

Archaeological Work at Tchinguiz Tepe: Verifying the Results of Geophysical Surveying Using Radar

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RC

The area chosen for excavation corresponded to one of the grids in which the geophysical survey had given the largest number of results. The grid in question was located near the wall. Based on the results of geophysical surveying, the hypothesis was that it would contain a portion of the wall, other related structures and dwelling spaces of greater or lesser proximity, some of them at considerable depths. Lastly, a decision was taken to open a perpendicular space, directly touching the known wall, and to extend the excavation area towards the centre of Tchinguiz Tepe. The initial aim was to verify, as far as possible, whether dwellings existed that were not related to the wall but rather with interior occupation of Tchinguiz Tepe. A space was chosen that measured 5x15m, lying perpendicular to the known wall. The space was surveyed again using georadar, as noted earlier, and excavation work was carried out as well. In the course of work, the archaeological record was constantly compared against the signal given by the radar at various depths. However, once the initial layers had been removed, the decision was taken to reduce the area for archaeological intervention, since the time available was limited and the painstaking methodology used in stratigraphic excavation would require a considerable investment of time and effort, which were also limited for our mission. Accordingly, the area for excavation was reduced to a square measuring 5x5m, which corresponded to the 25 sq m farthest from the wall. The results obtained in the sector have made it possible to establish some broad patterns in the interpretation for the georadar data, the formation of the archaeological site and the interior occupation of Tchinguiz Tepe.

A number of results should be highlighted. In terms of comparing and contrasting the georadar data and the data from the archaeological record, the first results to single out are:

- High-contrast areas that were observed at very little depth in the 2006 survey season (for more details, see the chapter on the 2006 season) do not correspond to any kind of construction or human activity. Rather, they correspond to a very significant concentration of fluvial gravel caused by an action occurring subsequent to the formation of the archaeological site as such. There is no doubt that it represents a geomorphologic phenomenon and chances are that it reflects the actions of gravity and wind erosion, although confirmation from experts is yet to be given.

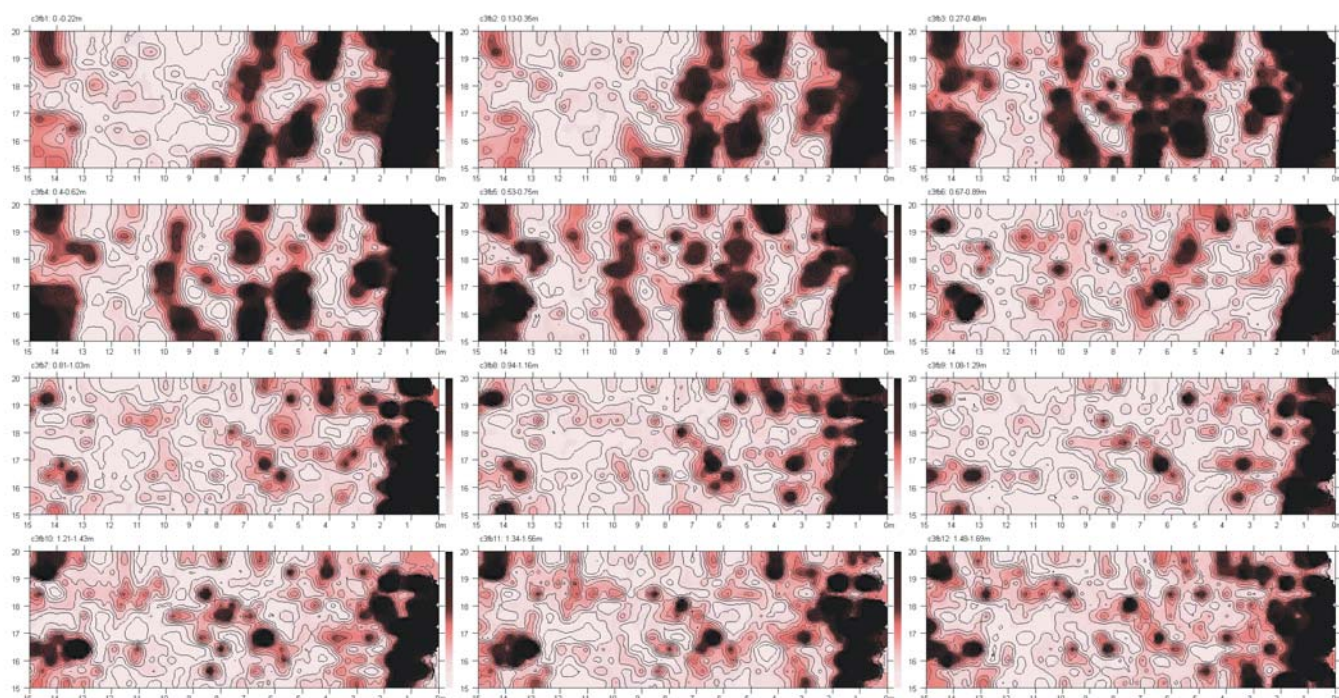
- At greater depth, there is a new high-contrast area corresponding to the wall or, more specifically, to its destruction. It cannot yet be determined, however, whether the phenomenon was the result of natural deposition or human action. Once the archaeological verification has been completed, the georadar signal will be easy to interpret.

- Geophysical surveying using georadar encounters more difficulties when distinguishing poorly conserved structures made of mud. The signal is not clear; it confuses structures with what are simply floors of varying hardness. Obviously, the radar is distinguishing units that do not correspond to what the archaeologist actually separates and defines. As a result, the two realities do not coincide, i.e., the geophysical reality and the archaeological one. The detected structures were not made of adobe brick and only their foundations were conserved. From the perspective of stratigraphic potential, therefore, they were equivalent to a floor of hardened loess. In this respect, it is worth noting that the georadar did in fact clearly distinguish the phenomenon at the level of wall rubble where adobe brick predominates.

- When the signal grows in intensity over the entire excavated space, we have reached the natural rock under Tchinguiz Tepe. This would not cause any problem if it were not for the fact that the signal is the same one produced by the wall and its rubble. Distinguishing between the origins of the signal in these situations can only be done now through archaeological work.

In terms of strictly archaeological data, the results to single out are:

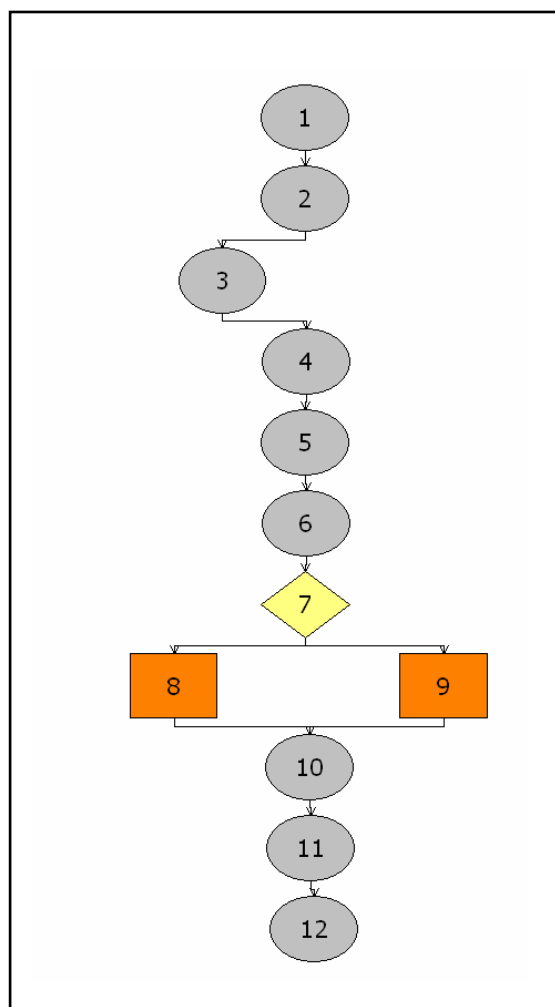
- Structures have been detected at some distance from the wall, indicating that the interior of Tchinguiz Tepe was occupied at some time, either partially or totally. The structures, which are in very poor conditions and highly difficult to determine for now, do not rest on the geological base of Tchinguiz, but rather rise from a human stratum. From the current state of research, however, it cannot be precisely determined whether their formation is also human or natural in origin. The distinction is important



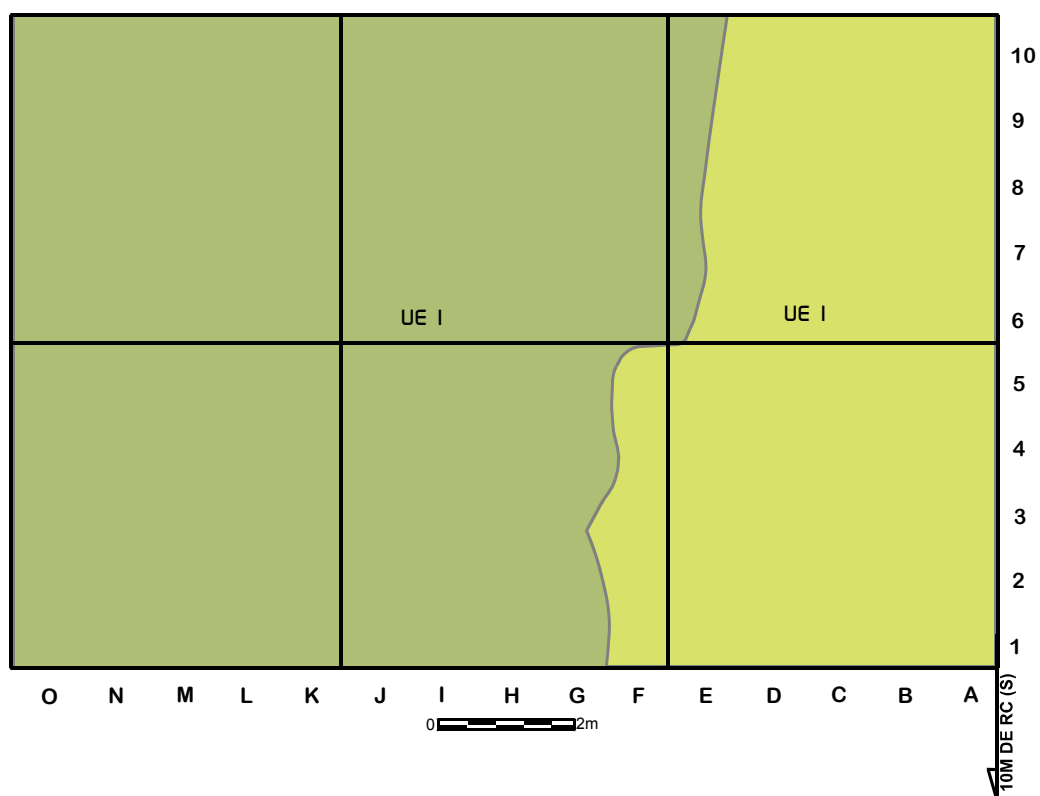
Termez 2007 season. Georadar survey at 270MHz. Grid C Area 3, Excavation Area

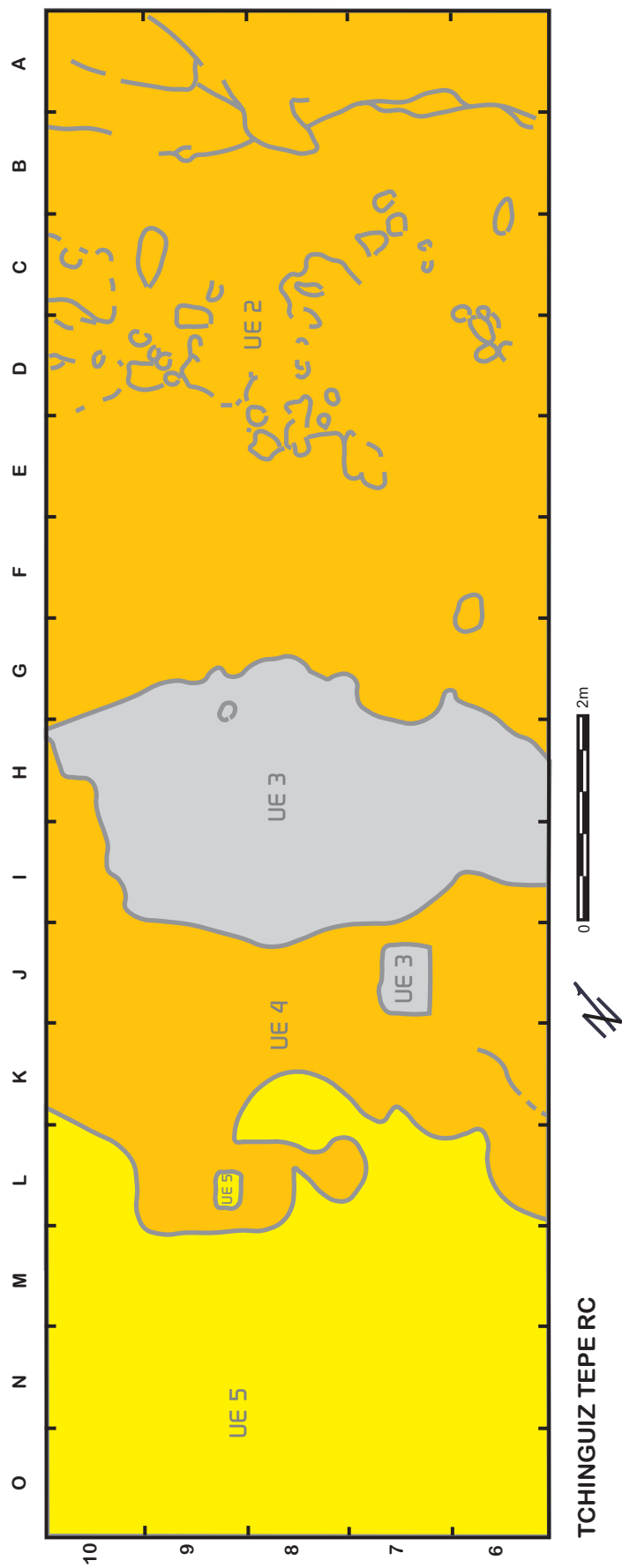
because the unit at issue is rich in archaeological material and sits directly on the bedrock of Tchinguiz. The surface layer has been hardened by repeated passage and may represent a level of circulation. If that is not the case, a geomorphologic phenomenon must have been at work. The doubt will be cleared up by studying the type of fragmentation evident in the pottery contained in the stratum. In any case, based on what can be distinguished from the archaeological material, their formation occurred relatively late in the early centuries of the Christian era. Cardon-14 dating of the little carbon that appears in the material will specify the timeline more precisely. Obviously, if the floor level is later than expectations would suggest, the constructions resting on it must be even later.

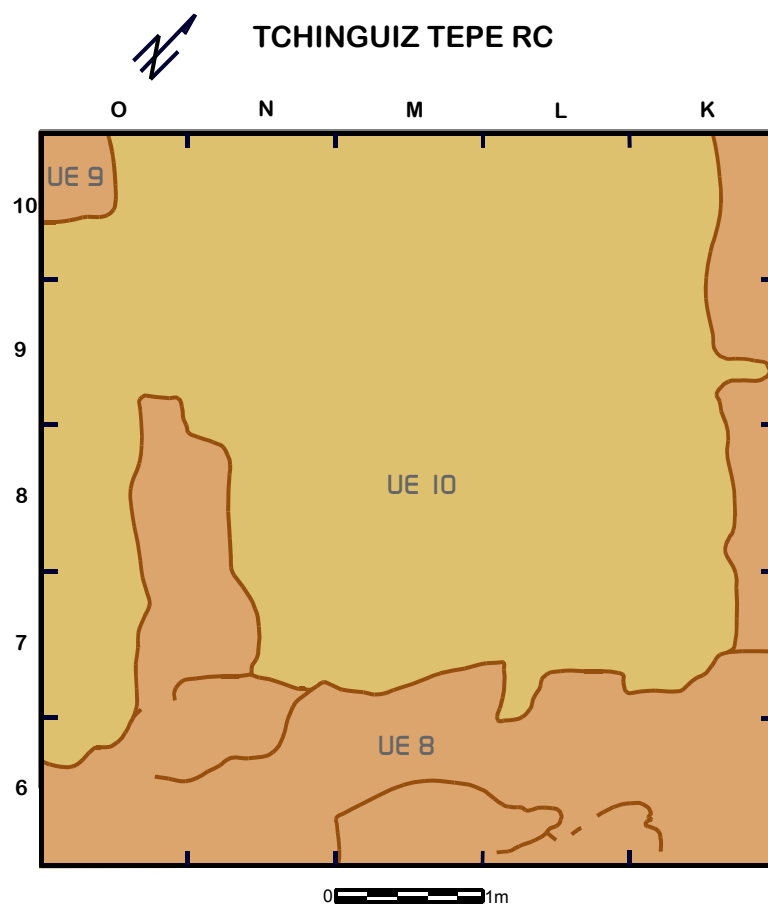
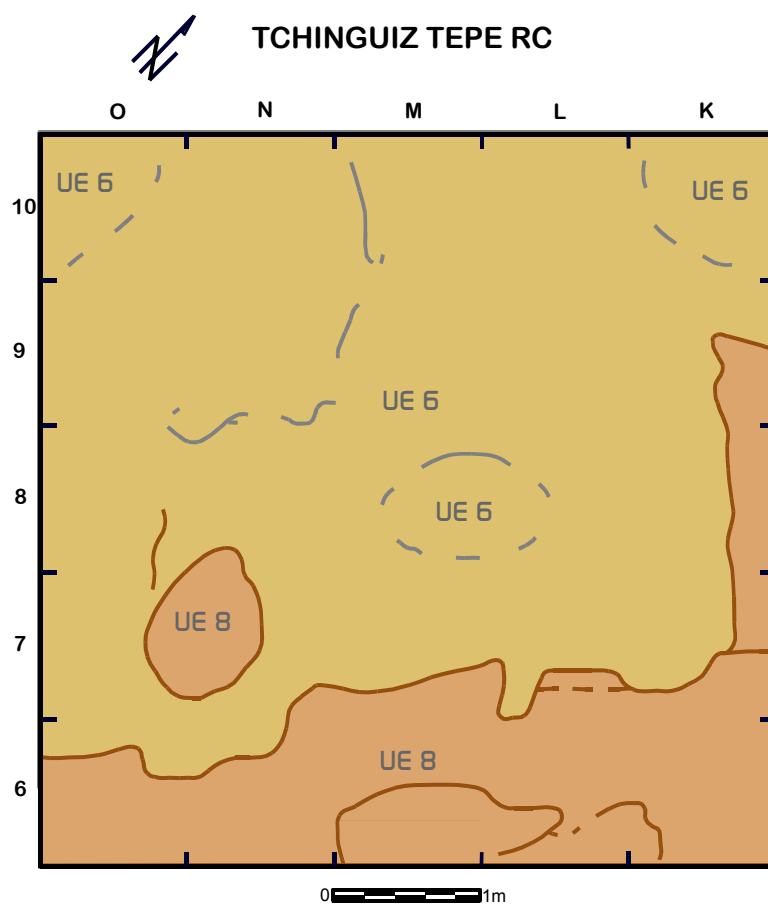
- The entire area is covered by a new deposit of human sediment. It appears that when the deposit formed the built structures mentioned earlier were already completely destroyed.

