

## Martin Sauvage, Mélania Zingarello and Bahra Salah

During the 2015 campaign in Logardan levels of the Bronze Age were excavated at the top of Trench C, between the median and the upper terraces. In addition, a magnetic survey was carried out on the upper part of the site, showing a number of magnetic anomalies indicating underlying structures (Vallet 2015). It was decided in 2016 to go on investigating the Bronze Age levels at Logardan with a new trench (Trench E) set on the upper terrace (fig. 1). To help determine the best location for this trench, a preliminary surface survey (Upper Terrace Survey: UTS) was carried out (see *supra*). The survey has indicated a probable occupation of the Halaf and Obeid periods in the northern part of the terrace and

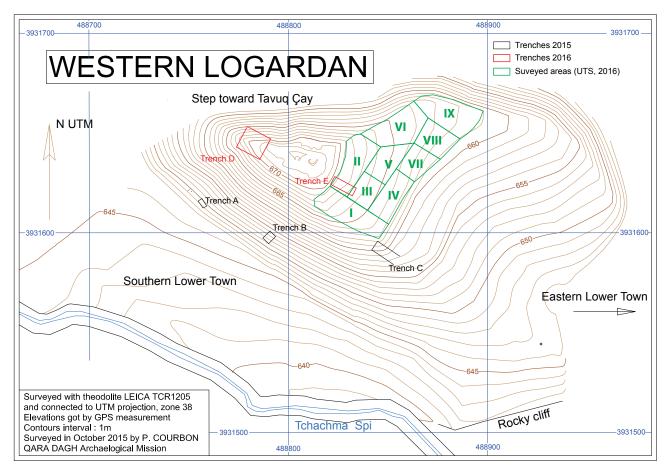


Fig. 1 - Topographical map of the western part of Logardan showing the Upper Terrace Survey areas I to IX and the location of the 2015 trenches A, B and C and of the 2016 Trenches D and E (topographical survey by P. Courbon, 2015; CAD by M. Sauvage, 2016).

a possible Uruk occupation at the junction of the upper and the median terraces. Finally, and this was confirmed by the excavation, the entire central part of the terrace appeared to have been lastly occupied by Bronze Age structures.

In this central zone, two important geomagnetic anomalies were identified by the 2015 geomagnetic survey (fig. 2). First of all, the supposed traces of the enclosure or retaining wall of the 'citadel' seemed to be interrupted to leave room to what could be the access way from the upper terrace. Secondly, a very contrasting rectangle clearly indicates a building in the axis of this access, a dozen meters below. It was therefore decided to lay trench E so that its northwest extremity reached the retaining wall of the 'citadel' and its south-east extremity an angle of the building identified by the geomagnetic survey.

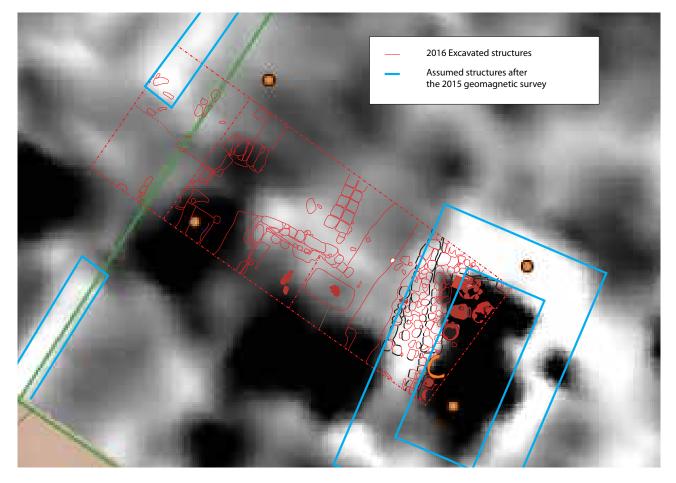
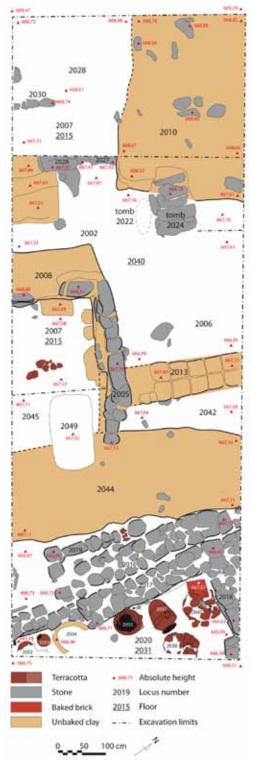


Fig. 2 - Logardan, 2015 geomagnetic survey (detail of Trench E area) with marks of what could be the retaining wall and the access way to the citadel and a rectangular building or room (geomagnetic survey by L. Darras, DAO M. Sauvage).

