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**At the origins of the Ubaid world:  
Recent insights from Tell el-‘Uwaili (southern Iraq)**

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*Abstract*

After many decades, field activities were resumed at Tell el-‘Uwaili. The site presents a complete sequence of the cultural entity known as Ubaid. Recent work is attempting to reveal that sequence on the north-western flank of the tell, in the continuation of the excavations undertaken in the 1980s, up to Ubaid 5 (5<sup>th</sup> millennium BC). The bulk of the efforts of the 2019 and 2021 campaigns focused on the so-called Ubaid 0 phase, the oldest ever documented for the Ubaid entity (7<sup>th</sup> millennium BC). A quite large area (600 sq.m) has been brought to light, which now makes it possible to read a substantial part of the settlement layout, with granaries, food ovens and storage areas, arranged in well-organised blocks neatly separated by roads. The extensive excavation also resulted in the discovery of large quantities of materials related to the everyday life of a prehistoric village: fine and plain pottery, spindle whorls, ploughs lithic tools. Nevertheless, these new findings also raise fundamental questions: from a technical and material-cultural point of view, what do these premises of the Ubaid world tell us about the oldest known prehistoric community in southern Iraq?

*Introduction: back to 'Uwaili*

The combination of the hydrological configuration of southern Mesopotamia and its architectural traditions has resulted in the difficulty – or rather the impossibility – of excavating well-preserved Neolithic or early Chalcolithic contexts. In fact, the gradual upwelling and salinisation of the more superficial water tables has caused the deeper mud-brick architectural remains to disintegrate and dissolve. Consequently, in southern Iraq, known contexts dating from before the 6<sup>th</sup>-5<sup>th</sup> millennia BCE are extremely rare and valuable for their information potential. Tell ‘Uwaili, the most ancient site known so far (Calvet: 1967), is a 4 hectares large prehistoric mound rising about 4m above the surrounding plain. The site was discovered in 1967 by A. Parrot and R. Mac Adams less than 5km southeast of Larsa, the large 2<sup>nd</sup> millennium south-Mesopotamian capital (Fig. 1). During the ‘70s and ‘80s the French expedition that was exploring the Early and Middle Bronze Age in Larsa, also investigated the prehistoric community in ‘Uwaili (Huot: 1994, 1996). Since the late 1980s, wars and political troubles that tormented Iraq have interrupted the excavations. Then, after many decades, field activities were resumed in Larsa and ‘Uwaili since spring and fall 2019, then in fall 2021 and 2023 (Vallet *et al.* 2020; Vallet, Baldi, Padovani *et al.* 2020). Therefore, in addition to a considerable mass of new data, the site is increasingly raising new questions.

The sequence of Tell ‘Uwaili is a small encyclopaedia of late prehistory, covering a long time span between 7<sup>th</sup> and 4<sup>th</sup> millennia BCE the entire development of the Ubaid cultural entity (Carter and Philip 2010). We intentionally avoid the terms “culture” and “period” for the Ubaid phenomenon, that involves multifaced cultural entanglements throughout its history and covers both the Early and Middle Chalcolithic (Oates 1960; Volpi 2020; Baldi 2020, 2022). Named after the eponymous site of Tell Ubaid, just south of ‘Uwaili, excavated about a century ago (Hall and Woolley 1927), the Ubaid material-cultural complex is documented at Tell ‘Uwaili not only from its earliest phases (as, for example, also at Eridu – Oates 1960), but even from its earlier prodromes (Forest 1991, 1996; Vallet 1990, 1996; Vallet, Baldi, Padovani *et al.* 2020).

*A long Ubaid sequence*

Recent excavations have focused on the north-west area of the site, where the earliest phase of the sequence had already been identified in the 1980s (Forest 1991; Forest, Vallet, Breniquet 1996). But we have also started to excavate from the hilltop in order to reconstruct the whole stratigraphy. Although known on a fairly limited area for the time being, the most recent Early and Middle Chalcolithic levels have yielded very interesting data. (Fig. 2)