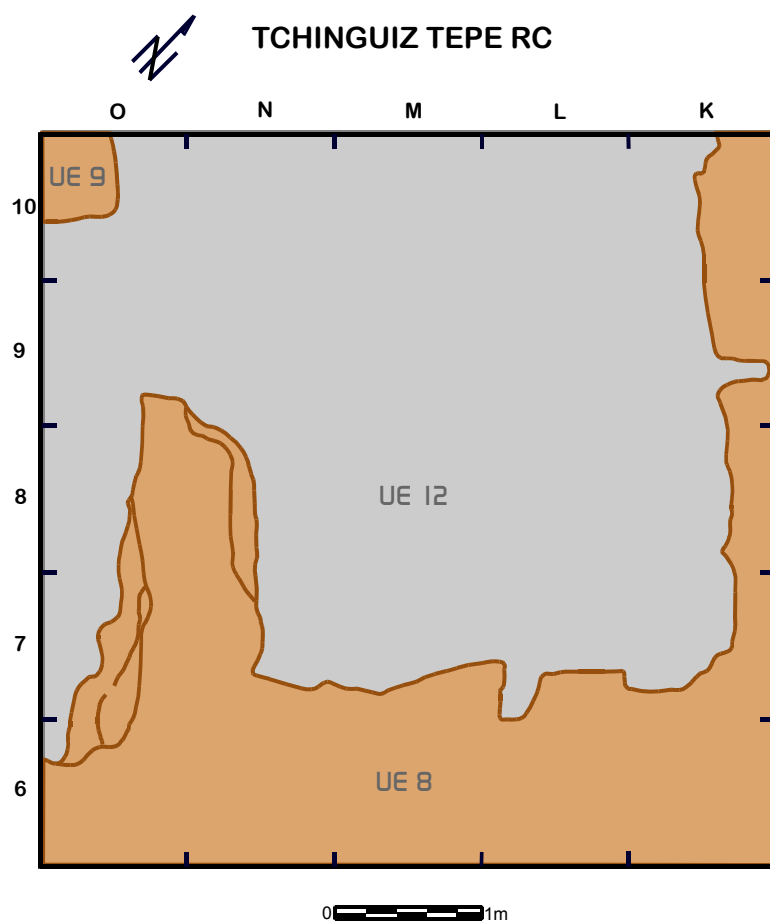
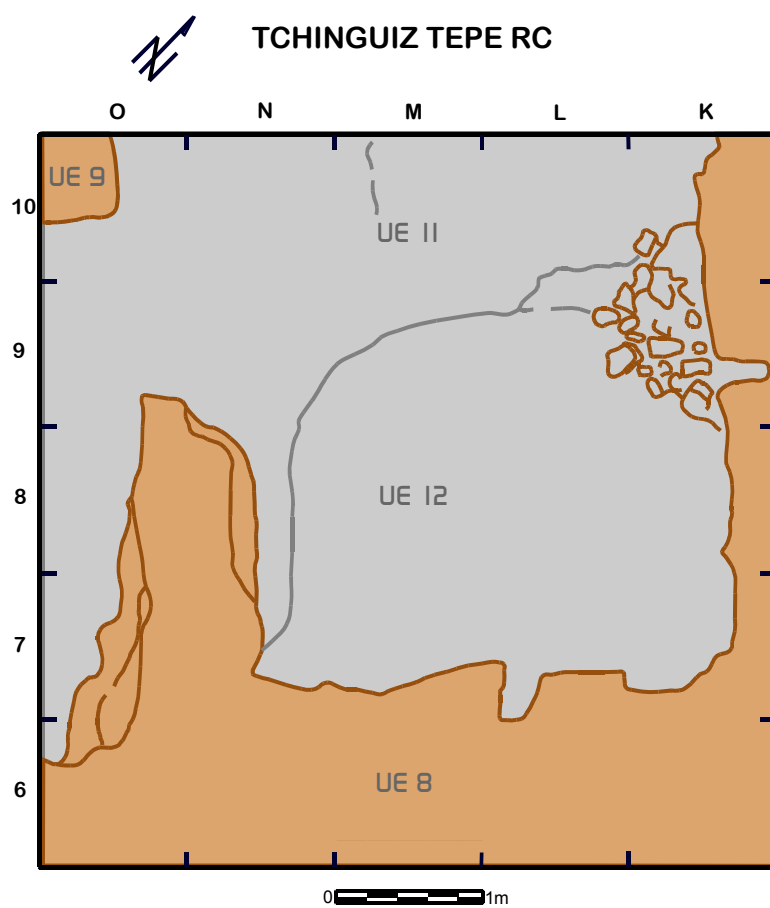


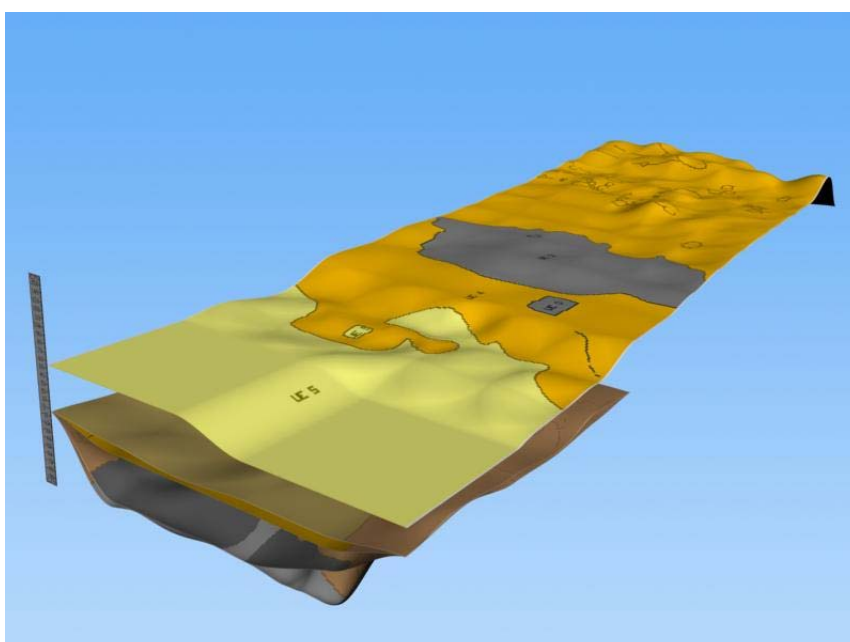
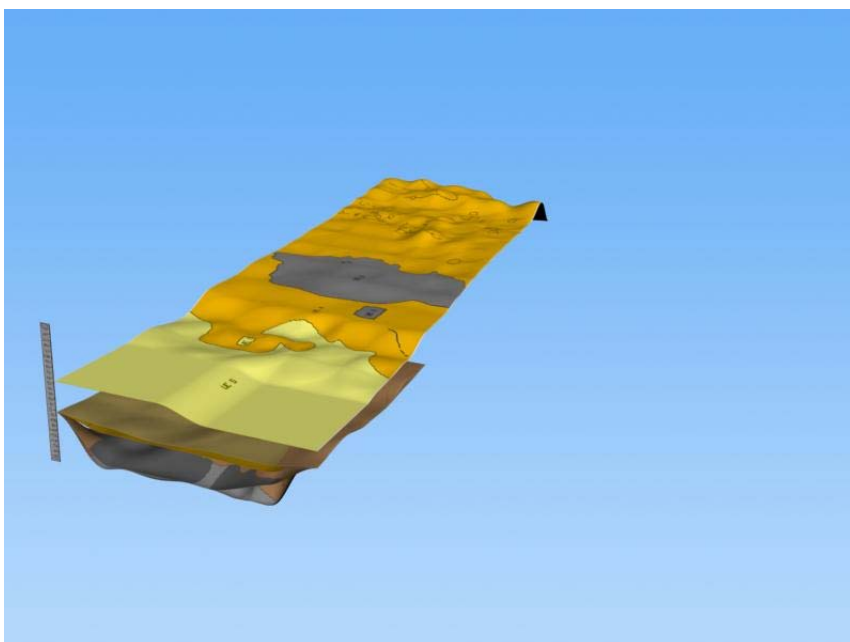
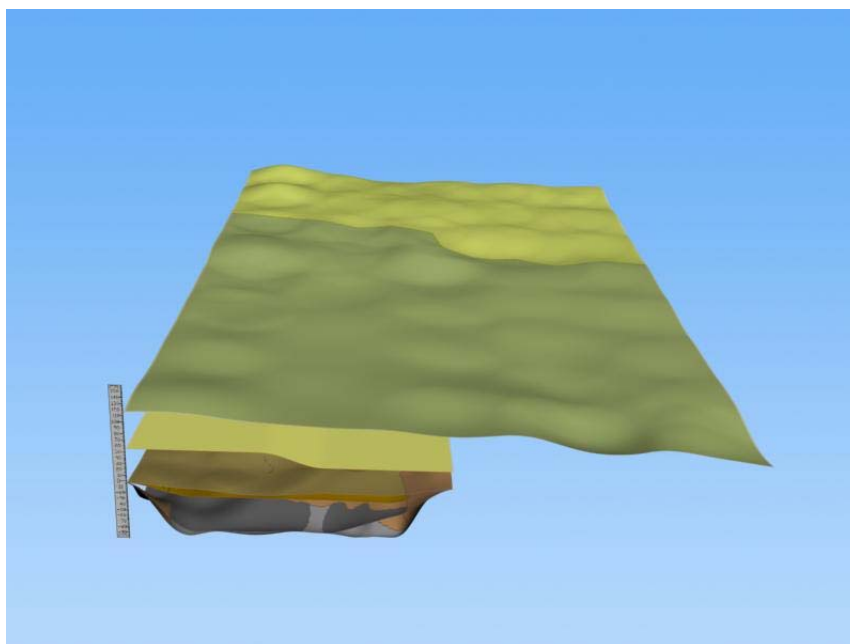
TCHINGUIZ TEPE RC











RC - UE 1

Definition: Vegetation layer. Current soil level

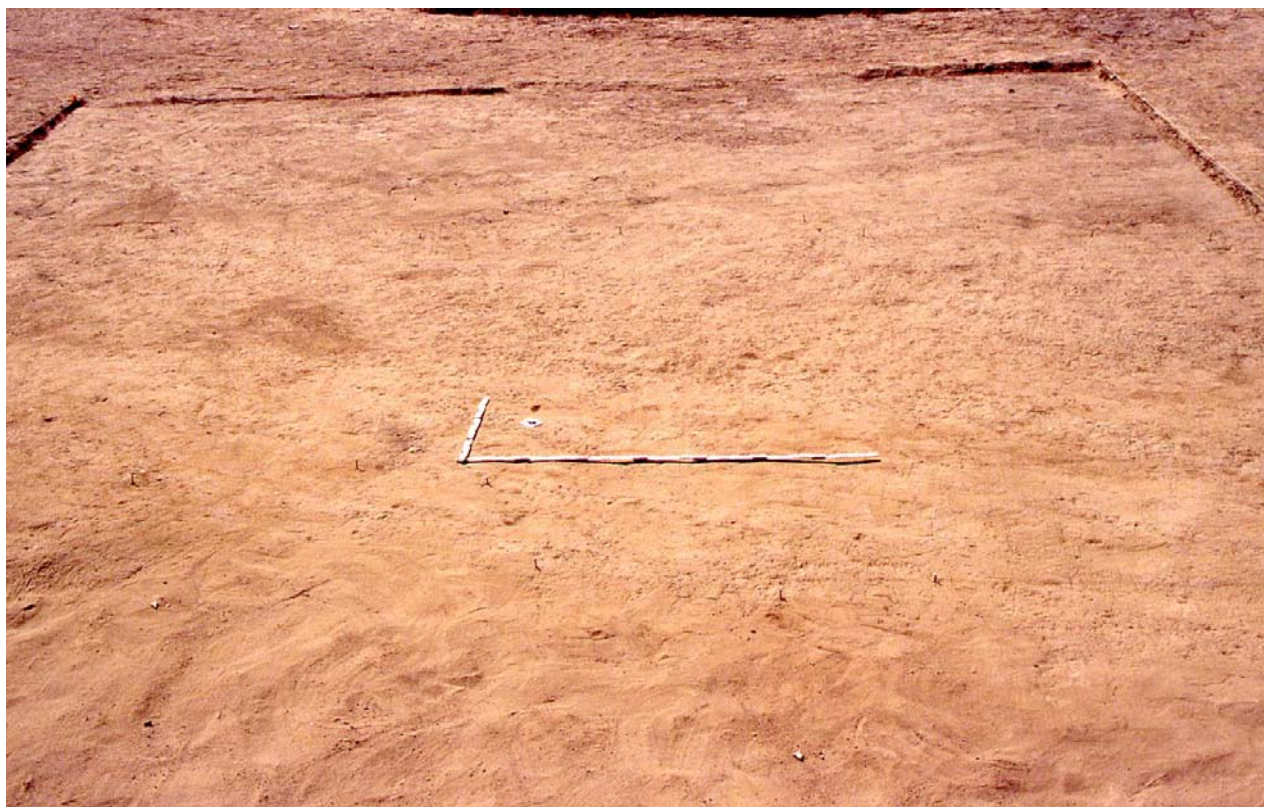
Interpretation: Current soil, subjected to wind action, and supporting vegetation cover typical of steppes. Pottery appears in the stratum, dispersed from its original place of deposition by unspecified causes.

Observations: Wind-borne loess of brown-grey colour. Surface is covered by a hard crust featuring small pebbles (less than 5cm in size) and it extends into grids E-O / 6-10. Contains pottery.

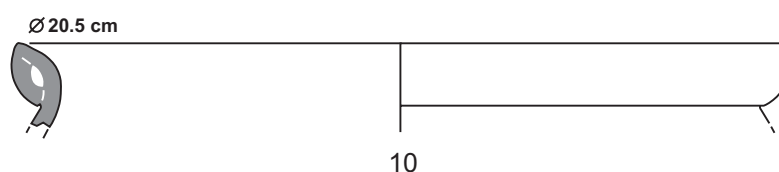
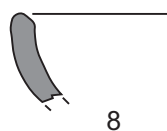
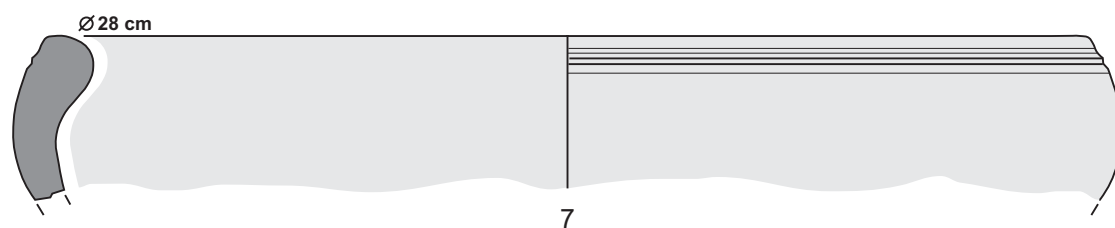
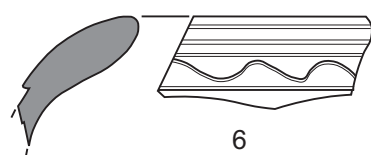
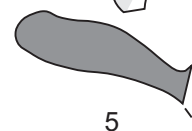
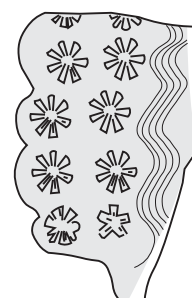
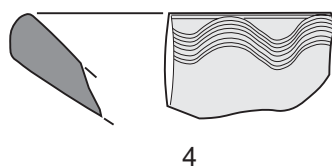
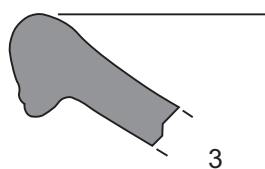
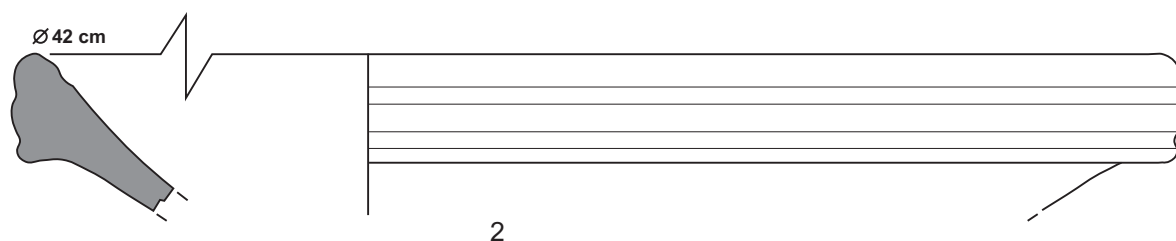
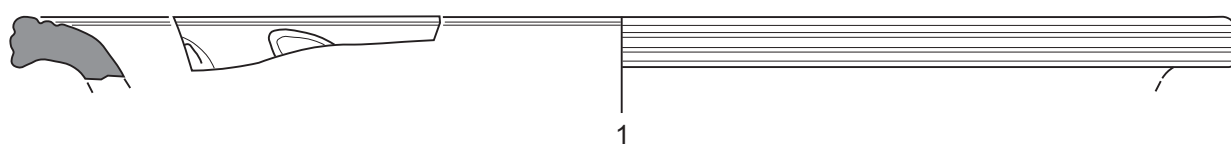
Material:
 Glazed pottery: 257 frags.
 Common pottery: 2317 frags.
 Cooking pottery: 1 frag.
 Pottery tools: 1 frag.
 Ceramic bead necklace (?)

Archaeologist: E. Ariño

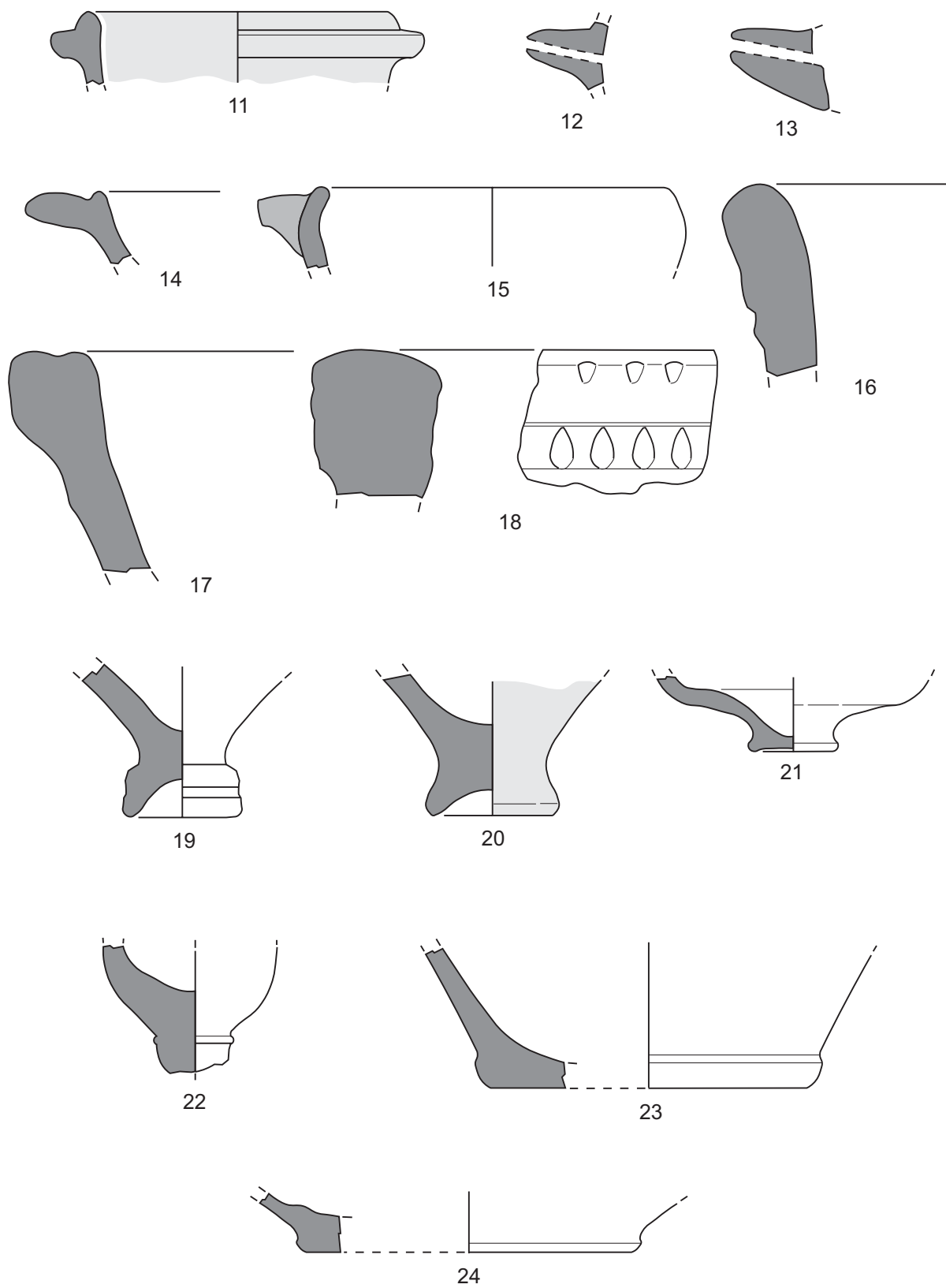
<i>Composition</i>	Loess. On top, crust with river pebbles
<i>Formation</i>	Caused by wind
<i>Potential</i>	35-65 cm
<i>Covering (Stratum)</i>	2-5-4-3



RC- UE 1



RC- UE 1



0 5 cm

RC - UE 2

Definition: Level of fallen adobe bricks

Interpretation: Stratum formed by natural agents acting on the wall, causing adobe bricks to break down, disintegrate and fall within the enclosure.

Observations: Adobe fragments fallen from the wall, in a clay matrix. Unexcavated.

Material:

Archaeologist: E. Ariño

<i>Composition</i>	Adobe fragments in a clay matrix
<i>Formation</i>	Natural agents. Wind erosion
<i>Potential</i>	
<i>Covered by (Stratum)</i>	1
<i>Covering (Stratum)</i>	3



RC - UE 3

Definition: Loess with ashes on top

Interpretation:

Observations: Loess level. In some parts of the stratum, there is a thin layer of ashes (c.10 cm) on top. Unexcavated.

