B.518/2; SG.15.B.519/2); bowls and beakers with thin slightly flaring decorated sides (SG.15.B.515/3; SG.15.B.517/10); deep plates with a slightly incurving rim (SG.15.B.517/4; SG.15.B.515/2).¹² Furthermore, a group of six censors was recovered in the southwestern corner of the trench, partially

¹¹ See Moorey 1994: 307. As observed by M. Sauvage (1998: 103-107), the Ubaid period marks a development and standardization of building techniques in architecture, with mud bricks having precise shapes and dimensions (that change according to the regions, with a substantial difference between Northern and Southern Mesopotamia – in the North mud bricks are bigger). According to Sauvage (1998: 104), the length of Ubaid 4 mud bricks in Southern Mesopotamia should be smaller (about 35.89 cm) than those found at Tell Zurghul: indeed the dimensions of mud bricks from Tell Zurghul actually look more similar to the bricks that were used underneath the soil level in Eridu Temple VI (Forest 1987: 422).

¹² The shapes and the decorations of the pottery recovered in the excavations of Area B of Tell Zurghul have many comparisons with the Ubaid 4 Level at Tell Oueili: see Lebeau 1983b: pls. 7:1-3; 8:1; 6: 4-7; 2: 3-4.

Tell Surghul



Eridu



Fig. 19 – Drawing of the painted censers from Tell Zurghul and Eridu (© MAIN – Missione Archeologica Italiana a Nigin and after Safar, Mustafa, Lloyd 1981: 158).

against the western façade of the wall W.32 (fig. 18): these cultic vessels, one of them painted with geometric and wave motifs painted in black and white (SG.15.B.518/14), have parallels with the censers discovered in Room 28 of the Temple VI of Eridu, dated to the Late Ubaid Period (Safar, Mustafa and Lloyd 1981: 160, fig. 74:13,15). In particular the group of censers at Eridu was found stored in a corner of Room 28, corresponding to the north-eastern corner of the building. In this area two rectangular rooms of identical dimension were probably used for storage. The decorative motif depicted on the censer from Tell Zurghul differs from the

specimen from Eridu (fig. 19). The body of the Eridu censer is decorated with black triangles arranged in three registers, while the base is decorated with parallel wavy lines. The high proportion of pottery with open shapes (89%¹³) in the building discovered in Area B of Tell Zurghul could thus suggest large feasting activities and the presence of the censers, could moreover suggest that the building could also be directly related to ritual activity. Moreover, the presence of fish bones could also be connected to economic activities important for society and easily comprehensible in the watery landscape panorama of Southern Mesopotamia.¹⁴ These data together with the identification

¹³ The percentage is the result of a current research by Agnese Vacca who presented the preliminary results of the excavations of Area B at Tell Zurghul at the 10th ICAANE (Vienna 2016).

¹⁴ Fishing was a common activity in the settlements of Ubaid 4 Period of Lower Mesopotamia, like Oueili (Lebeau 1983c). The archaeological evidence of fish bones at Tell Zurghul can depend on the peculiar environment of the site and, in general, of all sites of the alluvium in the 5th millennium BC: as already noted, water characterized the landscape of Southern Mesopotamian and indeed settlements looked more like islands

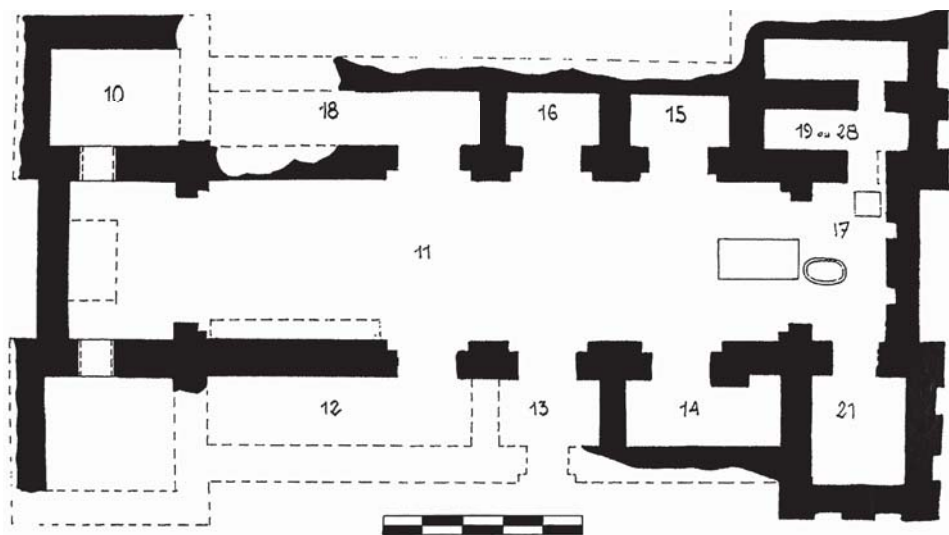


Fig. 20 – Plan of Eridu Temple Phase VI (after Forest 1987: fig. 9).

of the niches and buttresses of W.32 could thus suggest the presence of a large public building, probably one of the main temples of Tell Surghul in the Ubaid Period.

