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# **From military structure to monumental complex. The Logardan fortress and chateau, a first tentative functional reconstruction of architectural spaces**

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## ***I. Introduction. Approaching a Stronghold Being Armed with Very Little Knowledge***

The late 3rd millennium northern Mesopotamia was a cradle of new forms of sociality, increasing socioeconomic complexity, expanding urbanism on an unprecedented scale, and ever-larger state formations based on more inclusive and stronger socio-political institutions.<sup>1</sup> The dry-farming lands of the north became increasingly territorialized as a network of city-states emerged, each of which oversaw sometimes limited or, conversely, very wide territories.<sup>2</sup> This north-Mesopotamian city-state system was part of the broader interregional commercial and diplomatic network, later evolved into vast state structures maintained with military force. Through a series of disintegrating trends (endemic conflicts, local particularisms, instable alliances) and unifying factors (the Akkadian, Gutian and Ur III conquests) the very nature of the state, its administration, economic governance, as well as its management of violence and territories changed radically. This evolutionary path developed according to cultural, economic and organisational trends similar to those observed in southern-Mesopotamia,<sup>3</sup> but structured along specific lines to northern territories.<sup>4</sup> Despite several recent and ongoing investigations,<sup>5</sup> very little is known about local evolutionary tendencies in Iraqi Kurdistan and the Trans-Tigridian region. This widespread lack of regionally specific information makes it even more difficult to adequately analyse and classify military and monumental structures such as those identified in levels 3d and 3c at Logardan, in the western Qara Dagh area, close to the modern city of Chamchamal.<sup>6</sup> Starting from the second half of the 3rd millennium BCE, inter-community conflicts become ubiquitous and highly noticeable in the archaeological record,<sup>7</sup> especially in the functional design of settlements. Defence systems and fortifications are the most visible and massive evidence for frequent warfare,<sup>8</sup> to the extent that they constitute a defining element of the Early Bronze Age urbanism. Communal defence was a crucial need and a powerful symbol for the “fortress communities” who surrounded themselves with high and thick walls.<sup>9</sup> Even quite small sites could boast massive or utterly oversized, military architectures. In the middle Euphrates, a 10 m wide protection wall surrounded Tell el ‘Abd

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1 BOLGER & MAGUIRE 2010; LAWRENCE & WILKINSON 2015; UR 2016, 2017; McMAHON 2019.

2 WILKINSON & TUCKER 1995; WILKINSON *ET AL.* 2014; PFÄLZNER 2015; PFÄLZNER *ET AL.* 2017; SCONZO & SIMI 2020.

3 STONE 2007; ADAMS 2012; CRÜSEMANN 2013; ALGAZE 2008, 2018; ZINGARELLO 2020.

4 FORTIN & SCHWARTZ 2003; STEIN 2004; SCHWARTZ 2015; UR 2015.

5 PFÄLZNER & SCONZO 2015, 2016; PFÄLZNER & QASIM 2018.

6 The French archaeological expedition in the western Qara Dagh (Sulaymaniyah Governorate) is an ongoing project first directed by R. Vallet (2015-2019) and then by J. S. Baldi. Excavations at the sites of Logardan and Girdi Qala have yielded vestiges dating from the Early Chalcolithic (6th millennium BC) to the modern era. All reports are free to download at: <https://cnrs.academia.edu/RegisVallet>.

7 HNILA GILIBERT 2006; RISVET 2007; REY 2012.

8 CREEKMORE 2014: 44.

9 RISVET 2007: 198-204.

(4ha), while the fortifications of Jerablus Tahtani (1.5 ha curtain wall and sloped rampart) measured at least 12 m in width.<sup>10</sup> On the other hand, new defensive elements, such as sloped ramparts, were quickly adopted as a response countering siege tactics based on greatly effective advances in the field of poliorcetics.<sup>11</sup> Actually, the earliest textual and iconographic evidence on the use of siege machinery and complex strategies (use of fire arrows, siege shields, rams, scaling-ladders, siege towers, etc.) dates from the late 3rd millennium BCE.<sup>12</sup>

However, all these elements, although useful in order to reconstruct the cultural context, are only partially applicable to Logardan, that was a citadel, but (for the time being) without any trace of a town around it. Actually, the fortress, even if not really isolated, was separated from any large “fortress community”.<sup>13</sup> Without even mentioning the fact that, on a typological level, architectural parallels are not always satisfactory, since Logardan, both in level 3d (as a strongpoint) and in level 3c (as a monumental compound) was characterized by a large use of stone architectures rather than thick mudbrick bulwarks.

Unless one is satisfied to say that these architectures served to defend and celebrate some kind of power, any analysis ends up being limited by a serious lack of knowledge about the region in the late 3rd millennium.

Indeed, translating vestiges into historical narratives constitutes a critical issue. Especially because military and monumental complexes refer to (and require) the reconstruction of a storyline of clashes, frontiers, battles, and conquests.<sup>14</sup> The absence of written documents forces us to rely on purely archaeological methods applied to the material remains. Thus, architectural description is here combined with the analysis of (ceramic and non-ceramic) artefacts distribution to allow a functional interpretation of the built spaces. In addition, the study of the spatial repartition of the ceramic *chaînes opératoires* is here used to verify whether or not there is a correlation between certain areas of the buildings and specific groups of pottery producers and users. Nevertheless, it is evident that the *longue durée* perspective<sup>15</sup> on these cultural-material aspects is not sufficient to account for the evolution and significance of this kind of architectures.

Therefore, it is necessary to start by an assessment of the limited information available on the event history of the late 3rd millennium Trans-Tigridian region.

## ***II. Getting a Stronghold in a Fuzzy Geopolitical Map***

Recent research has demonstrated that, although frequently excluded or considered as marginal to the major historical and political developments of the 3rd millennium BCE, the north-eastern sector of Greater Mesopotamia played an equal role as Sumer, Akkad, Elam, western Syria or the Syrian Jezirah. Far from being an isolated and peripheral region, this land was highly sensitive in terms of shifting political balance and fluid borders. However, our knowledge on the geopolitical history of the area around Logardan remains limited. Consequently, the map of state powers that we propose here must be understood as a mere outline on which, over time, a certain consensus has coagulated.

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10 PELTENBURG 2013: 37.

11 REY 2012.

12 STEINKELLER 1987; NADALI 2009; SCHRAKAMP 2013a.

13 *Sensu* HELMS 2018.

14 VEYNE 1971; NORA 1984; GINZBURG 2001.

15 BRAUDEL 1958.

According to a widely accepted suggestion,<sup>16</sup> *Simurrum* corresponds almost certainly to the region called *Zabban* in Middle and Neo-Assyrian texts located on the Diyala River, between the Hamrin valley and Darband-i Khan.<sup>17</sup> Therefore, the main centres of this territory were not in the immediate proximity of Logardan (Fig. 1).

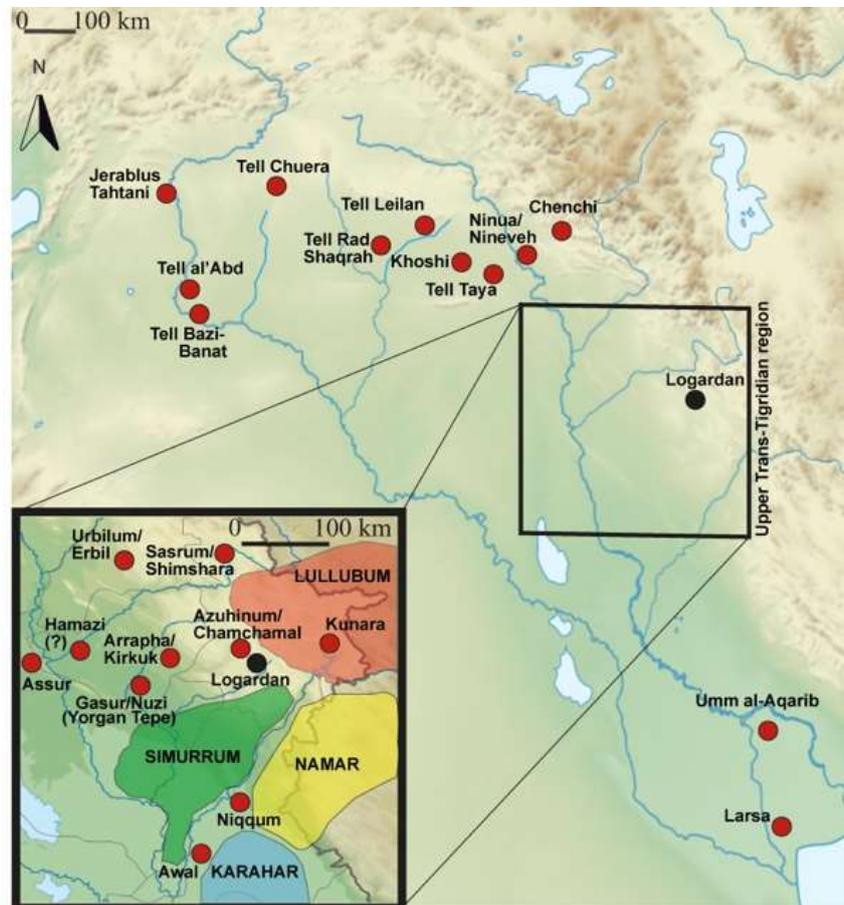


Fig. 1. Sites and political entities mentioned in the text (inset based on RENETTE 2018: fig. III.5).