Material

Archaeologist: E. Ariño

<i>Composition</i>	Loess. On top, a layer of ashes
<i>Formation</i>	
<i>Potential</i>	
<i>Covered by (Stratum)</i>	2-1
<i>Covering (Stratum)</i>	4



RC - UE 4

Definition: Compact red clay

Interpretation:

Observations: Compact red clay. Possible weathering of adobe bricks. Contains pottery. Only partly excavated.

Material: Glazed pottery: 7 frags.
Common pottery: 40 frags.
Bone:(0.100 kg)

Archaeologist: E. Ariño

<i>Composition</i>	Compact red clay
<i>Formation</i>	Possible weathering of adobe bricks
<i>Potential</i>	
<i>Covered by (Stratum)</i>	1-3
<i>Covering (Stratum)</i>	5

RC - UE 5

Definition: Level of loess

Interpretation: Level of loess formed by wind action after the settlement was abandoned.

Observations: Level of loess, brown-grey colour, loose. Nineteen brick fragments found.

Material: Glazed pottery: 230 frags.
Common pottery: 740 frags.
Cooking pottery: 13 frags.
Stone (jade?): 1 frag.
Pottery with Kharoshti inscription: 2 frags.
Bone: (0.500 kg)

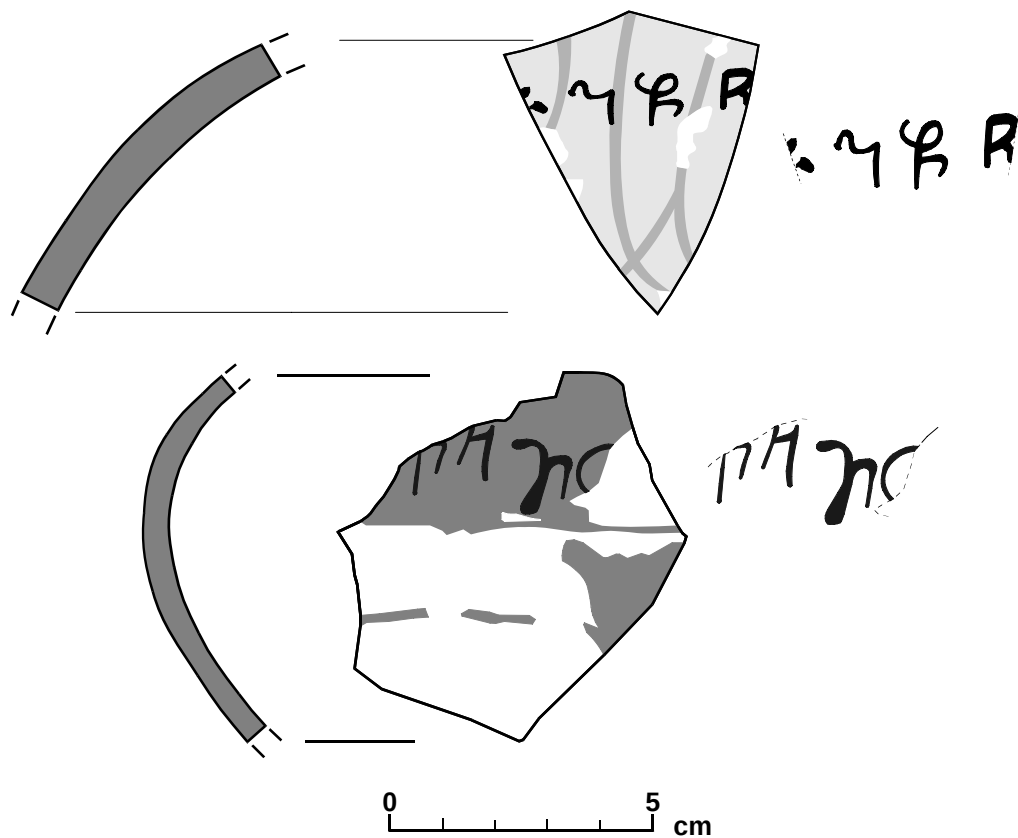
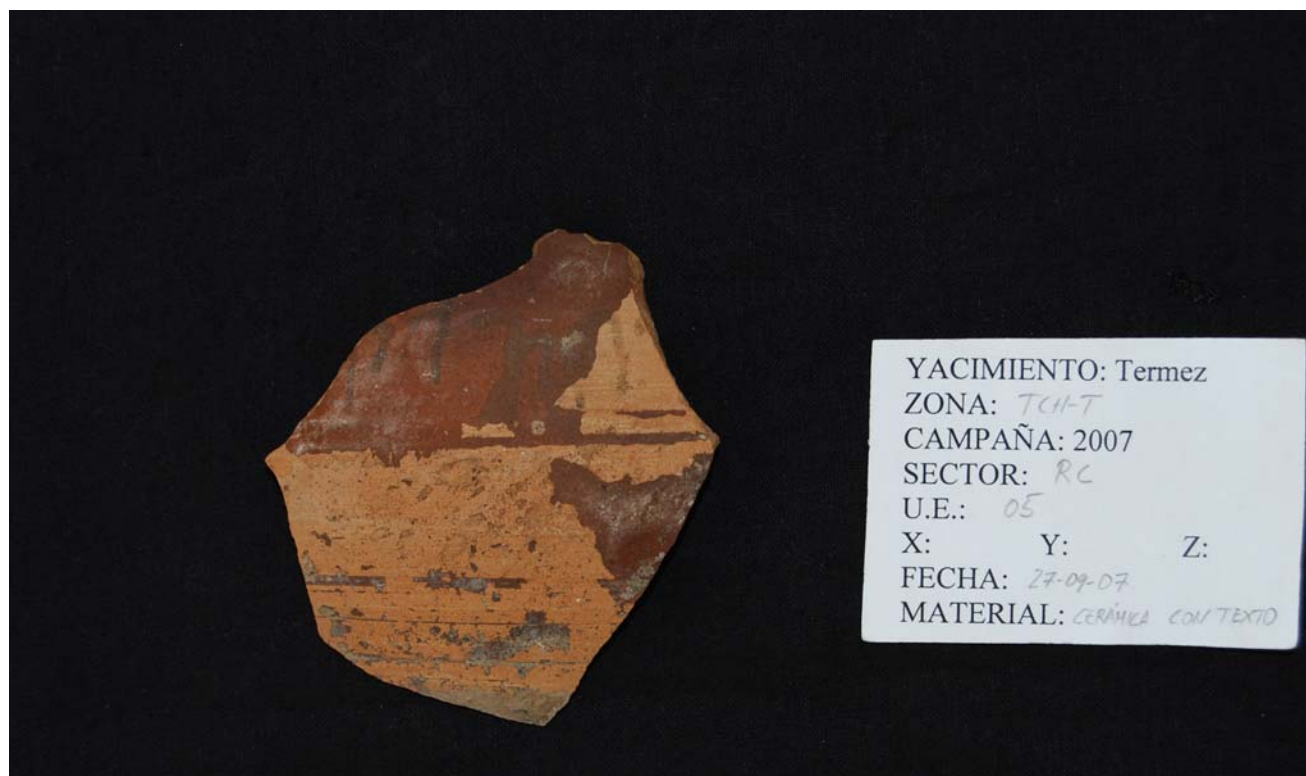
Archaeologist: E. Ariño

<i>Composition</i>	Loess
<i>Formation</i>	Deposit caused by wind
<i>Potential</i>	c. 70 cm
<i>Covered by (Stratum)</i>	4-1
<i>Covering (Stratum)</i>	6

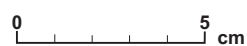
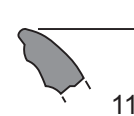
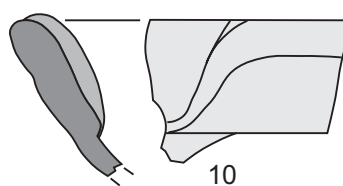
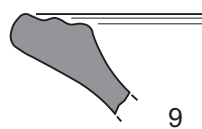
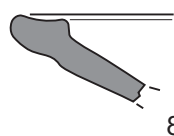
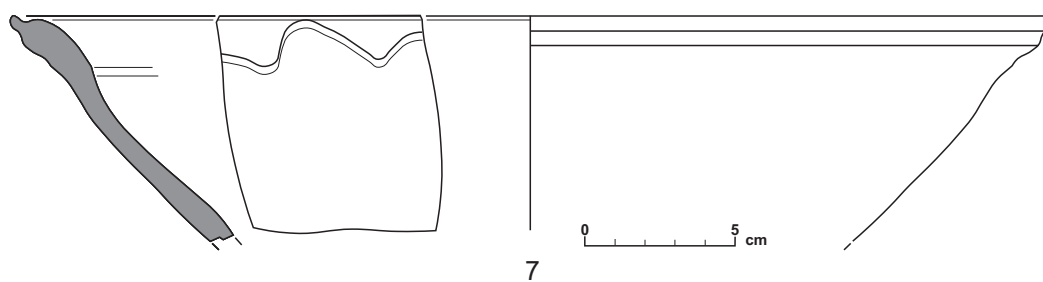
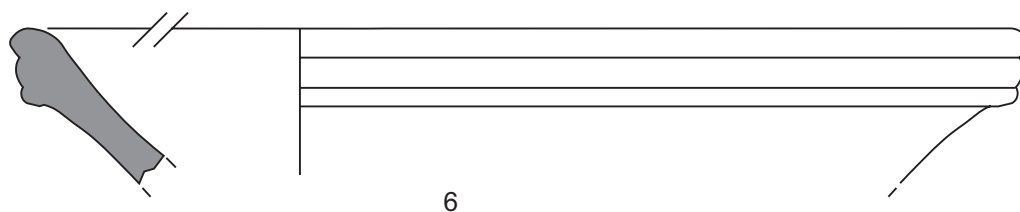
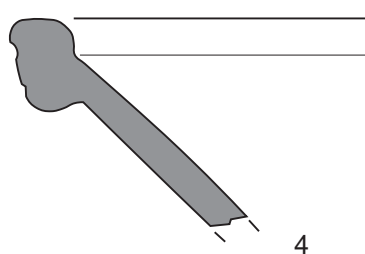
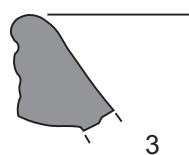
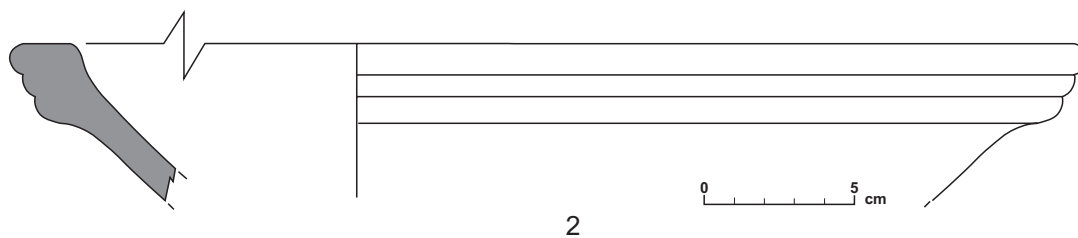
RC - UE 5



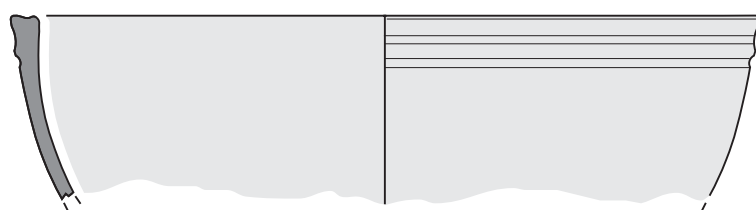
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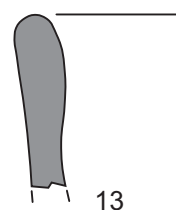
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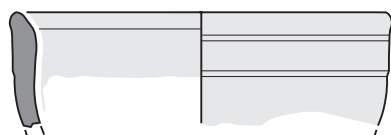
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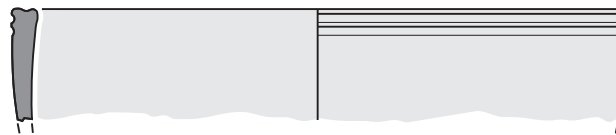
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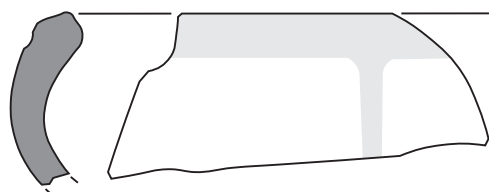
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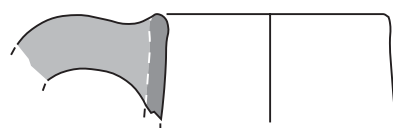
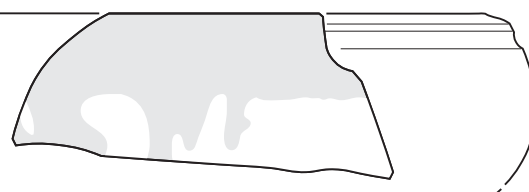
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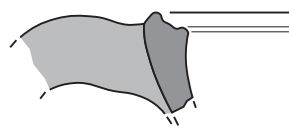
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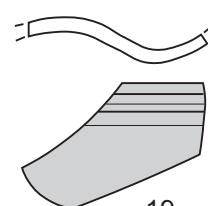
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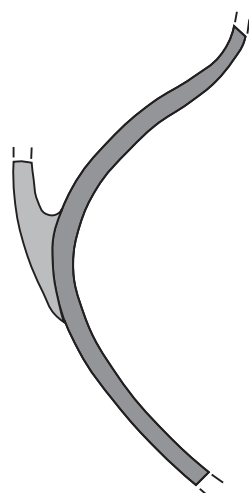
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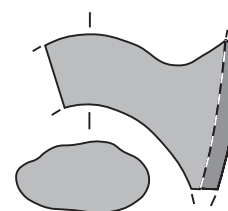
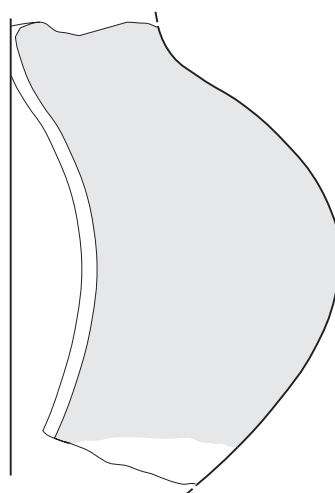
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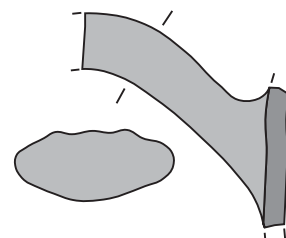
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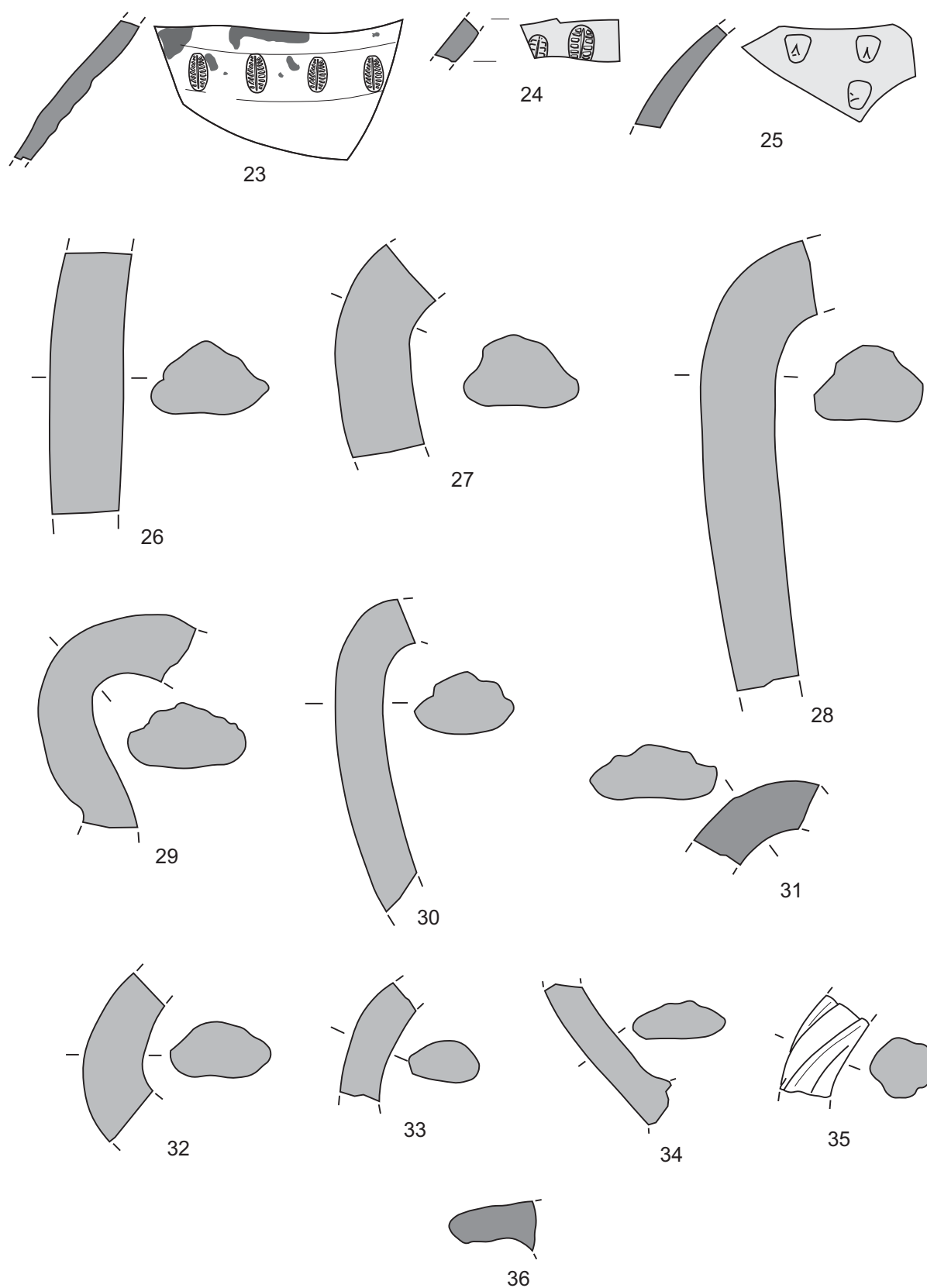
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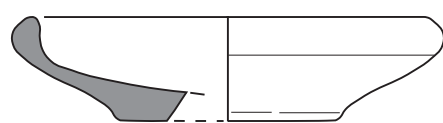
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0 5 cm

RC- UE 5



RC- UE 5



37



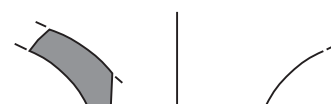
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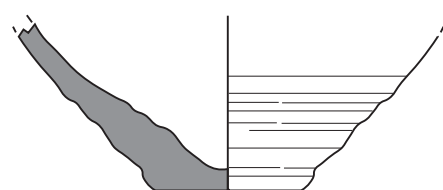
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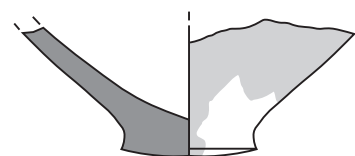
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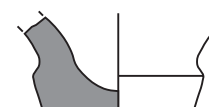
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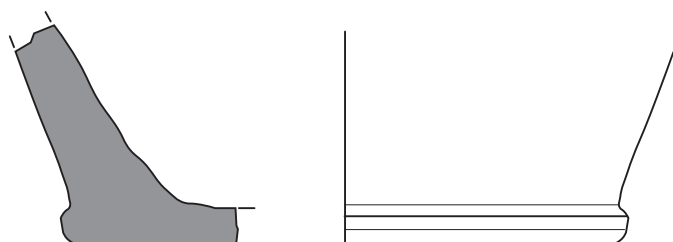
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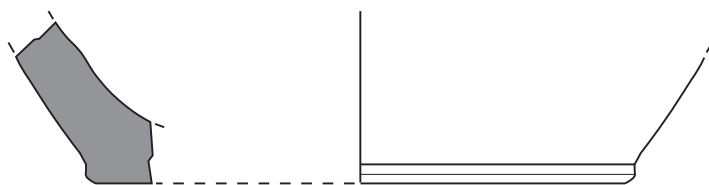
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0 5 cm