The excavation took place from 2 to 25 October under the direction of Martin Sauvage, with the help of Melania Zingarello and Bahra Salah, Micheline Kurdi was in charge of the calibration of the surveys and provided her help in excavating a tomb. The trench was first opened on 50 m<sup>2</sup>: 10 m in the SE-NW axis and 5 m in the SW-NE axis; on October the 15th, an extension of 3 x 5m was added to the NW to bring the total open area up to 60 m<sup>2</sup> (fig. 3 and 4). The slope of the surface in Trench E is about 3 m (alt. 669.47 m at the NW, 666.51 m at the SE). Five successive levels of occupation were distinguished throughout the excavation (fig. 5), but some excavated structures could not be dated (no associated material or structures not yet emptied). Stratigraphy will certainly have to be refined during the next campaign, especially in the upper part of the trench where only the most recent levels were cleared.





**Fig. 3** - Logardan, Trench E: mosaic view of the excavation at the end of the campaign (M. Kurdy)

**Fig. 4** - Logardan, Trench E: plan of the excavation at the end of the campaign (survey and CAD M. Sauvage).

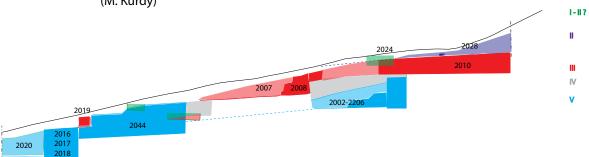


Fig. 5 - Logardan, Trench E: stratigraphic simplified scheme (CAD M. Sauvage).

▶ Level I: the intrusive structures, dug into the older levels, are gathered in this 'level'. These are, first, graves 2024 and 2022, as well as structure 2049. These structures have been dug into levels III or IV and could therefore belong to level II, but for the moment, no associated datable material has been found which could help for dating. We have to wait until the next campaign and the excavation of structure 2049 to clarify whether we are dealing here with a necropolis and of which date.

The structure 2024 is a cist-grave with a cover made of five stone slabs ( $60-80 \times 20-30$  cm) laid flat on one layer. Its walls are made of slabs laid edgewise. It is obviously a secondary burial: the bones are incomplete, broken and fragmentary without connection or anatomical placement (figs. 6 and 7). There is no associated material, and the relative dating of the grave is thus impossible. It is to be noted that the grave cuts the structure 2010 and is therefore later than level III.



Fig. 6 - Logardan, Trench E: grave 2024, the covering stone slabs have been removed.

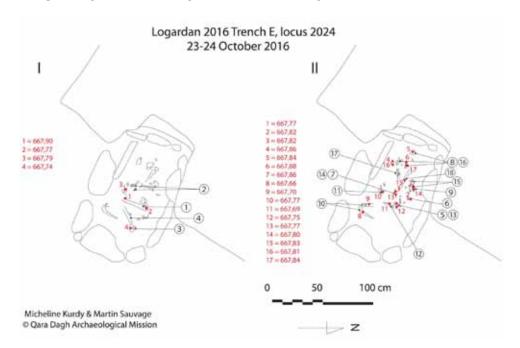


Fig. 7 - Logardan, Trench E: grave 2024 (survey and CAD M. Sauvage).

Beside this cist-grave, a pit burial was excavated, whose precise limits could not be exactly located because the substrate, a very fine grey earth, is very loose (figs. 8 and 9). It should



Fig. 8 - Logardan, Trench E: grave 2022.