*Lullubum* (or *Luluban* in Akkadian administrative texts from Gasur)<sup>18</sup> neighbored *Simurrum*, since these lands were mentioned together in the inscriptions of the Gutian king Erridu-pizir and the year names of Šulgi.<sup>19</sup> After being the main target of Naram Suen's military campaigns in the mountainous areas depicted on his famous stele, *Lullubum* is mentioned by late sources from *Arrapha* confirming its location in the current Tanjaro and Sulaymaniyah areas, east of the *Babite* (current Bazyan) pass.<sup>20</sup> Consequently, it seems likely that Logardan was not part of the land of *Lullubum*, but rather of a frontier zone accessible through the Bazyan Pass (Fig. 1). Probably, *Lullubum* was not a single unified state, but rather a confederation of small principalities, whose bellicosity is highlighted both by Iranian inscriptions<sup>21</sup> and by texts from

16 FRAYNE 1997a; 1997b.

17 For an overview of the different proposals about *Simurrum*, see OWEN 2000: 816-817.

18 TAS & ADALI 2016.

19 FRAYNE 1993: 220-228.

20 AHMED 2012:77.

21 POTTS 1994: 21.

Shimshara.<sup>22</sup> Other important political entities, such as *Karahar* and *Namar*, occupied areas south of the Diyala River,<sup>23</sup> further away from Logardan (Fig. 1).

The various confederations or state organisations were dominated by cities managing vast surrounding provinces with strictly interconnected networks of secondary towns, villages, and communication routes. The ancient cities of *Arrapha* (present-day Kirkuk, first documented in the Ur III period) and *Gasur* (Yorgan Tepe, 2nd millennium Nuzi) were the pivot of a densely populated area.<sup>24</sup> Since the Early Akkadian period, a well-documented urban centre of this district is *Azuhinum*, located on the east-west running route from *Arrapha* to *Lullubun* and separated from the latter by the *Babite/Bazyan* pass. Therefore, the identification of *Azuhinum* with the city of Chamchamal, in the immediate vicinity of Logardan, seems almost certain.<sup>25</sup> West of *Arrapha* and probably close to the lower Zab, was situated the powerful polity of *Hamazi*, mentioned by the Sumerian King List as having established a large hegemony over Mesopotamia for a short time.<sup>26</sup> Further west, on the banks of the Tigris (but roughly on the same axis passing through *Hamazi*, *Arrapha* and *Azuhinum*) was located the city of Assur (present-day Qal'at Sherqat).<sup>27</sup> In the Rania plain, overlooked by the massive Zagros buttresses, was the city of *Šašrum*, namely the present-day site of Shimshara.<sup>28</sup> In the wide flat region to the north-west, was the agglomeration of *Urbilum* (modern Erbil), documented since the Early Akkad period and then targeted by Šulgi's campaigns.<sup>29</sup> As far as the region immediately south of Logardan, the absence of systematic excavations and surveys has resulted in a lack of textual data. However, the area up to the confluence between the Tigris and the Diyala must have been quite densely inhabited, maybe by secondary towns, as suggested by the presence of major centres as *Niqqum* (identified with the present-day city of Khanaqin)<sup>30</sup> and *Awal* (present-day Tell as-Sulaima)<sup>31</sup> in the southern bank of the Diyala River (Fig. 1).

Surprisingly, at least until the end of the Ur III period, cities that became headquarters for well-known political entities in the following centuries (as *Urbilum*/Erbil, Assur or *Ninua*/Nineveh) appear to have been merely local towns,<sup>32</sup> while other cities, that were unimportant in later times, were the seat of powerful polities. In particular, a major obstacle to the Akkadian conquest was the town of *Azuhinum*, in the immediate vicinity of Logardan. It seems certain that at least for a relatively short period – probably between Naram Suen and Šarkališarri – the Logardan area was integrated into the Akkadian empire. However, just a few kilometres away, despite the Naram Suen's expeditions, *Lullubum* never was.<sup>33</sup> After the end of the Akkadian

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22 EIDEM 1992: 51.

23 LEVINE 1974: 176; 1975. The possible identification of Karahar with the land known as Harhar from the Neo-Assyrian texts - as argued by LEVINE 1974, while FRAYNE 1999: 48 does not support this hypothesis - may slightly vary its location eastwards, but no one disagrees with its position south of the Diyala Valley. About Namar, see READE 1978: 137; KESSLER 2001: 91-92.

24 FRAYNE 1999.

25 LEVINE 1974:19; FRAYNE 1999: 182-183.

26 STEINKELLER 1998: 80-83. Although probably never ruling over all of Mesopotamia, Hamazi was certainly a major power, able to engage in conflicts with south-Mesopotamian rulers and maintain diplomatic relations with Ebla. Its precise location has not been identified, but it is likely that Hamazi was quite close to Gasur, whose administrative texts mention several individuals from Hamazi. See STEINKELLER 1988.

27 MAIOCCHI 2019.

28 The most ancient levels reached during the excavations date from the early 2nd millennium BCE, but the main tell and surrounding smaller sites were extensively occupied during the Early Bronze Age, as demonstrated by the abundant 3rd millennium surface pottery. See EIDEM 1992; EIDEM & LAESSØE 2001.

29 MACGINNIS 2014.

30 FRAYNE 1993:70; see also CASANA & GLATZ 2017: 54-55.

31 STEINKELLER 1981.

32 MACGINNIS 2014; MAIOCCHI 2019; RENETTE 2018: 113

33 KLENGEL 1965.

hegemony, the Gutian king Erritu-pizir waged war in the whole region in order to suppress a revolt of *Simurru* and *Lullubum*, which probably were in some degree part of his territories.<sup>34</sup> But subduing this region was always extremely problematic, as demonstrated by the repeated campaigns of Šulgi.<sup>35</sup>

The historical evolution of the region in the last quarter of the 3rd millennium BCE remains nebulous. Nevertheless, when considered from levels 3d and 3c of the Logardan hill, it seems clear that, in such fluctuating geopolitical circumstances, it was definitely advantageous to have a stronghold for control purposes.

### III. Level 3d: Trying to Break Into (the Enigmas of) the Stronghold

The site of Logardan is located on a 27m high very steep natural hill. The hilltop is occupied by a small (ca. 1.3 ha) anthropic spear-shaped tell (Fig. 2, above). The pronounced natural steepness of the clayey-sandstone sediments is accentuated by the filling of the lower levels, resulting over time in severe erosion of the slope and sliding downstream of entire portions of Levels 3d and 3c structures.

The excavated surface – during the 2016-2019 seasons – is mostly located in Trench D, on the north-western tip of the *tell*. However, the access to the top of the hill was discovered in Trench E, in the eastern sector of the site (Fig. 2-3). Since the two trenches are not (yet) physically connected to each other, it is impossible to establish with absolute certainty a single sequence for the whole citadel. Yet, the proximity of the two trenches and their respective stratigraphic sequences makes it possible to highlight an evident common, synchronic evolution.<sup>36</sup>

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34 FRAYNE 1993: 223-228. The famous rock relief at Darband-i Gawr, on a very narrow pass in the Qara Dagh Mountains, portrays an anonymous ruler crushing two enemies; see Couturaud in this volume. Despite the impressive iconographic proximity with the Naram Suen victory stele, it is difficult to establish whether the protagonist, who wears a cap rather than a crown, is Naram Suen himself - which is possible, since the Pir Hussein stele in eastern Anatolia represents Naram Suen wearing a local headdress - or another chronologically close king, as Erridu-pizir. See EPPHEIMER 2009.

35 See OWEN 2000: 822-824 .. From the reign of Šulgi, the Logardan area was briefly integrated into the Ur III state, as also the westernmost sectors of Lullubum, namely the Tanjaro Valley around Kunara (see TENU & CLANCIER in this volume).

36 Obviously, this is a reconstruction that has to be confirmed in the coming years, once merged the two trenches. For the moment, the distinction is indicated by the letters (lower case for Trench D and upper case for Trench E) and numbers (Arabic for Trench D and Latin for Trench E) which are used. For instance, we speak of Trench D levels 3d and 3c, and Trench E levels IIID and IIIC. To evoke the reconstruction of the general plan, however, the labels of levels 3d and 3c are used.