RC- UE 5



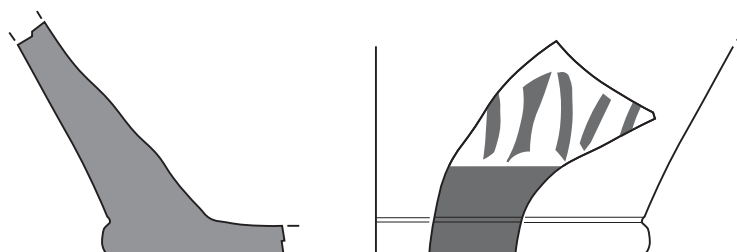
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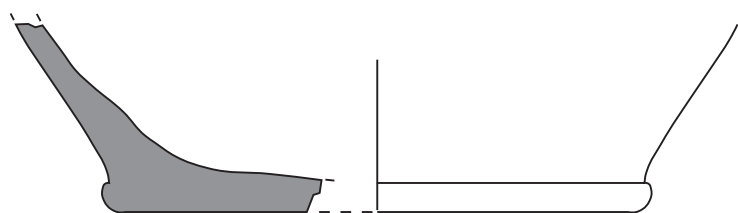
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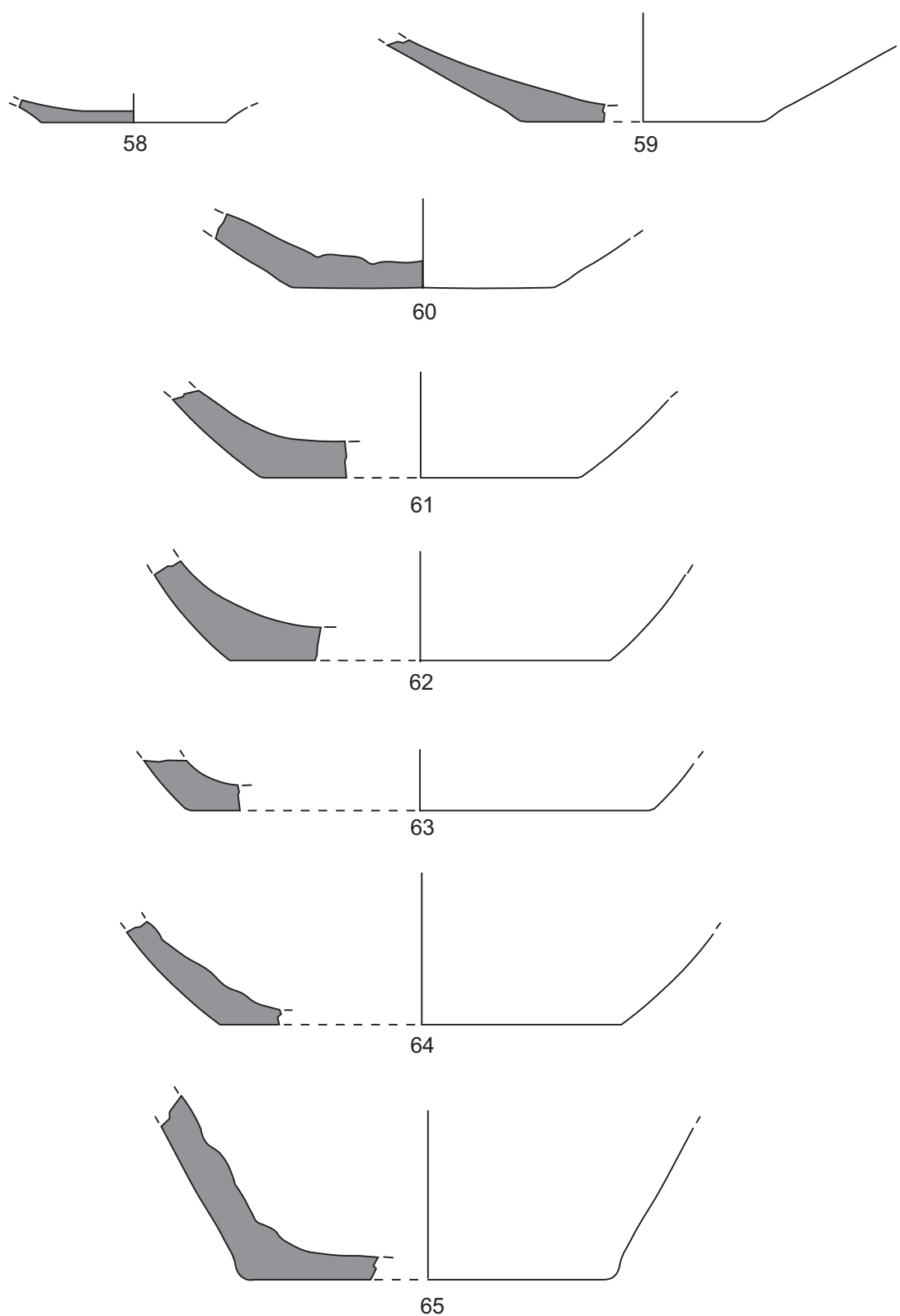
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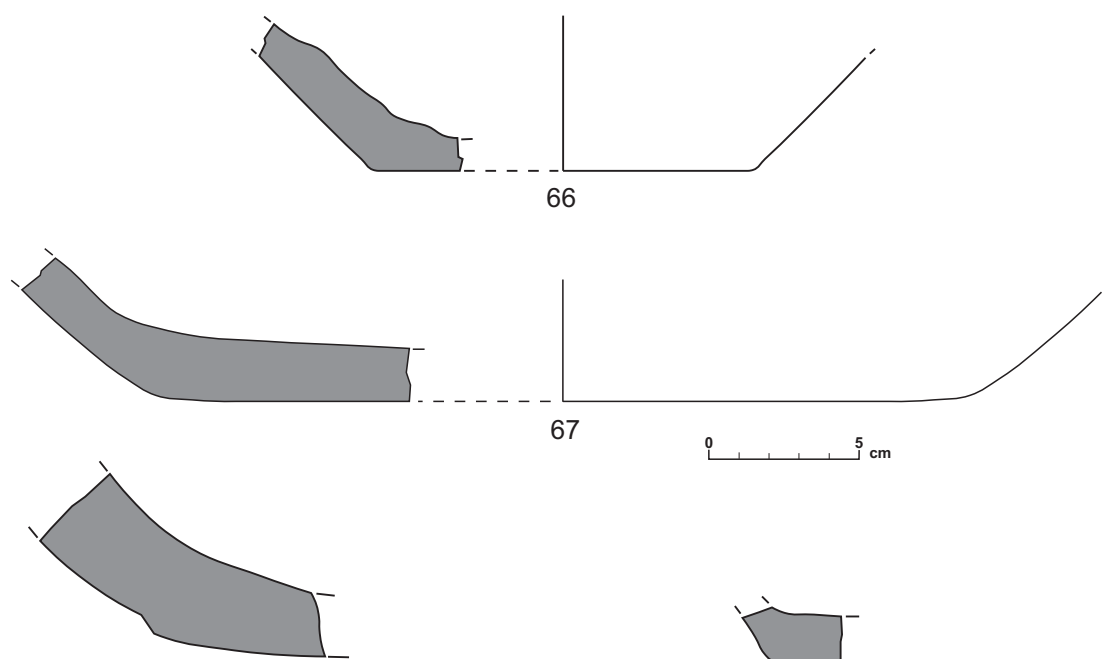
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0 5 cm

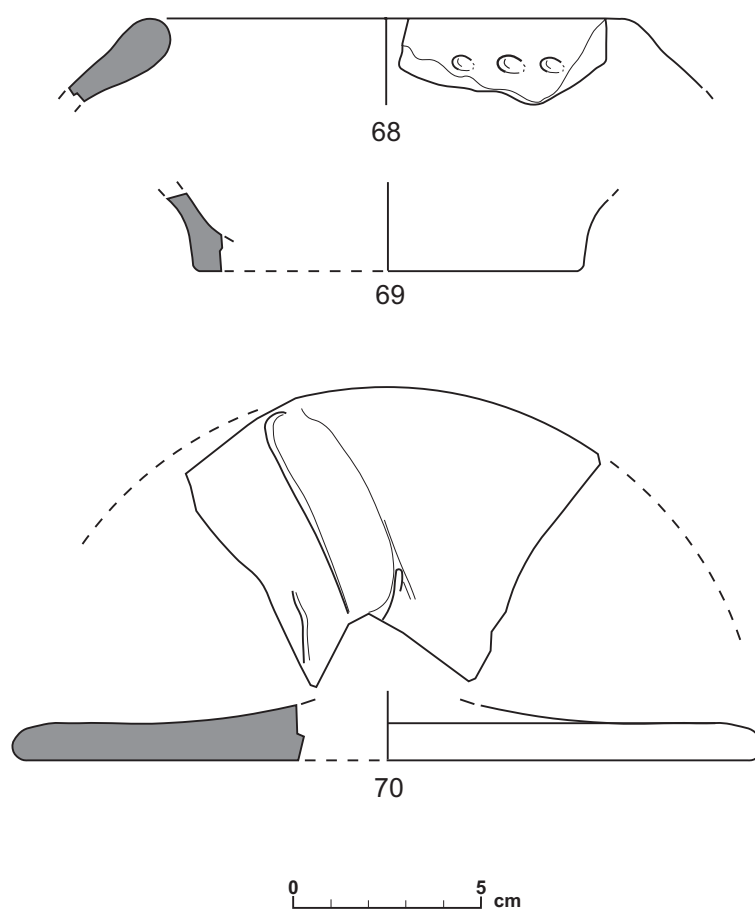
RC- UE 5



RC- UE 5



COOKING POTTERY



RC - UE 6

Definition: Level of loess

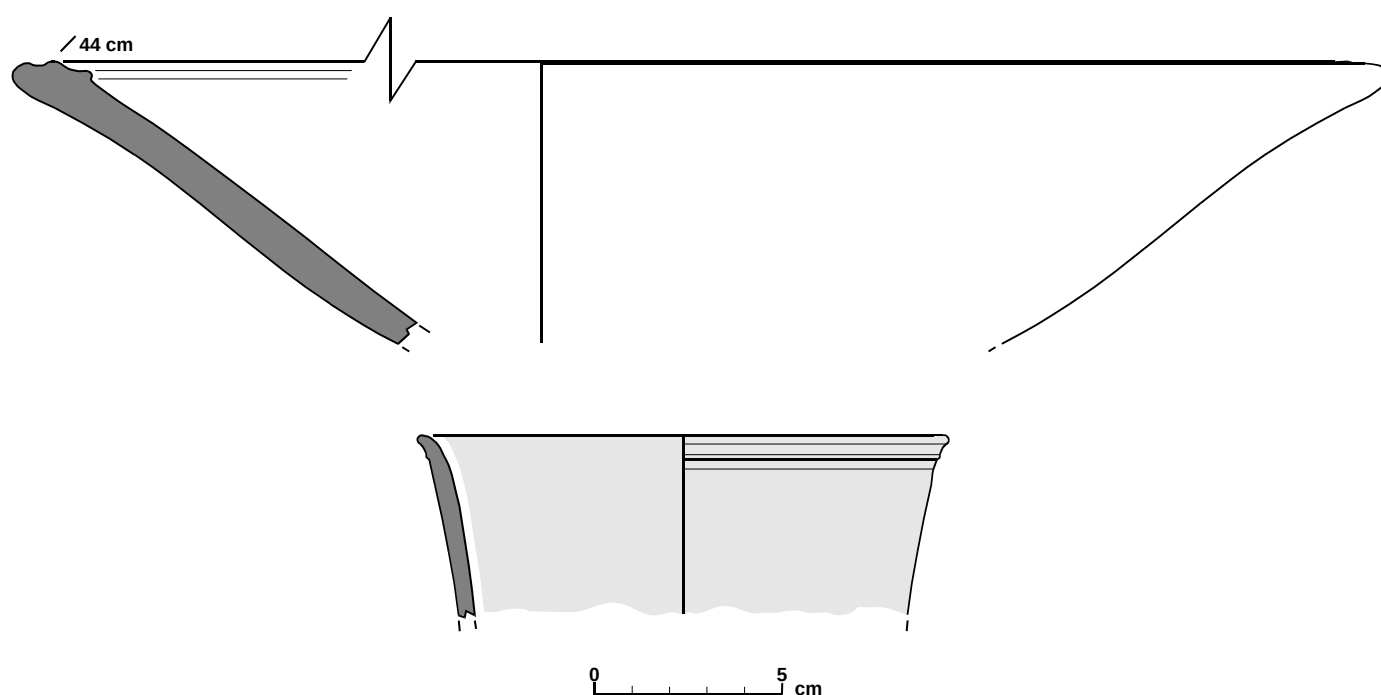
Interpretation: Level at abandonment.

Observations: Level of loess, brown in colour, compact. At some points, there is a fine hard crust of compact red clay on top, with white patches (slaked limes?). Contains pottery. Four brick fragments found.

Material:
 Glazed pottery: 29 frags.
 Common pottery: 143 frags.
 Cooking pottery: 19 frags.
 Stone mortar: 1 frag.
 Bone: (>0.50 kg)

Archaeologist: E. Ariño

<i>Composition</i>	Loess
<i>Formation</i>	Caused by wind, with human contributions
<i>Potential</i>	10-15 cm
<i>Covered by (Stratum)</i>	5
<i>Covering (Negative)</i>	7
<i>Covering (Structure)</i>	9-8
<i>Covering (Stratum)</i>	10



RC - UE 7

Definition: Ruins of dwelling structures

Interpretation:

Observations: Interfaces. Level of ruined dwellings.

Material:

Archaeologist: E. Ariño

<i>Composition</i>	
<i>Formation</i>	
<i>Potential</i>	
<i>Covered by (Stratum)</i>	6
<i>Covering (Structures)</i>	9-8



RC - UE 8

Definition: Wall built of parsha

Interpretation: Dwelling.

Observations: Wall built of parsha defining a space that appears to be quadrangular in shape.

Material:

Archaeologist: E. Ariño

<i>Composition</i>	
<i>Formation</i>	
<i>Potential</i>	
<i>Covered by (Stratum)</i>	6
<i>Intersected by (Negative)</i>	7
<i>Rests on (Stratum)</i>	10

RC - UE 9

Definition: Wall built of parsha

Interpretation: Dwelling.

Observations: Wall built of parsha at the NW corner of pit (grid 10-O).

Material:

Archaeologist: E. Ariño

<i>Composition</i>	
<i>Formation</i>	
<i>Potential</i>	
<i>Covered by (Stratum)</i>	6
<i>Intersected by (Negative)</i>	7
<i>Rests on (Stratum)</i>	10

RC - UE 10

Definition: Loess. Foundation stratum

Interpretation: Foundation stratum used for foundations of dwellings. In its upper portion, there is a thin cracked crust that could be the circulation floor of the dwelling.

Observations: Level of loess, dark-brown in colour. On top, there is a thin cracked crust (dwelling floor?). Contains pottery, bone remains and ashes.

Material:
 Glazed pottery: 137 frags.
 Common pottery: 410 frags.
 Cooking pottery: 61 frags.
 Stone (jade?): 1 frag.
 Flint core: 1 frag.
 Pottery with painted inscriptions (*tituli picti*) in Bactrian Greek: 1 frag.
 Bone: (0.800 kg)

Archaeologist: E. Ariño

Composition	Loess
Formation	human contributions
Potential	11cm
Covered by (Stratum)	6
Supporting (Structure)	9-8
Covering (Stratum)	11-12

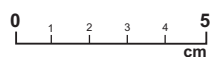
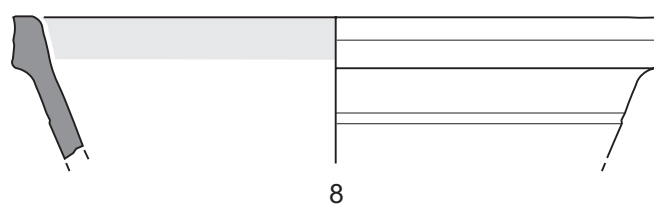
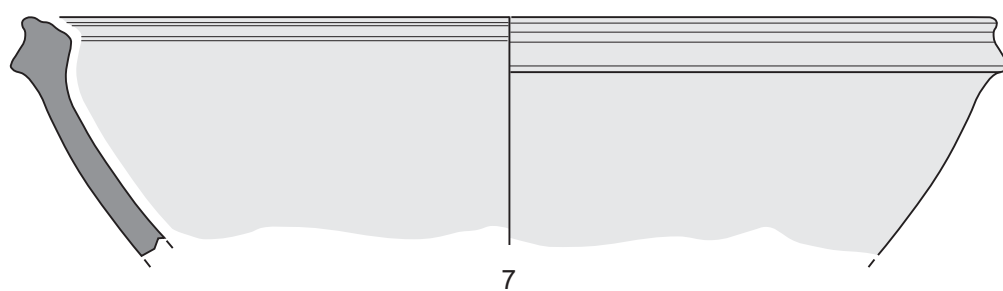
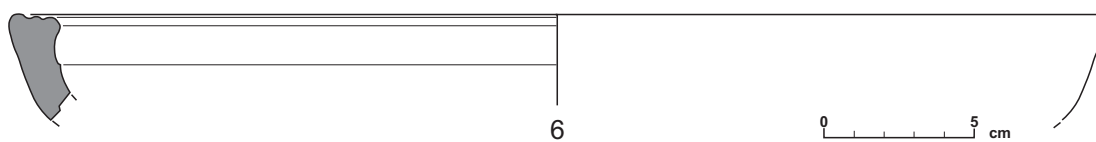
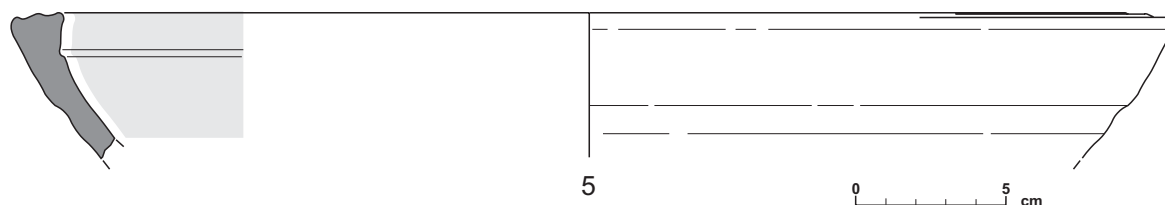
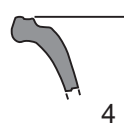
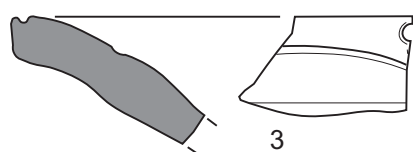
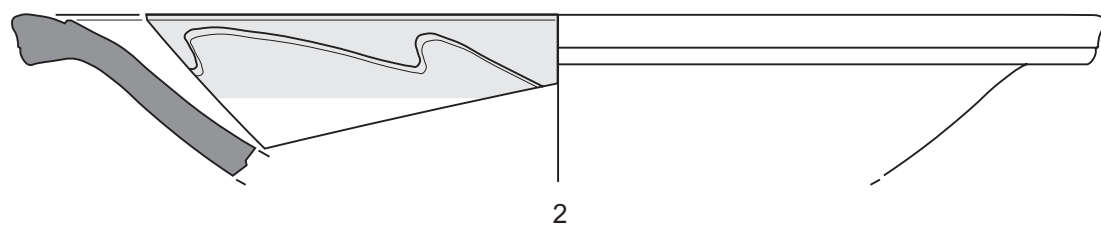
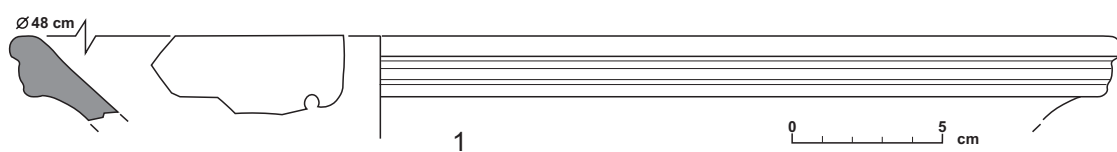