- Level 1 is represented by several potter's kilns cut through the remains of the previous levels. Even if poorly preserved, these firing installations are quite significant. In fact, they date from the Ubaid 5, an almost unknown phase in southern Iraq, never extensively excavated and characterised by poorly documented social practices. Consequently, the very fact that these kilns were clustered, well-built, very similar in size to each other, and characterised by a pyriform shape never documented before offers interesting insights into the pyro-technological traditions of this period, around the middle of the 5<sup>th</sup> millennium BCE.
- Level 2 is constituted by a mudbrick platform, or rather a terrace occupying a large portion of the hilltop and bordered by a band of smaller mudbricks. This level has yielded very little pottery, in any case sufficient to date the structures to the first centuries of the 5<sup>th</sup> millennium BCE, namely the Ubaid 4 phase. At this stage, the site underwent great architectural development, as demonstrated by the old excavations, which makes the presence of a terrace in a dominant position entirely coherent.
- Level 3 was also represented by a mudbrick platform, this time dating from the Ubaid 3, another well attested phase since the excavations in the 1970s and 1980s (Forest 1987).
- Level 4 dates back to the Ubaid 1 phase, in the early 6<sup>th</sup> millennium BCE and was represented by the remains of the most ancient potter's workshop attested in southern Mesopotamia. Although the surface occupied by a large number of kilns is indeed very large, it represents only a portion of the craft area. We use on purpose this word to define the workspace because it was not just a firing zone with many pyrotechnical installations. Pottery was also manufactured on the spot, as demonstrated by the presence of many potter's tools (as stone hammers, scrapers, and sherds reused for modelling pots). The structure of this work area contradicts all prejudices for such an ancient stage, so far considered to be characterized by only one type of production generically defined as "domestic" to indicate both its small scale and its proximity to and integration with households (Jasim 1985). On the contrary, all the steps of the manufacturing process were deliberately gathered in one place, which were not "domestic" but exclusively devoted to the work of a significant number of craft people. The huge amount of slags indicates very intense activity with facilities that were built directly above the structures of the previous level, covering it with meters of ashes and overfired ceramics (Fig. 3).
- Level 5 (Fig. 4), the main focus of our last fieldwork seasons, represents the earliest stratum of the Ubaid sequence, called Ubaid 0 by the excavators of pillar buildings 37 and 41 in the 1980s (Vallet 1990, 1996). In the latest campaigns, more than 600 sq. m. have been extensively investigated, making it possible to read a substantial part of the settlement layout. Level 5 consisted of different stages: first, the 5c stage identified under the main constructions in several sectors of the settlement, then a 5b sublevel, and finally a 5a layer, with major additions that expanded on the previous architectures, but respected their organisational logic. The main buildings all had internal platforms and raised compartments, lying on basements constituted by a dense series of walls defining little cells or roughly parallel rows. With the exception of the pillar buildings 37 and 41, both the design of the other edifices and the archaeobotanical findings suggest that the architectural blocks G1, G2, G3 were most likely large granaries. However, they were not simply for storage of foodstuffs. In fact, they were integrated functional units with large ovens and facilities for grain processing. In some buildings, such as B110 (Fig. 4), or the eastern portion of G2, where ovens were flanked by large plastered basins and canisters, cereal handling and processing was particularly intensive. The general pattern of the Level 5 settlement is quite clear: barns and food-related activities buildings constituted what one might call *insulae* if we were describing residential and work districts in some Greek or Roman antique settlement. This is of course an anti-historical definition, but probably quite effective. These different integrated grain storage and processing units were huge, located close to each other, forming a surprisingly dense (almost agglutinated) environment. But they were in any case distinct and separated by little roads with a regular layout. Despite the large architectural extensions in Sublevel 5a, the layout of the lanes and alleys did not change. In other terms, the different blocks were not about domestic-scale activities associated with dwellings or households, but neither was there any centralised storage or processing system, and the alleys were a proper backbone, structuring axes of the spatial organisation of an integrated, but socially differentiated village.

### *A chaîne opératoire approach to the ceramic assemblage*

During the past few years, our research has focused on both the architectural structure system and the ceramic assemblage to characterise as much as possible the nature of the 7<sup>th</sup> millennium Level 5 settlement. To do so, pottery was studied through the *chaîne opératoire* approach (Livingstone-Smith 2007; Gosselain 2018; Roux 2019a, 2019b; Baldi 2020, 2022), namely an anthropological analysis relying on a major law of the anthropology of techniques: any operational sequence expresses a traditional way of doing specific to a given social group or community of practice (Iserlis 2009; Roux and Courty 2007; Baldi 2016). Therefore, the technical relationships between *chaînes opératoires* reflect social relationships between groups of producers. The analysis covers all stages of the production: macro- and micro-traces of shaping, petrography of pastes and typology of shapes and decorations. This makes it possible to reconstruct technical traditions handed down by apprenticeship and expressing the technical identities of different groups, whose spatial relationships can be tracked according to the spatial distribution of the *chaînes opératoires*. In the basal levels of Tell ‘Uwaili, 3 shaping methods are documented (Fig. 5).