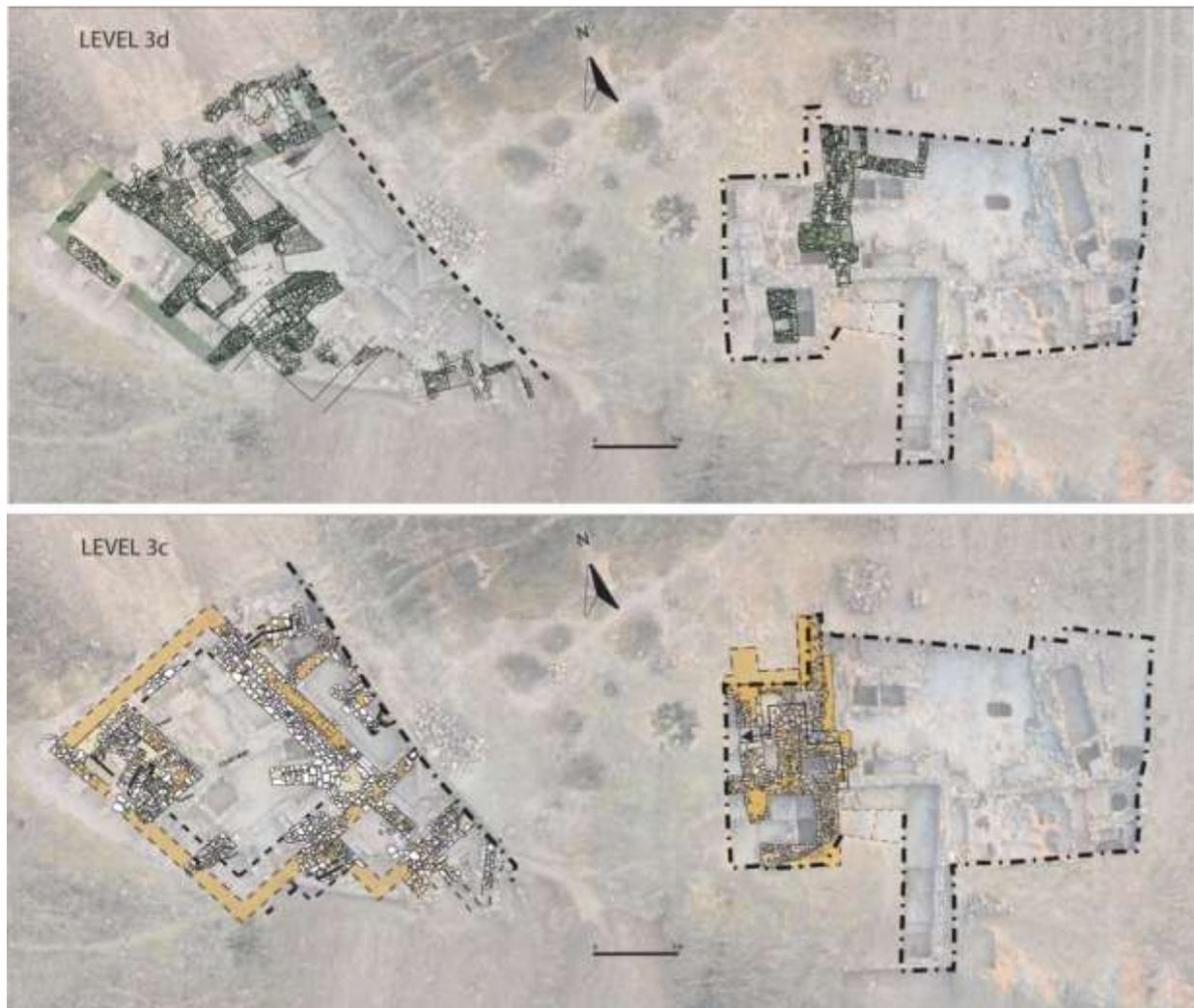


Fig. 2. Topographical map of Logardan with the localisation of the trenches (above). Reconstruction of Levels 3d and 3c (below) in Trenches D and E at Logardan (French Archaeological Mission in the Qara Dagh-F.Ar.M.Qa.D.).

Prior to the 3d and 3c levels, the settlement was discontinuously but intensively occupied during the 6<sup>th</sup>, 4<sup>th</sup> and early 3rd millennium BCE (by a Halaf village, by a massive south-Mesopotamian Uruk presence and, later, by short-lived domestic installations largely reusing Uruk structures).

Level 3d marks the end of a several centuries long hiatus.<sup>37</sup> Its plan and walls implied huge works, exploiting the mighty stone foundations and basements of a vast Middle Uruk public building that had entirely occupied the site's summit.<sup>38</sup>

In Trench E (Fig. 3), the structures of level IIID clearly reuse very solid walls (2110, 2129) framing two narrow stone-paved accesses (2264, 2214) from previous phases of the gates system. Other structures were newly built, as the thick wall 2157. The defensive perimeter consisted of misaligned façades between the entrances. The northern one (2264) was raised from its initial place (in the Uruk phase) and was accessible through a curving staircase with

37 For level IIIE, see ZINGARELLO in this volume.

38 VALLET *ET AL.* 2019, VALLET 2020, BALDI & ZINGARELLO 2021.

protective stonewalls. To the south, also another small access (2214) was reachable through a meandering passage (currently hidden by IIIC level vestiges).

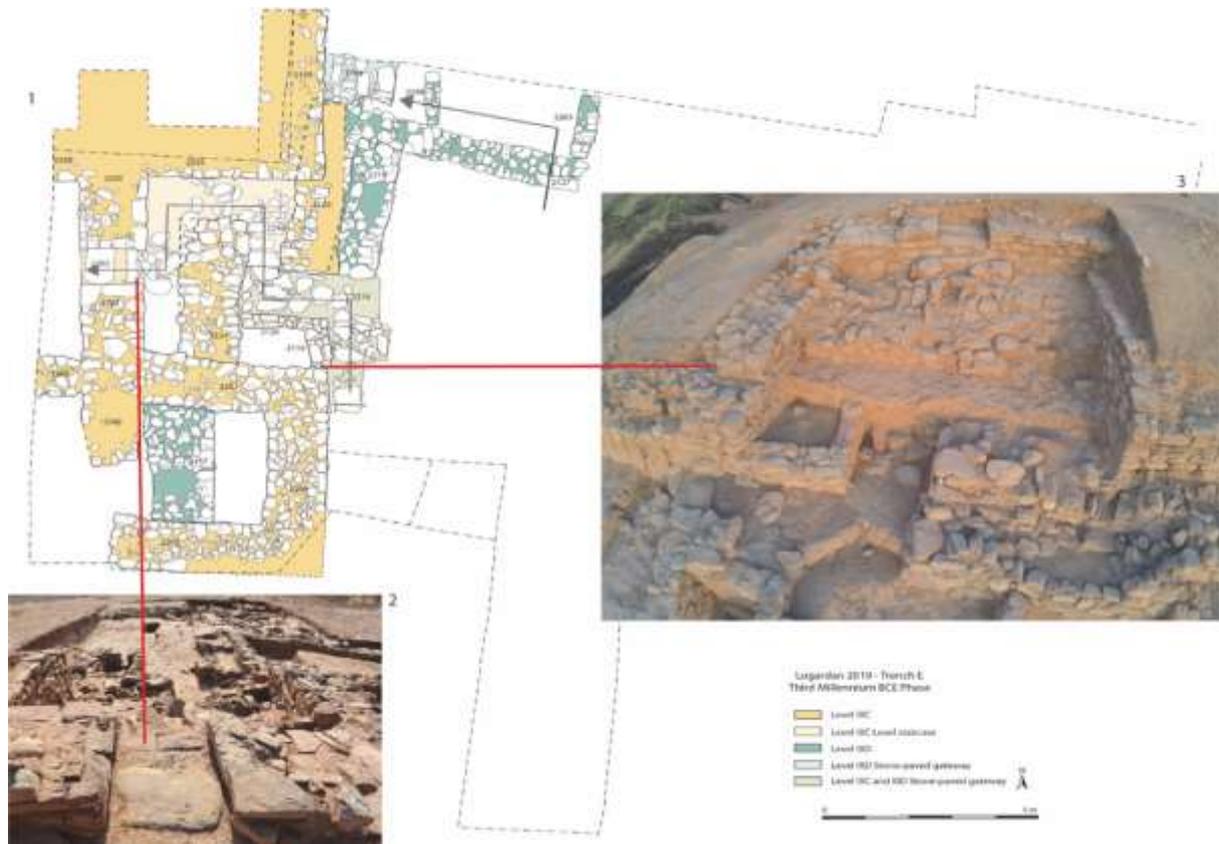


Fig. 3. Logardan, gates system in Trench E: 1) plan of levels IIID and IIIC; 2) gate 2202 with monolithic threshold (view from the west); 3) aerial view from the east of the gates system (French Archaeological Mission in the Qara Dagh-F.Ar.M.Qa.D.).