RC - UE 10

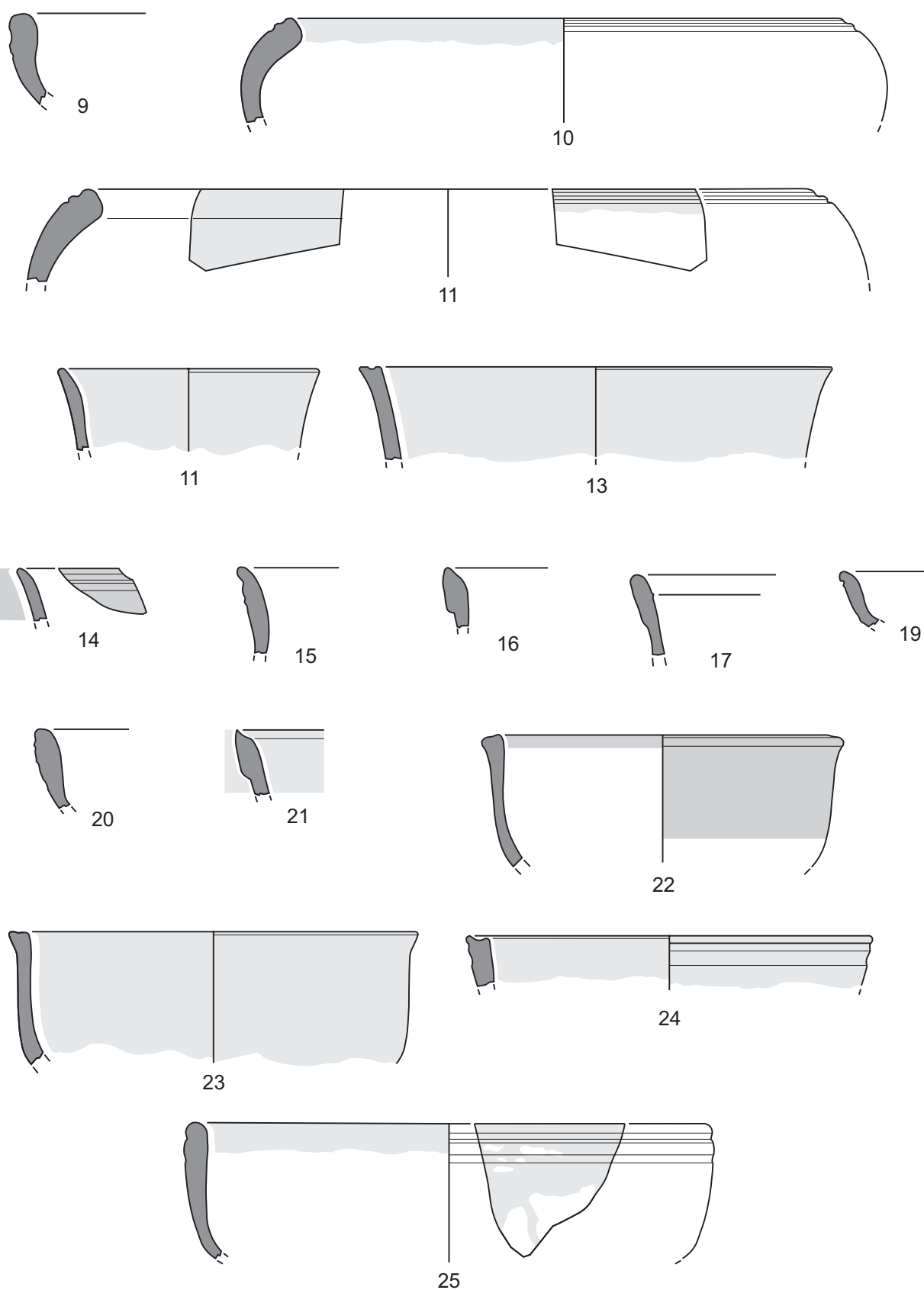


0 5 cm

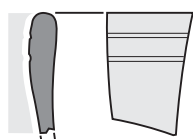
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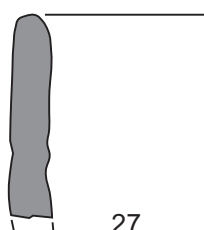
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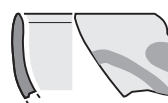
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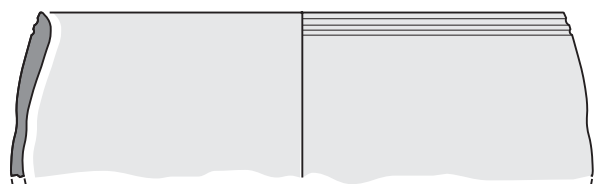
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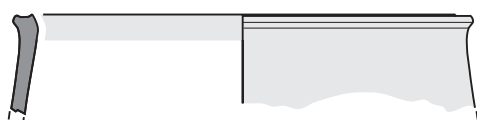
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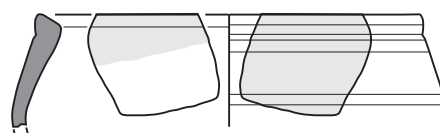
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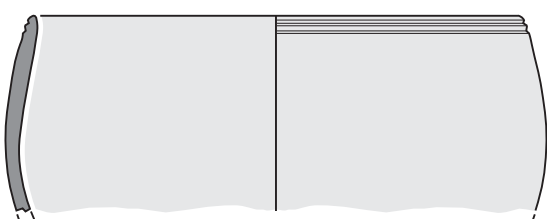
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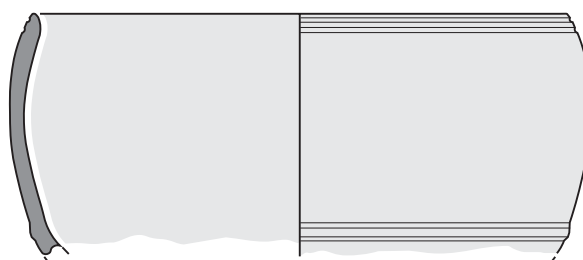
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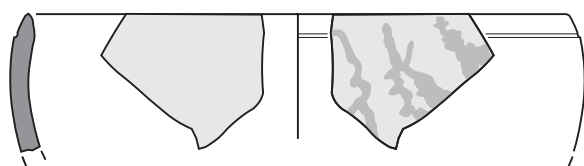
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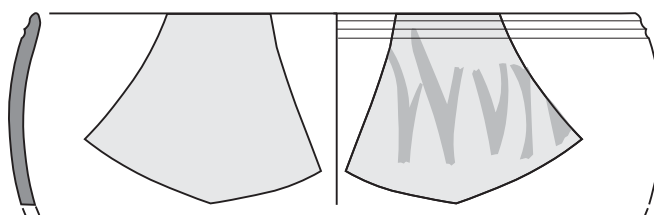
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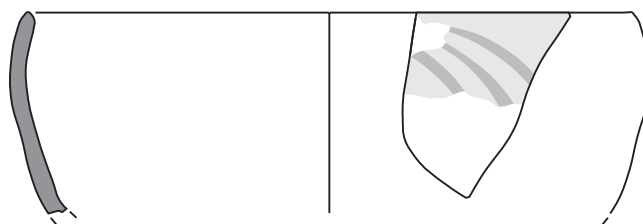
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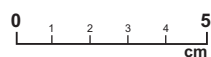
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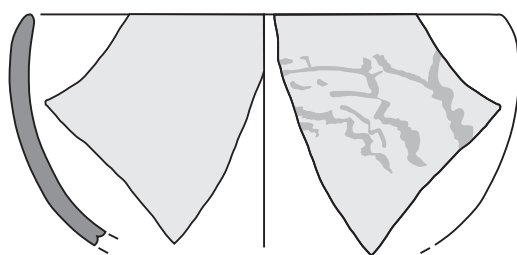
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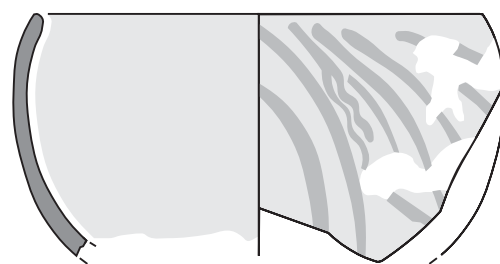
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RC- UE 10



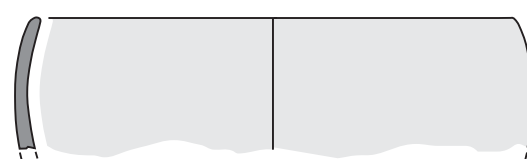
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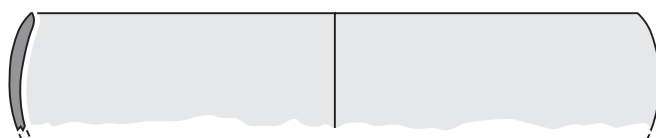
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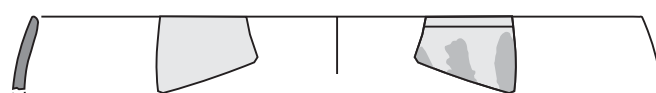
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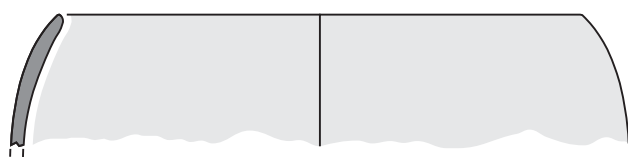
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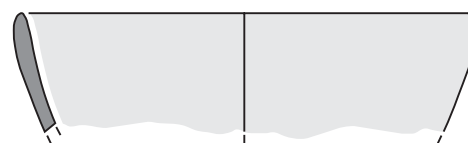
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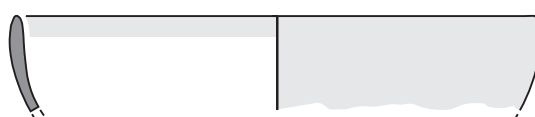
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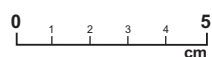
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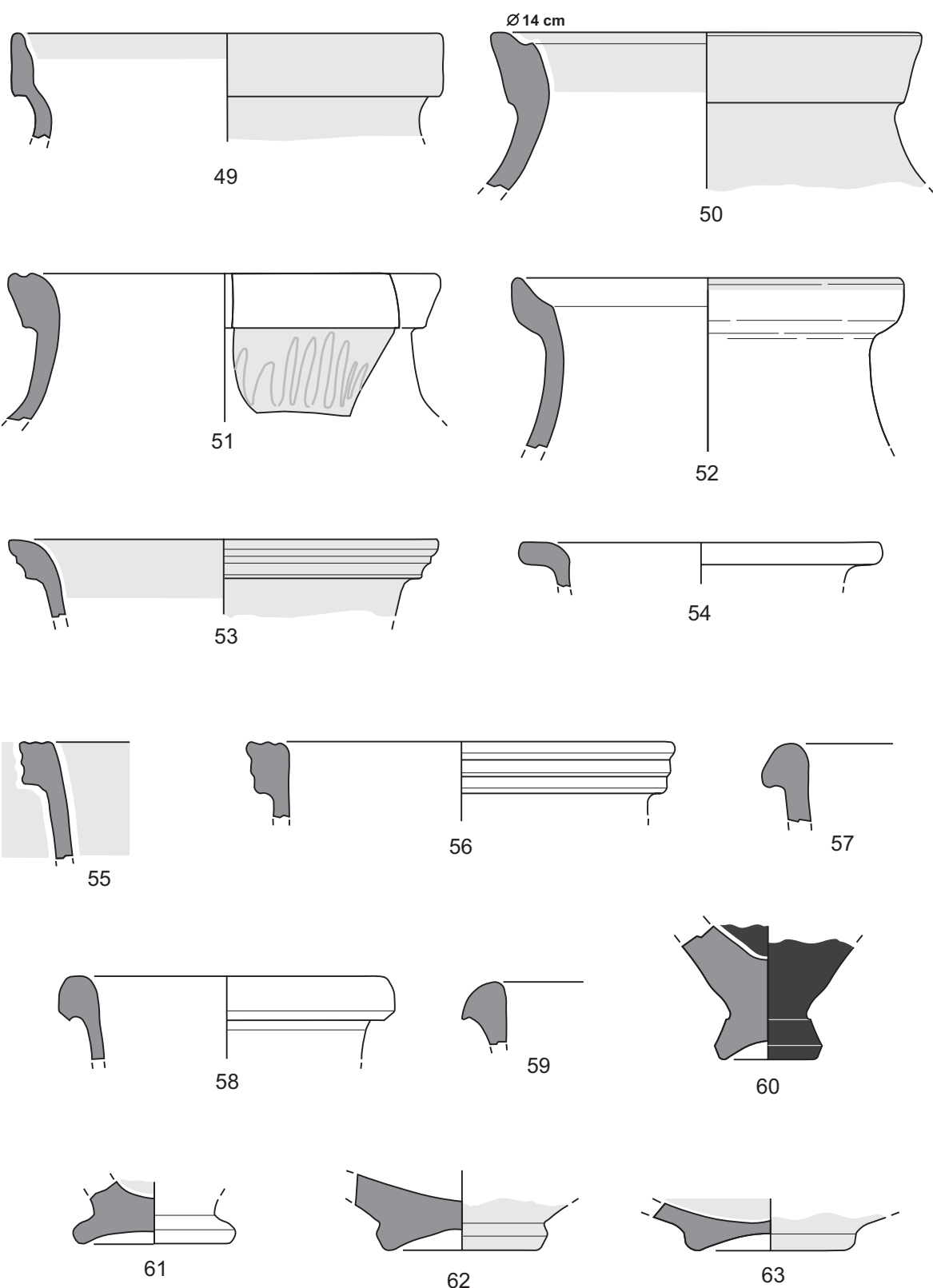
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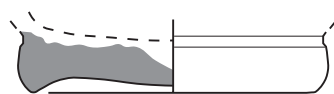
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RC- UE 10



RC- UE 10



64



65



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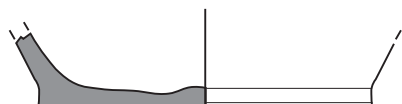
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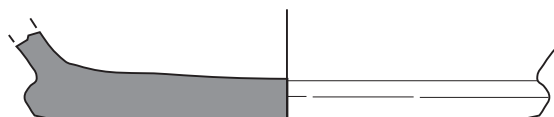
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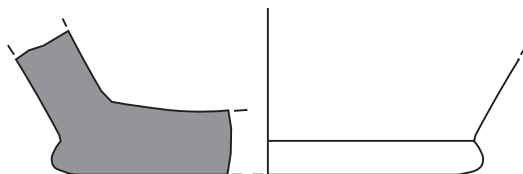
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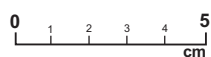
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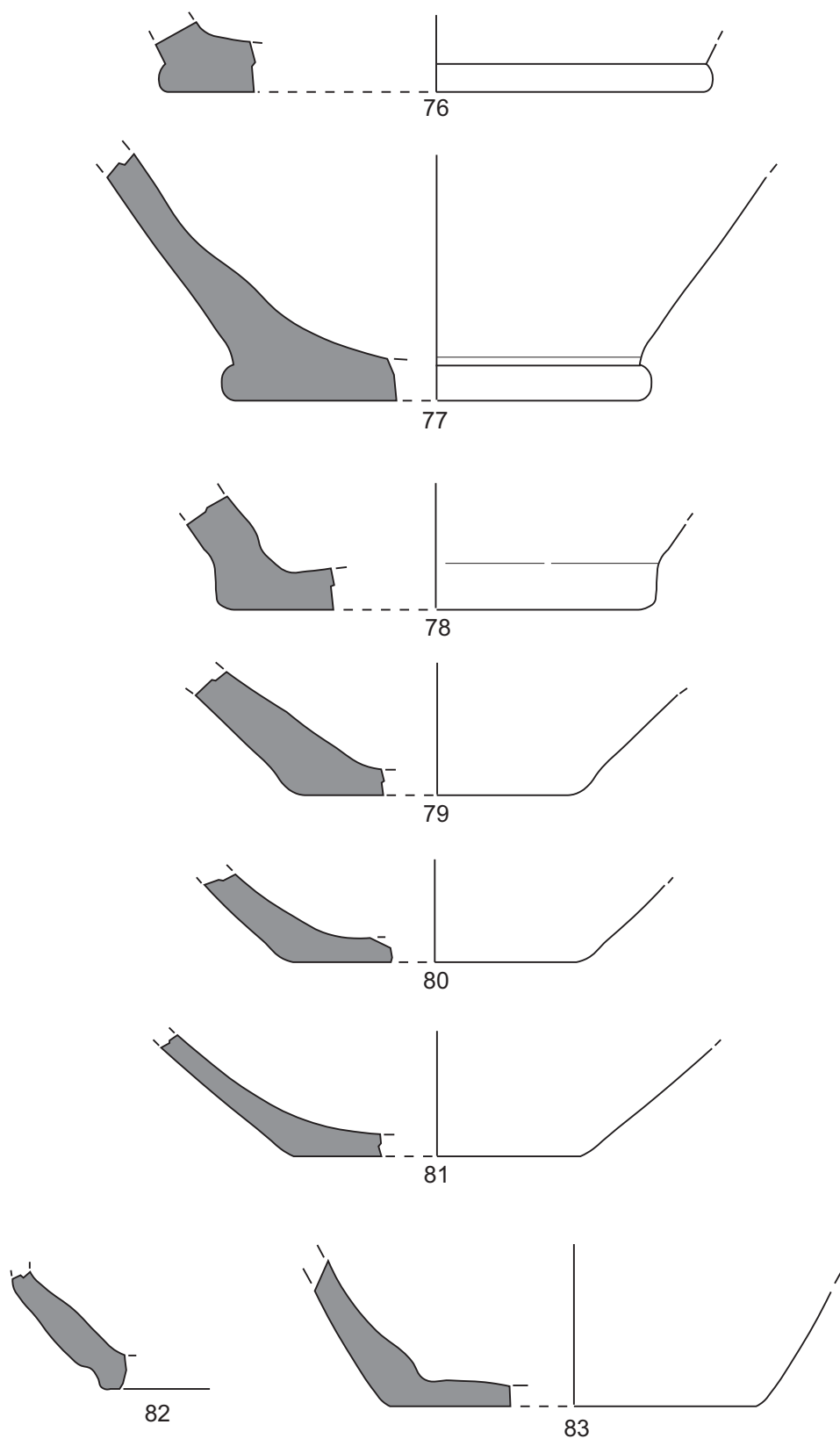
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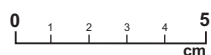
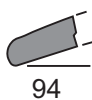
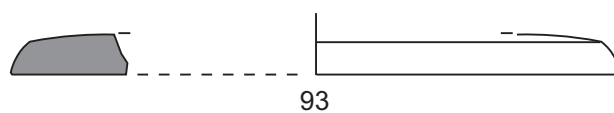
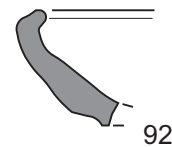
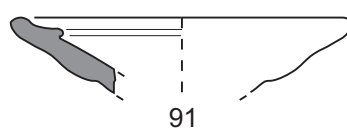
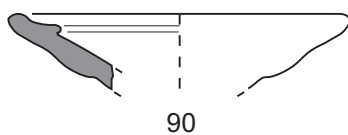
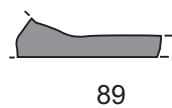
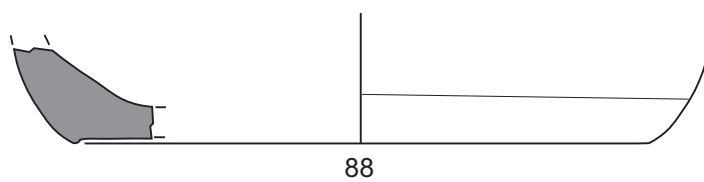
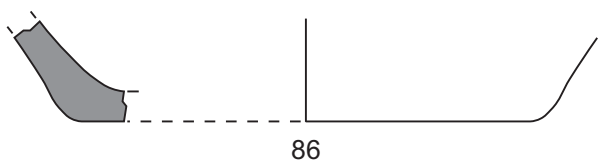
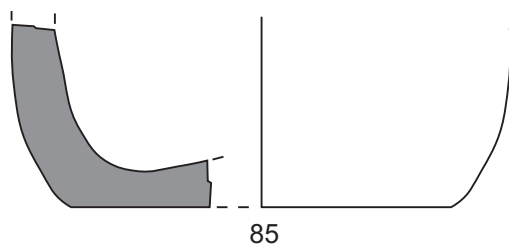
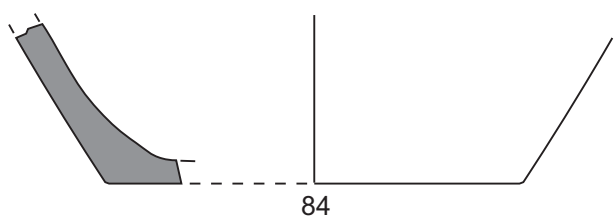
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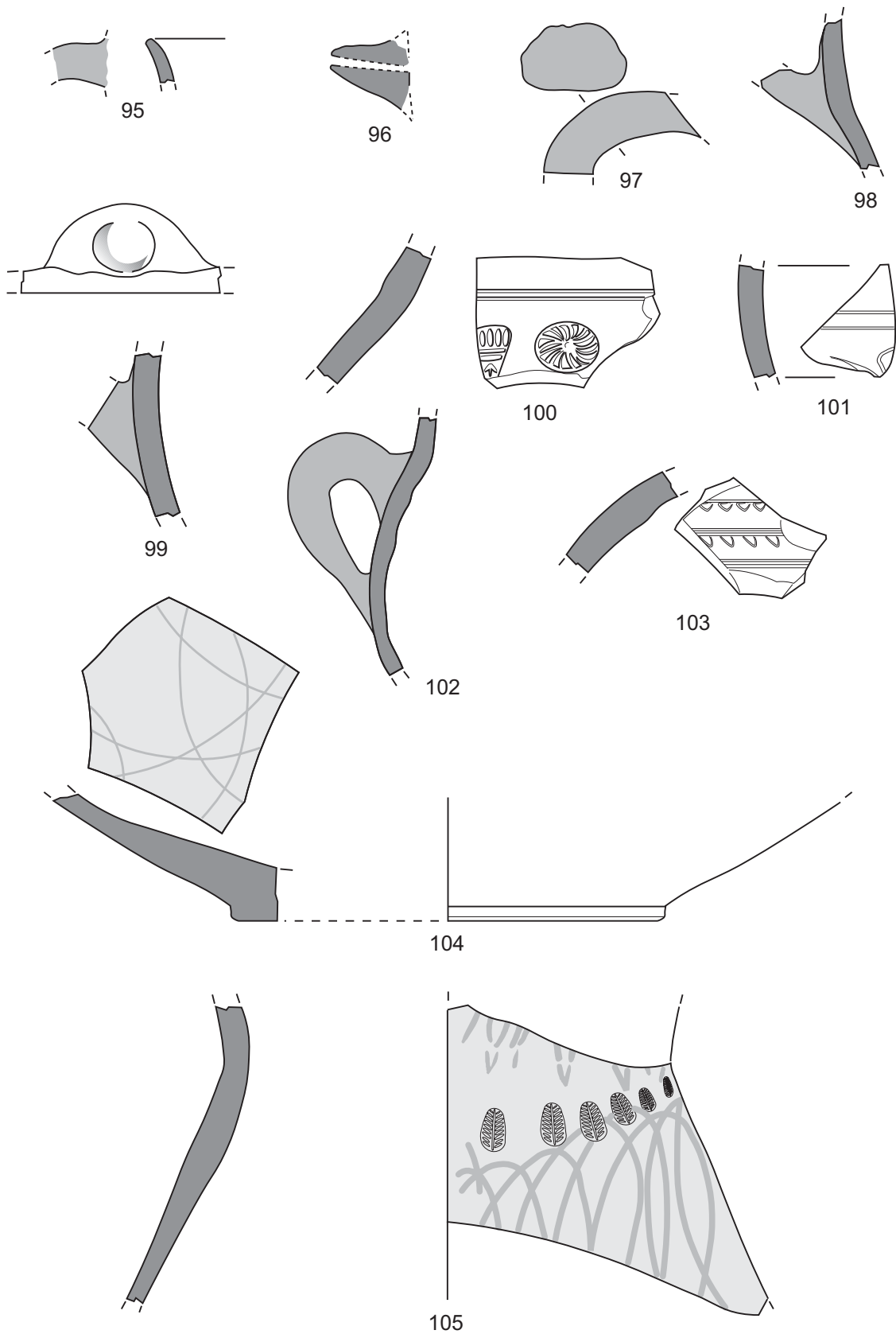
RC- UE 10