A Temple of Ubaid Period in Tell Zurghul?

Looking at the morphology of Mound B, it is clear that a second lower

topographical feature lies on its south-western side: a depression in the middle divides the two hills. The censers discovered piled one upon the other could have been originally placed in an inner chamber of the building: therefore, the niches and buttresses might have decorated the inner wall of the main central cella of the temple, based on a comparison of what can be observed at

floating in the water of canals and marshes. Therefore fishing surely was a widespread and common economic activity and dried fish was therefore largely employed as a source for protein in the diet of Mesopotamian population (Pournelle 2013: 23; Widell 2013: 63-64). The special natural condition of Southern Mesopotamia with a mix of freshwater and sea water from the Gulf created a rich environment for fish species (Algaze 2013: 70; Pournelle 2013: 26; Wilkinson 2013: 33, 43). Fish bones have been also largely recovered at Eridu: precisely in Temple VI (Safar *et alii* 1981: 107) they have been found among ash layers on the top of the podium and within a clay basin beside it; this evidence, as in other contexts (Safar *et alii* 1981: 45, 101), has been interpreted as votive offerings to the city god Enki. Such an interpretation could also apply for Tell Zurghul confirming the hypothesis that the building under excavation might be a temple; moreover, Nanshe, patron deity of the city at least since the Late Uruk period (see fn. 18), is identified as the goddess of fish and aquatic birds, thus reinforcing the link between the religious sphere and the neighbouring environment. See also Lebeau 1983c for the evidence from Oueili related to fishing activities and consumption of fish.

¹⁵ Concerning the Ubaid temples of Eridu and the interpretation of their function in relationship to their plan evolution from Phase VII to Phase VI see Forest 1987: 417-423. For a general evaluation of Ubaid monumental architecture, see also Margueron 1987.

Eridu, Temple VI and Temple VII.¹⁵ If future excavations confirm this hypothesis, it is thus probable that the Ubaid 4 temple of Tell Zurghul originally extended to the south-west, covering or partially occupying the lower mound. Eridu Temple VI is 25 m long and 12 m wide (fig. 20): actually, these dimensions fits with the extension of Mound B, from the western limit of the excavation trench, where wall W.32 has been located, to the lower mound on the south-western side. Therefore, Mound B of Tell Zurghul could be the result, as at Eridu, of the superimposition and stratification of different layers resulting from the continuous rebuilding of the same or slightly modified temple (e.g. plan and dimensions could be changed). The depression in the middle could thus depend on the erosion caused by water.

The similarity of the findings as well as the similar architectural pattern of the building of Tell Zurghul and the temples of Eridu could be further strengthened by the ideological and religious link between the two Sumerian cities, abode of the goddess Nanshe and the god Enki respectively. Moreover, the two deities share both a family connection (Enki is the father of Nanshe) and similar sphere of influences, since they are both associated with water.

4. CONCLUSION

The results so far achieved at Tell Zurghul point to a very interesting new perspective in the analysis and under-

standing of the Ubaid culture in the alluvium: in particular, the new results in the region of Lagash fill the gap in our knowledge of the formation and process of urbanization in the eastern area of Southern Mesopotamia. Moreover, the resumption of archaeological researches in Southern Iraq and the recovery of levels dated to the Ubaid Period at Tell Zurghul precisely allow us to focus again on the main cultural and chronological features of the 5th millennium BC with the possibility of relying on substantial new data coming from stratified and undisturbed archaeological contexts. As J.-L. Huot already pointed out (1987: 296), the materials from Tello, ancient Girsu, dated to the Ubaid 4 are unfortunately unreliable due to the methodology of excavation and registration of data by the French archaeologists between 1929 and 1931:¹⁶ the systematic preference for painted pottery as it has been published by H. de Genouillac (588 painted vessels *vs* only 7 unpainted shapes) alters the reality if confronted with the pottery materials recovered at Oueili (about 88% of the pottery from Ubaid 4 levels is unpainted). Although the extent of the area so far excavated in Area B at Tell Zurghul is quite limited, it can however be observed that most of the pottery fragments collected in the layers dated to the Ubaid 4 period are unpainted, thus confirming the general trend in pottery production in Mesopotamia in the transition from Ubaid 3 to Ubaid 4 phase as seen at Eridu and Oueili (Oates 1960: 39; Lebeau 1983a: 83).

Indeed the stratified Ubaid 4 materials

¹⁶ J.-D. Forest also suggests that the materials from Tello can be dated to the Ubaid 4 or even Ubaid 5 (Terminal Ubaid) phases (1996: 103-105).