In Trench D level 3d, the reuse, enlargement and partitioning of structures from the Uruk phase is evident (Fig. 4). First, a middle wall divided the central sector into different rooms (825 and 826), . On the exterior side of this space, a kitchenette (1003, Fig. 4.2) was built against the corner between a pillar and a thick external wall (822). In this small cooking space arranged on the outer fortifications there was some cooking pottery, a foyer, and many remains of preparation, notably a huge quantity of shells from the rivers in front of the site. Narrow entrances, regularly spaced from each other (1016, 1017, 997) along the perimeter walkway (maybe for patrols?), interrupted the external façade. From this side trail, the main building was accessible via turning staircases whose steps reused 1,5m long flat stone slabs coming from the foundation of the Middle Uruk public building.<sup>39</sup>

39 VALLET *ET AL.* 2019.

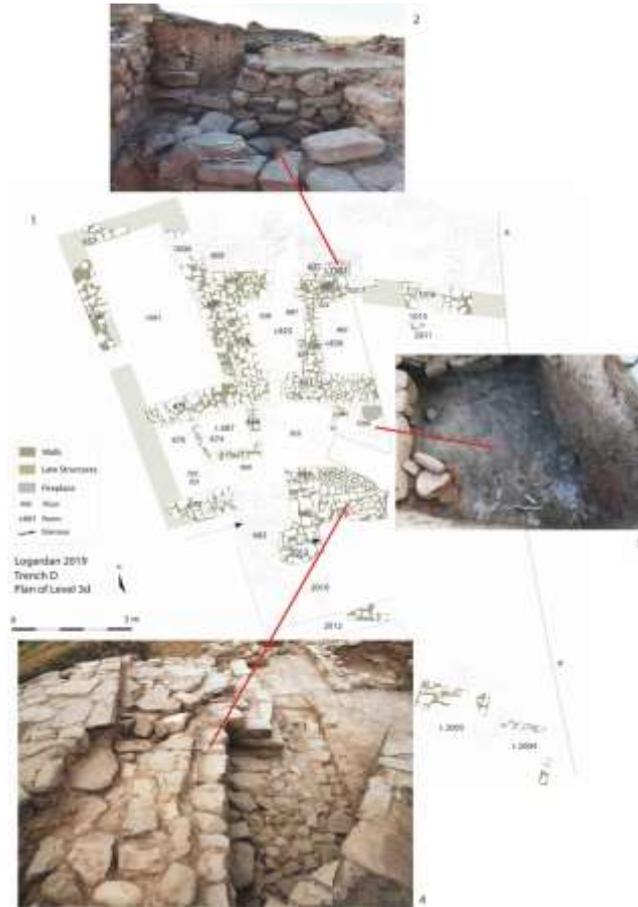


Fig. 4. Logardan, Trench D, level 3d: 1) plan of level 3d; 2) kitchenette 1003, from the north; 3) traces of phytoliths in rooms 1006; 4) forecourt 685-683, from the east (French Archaeological Mission in the Qara Dagh-F.Ar.M.Qa.D.).

The north-west sector was represented by a larger rectangular space (room 661), accessible through a door (1000) open on the northern perimeter path. The central zone of the trench was occupied by small utilitarian rooms (687, 1006, whose ashy floors have yielded abundant phytoliths, Fig. 4.3), closely connected to a stone-paved southern forecourt (683, Fig. 4.4). This cobbled area allowed to climb the slope of the hill thanks to a large east-west oriented staircase (2013). The paved forecourt was part of a north-south axis with three doors allowing to cross through the whole stronghold (via the central spaces 935 and 825). The excavated portion of the complex, built according to the shape of the hill and to the orientation of the 4th millennium vestiges, was divided into two divergent – western and eastern – wings merging into the great southern staircase (683).

The whole plan largely adapts to the roughly almond-shaped topography of the hilltop. Given its small size – about 1 ha –, Logardan 3d is certainly not a “fortress community” like Tell Chuera, Tell Taya and many other contemporary urban centres.<sup>40</sup> Furthermore, considering the absence of a township around the fortified building, Logardan 3d is not even a military redoubt within a larger centre, such as the so-called Bazi-citadel, located on a hilltop, but integrated into the extended Bazi-Banat settlement complex.<sup>41</sup> Similarities exist with the

40 HELMS 2018; HELMS & MEYER 2016; READE 1968.  
41 EINWAG 2008.

compartmentalised structures and circuitous passages of the citadel of Tell Khoshi.<sup>42</sup> Closer comparisons are possible with the thick-walled building of Chenchi, characterized by rows of trapezoidal rooms arranged in two wings around a string of three central spaces.<sup>43</sup> Although the fortifications of Jerablus Tahtani are a bit older, there are clear similarities with the general plan of its small upper terrace, and especially with the structures in area III.<sup>44</sup> However, because of its nature as a small, isolated, well equipped fortified place (but unsuitable for housing many soldiers), Logardan 3d seems to fit into the same typology as Tell Rad Shaqrah in the Middle Khabur basin.<sup>45</sup> But the military nature of Logardan 3d is not only inferred by analogy with other installations of the same period, but rather by the presence of all the characteristics observed in the strongholds listed in the military administration texts of the second part of the EBA.<sup>46</sup> These secondary installations, founded to control the territory of powerful cities, all have small rooms with thick walls, a pointed or lanceolate layout, a sheltered perimeter walkway, narrow entrances and internal spaces connected through sinuous or twisting passages. In addition, although the thickness of the (stone, and not mere mudbrick) walls in the 3d Level varies between 1.1 and 2.4m, these are not the outer walls of the stronghold, which have collapsed into the valley and whose stone blocks are visible in the fields at the base of the site. Work for the construction of the 3d complex also affected the slopes of the hill, where a kind of glacis was obtained by backfilling the ramp that, throughout the Uruk phase,<sup>47</sup> led to the top of the site. Finally, although less heavily armed than Tell Rad Shaqrah, Logardan 3d took advantage of a favourable strategic position, on a hill with extremely steep sides, from which one enjoys optimal visibility without being seen from the surrounding areas.

Thickened and strengthened walls, small and secluded spaces, well-planned openings allowing maximum visibility and minimum exposure, everything seems set up for maximum simplicity and effectiveness. This same criterion was reflected in the circulation system around the perimeter, along the median axis of the building, and through a series of segmental passages easy to interrupt in correspondence with each staircase (planned so as to keep covered the defenders' flank), each door (narrow and easy to close), or each difference in height (structured so as to keep in a more favourable position those who were further inland). In spite of all these measures, the level 3d fortress suffered several fires, being destroyed by the last of them.<sup>48</sup>

### III.1. Level 3c: A Less Military, But No Less Enigmatic Complex

In Trench E, level IIIC displays the renovation of the gate system with the construction of quadrangular ramparts (Fig. 2-3). The former north entrance (2264) was closed, while the other one further south was rebuilt with a radically different design as a major ingress. Compared to the previous level, the plan is regular, and the façades are aligned with each other, yet a certain continuity is evident. In fact, some previous walls were restored (as 2129) and, as already observed in level IIID, the access (2202, Fig. 3.1) path was anything but axial.

In Trench D, a conspicuous monumental building represents level 3c (Fig. 5). The main edifice was located in a dominant position in the eastern portion of the excavated area and was delimited by a façade wall (976) beautifully plastered on both surfaces. The main unit was a

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<sup>42</sup> LLOYD 1940: 17, fig. 4.

<sup>43</sup> ALGAZE 1989: 5, fig. 3.

<sup>44</sup> PELTENBURG 2013: 237.

<sup>45</sup> BIELIŃSKI 1996; KOLINSKI 1996; QUENET 2011.

<sup>46</sup> FRONZAROLI 2003.

<sup>47</sup> BALDI & ZINGARELLO 2021.

<sup>48</sup> Traces of the last fire are clear on all the exterior walls - especially to the north -, but also in rooms 825, 826, 1006, 935 and 687. A homogeneous 30 cm thick destruction layer of black ashy soil covered all the remains.

room of about 8x3 m. Since the first architectural stage of the monumental complex, this hall was accessible from an entrance (996) with a door socket and an elegant stone threshold (Fig. 5.4). The northern unit of the eastern sector was a space that may be interpreted as a room or a courtyard, with abundant *in-situ* ceramics and figurines (equids, bovids, and two chariots, Fig. 9). Along the north slope of the hill, in the first phase of level 3c, a tortuous staircase (1013, Fig. 5.2), with steps made of 1 m large stone slabs, led to the façade (976) of the north-eastern courtyard or hall. During a late renovation, this staircase fell into disuse, the steps were buried, the room filled up to the same level as the floor of the central hall.