- I. Hollowing out a lump and pinching and stretching the walls + brown or red painted decorations.
- II. Hollowing out a lump and pinching and stretching the walls + application of white slip + black painted decorations.
- III. Overlapping ring rounded 2-2.5 cm thick coils with inwards oriented joints + application of white slip + black painted decorations.

In the same levels, it is possible to recognise 4 different fabrics (Fig. 5):

- A. Orange mineral tempered (with magnetite, biotite and muscovite inclusions) fabrics.
- B. Orange mixed tempered (with phyllite, pyrolusite and small plant inclusions) fabrics.
- B<sup>1</sup>. (A variant of the previous one) orange mineral tempered (with phyllite, pyrolusite and quartz) fabrics.
- C. Beige or greenish mineral tempered (with calcium, shale) fabrics.

The ceramic *chaînes opératoires* combine these traits in different peculiar ways. Based on the features characterising the fabric preparation and shaping stages, some distinct operational sequences can be recognised: IA, IB, IIB<sup>1</sup>, and IIIC. All these ceramic technical traditions can be monitored in their evolution all along the lowest and earliest part of the stratigraphy (Vallet, Baldi *et al.* 2020).

Retracing the evolution of ceramic technical traditions along the entire sequence will still involve a lot of work in the coming years. But thanks to the data collected during our last fieldwork season, in November 2023, a detailed study of the evolution of the *chaînes opératoires* in the basal levels is almost complete. In a very concise way one can state that, from a technical and quantitative point of view, the whole evolutionary dynamics between the ceramic *chaînes opératoires* looks like a sort of transition, or rather an acculturation, of the oldest traditions (IA and IB, characterised by red pastes and shaping by hollowing-out a lump) to a new, completely different tradition (IIIC). Initially, while the old technical traditions disappear, the emergence of the *chaîne opératoire* IIBI seems to represent an intermediate stage in the acculturation process. In fact, IIBI retains the pastes and shaping method of the old IA and IB traditions, but covers and conceals them with white slip and black decorations, in accordance with the decorative style typical of the newly emerging tradition IIIC.

Likewise, from a typological and morpho-stylistic point of view (Lebeau 1987), the older IA-IB traditions and the new IIIC tradition present quite different repertoires. In fact, with the exception of some very generic types, the producers using the older IA-IB *chaînes opératoires* manufactured bowls with flat base, husking trays, and carinated pots with convex shoulders. On the other hand, the producers underlying the IIIC tradition manufactured rounded or ring-base pots, and globular jars without carinations. Even from a morpho-typological point of view, the IIBI tradition represents a sort of intermediate solution, with a repertoire almost identical to that of the new *chaîne opératoire* IIIC but also including low-carinated jars.

### *Crossing ceramic technical traditions and settlement design: some clues to the prodromes of the Ubaid*

The spatial distribution of the ceramic *chaînes opératoires* also seems to suggest a chronological evolution in favour of the new IIIC tradition. Indeed, although the *chaînes opératoires* IA and IB are technically very similar (actually expressions of a single tradition characterised by a shaping method

by hollowing-out a lump of clay), at the beginning (sub-phase 5c), they reflect a certain segregation. On the one hand, IA was attested in the buildings of the southern compound (B110 and B111 – Fig. 4), while on the other tradition IB was limited to the granaries of the central complex (G1 and G2). From sub-level 5b onwards, and then more and more distinctly in 5a, the old IA and IB traditions remain somewhat separate, with no vessels produced according to the IA technique in the central complex, and no IB tradition specimens in buildings B110 and B111. However, the new tradition IIC, as well as the “hybrid” technique IIB<sup>1</sup>, appear indiscriminately in all areas used for foodstuff processing and increasingly impose themselves in quantitative terms. Thus, even with respect to the spatial distribution, the evolutionary trend appears to be clearly in favour of the new IIC tradition. The interest of this evolutionary dynamic lies not so much in the change of ceramic traditions, but rather in the indications that the spatial organisation of buildings and ceramic ways of doing seem to suggest regarding the peopling of the site. In fact, the analysis of the *chaînes opératoires* of Level 5 not only shows distinct technical traditions. In the case of IA-IB traditions on the one hand and IIC on the other, the differences concern all the steps of the *chaîne opératoire*. Thus, the groups of producers underlying the IA-IB and IIC traditions cannot be simply considered as different family, lineages or kinship entities belonging to the same social unit. The only possible explanation for their radical technical divergences is demic, i.e. their affiliation to distinct populations (Roux and Courty 2007; Gosselain 2018; Baldi 2016, 2022). In other words, the (so) different *chaînes opératoires* were expressions of distinct people or demic entities. The ceramic morpho-functional features also hint at the same fact.