Fig. 21 – Mound B (back) and the lower hill to the south (front), from South-West (© MAIN – Missione Archeologica Italiana a Nigin).

from Tell Zurghul together with the evidence from Tello (that further archaeological explorations can verify and clarify) show that the ancient region of Lagash was occupied from the mid-5th millennium BC: future explorations at the site as well as the extension of Area B would aim to verify the phases of occupation of the site in the Ubaid Period, as hints already suggest that previous occupations could be detected in Area B and in the other trench (Area A) excavated on the south/south-eastern slope of the main mound.¹⁷ In fact, those hints suggest that several contemporary settlements existed in different areas of the site: Tell Zurghul could thus have been made of several hills (turtleback mounds) emerging from the surrounding water of canals and marshes. It will be interesting to verify the extent of the Ubaid settlement, where the different mounds were located and how they could

communicate with each other (maybe waterways and marshes were the favourite and easiest way to reach the different occupied areas of the city). Apparently mound B, at least according to the stratigraphy of the area, has not been reoccupied and covered by later structures, although R. Koldewey collected later materials on the surface and in the deep soundings he excavated (Huh 2009: 245-246): maybe his excavations and removal of later strata changed the shape of the mound allowing the possibility of detecting the Ubaid 4 occupational layers at a very high level. At the same time, heavy rains and wind could have contributed to the disappearance of the upper later layers of occupation of the mound (Wilkinson 2003: 41-43; Pournelle 2013: 20; Ur 2013: 135, 143).

On the other hand, the building so far excavated could probably extend farther

¹⁷ The preliminary results of the excavations of Area A at Tell Zurghul have been presented by Sara Pizzimenti at the 10th ICAANE (Vienna 2016).



Fig. 22 – The central depression between Mound B and the southern hill with clay cones (© MAIN – Missione Archeologica Italiana a Nigin).

to the south as to encompass the southern lower mound (fig. 21): the central hollow might in fact be the result of water erosion, a temporary *wadi* that affected the structures as the large quantity of painted and unpainted clay cones on the surface and in the cracks shows (fig. 22). In this respect, the analysis of the geomorphology of the site is essential: the presence of water doubtless contributed to the growth and development of a city, but it might have caused the ruin and collapse of the city once it had been abandoned (waterways and marshes were no longer regulated and the flow of water

deeply eroded the mounds). The on-going research at Tell Zurghul can therefore provide new and interesting data on the role the environment had in the process of urbanization in the region of Lagash: moreover, the results give new significant data on the region of Lagash that up to now has been considered a marginal area in the study of Mesopotamian Ubaid. The evidence from Tell Zurghul might in fact be an opportunity to re-evaluate the phenomenon of Ubaid in the entire alluvium of Southern Mesopotamia: the resumption of archaeological works at Tello could in fact complete the data from Tell Zurghul, showing the presence of Ubaid settlements in the area. Although data from al-Hiba seems to deny any archaeological data earlier than the Uruk period (Carter 1989-90: 62), it seems interesting to correlate the information from the cities of the entire region trying to build up and figure out how the process of urbanization in 5th millennium BC developed and how it interrelated with the hitherto best known concentration of Ubaid settlements, in the area of Ur, Eridu, Uruk and Oueili (Stein 2010: 24). If the portions of the building discovered in Area B at Tell Zurghul could eventually be interpreted as a sacred building, further research should definitely focus on the nature and role of the site in the region of Lagash during the Ubaid period, whether, for example, other Ubaid dated occupation in the site had a different function, showing a multifaceted social organization and complexity. If the interpretation of the building at Tell Zurghul as a temple should be confirmed, we have first evidence of a temple outside the Ur/Eridu region (Stein 2010: 38): in this respect, further consideration and analysis could

explain the role of religion as a cultural element of dialogue and exchange among the cities of the alluvium.¹⁸

The foundation of cities in the Ubaid period in the region of Lagash should probably be specifically linked with the role played by the environmental waterscape: canals and marshes, that will then be systematically regulated as the 3rd millennium cuneiform sources show, determined the favourable conditions for the foundation and growth of new cities

allowing, via waterways, the expansion of common cultural features and the exchange with neighbouring eastern (Zagros and Western Iran, Henrickson 1989; Weeks *et alii* 2010) and southern (Gulf, Frifelt 1989; Matthews 2001) areas in an already established network of communication.

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¹⁸ The consideration by Oates (1960: 50) on “the formation of al ‘Ubaid-Sumerian culture, in the traditional temple offerings at Eridu and Lagash”, centred on the god Enki, sounds particularly interesting and intriguing if one thinks that Enki was the father of the goddess Nanshe who will later become the patron goddess of the city of Nigin (Tell Zurghul) since the Early Dynastic Period (Selz 1995: 181-184; Heimpel 1998). Actually, Nanshe was known as patron deity of the city of Nigin from the Late Uruk Period (Westenholz 2013: 41, 44, 53).

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