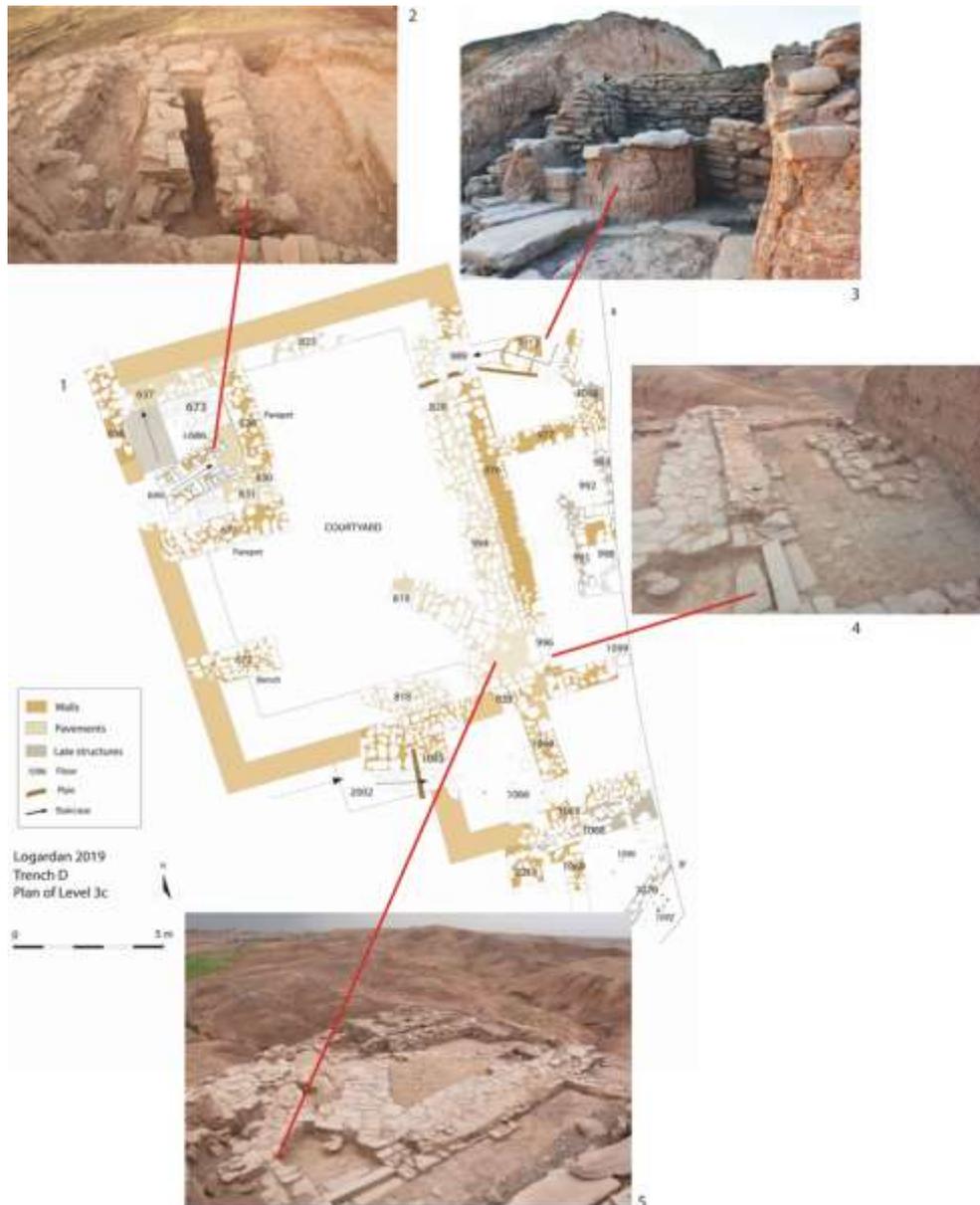


Fig. 5. Logardan, Trench D, level 3c: 1) plan of level 3c; 2) staircase 690, from the east; 3) staircase 1013, from the north; 4) view from the south of the main hall, with the monolithic threshold of door 996 at the intersection of the stone-paved walkways; 5) the stone-paved walkways, from the south (French Archaeological Mission in the Qara Dagh-F.Ar.M.Qa.D.).

The northern staircase (1013) was a segment of a complex and elegant walkway system. In fact, outside the building, all along the façade (976), there was a carefully arranged pattern of

walkways. Four main stone-paved sidewalks (823, 994, 818, 819) ran respectively alongside the façade (976), along the – badly preserved – wall closing the north side of the large courtyard, along the southern edge of the complex (833), and in between (Fig. 5.5). These passageways had the same width and thickness, were carefully paved with homogeneously sized flat stones, and intersected in front of the door of the main hall. To the north-west, an elegantly stone-paved room (686) was occupied by a stone staircase (690, Fig. 5.2) constituting another segment of the walkway system. The whole space 686 was a sort of lower atrium of the large courtyard delimited by two low parapets (671 and 636). Initially, in the early stage of the compound, the courtyard was accessed via the staircase 690, built on a flat stone pavement flooring the entire room 686. Later on, in the late 3c phase, the vestibule was remodelled. A new paved floor was built: it was no longer flat, but rather sloping. The old staircase (690) was buried by the construction of this new, higher and inclined floor (673). Another north-south oriented staircase, accessible from the door of the atrium 686 and flanking the western wall 656, allowed access to the sidewalk 637 and, consequently, to the whole system of walkways around the court.

Just as the northern wing (north of wall 977), the southern one (south of wall 833) was separated from the core area. Room 1066 was the vestibule of this south wing, accessed through two doors: the first one was open on the central courtyard near the crossroads of the sidewalks, while another one allowed access through an inclined and paved path or staircase (2002), which overlapped the highest part of the southern staircase of the level 3d stronghold.

It is hardly possible not to notice the similarities between the 3c monumental compound and several contemporary temple buildings. Yorgan Tepe temples G and F have non-axial gateways, thickened and buttressed walls, as well as large courtyards.<sup>49</sup> Indeed, the bastions built at the eastern gate of the 3c compound at Logardan (Fig. 2-3) seem too close to each other to be truly effective as defensive structures and could rather be aimed at framing and monumentalising the entrance.<sup>50</sup> Comparable features are also documented at the end of the 3rd millennium BCE in the Ishtar temple E at Assur.<sup>51</sup> Moreover, the presence of a sacred building within a citadel is very likely, as demonstrated by the contemporary shrine of Tell Taya levels IX-VIII, protected by a powerful gatehouse.<sup>52</sup>

Even in the case its primary function was not religious, the Logardan 3c compound had still a public and official nature. The regular, sophisticated, and interconnected system of walkways around the large courtyard, as well as the network of passageways communicating through doors, staircases and vestibules reveal an extreme care in planning and construction. Likewise, the very successful integration between stairways going up and down the slopes of the site, as well as the separation of the central area of the building from both the northern and southern wings are extremely elegant solutions clearly linked to very specific functions.

Contrary to the previous fortress, and despite its two phases of occupation, the 3c monumental complex never suffered fires until the one that caused its final destruction, before being replaced by a huge ceramic workshop.<sup>53</sup>

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49 STARR 1937-1939: Plan 6-7.

50 Between the very end of the Early Dynastic IIIB and the Akkad period, non-axial entrances reinforced by ramparts are documented in several monumental public buildings, as for Bâtiment B33 of Larsa – see THALMANN 2003 - and, on a gigantic scale, for the White and H Temples of Umm al-Aqarib – see ALMAMORI 2014.

51 BÄR 2003: 404, Abb. 19.

52 READE 1968: Pl. LXXVIII.

53 The black carbonaceous filling layer - with rests of fallen ceilings - covering the whole 3c complex was very different from the grey powdery ash of the subsequent level 3b ceramic kilns; see PADOVANI in this volume.

#### IV Artefacts in Architectural Spaces: Hints For Interpretating Built Environments

Without any written source, in order to establish additional details on the modalities of use of these architectural complexes, the architectural analysis cannot be done without observing the spatial distribution of *in-situ* artefacts. This implies examining the functional categories of movable items, but also their state of preservation. Since the vast majority of the *in-situ* objects are ceramic fragments, it is necessary to focus both on functional features<sup>54</sup> and fragmentation rate of the vessels used in the different spaces.<sup>55</sup> The taphonomic state of ceramics was evaluated using a pragmatic criterion, allowing an initial empirical assessment to be made during the excavation activities. Assemblages were considered to be poorly fragmented if composed of sherds weighing more than 15g, moderately fragmented if the sherds were between 8 and 15g, or very fragmented if the sherds weighed less than 8g.<sup>56</sup>

However, all these considerations are inherent to the use of the ceramic materials by their consumers in specific locations. In order to broaden this perspective to dynamics depending on the production of the vessels, pottery was also studied by applying the *chaîne opératoire* approach, which transcends the morphological and functional aspects and reconstructs the complete operational sequences through which ceramics were manufactured. Because “pots are not people”,<sup>57</sup> while technical traditions (specifically traditional *chaînes opératoires*) are,<sup>58</sup> they constitute the peculiar “ways of doing” and the specific technical signatures of distinct groups of producers.<sup>59</sup> This allows a deeper and much more articulated anthropological approach which, by using the *chaînes opératoires* as material indicators, makes it possible to reconstruct the interactions between the groups of manufacturers.<sup>60</sup> The purpose of this article is not to present a detailed study of pottery technology, nor to analyse the ceramic *chaînes opératoires* from Logardan 3d and 3c.<sup>61</sup> Indeed, even a rough characterization of the ceramic pastes and shaping methods is enough to show that the apparently (i. e. morphologically)<sup>62</sup> uniform assemblages of this phase are not homogeneous at all.<sup>63</sup>

#### IV.2. Getting a Stronghold to Defend What?

For level 3d, the combination of these analytical criteria composes a not-so-ordinary picture (Fig. 6). The presence of bowls for eating, jars for storage and cooking pots for preparing meals may seem quite common, given that in a fortress a garrison had to live somewhat self-sufficiently. But the rare specimens of bowls, dishes and goblets were concentrated especially in room 1006, where the floor was covered by a thick layer of woven mats – which left

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54 This does not imply any morpho-stylistic or typological analysis of the ceramics of levels 3d and 3c. For an in-depth discussion of these aspects, see ZINGARELLO in this volume.

55 ORTON 1993.

56 ORTON & TYERS 1992; ORTON & HUGUES 2013.

57 KRAMER 1977.

58 BALDI 2012a; 2012c; 2012d; 2016; 2020b; ROUX 2019a, 2019b; GOSSELAIN 2002; 2018.

59 LIVINGSTONE-SMITH 2007; PATTON 2008; STARK 1998; STARK *ET AL.* 2008; WENGER 1998; ISERLIS 2009; WENDRICH 2012.

60 ROUX & COURTY 2005; 2007; BALDI 2013.

61 These issues, already discussed at greater length for earlier levels in BALDI 2016, are the subject of an ongoing diachronic study of the assemblages from Girdi Qala and Logardan between the 6th millennium BCE and the Late Bronze Age.