RC- UE 10

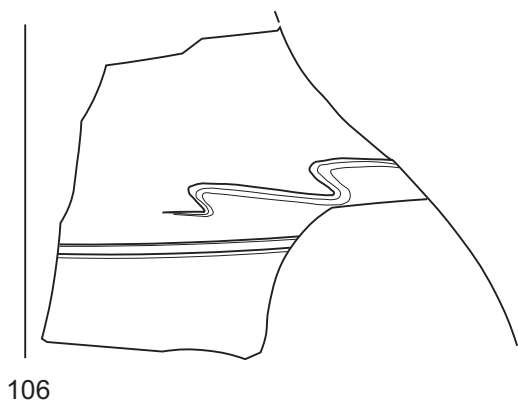
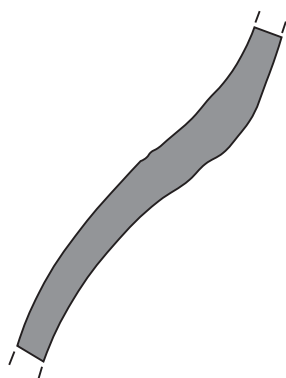


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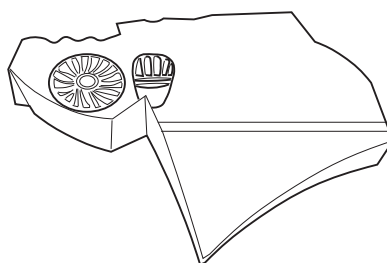
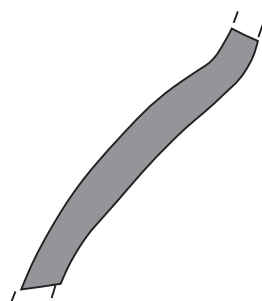


0 1 2 3 4 5
cm

RC- UE 10

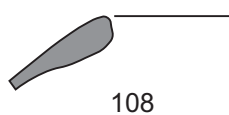


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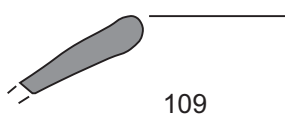


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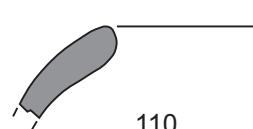
COOKING POTTERY



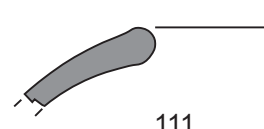
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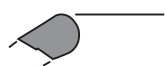
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110



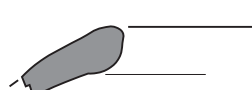
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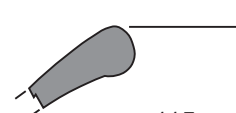
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114



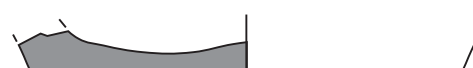
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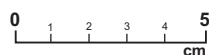
116



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RC - UE 11

Definition: Level of weathered bedrock (sandstone)

Interpretation:

Observations: Low-potential level with sandstone fragments. Could be natural in origin. Only two bone fragments and one pottery fragment found.

Material: Bone: (>0.50 kg)

Archaeologist: E. Ariño

<i>Composition</i>	Sandstone fragments
<i>Formation</i>	Possibly of natural origin
<i>Potential</i>	1-12 cm
<i>Covered by (Stratum)</i>	10
<i>Covering (Stratum)</i>	12

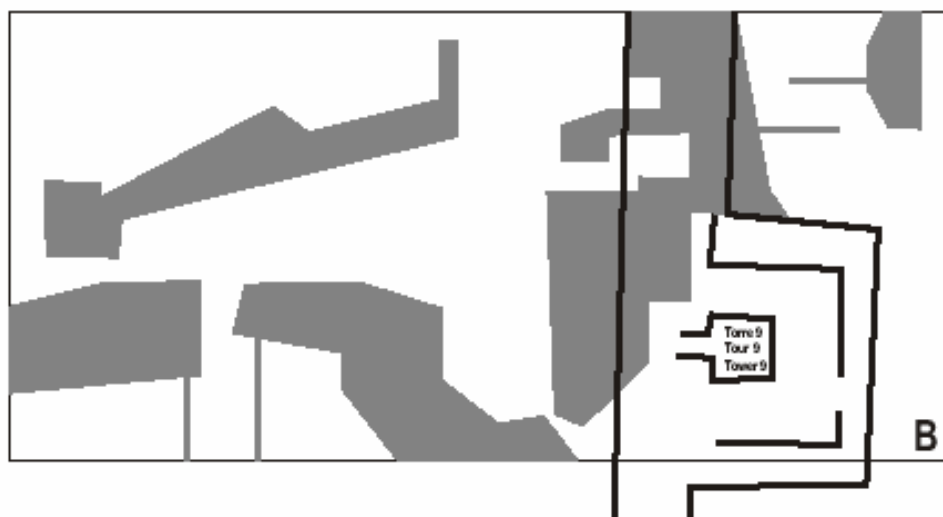
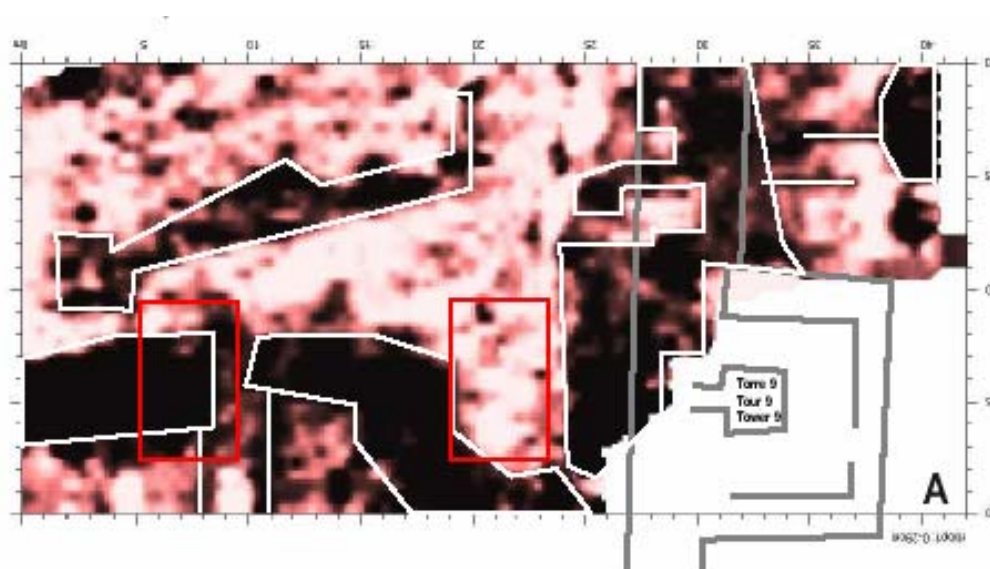


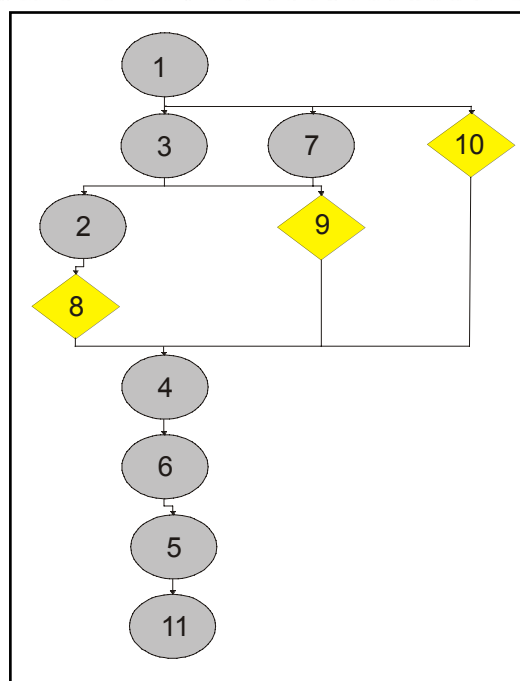
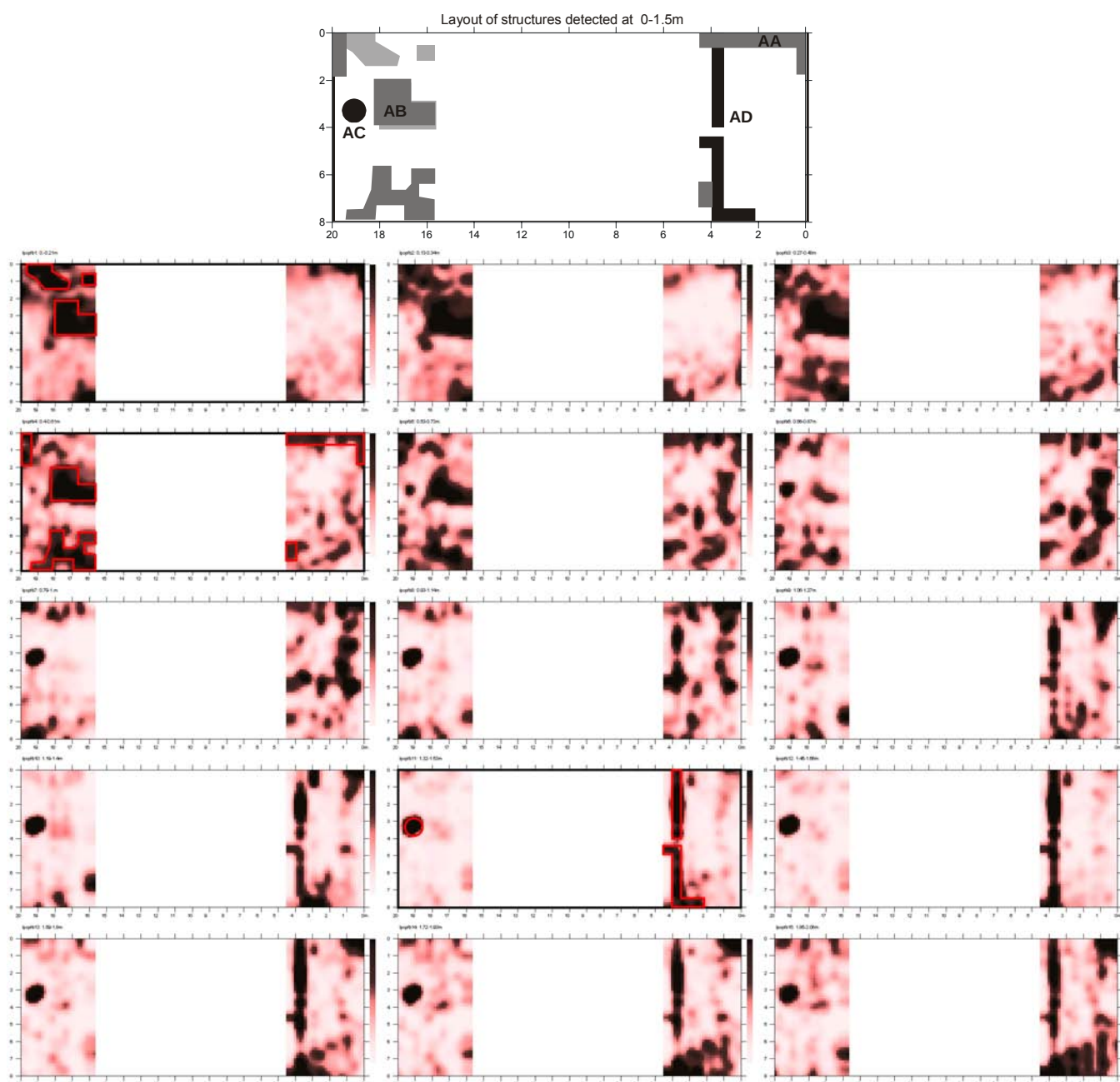
RC - UE 12**Definition:** Bedrock**Interpretation:** Bedrock**Observations:** Bedrock. Grey sandstone.**Material:****Archaeologist:** E. Ariño

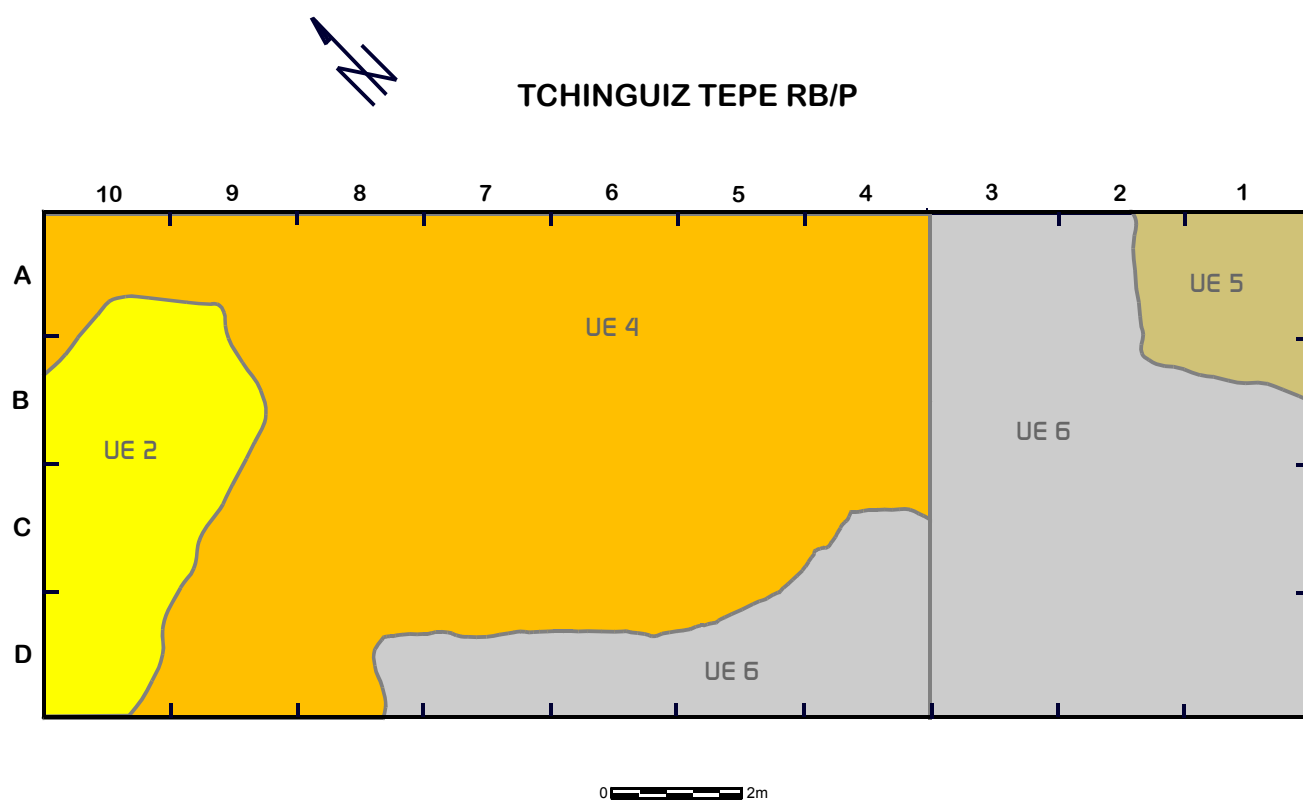
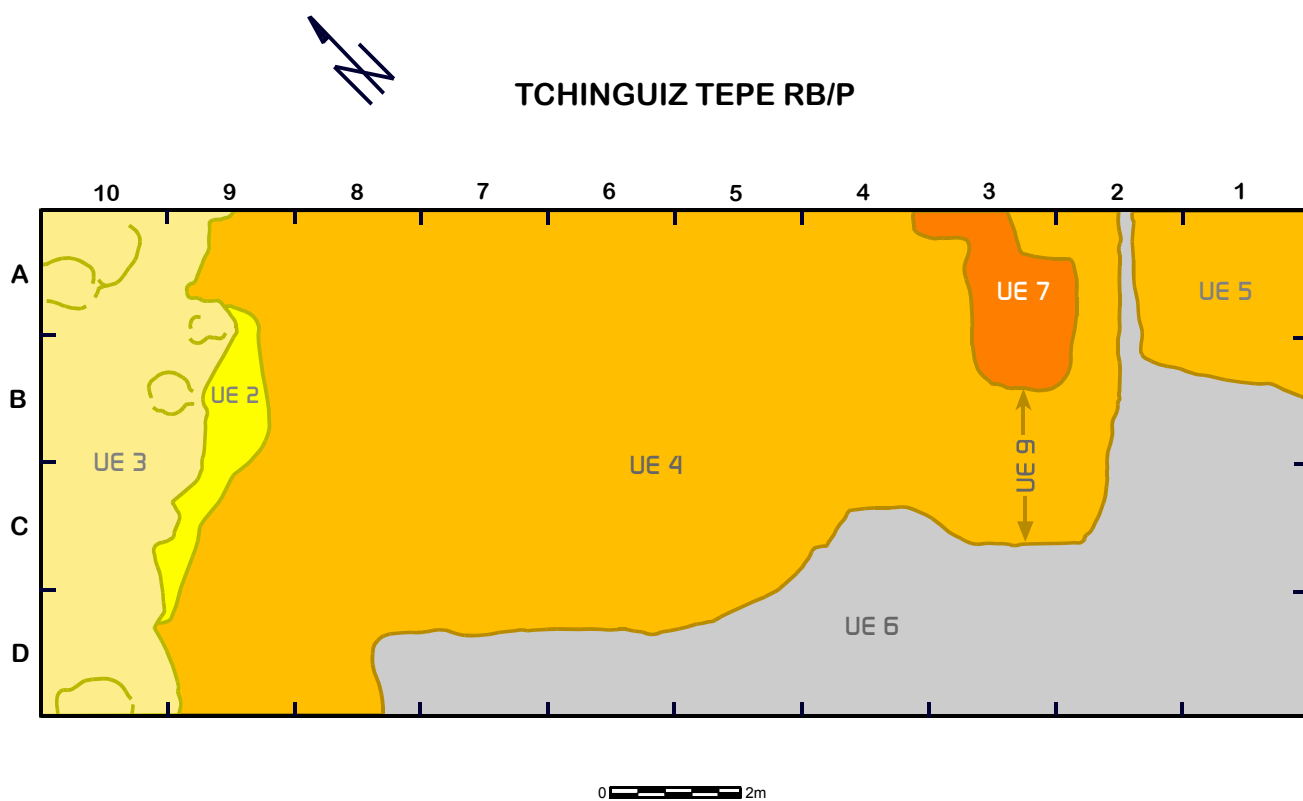
<i>Composition</i>	
<i>Formation</i>	
<i>Potential</i>	
<i>Covering (Stratum)</i>	10-11