On the other hand, the main goal of our choice of excavating on a quite extensive surface the basal levels of Tell el-‘Uwaili lies in the possibility – for the first time in southern Mesopotamia – of being able to read the building arrangement in a substantial portion of the late 7<sup>th</sup> millennium BCE village. Beyond the unprecedented opportunity this approach provides for the study of architectural traditions, it is not merely a matter of plans and construction methods. The settlement layout offers fundamental clues to the community structure of the time (Forest 1991; Vallet 1996). The aim is to provide relevant information on the functional, social and anthropological mechanisms that link people and their built environment, in a reciprocal dialectic. In other words, how society has projected itself into space, and the effects of socialized spaces on people's behaviour, activities and well-being. How people's membership of families, large and small social groupings and institutions has affected their roles, values, relationships or ways of managing kinship systems and social networks, through different types of spatial organization.

The evolution of the architectural blocks within the settlement along the various sub-levels of Level 5 is extremely interesting in this respect (Fig. 4). Although the overall design always remains dense, packed and agglutinated, the most noticeable element is the organically active role played by the narrow streets as actual structuring features of the settlement constituting both its major factor of continuity and its evolutionary axis. As it is evident from the huge progressive accumulation of filling layers (Fig. 6), the alleyways had a very long life, with no substantial changes in layout during the duration of Level 5 despite the progressive expansion of the main granaries. This results in a long-lasting subdivision of the excavated area into three blocks: the complex around B37 to the north, the granaries G1 and G2 (B112-B113) in the centre, and the constructions around B110 (with G3) to the south. These functional blocks dedicated to the storage and processing of foodstuffs were probably inherent to distinct social or kinship entities. Indeed, not only, as mentioned earlier, *in-situ* pottery was produced through distinct *chaînes opératoires*. Also the evolution of this architectural pattern seems to confirm the persistence of different groups in specific areas of the site. Actually, the extensions of the granaries of the different blocks in sub-level 5a did not imply an increasing rapprochement or amalgamation between the blocks, but rather a greater degree of agglutination and integration between the structures within each block (Fig. 4). This type of spatial organisation represents a typical example of what classical studies in anthropology of living and working spaces interpret as the presence of groups distinct for their perceptual, expressive, adaptive and instrumental relation to the built environment (Ittelson 1960, 1973; Rapoport 1977). At the same time, the adoption of a analogous pattern in all the blocks and the absence of locks between private and public spaces (all blocks were accessible through doors leading directly onto the alleyways without vestibules or courtyards – Rapoport 1977: fig. 1.3; Aucoin 2017) suggest that these differences in spatial conception existed between groups that shared a substantial set of material and cultural values.

In sum, both the analysis of the ceramic *chaînes opératoires* and of spatial layout indicate that the earliest known village in Southern Mesopotamia had an organisation based on cooperation between distinct lineages or extended families somewhat autonomous in terms of production.

While the extensive excavation of Level 5 is allowing a fairly adequate understanding of the spatial organisation, from a diachronic point of view our work is still a long way off. In fact, in the 1980s, the phase (inappropriately called) “Ubaid 0” was reached also by two small soundings (Calvet 1987): Layer 11 of Trench Y27 represents the end of the Ubaid 0 phase, contemporary with (or even later than) our Level 5a. But Layers 12-19 of Trench X36 show that the Ubaid 0 phase has considerable stratigraphic depth, which we will try to explore in the coming campaigns, with a medium- and long-term goal and question: how the South-Mesopotamian communities pre-dating the emergence of the Ubaid phenomenon can be characterised from a cultural point of view?