62 BEUGER 2008; 2013; 2019; ARRIVABENI 2019.

63 After a first naked-eye sorting, additional characterizations of different groups of fabrics implied a more detailed classification in 2018 and 2019 campaigns. The coherence of each group of pastes has been verified by further analyses - using a Dino-Lite Digital microscope, model AM4113T, with up to 200x magnification - on 2718 selected samples; ROUX 2019a. Petrographic analyses are not described in detail here, because the focus is on specificities or analogies between pastes, not on compositional features or provenance of the raw materials.

abundant phytoliths remains. The same can be said of the very rare cooking pots (just three), concentrated in the small kitchenette 1003 outside the north wall, where they were used to boil large quantities of shellfish from the rivers flowing down the hill. The large majority of the assemblage was composed of jars (about 52%) and basins (28%). Small jars, jugs, bottles and small pitchers, scattered throughout the spaces, but especially in rooms 687 and 826, represented about 15% of the pottery. The fragmentation rate appears to be limited in the north-eastern sector (room 826 and kitchenette 1003), but it is very high in the rest of the fortress. This is not surprising for the areas crossed by the main circulation paths (the walkway along the perimeter walls and the north-south intermediate axis). Similarly, it is not strange that tiny and delicate containers, as jugs and small jars, are very poorly preserved. But large thick-walled jars are in no better condition either. Therefore, it seems clear that, after the fire that destroyed the 3d fortress, the site was cleaned up and extensively flattened before the construction of the level 3c building. The ceramic materials show that in the excavated portion of the fortress, significant quantities of foodstuffs were stored and processed in large jars and basins. It was not for immediate everyday purposes. Animal bones are virtually absent, and the food prepared in the only known kitchenette of the complex (1003, outside the walls) were molluscs. Instead, it is quite likely that stoves and fireplaces were used not only for heating the garrison in winter times, but also for transforming foodstuffs into products which were then stored in different types of vessels. In other words, in addition to its military purposes, the 3d fortress probably housed and defended collective storage and food processing activities.

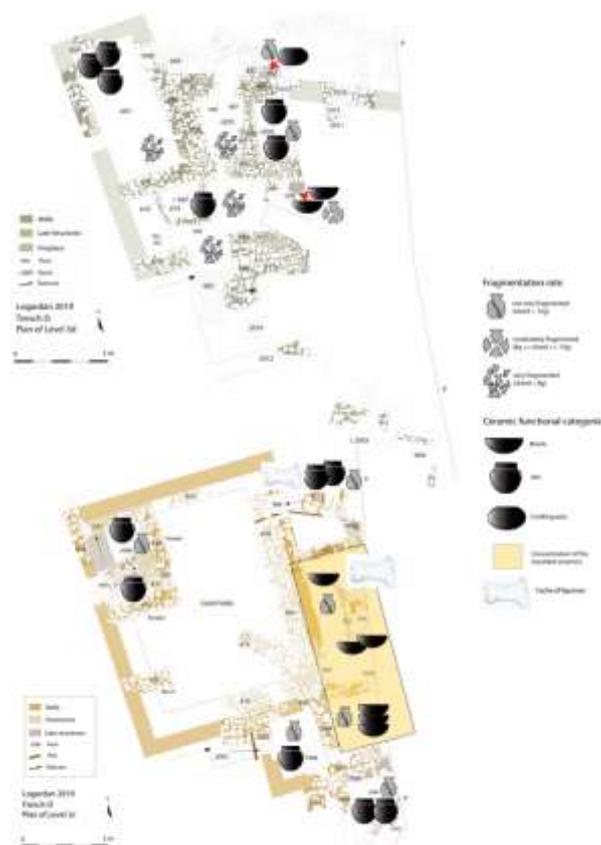


Fig. 6. Spatial distribution of the movable items and fragmentation rate of the ceramic assemblages in levels 3d (above) and 3c (below) in Trench D (J. S. Baldi).

The fact that the latter were collective doings is not an assumption based on the communal nature of any military defence system. This is rather what the ceramic techniques of level 3d document, according to their variety and spatial distribution.

Level 3d ceramics were shaped by 5 techniques (Fig. 7-8).

- 1 Hollowing-out a lump of clay and pinching and stretching it.
- 2 Overlapping flattened coils of 3.5 cm thick, with alternating oblique orientation of the junctions towards the interior and the exterior side.
- 2.i Wheel-coiling technique – by overlapping flattened coils of 3.5 cm thick and then finishing the containers by the rotational kinetic energy.
- 3 Overlapping rounded coils of 2-2.5cm thick, with oblique orientation of the junctions towards the interior side.
- 3.i Wheel-coiling technique – by overlapping rounded coils of about 2 cm thick and then finishing the containers by the rotational kinetic energy.

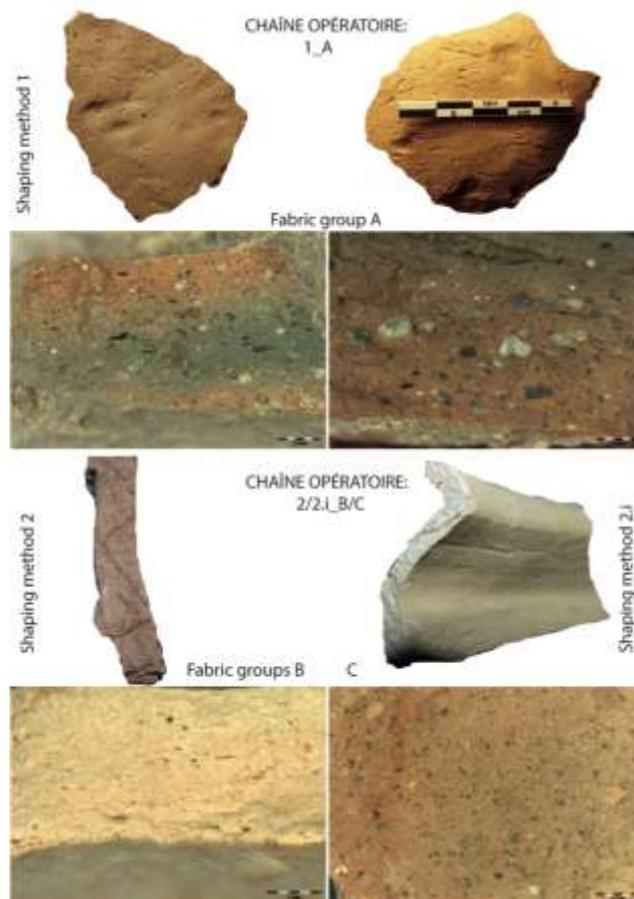


Fig. 7. Technical attributes (shaping methods and fabric group) of two ceramic *chaînes opératoires* 1\_A (above) and 2/2.i\_B/C (below) (J. S. Baldi).

Therefore, there were 3 manufacturing traditions, as 2.i and 3.i were variants of 2 and 3, respectively. As far as fabrics, three main petrographic macro-groups have been identified.

- A Group: orange-reddish fabrics, fired in an incomplete oxidizing atmosphere (black core) with small-sized vegetal and large mineral inclusions (basalt, limestone, opaques, ferruginous particles).
- B Group: beige and light orange, dense mineral fabrics, fired in an oxidizing atmosphere, with traces of serpentine and carbonates in the fine mass of the clay, significant quantities of ferruginous inclusions and scattered ground shells.
- C Group: beige or brownish porous fabrics, fired in an incomplete oxidizing atmosphere (sometimes grey core), with vegetal and mineral inclusions (mainly basalt, quartz, sub-angular calcite, ferruginous particles, and micas).

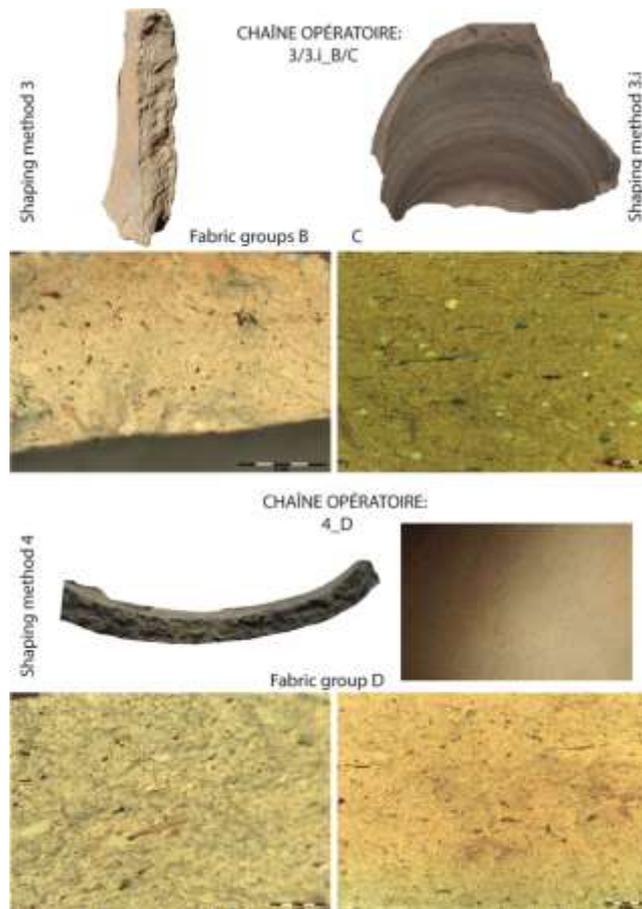


Fig. 8. Technical attributes (shaping methods and fabric group) of two ceramic *chaînes opératoires* 3/3.i\_B/C (above) and 4\_D (below) (J. S. Baldi).