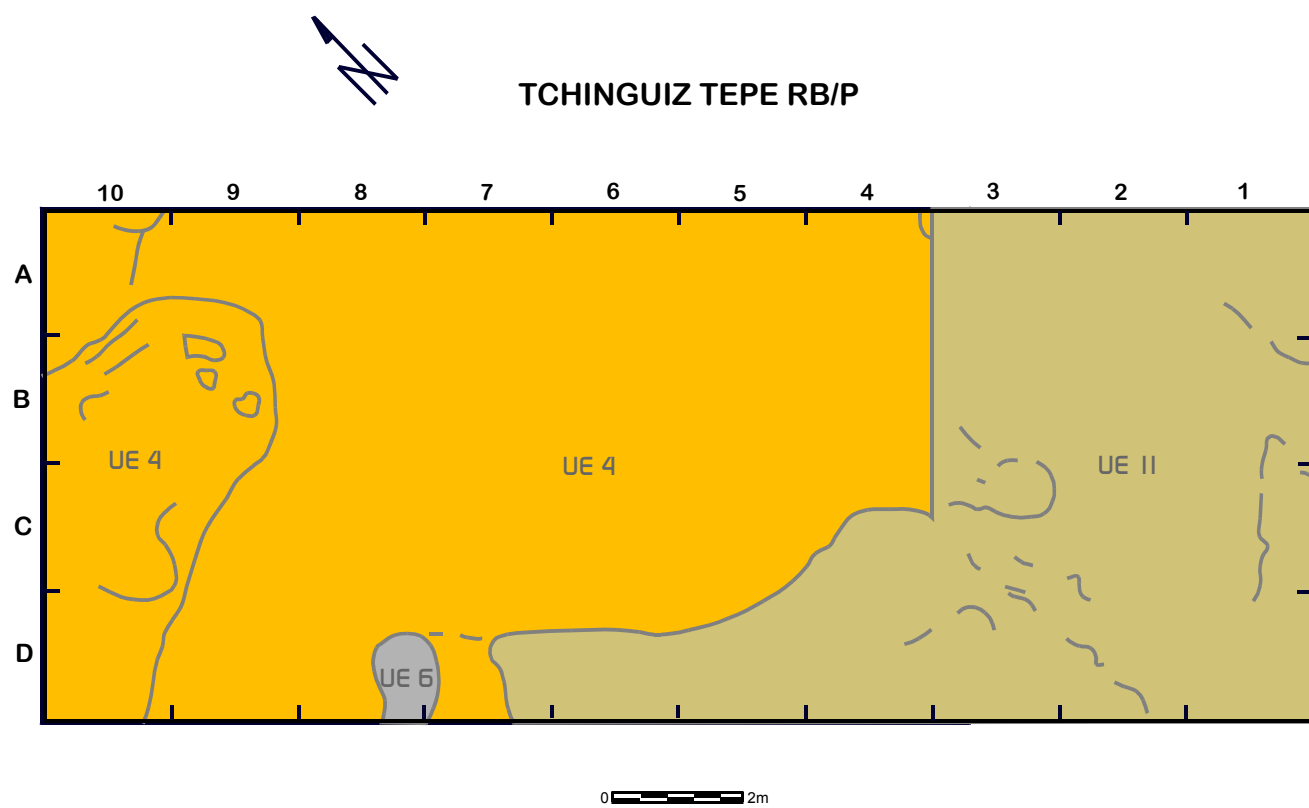
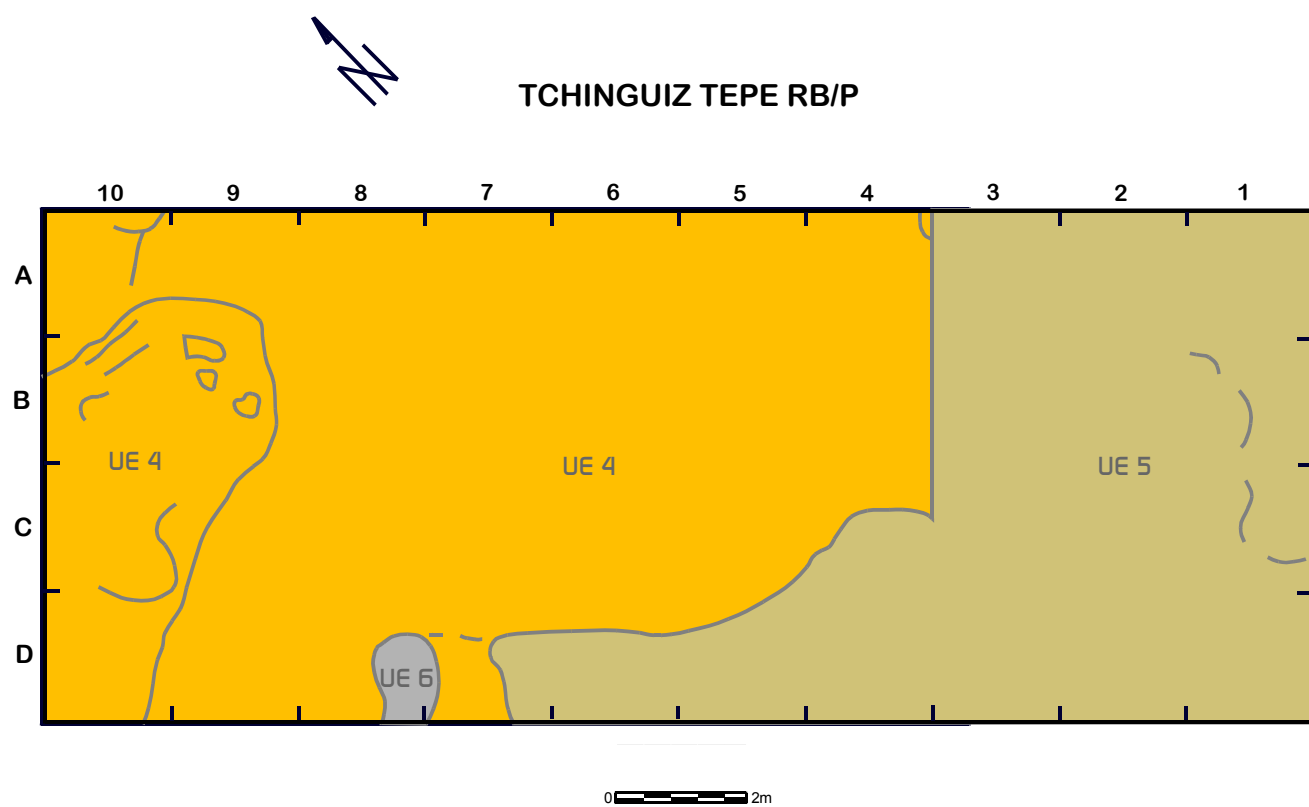
RB / OP

Based on the georadar results from the 2006 season, a new programme of geophysical survey with radar was set up. The idea was to confirm whether the detected signal might have corresponded to a structure that could form part of the Tchinguiz Tepe wall along the south side, which is totally unknown to us. The new survey would involve greater detail and cover a more limited area. It would also be followed by excavation of the same area in order to compare the data given by the two methods precisely. The geophysical survey results from 2006 and 2007 generally match, but the detail is difficult to interpret. As we can see, the excavation of the space surveyed with georadar helps to understand the observed signal, but it does not explain it. In this case, the geoarchaeological record provides much more complete information, showing that the signal observed by georadar is far more complex than it had first appeared. In any event, we can see a series of levels that we consider to be human, all of which contain associated ceramic material and rest on bedrock. The ceramic material constitutes the oldest vestiges that have ever been found at Tchinguiz Tepe. Judging from the experience gathered up to now, we could consider them to relate to preparation levels. But to prepare what? Possibly the fortification wall. Looking at the archaeological planimetries and the sequence of georadar images, we must conclude that, starting at a certain depth, a significant portion corresponds to the geological stratigraphy of the place.









RB/P - UE 1

Definition: Vegetation layer. Current soil level

Interpretation: Current soil, subjected to wind action, supporting typical steppe vegetation. Pottery appears in the stratum, dispersed from its original place of deposition by unspecified causes.

Observations: Wind-borne loess. Contains pottery

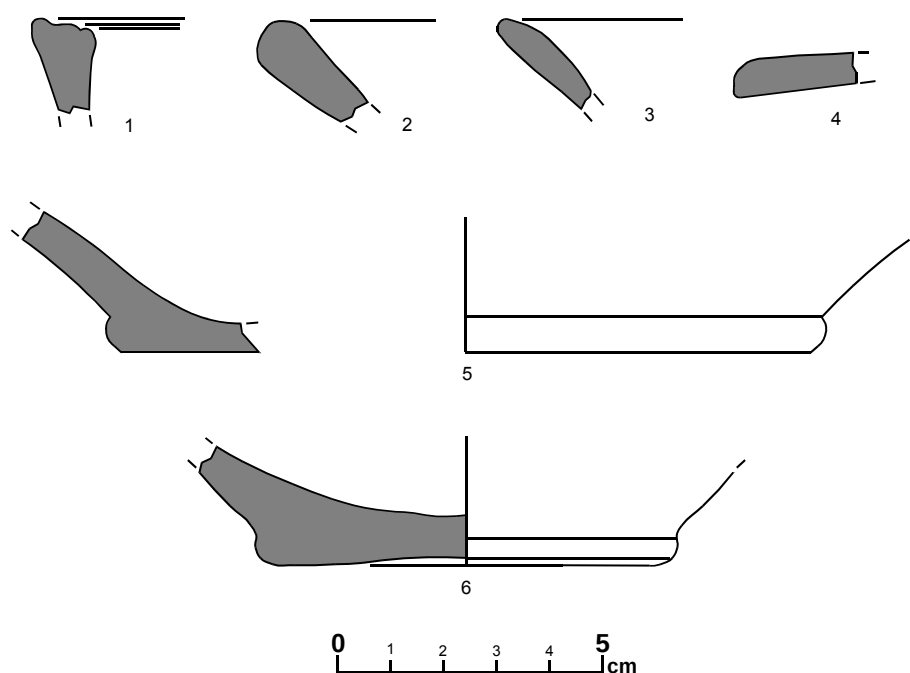
Material: Glazed pottery: 46 frags.
Common pottery: 141 frags.
Cooking pottery: 1 frag.

Archaeologist: E. Ariño

<i>Composition</i>	Loess
<i>Formation</i>	Caused by wind
<i>Potencial</i>	10-50 cm
<i>Covering (Stratum)</i>	6-3-2-7-4
<i>Covering (Negative)</i>	9-8
<i>Fill from (Negative)</i>	10

RB/P - UE 2**Definition:** Loess**Interpretation:** Level of fill, probably natural in origin, silting over a pit (UE 8) open at the clay level (UE 4).**Observations:** Stratum of loess, brown-grey colour. Contains pottery. Four adobe fragments appear on the floor, in fallen position.**Material:**
Glazed pottery: 12 frags.
Common pottery: 41 frags.
Cooking pottery: 1 frag.**Archaeologist:** E. Ariño

<i>Composition</i>	Loess
<i>Formation</i>	Caused by wind
<i>Potencial</i>	10-20 cm
<i>Covered by (Stratum)</i>	3-1
<i>Covers (Stratum)</i>	4
<i>Fills (Negative)</i>	8



RB/P - UE 3

Definition: Blocks of sandstone and chalk conglomerates

Interpretation: Blocks of sandstone and chalk conglomerates. Could be natural in origin, from decomposition and dragging of sandstone at a higher layer.

Observations: Blocks of sandstone with chalk conglomerates. Does not contain pottery.

Material:

Archaeologist: E. Ariño

<i>Composition</i>	Blocks of sandstone and chalk conglomerates
<i>Formation</i>	Natural?
<i>Potencial</i>	20-60 cm
<i>Covered by (Stratum)</i>	1
<i>Covering (Stratum)</i>	4-2
<i>Covering (Negative)</i>	8



RB/P - UE 4

Definition: Level of compact clay

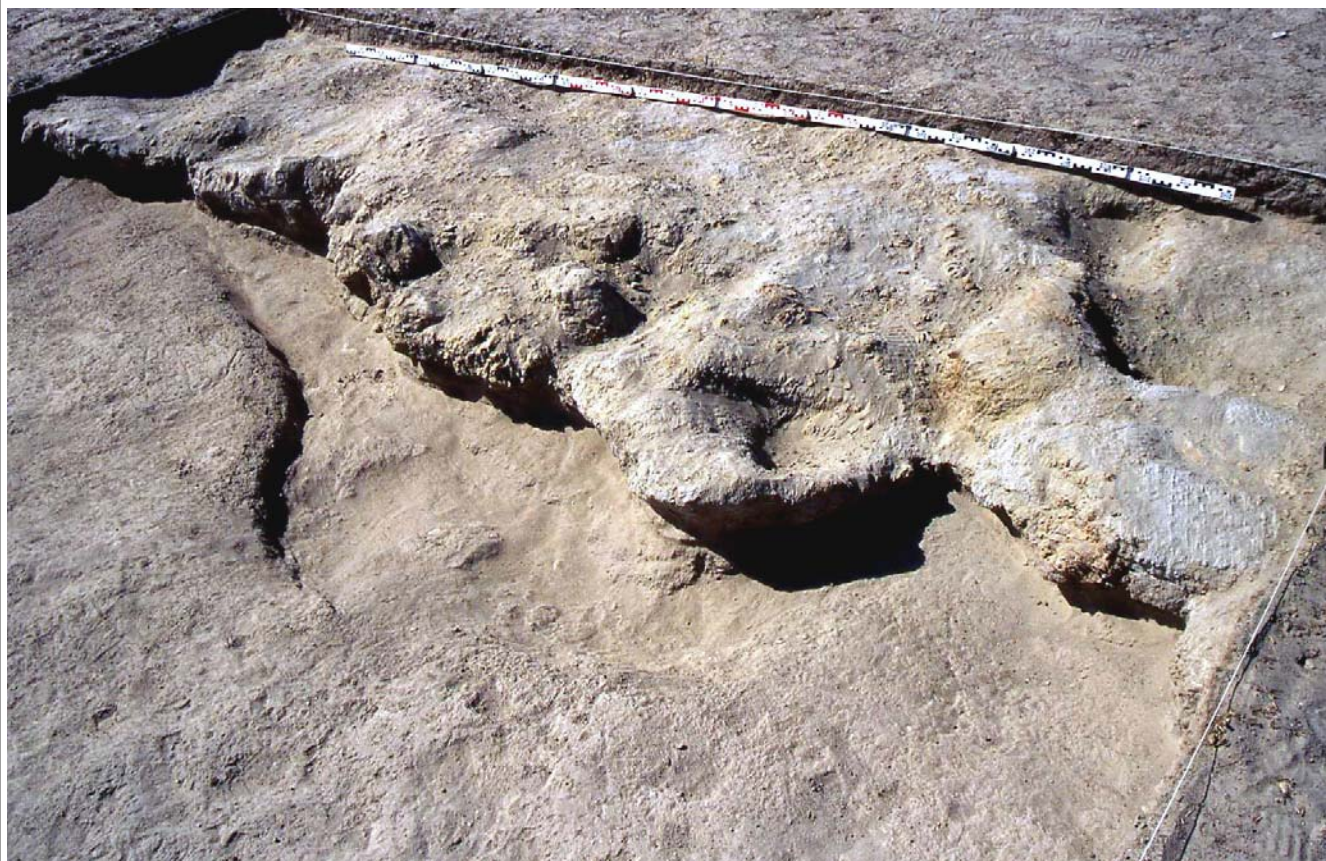
Interpretation: Forms part of a foundation structure, alternating layers of compressed clay with layers of sandstone rock and chalk conglomerates.

Observations: Level of compact reddish clay. Includes charcoal particles smaller than 5mm in size.

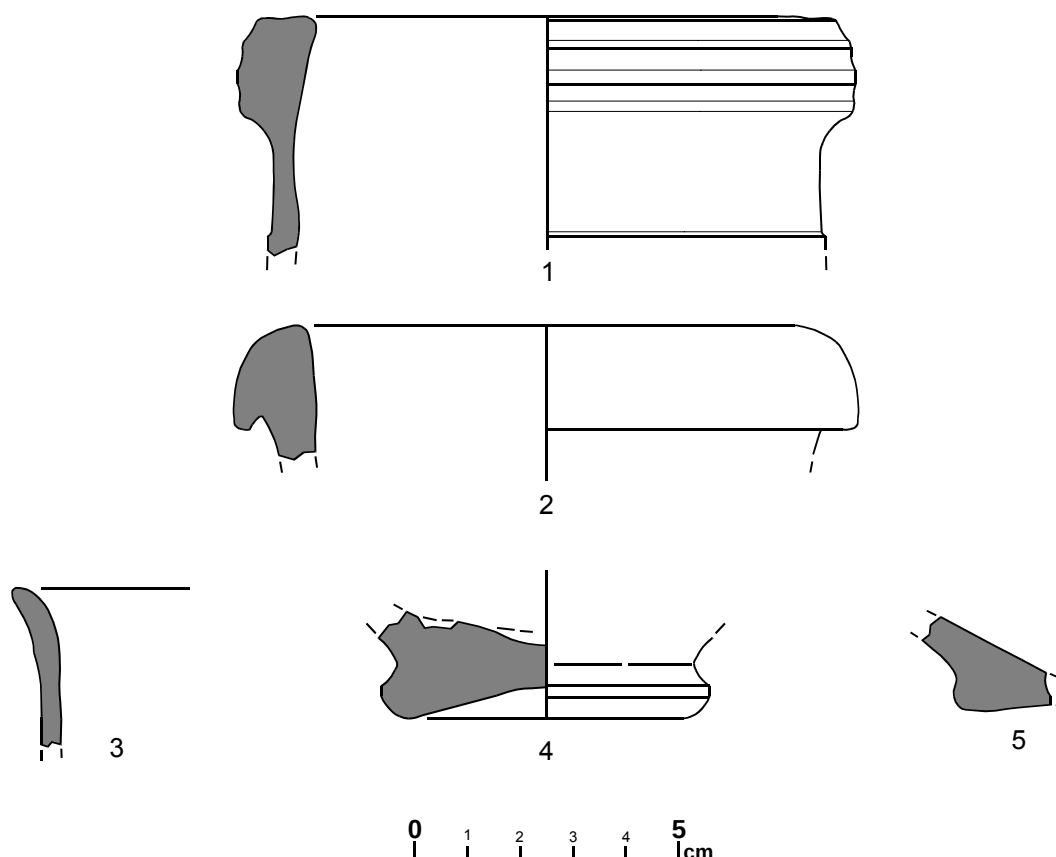
Material:
 Glazed pottery: 9 frags.
 Common pottery: 33 frags.
 Bone: (>100 kg)

Archaeologist: E. Ariño

<i>Composition</i>	Clay
<i>Formation</i>	Human
<i>Potencial</i>	25-30 cm
<i>Covered by (Stratum)</i>	1-3-2
<i>Intersected by (Negative)</i>	10-8-9
<i>Covering (Stratum)</i>	6