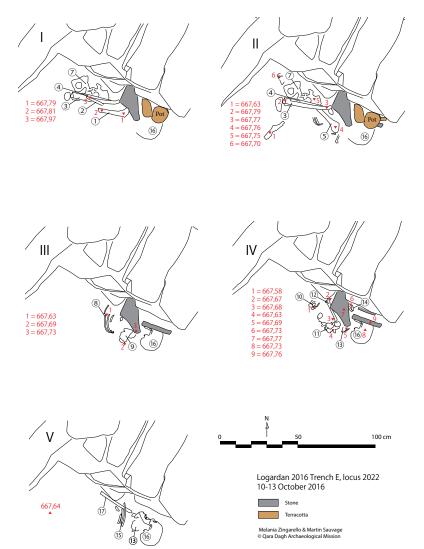


Fig. 9 - Logardan, Trench E: grave 2022 (survey and CAD M. Sauvage).

probably be considered contemporary with the grave 2024. It is a burial with a juvenile body in a flexed position on the back; the pelvis is broken in two at right angles vertically to the axis of the spine. A great number of bones, in particular those of the hands and feet, are missing. A small pot rested over the skull, but it does not have diagnostic characteristic that could help to date the burial.

Further southwest of room 2007 in space 2045, a rectangular pit (2049) oriented NW-SE and measuring approximately  $1.2 \times 0.6$  m was located at the end of excavations but time was short to empty it. It could also be a grave, that should be excavated during the next season.

▶ Level II: that level is preserved only in the NW extension of the trench, with floor 2015 (667.31 m), which is lost in the slope to the south. A wall with a single row of stones, oriented SW-NE, divides spaces 2028 and 2007. These are obviously outdoor spaces, that abut towards the NE the structure 2020 of level III.

• Level III: In the northern corner of the trench a solid mass of brick has been recognized on a  $3 \times 4$  m area and on a preserved height of 0.80 to 1.30 m. It is most likely the retaining wall of the 'citadel' standing at the top of the site and will be the subject of a more extensive excavation during the next season. It is stratigraphically contemporary of a more southerly building composed of the room 2007 and walls 2008, 2005 and 2013 (fig. 10). This building is obviously a domestic settlement, very poorly preserved in places (the walls of 2008 and



Fig. 10 - Logardan, Trench E: room 2007 and floor 2015, wall 2008 in the background and wall 2005 on the right.

2013, made of unbaked mudbricks, are only preserved on the first layer). The external floors to the north are lost and the erosion cuts the level to the south. Room 2007 was, however, fairly well preserved with two walls of unbaked mudbricks at an angle to the north (2008 and 2005), provided with a stone basement. Wall 2005 is composed of a basement of stone on two rows, the inside facing having fallen into the room. On the floor 2017, ceramic material was found (see the report of M. Zingarello, *infra*), which allows dating the whole level to the transition from the Early Dynastic III period to Akkad (ca. 2400-2300 BC).

▶ Level IV: Below level III, in areas 2002, 2006, 2042 and 2045, we found a layer of greyish fine earth up to 1 m thick. This filling of a vast outdoor area obviously indicates a period of abandonment. The layer abuts to the SE the 2044 mudbrick structure of level V, still present at this time.

▶ Level V: This is the oldest level reached in the trench during the campaign. To the north, it corresponds to a massive mudbrick structure with a stone basement (2027 and 2028) and a set of steps made of rammed earth. It is probably an early phase of the retaining wall of the 3<sup>rd</sup> millennium 'citadel'. The next campaign will seek to reach this level to the NO in order to confirm the location of the access to the citadel for this period. To the south of this massive structure, an outdoor floor (2040) with a lot of material (potsherds and animal bones) has been unearthed on nearly 5 m long (figs. 11 and 12), that could abuts the massive brick structure 2044 to the south (this point will be checked during the next campaign). This later



Fig. 11 - Logardan, Trench E: space 2002 and floor 2040, on the right the grave 2024 with its covering.

structure has an average width of 3 m, and crossed the whole trench. It is supposed to act as a retaining wall, the structures to the south coming to lean against it, but its base could not be recognized yet.