Based on these technical attributes, 3 *chaînes opératoires* are documented in level 3d.

- 1\_A: hollowing-out a lump of clay in A fabrics.
- 2/2.i\_B/C: 3.5 cm thick coils sometimes finished by rotational kinetic energy in B or C fabrics.
- 3/3.i\_B/C: 2-2.5 cm thick coils sometimes finished by rotational kinetic energy in B or C fabrics.

These are extremely conservative local technical traditions, already well documented at Logardan and in the Qara Dagħ since the 5<sup>th</sup>-4<sup>th</sup> millennia BCE,<sup>64</sup> related to distinct groups of producers. The entire assemblage of level 3d is manufactured according to these *chaînes opératoires* in fairly equal quantities (3/3.i\_B/C is slightly predominant) and, within the excavated portions of the stronghold, their spatial distribution is completely mixed, with all traditions documented in all spaces. In other words, the vessels produced by distinct groups of craftspeople according to different technical traditions were distributed and used without distinction (neither social nor spatial) throughout the fortress to perform the same operations. This spatial configuration of the *chaînes opératoires* is quite usual when individuals from different social entities gather in one place to perform common tasks together.<sup>65</sup> This suggests that the food storage and processing activities carried out in the fortress had a collective character. According to the material remains found so far, no other specific activity was carried out in the fortress. There are no concentrations of loom weights or spindles, no traces of stone or metalwork, no signs of a substantial presence of domestic livestock. Indeed, location and features of the stronghold do not seem suitable for any of these activities.

Consequently, as strange as it may seem that a fortress was protecting ordinary food processing activities, it seems that the defensive and military control functions of the 3d complex were linked to these businesses.

#### IV.3. Monumentalising a Stronghold to Celebrate What?

In level 3c ceramic shapes are rather variegated, with open and closed, plain and decorated vessels of different sizes (Fig. 6). However, this variability is not attested throughout the architectural complex. The large courtyard has hardly yielded any *in-situ* material. Most of the pottery comes from the north and south wings, and the north-west atrium (686). On the stone floor (673) of the latter was a quantity of large storage jars, certainly difficult to move. In the north wing, during the early stage of the edifice, several large jars were stored under the stairway (1013), with also basins, vats and a few spouted shapes. This did not change in the later phase: once filled the staircase, the range of ceramic shapes remained the same. What seems rather unusual, however, is that in an area intended for storing and handling food there was a concentration of figurines (Fig. 6).

This northern sector was certainly not a kitchen, as no ovens, pots or animal remains were found. It was probably a large pantry in which raw foodstuffs was stored and handled. Although distinct from the core of the building, the north room was easily accessible and certainly not suitable to guard food supply for times of need, but rather for managing and distributing it in other areas of the complex. Yet, figurines (Fig. 9) were present in this area since the early stage: 15 of them were amassed below the stairway (1013), close to (but separate from) the large storage jars. Then, in the late 3c phase, another cache (of 12 figurines) was in the south corner of this wing.

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64 BALDI 2016; BALDI in press. Compared to some of the *chaînes opératoires* attested in the Uruk phase, the shaping methods are identical, while the recipes for the fabrics are slightly different, with minor variations in the size of non-plastic inclusions and firing methods.

65 ROUX & COURTY 2005; 2007.



Fig. 9. Figurine of equid from the north wing of the monumental complex of level 3d in Trench D (French Archaeological Mission in the Qara Dagh-F.Ar.M.Qa.D.).

In addition, the south wing (rooms 1066, 1096) has yielded mainly jars and jarlets of medium/small size, apparently suitable for holding liquids (probably not alcoholic substances, given the absence of spouts and pourers). Open shapes were not abundant, but some large and decorated (roped and incised) dishes and shallow bowls were also attested.

The only part of the building that has yielded bowls (with 3 scattered figurines) is the central hall with the adjacent room, south of door 1099. This amount of bowls represents only about 18% of level 3c assemblage, but their concentration is by no means accidental. In the south room, bowls were stacked. Their presence does not seem to be linked to operations that took place there, but rather to the activities performed in the main hall, as if these small containers, suitable for personal consumption, were stored there – or as if anyone passing through the small room, before reaching the hall, had to take a bowl.

Cooking pots are virtually absent, both *in-situ* and from filling layers. Although it is possible that kitchen existed in the unexcavated portion of the complex, for the moment the lack of sherds with soot traces, ovens or equipment for preparing meals is noticeable.

The fragmentation rate, which is low everywhere, also seems to poorly fit with the destruction of the building. In fact, although fires did not affect it as frequently as the 3d stronghold, the end of the 3c complex is the same, with a large fire and a subsequent levelling of the ruins. The presence of little fragmented, large ceramic sherds in all the rooms suggests that, in contrast to the remains of level 3d, those of level 3c were not immediately remodelled: the site was rather neglected for a time without anyone moving the artefacts. Then the ruins were reused for an entirely different (and much humbler) purpose, namely a large-scale pottery workshop. This set of circumstances does not seem to evoke an accidental destruction and subsequent reconstruction, but rather a deliberate condemnation to oblivion, followed by a total lack of respect for the monumental significance of level 3c.

Even from the point of view of ceramic techniques, the panorama is very peculiar. All three *chaînes opératoires* documented in level 3d (1\_A; 2/2.i\_B/C; 3/3.i\_B/C) are also attested in level 3c. On the other hand, these are local operational sequences, performed by indigenous

groups (at least) since the Chalcolithic period and which would have been also used in the following millennia. But alongside these traditions, an entirely new technique was appearing for the first time (Fig. 8).

The shaping method was completely unusual.

- 4 Moulding the roughout on a concave support and overlapping a 3-4 cm thick ring coil to shape the rim (for open shapes), or 2-3 of such coils (for closed shapes).

Furthermore, the fabrics were different from those previously documented.

- D Group: beige-yellowish porous fabrics, fired in an oxidizing atmosphere, with medium-sized vegetal and small-sized mineral inclusions (mainly sub-angular calcite, opaques and grog).

Thus, this *chaîne opératoire* was distinctive for both raw materials and technical gestures.

- 4\_D: moulding in a concave support, using D fabrics.

All the vessels produced by this new technique were exclusively concentrated in the central hall of the building and in the adjacent small room to the south, where many bowls were stacked (Fig. 6). Not only this spatial distribution is *per se* quite unusual, but it also shows a sharp separation between the new tradition and the olds ones, which are documented and mixed throughout all the other spaces. The fact that all the pottery used in the core of the building was produced by one new *chaîne opératoire*, which was used in no other area of the complex, cannot be accidental. Indeed, spatial relations between *chaînes opératoires* are generated by the overlapping of two distinct and independent systems of interactions, i.e. the production and distribution networks. Their possible combinations in a given space are innumerable, but in almost all possible configurations the spatial distribution of the *chaînes opératoires* is mixed, chaotic and basically indecipherable (like in level 3d). Because distinct groups of craftspeople producing for all consumers inevitably generate an inextricable series of interweaving between production and place of use. Conversely, the only possibility of generating a spatial segregation of artefacts manufactured by specific producers (i.e. according to a peculiar *chaîne opératoire*) is that producers and users belong to the same social group.<sup>66</sup> This is what happened in level 3c not only with bowls, but also with figurines.

Indeed, it is even more surprising to observe that all the figurines have a D fabric, identical to that used for the *chaîne opératoire* 4\_D. Again, there is nothing coincidental about it. In fact, this is not a mere correspondence of the clays exploited for shaping some pots and for modelling figurines (i.e. this is not a matter of raw materials): this implies the deliberate use of the same recipe (with the same inclusions and clay treatment), namely a cultural significance. Since these bowls and figurines have nothing apparently exceptional, rather the way they were produced was ideologically meaningful. They were manufactured and used by individuals from the one social group who had recently arrived in the Qara Dagħ and to whom access to the core of the building was reserved (Fig. 6). Maybe, even if there is no means to prove it, one could suppose that the value accorded to the operational sequence of figurines and moulded bowls depended on the use of grog (namely crushed pottery, or crushed clay figurines) in their fabrics, according to a pattern of reuse of specific ceremonial artefacts documented both ethnographically and archaeologically.<sup>67</sup>

As already noted for level 3d, the 3c building did not yield any traces of weaving or other specialised activities. Thus, it is remarkable that the only distinctive and somewhat “special”

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66 BALDI 2020b.