### Captions:

- Figure 1: Aerial view and location of Tell el-‘Uwaili in southern Mesopotamia. If not otherwise specified, all figures are property of the French expedition to Larsa and Uwaili.
- Figure 2: Plan and aerial view of the structures of Levels 3-1, with ceramic samples from the Ubaid 3-4, 5 and Early Uruk phases.
- Figure 3: Plan of the structures of Level 4, with evidence of the ceramic workshop (a potter’s kiln, potter’s tools and a kiln slag), and ceramic sherds of the Ubaid 1 phase.
- Figure 4: Plan of the structures of Level 5 (phase inappropriately called “Ubaid 0”), with aerial views of the sub-phases 5b and 5a of building B110.
- Figure 5: Schematic representation of the different ceramic *chaînes opératoires* on the basis of shaping methods and fabrics – © Johnny Samuele Baldi.
- Figure 6: View from the west of a segment of alleyway 2112, between some Level 5 buildings (B37 to the north and G1 to the south).

### Bibliographic references:

Aucoin, P.M. 2017. Toward an Anthropological Understanding of Space and Place. In: Janz, B. (eds.) *Place, Space and Hermeneutics. Contributions to Hermeneutics, vol 5.*, Cham. [https://doi.org/10.1007/978-3-319-52214-2\\_28](https://doi.org/10.1007/978-3-319-52214-2_28)

Baldi, J. S. 2022. [Between an End and a New Beginning. Tracking the post-Ubaid ceramic transition as an indicator of social change](#). In: K. Abu Jayyab K. and J.S. Baldi (eds.), *Delineating the End of a World: Reassessing the Ubaid:post-Ubaid Transition in Greater Mesopotamia, Paléorient*, 48-1, 41–72.

Baldi, J.S. 2016. Social theories, technical identities, cultural boundaries: a perspective on the Uruk “colonial situation” in the LC3-LC5 northern Mesopotamia. In: I. Milevski and T.E. Levy (eds.), *Framing Archaeology in the Near East - The Application of Social Theory to Fieldwork*, 79–94. Sheffield.

Baldi J. S. 2020. Evolution as a way of intertwining: regional approach and new data on the Halaf-Ubaid Transition in Northern Mesopotamia. *WEST & EAST Supplementa*, Proceedings of the Broadening Horizons 5 Conference (BH5), Udine, June 2017, 71–88.

Calvet, Y. 1987. Le sondage X 36 de Tell el ‘Oueili. In: J.-L.Huot (ed.), *Larsa (10e campagne) et ‘Oueili (4e campagne). Rapport préliminaire*, Paris. 33–94.

- Carter, R.A. and Philip, G. 2010. *Deconstructing the Ubaid*. In: Carter, R.A. and Philip, G. (eds.), *Beyond the Ubaid. Transformation and integration in the late prehistoric societies of the Middle East. papers from: The Ubaid Expansion? Cultural Meaning, Identity and the Lead-up to Urbanism; international workshop held at Gray College, University of Durham, 20–22 April 2006*, Chicago, 1–22.
- Forest J.-D. 1987. Tell el ‘Oueili (4e campagne), stratigraphie et architecture. In: Huot J.-L. (ed.), *Larsa, 10e campagne, 1983 et ‘Uwaili, 4e campagne, 1983. Rapport préliminaire*, Paris, 17–32.
- Forest, J.-D., 1991. L’architecture de la phase de ‘Uwaili Ubaid 0. Travaux de 1983-1985’. In : J.-L. Huot J.-L. (ed.), ‘*Oueili. Travaux de 1985*, Paris, 17–158.
- Forest J.-D., 1996. Elements de chronologie. In: J.-L. Huot (ed.), ‘*Oueili, Travaux de 1987-1989*, Paris, 385–390.
- Forest J.-D., Vallet R. and Breniquet C.1996. Stratigraphie et architecture de Oueili Obeid 0 et 1. Travaux de 1987 et 1989. In: J.-L. Huot (ed.) ‘*Oueili, Travaux de 1987 et 1989*, Paris, 19–102.
- Gosselain, O. 2018. Pottery *chaînes opératoires* as Historical Documents. In: Spear T. (ed.), *The Oxford Encyclopedia of the African Historiography: Methods and Sources*, Oxford.
- Hall, H.R.H. and Wooley, C.L. 1927. *Al-Ubaid: a report on the work carried out at Al-Ubaid for the British museum in 1919 and for the Joint expedition in 1922-3*, (Publication of the Joint Expedition of the British Museum and of the University Museum, University of Pennsylvania, Philadelphia, to Mesopotamia: Ur Excavations vol. 1).
- Huot, J.-L. (ed.) 1994. *Les premiers villageois de Mésopotamie*, Paris.
- Huot, J.-L. (ed.). 1996. ‘*Uwaili, Travaux de 1987-1989*. Contributions de P. Anderson, M. Arnold, C. Breniquet, J. Connan, E. Coqueugniot, L. Courtois, J. Dese, J. Evin, J.-D. Forest, F. Formenti, B. Geyer, J.-L. Huot, P. Leboutellier, A. Prieur, P. Sanlaville, J. Suire, J. Thissen, H. Valladas, R. Vallet, B. Velde, Publications de la Délégation Archéologique Française en Irak n° 8, Publications du Centre de Recherche d’Archéologie Orientale, Université de Paris I n° 11, Paris, Éditions Recherche sur les Civilisations.
- Iserlis, M. 2009. Khirbet Kerak Ware at Bet Yerah: Segregation and Integration through Technology. *Tel Aviv* 36.2: 181–95.
- Ittelson, W. H. 1960. *Some factors influencing the design and function of psychiatric facilities*, Brooklyn.
- Ittelson, W. H. 1973. *Environment and Cognition*. New York.
- Jasim, S. A. 1985 *The ‘Ubaid period in Iraq: Recent excavations in the Hamrin region*, (British Archaeological Reports, International Series 267), Oxford.
- Lebeau, M. 1987. Aperçu de la céramique de la phase Oueili (Ubaid 0). In: J.-L. Huot (ed.), *Larsa, 10e campagne, 1983 et ‘Uwaili, 4e campagne, 1983. Rapport préliminaire*, Paris, 95–120.
- Livingstone-Smith, A. 2007. *Chaîne opératoire de la poterie. Références ethnographiques, analyses et reconstitution*, Tervuren.
- Oates, J. 1960. Ur and Eridu, the prehistory. *Iraq* 22, 32–50.