In the south-eastern part of the trench, where a large magnetic anomaly was detected in 2015, stone walls (30 to 60 cm wide, preserved to a height



Fig. 12 - Logardan, Trench E: space 2002 and floor 2040.

of 1 m) delimit a room corner (room 2020 and floor 2031). In this area (fig. 13), seven jars (fig. 14) and three small pots were found *in situ*, under the remains of the collapsed earthen roof that sealed the room (fig. 15). These roof remains are in the form of blocks of raw clay bearing on one side the footprints of the plant material (probably reeds) that rested on the roof joists (fig. 16). A large basin of clay (60 cm in diameter) and a tripod holder of the same material were also found in the room (fig. 17).

The room 2020 and the surrounding walls are cut from the northern part of the trench by the massive structure 2044, whose base has not yet been reached. The belonging of the room 2020 to the level V is therefore based solely on the preliminary dating of the material. Several



Fig. 13 - Logardan, Trench E: room 2020 during.

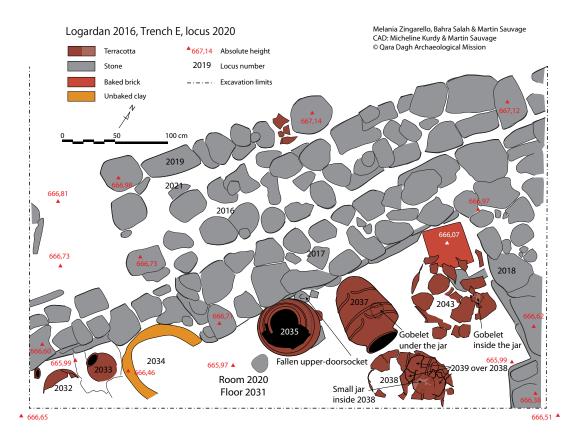


Fig. 14 - Logardan, Trench E: room 2020 and walls 2019, 2026, 2017 and 2018 (survey and CAD M. Sauvage).



Fig. 15 - Logardan, Trench E: room 2020, a jar during excavation partly covered by the collapsed earthen roof.



**Fig. 16** - Logardan, Trench E: room 2020, detail of the raw earth fragments with marks of vegetal material from the collapsed earthen roof.



**Fig. 17 -** Logardan, Trench E: room 2020 and floor 2031, storage jars and raw earth tripode.

jars have a characteristic appliqué motive of 'snakes', which closest parallels come from the Diyala, in ED (II)-III but also late third millennium levels (see M. Zingarello's report on the ceramic, *infra*). However, some jars could also be dated, given the comparisons found, of the Late Bronze Age. But it is possible that this room has also been disturbed by late pits (from level I or II). The next campaign will have to clarify this point. In any case, it should be noted that the vases bearing this type of snake decoration are often to be found in a ritual context (QUENET 2014). We could thus deal here with the storage room of a temple.

Five objects have been found apart from ceramics and fauna (fig. 18): a bell-shaped weaving weight (LOG E.Tc1037.1), a red terracotta bead (LOG E.Tc1054.1), a fragment of a terra-



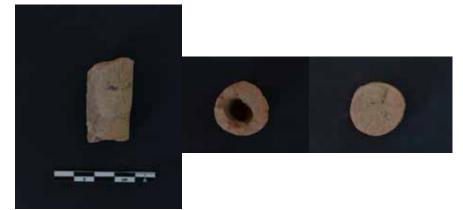
UTS: bell-shaped perforated weaving weight (LOG E.Tc1037.1)



UTS: red terracotta bead (LOG E.Tc1054.1)



UTS: fragment of an unbaked clay sealing with marks of a rope (LOG.E.T1993.1)



UTS: fragment of an architectural decoration cone (LOG E.Tc1113.1)

cotta architectural cone (LOG E.Tc1113.1), and three fragments of clay sealing (probably on jar), one of which bears the imprint of a rope (LOG E.T1109.1).

The next campaign in trench E, scheduled for autumn 2017, will focus to continue the investigation on the slope of the 'citadel', towards the NW, in search of its enclosure or retaining wall and of the main access. We will have also to go on the excavation of the 2016 trench in order to reach, at least in the central part, the outdoor floor of level V and the base of structure 2044. Finally, the extension of the trench towards the SE will focus on the excavation of the whole room 2020 in order to complete the plan of the building and to specify its function and dating.