67 ROUX 2019b.

movable items – the figurines amassed in caches and the pottery produced by an entirely new technique – were used in the core of the building. Strange as it may seem, it appears plausible that the monumental complex of level 3c served to perform or celebrate some kind of activity related to these specific artefacts, produced by a specific technique.

#### ***V. To Conclude: Framing a Military-Monumentalised Stronghold in Its Local History***

Since material culture and event history are disparate fields, devoid of any direct and definite relationship in terms of temporalities, juxtaposing them is not only a risky exercise, but also an intrinsically incorrect one. Furthermore, any tentative historical reconstruction lies (for the moment) on a limited number of reliable radiocarbon dates for Logardan Early Bronze Age levels.<sup>68</sup>

The very existence of the 3d stronghold is a consequence of the generalisation of warfare in the late 3rd millennium. But, given its small size and specific location, in military terms, the fortress was probably not meant for a heavy presence of troops, but rather for a small garrison in order to control (in the sense of visually surveying and scouting) the surrounding territory. The site, in the immediate vicinity of the town of *Azuhinum/Chamchamal* and facing the *Babite/Bazyan* pass, seems perfectly suited to monitoring a sensitive frontier with the land of *Lullubum* (see §II, Fig. 1). Consistent and well-stratified radiocarbon samples seem to indicate that the 3d fortress would have been built around (average calibrated dates) 2340-30 BCE and destroyed around 2230 BCE. Although such a date of construction is compatible with the beginning of Sargon's reign, it seems highly unlikely that the Akkadian power had encompassed the Logardan area before Naram Suen's campaigns. Instead, it would seem entirely credible that the powerful city of *Azuhinum/Chamchamal*, which constituted a not negligible military opponent to the Akkadian conquests, had erected in the second half of the 24th century a fortress to protect itself on the eastern front, namely against *Lullubum*. To this end, Logardan 3d would not have been a stronghold located on a linear frontier, but rather a defensive point placed deeper within the territory of *Azuhinum*, perhaps integrated in a belt of posts close to each other and to the city.

This interpretation seems also compatible with the collective food activities that took place inside the stronghold. In fact, if a powerful enemy (such as *Lullubum*) had come in force so close to *Azuhinum/Chamchamal*, a small garrison like Logardan would have been of no use, and the last defence would rather have been a task for the (probably well-fortified) urban centre. But in a context of strong territorialisation of resources and agricultural spaces, the 3d fortress was most likely not intended for defending the main centre, but rather to protect the farming activities during harvests. As attested in the Ebla texts, the practice of raiding the livestock of enemy cities and destroying their agricultural fields during harvest seasons was an ordinary and terribly effective means of warfare.<sup>69</sup> This kind of attacks represented a catastrophic risk, especially on the economy of a city as *Azuhinum/Chamchamal*, situated within the so-called “zone of uncertainty”, i.e., structurally vulnerable due to fluctuations of the annual precipitation.<sup>70</sup> Therefore, it seems plausible that *Azuhinum* needed strongholds monitoring the border with *Lullubum* and protecting agricultural activities. The storage and processing of

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68 See ZINGARELLO in this volume for a larger discussion of the 3rd millennium chronology.

69 ARCHI 2010: 16-17.

70 WILKINSON ET AL. 2014.

foodstuffs that took place in the fortress were maybe related to the collective pre-processing of certain commodities,<sup>71</sup> as well as to the sustenance of the garrison.

However, in all probability, it was not by the hand of *Lullubum* that the 3d fortress was set on fire and obliterated. Indeed, it is tempting to associate its destruction around 2230 BCE with the Akkadian conquest during the second half of Naram Suen's reign. Consequently, both in terms of chronology and political history, it would be plausible to consider the monumental complex of level 3c as an Akkadian establishment in a recently incorporated territory and dependent on a governor based in *Arrapha* (if it already existed), in *Hamazi* or in *Azuhinum* itself. Until now, the historical reconstruction proposed for these phases envisaged the replacement of the 3d fortress, implanted by a local power, with a monumental residence for a local governor during phase 3c, followed by the arrival of the Akkadian power with the foundation of the great ceramic workshop of level 3b.<sup>72</sup> In fact, the functional evolution of the fortress is evident: from a frugal, "spartan" and purely functional installation devoted to territorial control, it turns into an ostentatious, elegant building, with official, ceremonial or celebrative functions. Later on, in level 3b, there is something unquestionably brutal and contemptuous in the decision of converting the site into a factory of specialised craftspeople, working in conditions of extreme toil and humility. All these considerations remain valid. But the data collected during the last fieldwork season, and analysed since, suggest the new evolutionary pattern evoked here, implying an Akkadian presence as early as level 3c.

It is understood that this hypothesis has to be confirmed by further radiocarbon dates in the next campaigns,<sup>73</sup> especially because, for the time being, the portion of the 3c architectural complex brought to light is not sufficient to clarify its very nature. The place of religious practice in particular should be clarified. Some would not hesitate to see a temple in the 3c complex, as its already known characteristics do not oppose it. A monumental, isolated building in a dominant position, designed to receive and gather people and animals, with sophisticated architectural details and a clever circulation system to allow large groups of visitors to flow in and out. The distribution of movable items could also agree with this hypothesis, with caches of clay figurines and possibly votive bowls near structures that, within the central hall, could be a shrine. But for the time being, with a plan that is still fragmentary and without having identified an altar, it would be adventurous not to imagine that the concentration of bowls in the hall could rather indicate secular reception practices, banquets and social transactions that still have a strong ideological dimension. The latter aspect is emphasised not only by the presence of figurines, but also by the distribution of ceramic *chaînes opératoires*. In fact, an effective distinction exists between indigenous techniques, already documented in the Qara Dagh since the 5th and 4th millennia BC, and a new tradition emerging for the first time in level 3c. These attributes might offer an additional clue to an interpretation of level 3c as an Akkadian establishment: the moulding technique is not only new, but also highly valued and reserved for specific activities charged with social and ideological meaning.

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71 On food activities carried out collectively during harvests even in different contexts of land ownership see DAHLMAN 1980.

72 VALLET *ET AL.* 2019; VALLET 2020; BALDI & ZINGARELLO 2021.

73 In any case, the calibrated average of currently available dates for level 3b pottery kilns is around the second half of the 22nd century - see ZINGARELLO, this volume -, after the end of Šarkališarri's reign and the fall of the Akkadian influence on the trans-Tigridian region (see § II). Therefore, the deliberate attitude of disdainful oblivion for the power behind the monumentality of level 3c - as well as the decision to use Logardan not to dominate a territory, but rather to exploit its logistical position for a large-scale production and distribution of ceramics - seems to be attributable to a local (or Gutian) post-Akkadian power.

The 4\_D technical tradition radically differs from (and does not share any step with) the indigenous *chaînes opératoires*, so it can in no way derive from them through some kind of exchange, borrowing or technical hybridisation. On the anthropological level, when differences affect the whole of a new operational sequence, its distinctive attributes can only depend on a demic factor, namely that the *chaîne opératoire* in question belongs to a distinct social group or people.<sup>74</sup> This is consistent with information we have on the Akkadian conquests in northern Mesopotamia, as a trigger for migratory phenomena, movements of troops, populations, relocation of villages and specialist craftspeople.<sup>75</sup> It would probably be exaggerated to imagine that the appearance of a new ceramic technique was a consequence of the massive forced migrations decided by the Akkadian power. But arrival of immigrants from central-southern Mesopotamia could be plausible, especially if one accepts the traditional location of Akkad, not very far from Logardan, between the ‘Adhaim and the Tigris rivers.<sup>76</sup> From this perspective, it is particularly intriguing that the new *chaîne opératoire* was based on the moulding technique, a tradition generally considered typical of the Diyala basin and central-eastern Mesopotamia.<sup>77</sup> In any case, the appearance of a new *chaîne opératoire* due to a demic or migratory phenomenon was by no means a usual event in the Qara Dagh.<sup>78</sup>

Thus, for the time being, in levels 3d and 3c the material culture seems to tell the story of a small fortress established by an urban community to defend its territory and agricultural economy from a neighbouring enemy realm. After destruction and conquest by a more distant (and probably imperial) enemy, the activities of physical control and collective defence turned into ideologically meaningful celebrative doings, officiated by newly arrived (maybe Central-Mesopotamian) people. Then followed a new destruction, materially and symbolically more radical than the previous one. Overall, we know very little, and to better substantiate any idea about what people actually did on the summit of Logardan, a lot of digging and researching is still needed.

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74 ROUX & COURTY 2005; ROUX 2019a; WENDRICH 2012; STARK 1998; STARK *ET AL.* 2008; BALDI 2020a.

75 KLENGEL 1965; STEINKELLER 1981, 1998; FRAYNE 1993; SCONZO & SIMI 2020.

76 SALLABERGER & WESTENHOLZ 1999.

77 DELOUGAZ 1952: 3; BALDI & ROUX 2016; BALDI in press.

78 From the Neolithic onwards, the appearance of a new *chaîne opératoire* is recorded only on very few occasions: with the appearance of the Ubaid, at the beginning of the Uruk occupation, in Logardan Trench E level III E (an Early Dynastic I occupation with a unique assemblage, see ZINGARELLO this volume), in level 3c, and at the end of the Middle Ages in Girdi Qala.

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