Rapoport, A. 1977. *Human Aspects of Urban Form. Towards a Man-Environment Approach to Urban Form and Design* (Urban and Regional Planning Series Volume 15), Oxford, New York, Toronto, Sydney, Paris, Frankfurt.

Roux, V. 2019a. *Ceramics and Society: A Technological Approach to Archaeological Assemblages*, Switzerland.

Roux, V. 2019b. The Ghassulian Ceramic Tradition: A Single *Chaîne Opératoire* Prevalent throughout the Southern Levant. *Journal of Eastern Mediterranean Archaeology and Heritage Studies* 7.1, 23–43.

Roux, V. and Courty, M.-A. 2007. Analyse techno-péetrographique céramique et interprétation fonctionnelle des sites : un exemple d'application dans le Levant Sud Chalcolithique. In: A. Bain, G. Chabot, M. Mousette (éds.), *La mesure du passé : contributions à la recherche en archéométrie (2000-2006)*, (BAR International Series 1700), Oxford, 153–167.

Vallet R. 1990. Les habitations à salles hypostyles des débuts de l'époque d'Obeid. *Comptes rendus de l'Académie des Inscriptions et Belles-Lettres, séances de l'année 1990, novembre-décembre*, 867–874.

Vallet R. 1996. L'architecture des phases Obeid 0 et 1. Travaux de 1989. In : J.-L. Huot (ed.), *Oueili, Travaux de 1987 et 1989*, Paris, 103–139.

Vallet, R., Abd el-Ali, J., Al Debs, R. Bachelot, L., Charpin D. Darras, L., Douché, C. Giraud, G., Herr, J.-J., Chamel, I., Lisein J., Murad, A., Mura, M. Obreja, S., Oselini, V. Rasool, A., Suire, J. 2020. Preliminary Report on the XIVth and XVth Campaigns at Larsa (2019). *Sumer* LXVI, 133-176.

Vallet, R., Baldi, J.S., Padovani, C., Abd-el-Kadim, R., Douché, C. 2020. Preliminary Report on the VIIIth and IXth Campaigns at Tell el-'Uwaili (2019). *Sumer*, 11–40.

Volpi, L. 2020. An Assessment on the Ubaid Pottery from Area B, Tell Zurghul (Southern Iraq). In: Nadali D. and Polcaro A. (eds.), *The Italian Archaeological Expedition at Tell Zurghul, Ancient Nigin, Iraq. Final Report of the Seasons 2015-2017* (Quaderni di Vicino Oriente XVI), Rome, 53–87.