RB/P - UE 4



RB/P - UE 5

Definition: Level of compact clay

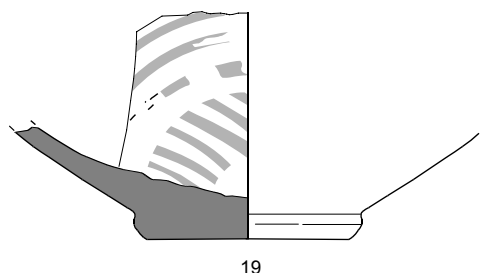
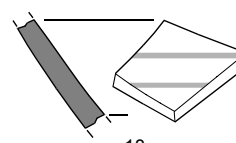
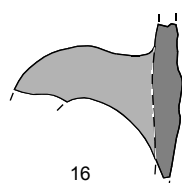
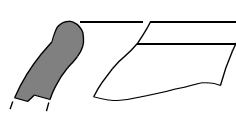
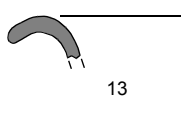
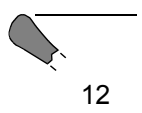
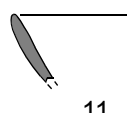
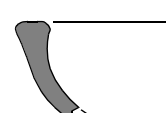
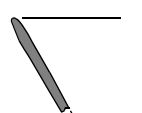
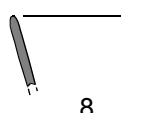
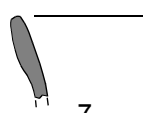
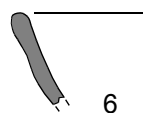
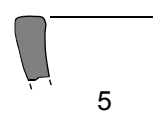
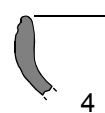
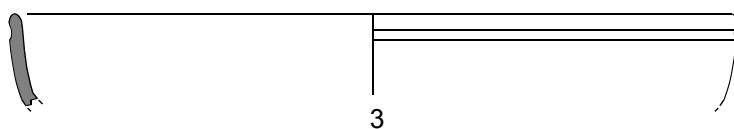
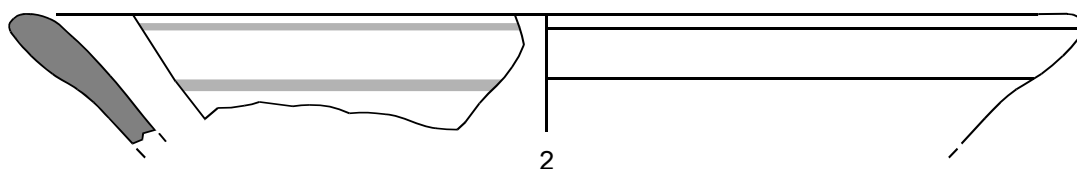
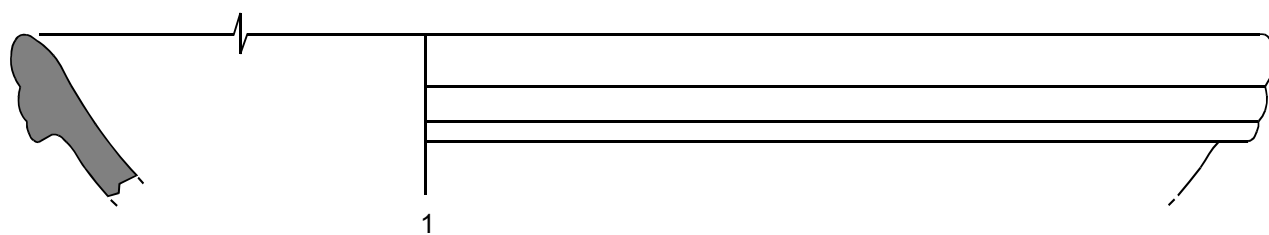
Interpretation: Forms part of a foundation structure, alternating layers of compressed clay with layers of sandstone rock and chalk conglomerates.

Observations: Level of compact reddish clay. Contains charcoal particles smaller than 5mm in size. Contains pottery. Pidaev indicates the presence of fragments from the first century AD (grey pieces with polished elements). The remaining material is from the first century AD, but there could be pieces from the second century AD.

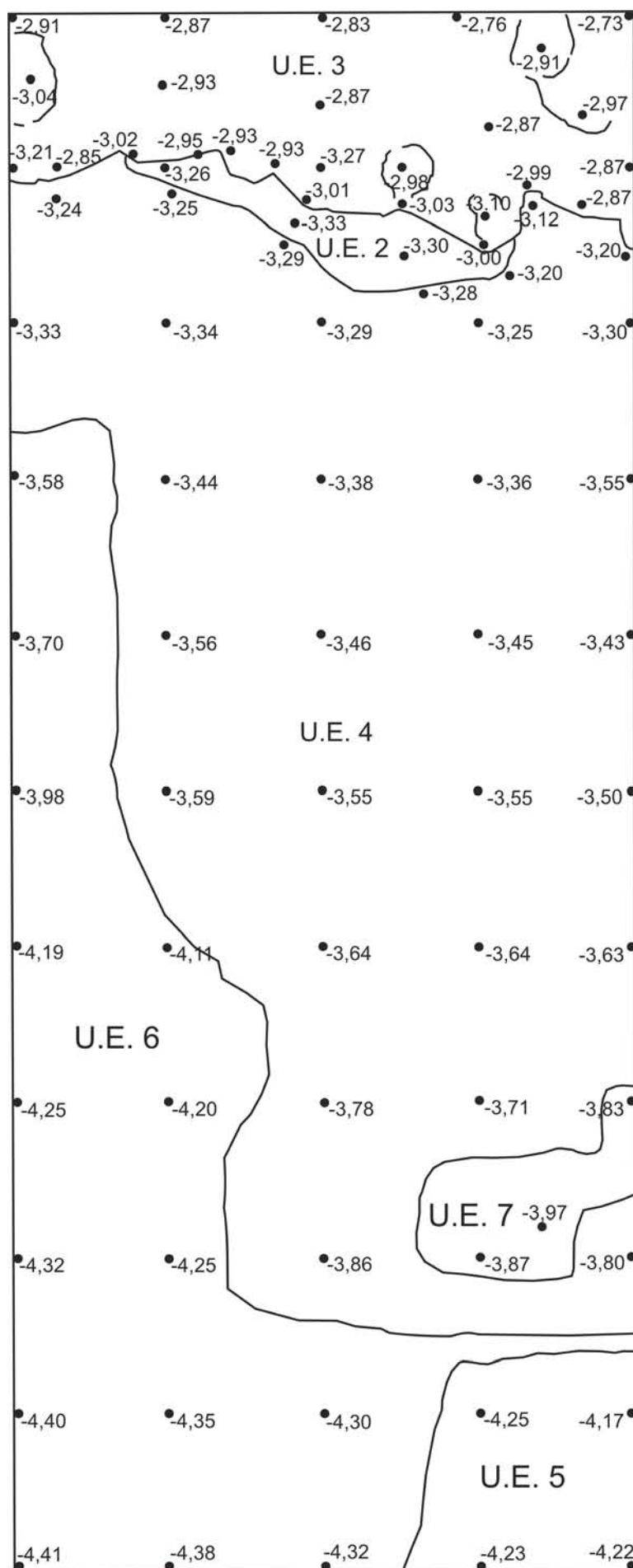
Material:
 Glazed pottery: 53 frags.
 Common pottery: 125 frags.
 Cooking pottery: 3 frag.
 Bronze: 1 frag.
 Iron: 1 frag.
 Slag: 3 frags.
 Bone: (0.100 kg)

Composition	Clay
Formation	Human
Potencial	5-30 cm
Covered by (Stratum)	6
Covering (Stratum)	11

RB/P- UE 5



0 1 2 3 4 5 cm



RB/P - UE 6

Definition: Loess and small fragments of sandstone

Interpretation: Forms part of a foundation structure, alternating layers of compressed clay with layers of sandstone rock and chalk conglomerates.

Observations: Small fragments of rock (chalk conglomerates and sandstone) in a matrix of loess. Contains pottery, but in limited amounts.

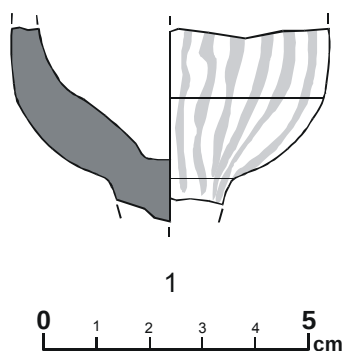
Material: Glazed pottery: 3 frags.
Common pottery: 6 frags.

Archaeologist: E. Ariño

<i>Composition</i>	Loess and small sandstone fragments
<i>Formation</i>	Human
<i>Potencial</i>	20-85 cm
<i>Covered by (Stratum)</i>	1-4-7
<i>Intersected by (Negative)</i>	10
<i>Covering (Stratum)</i>	5



RB/P - UE 6



RB/P - UE 7

Definition: Loess

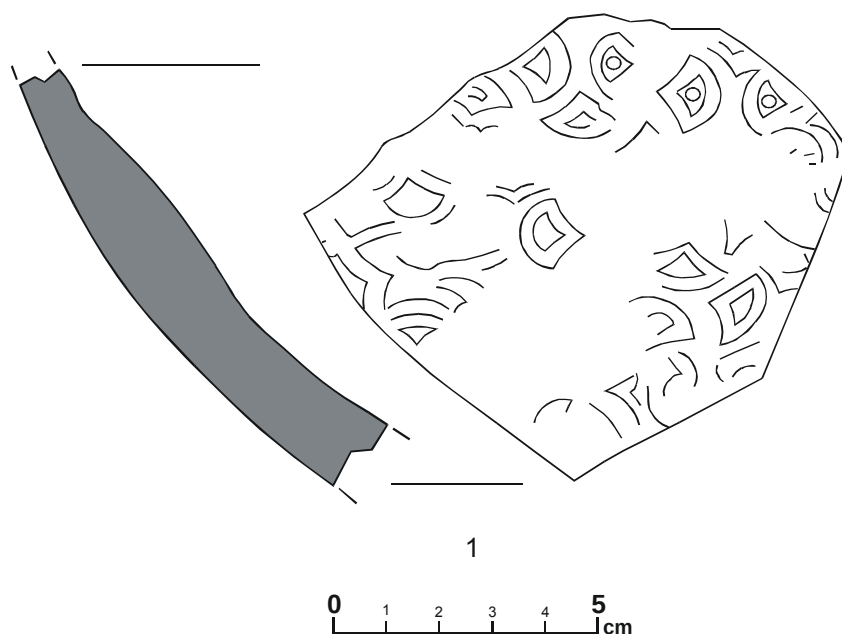
Interpretation: Fill from Islamic era, with interfaces from UE 9.

Observations: Fill with interfaces from UE 9. Only wooden remains and a fragment of Islamic pottery found.

Material: Islamic pottery: 1 frag.
Wood: (0.150 kg.)

Archaeologist: E. Ariño

<i>Composition</i>	Loess
<i>Formation</i>	Human
<i>Potencial</i>	c. 20 cm
<i>Covered by (Stratum)</i>	1
<i>Covering (Stratum)</i>	6
<i>Fills (Negative)</i>	9



RB/P - UE 8

Definition: Interfaces. Pit at clay level

Interpretation: Possibly of human origin.

Observations: Interfaces. Pit at clay level (UE 4) silted over by UE 2.

Material:

Archaeologist: E. Ariño

<i>Composition</i>	
<i>Formation</i>	Human
<i>Potencial</i>	
<i>Covers (Stratum)</i>	1-3
<i>Fills (Stratum)</i>	2
<i>Cuts (Stratum)</i>	4

RB/P - UE 9

Definition: Interfaces

Interpretation: Interfaces intersecting UE 4.

Observations: Interfaces intersecting UE 4 and UE 6.

Material:

Archaeologist: E. Ariño

<i>Composition</i>	
<i>Formation</i>	
<i>Potencial</i>	
<i>Covers (Stratum)</i>	1
<i>Fills (Stratum)</i>	7
<i>Intersects(Stratum)</i>	4

RB/P - UE 10**Definition:** Interfaces**Interpretation:** Interfaces of unknown origin intersecting UE 4 and UE 6.**Observations:** Interfaces intersecting UE 4 and UE 6.**Material:****Archaeologist:** E. Ariño

<i>Composition</i>	
<i>Formation</i>	
<i>Potencial</i>	
<i>Fills (Stratum)</i>	1
<i>Intersects (Stratum)</i>	4-6

RB/P - UE 11

Definition: Bedrock

Interpretation: Bedrock

Observations: Bedrock. Grey sandstone

Material:

Archaeologist: E. Ariño

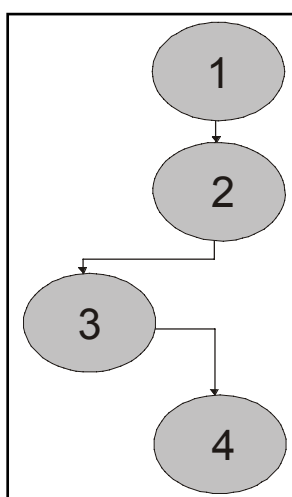
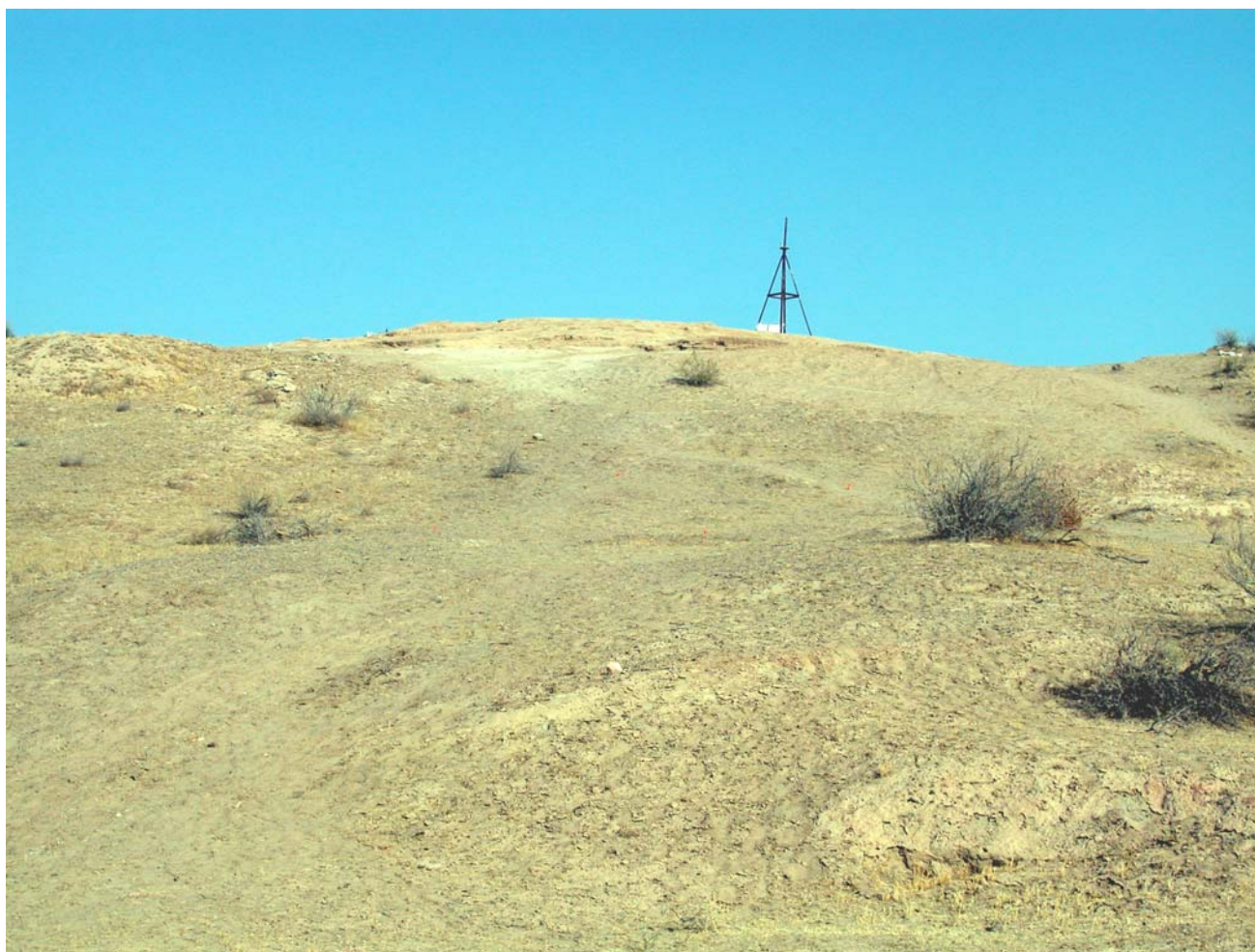
Composition	
Formation	
Potencial	
Covered by (Stratum)	5

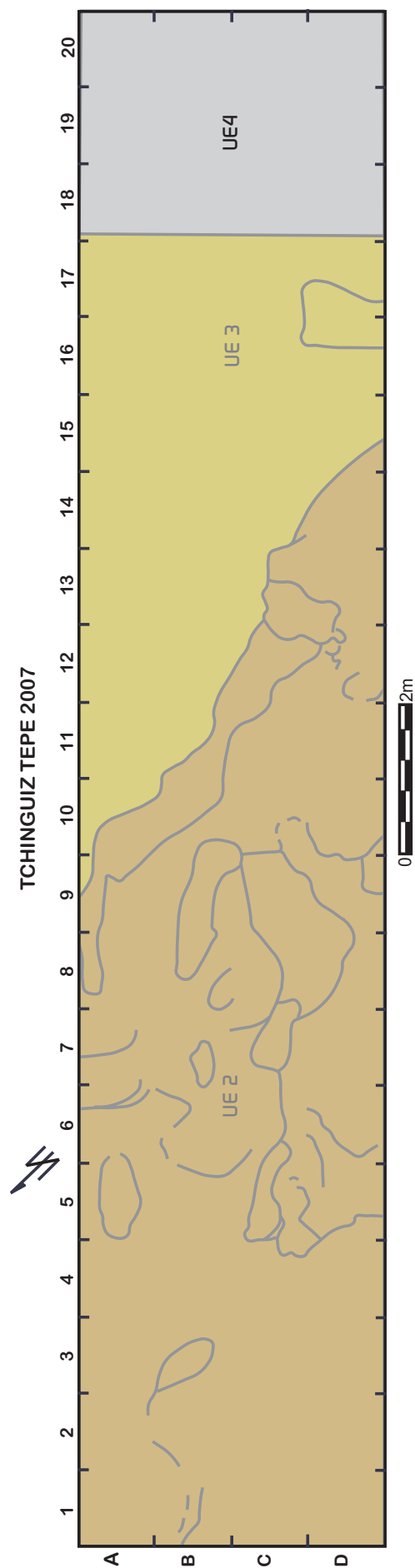
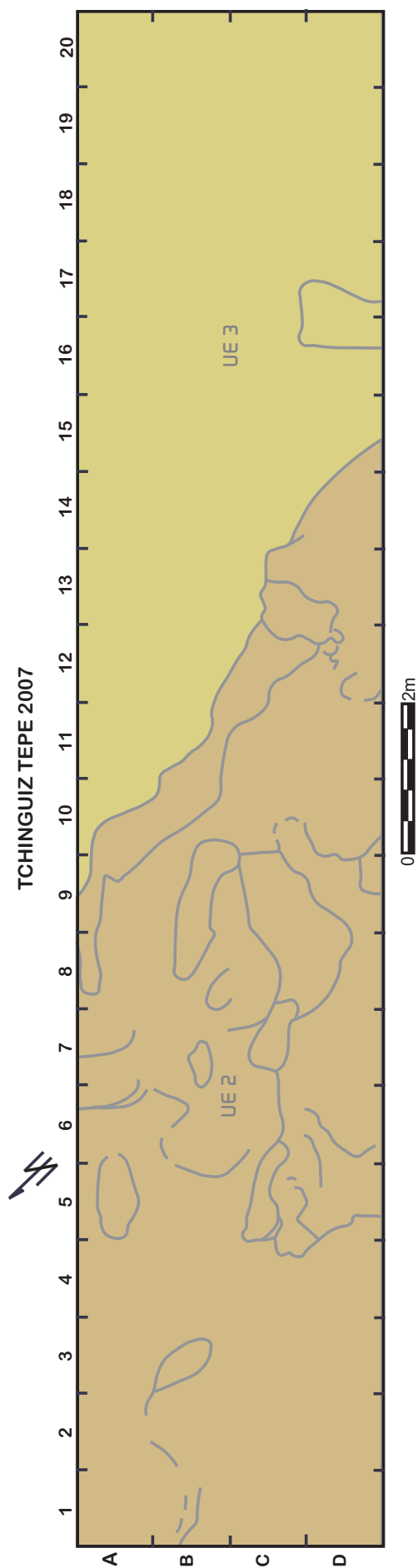


CRH

This archaeological intervention is also a result of the geophysical surveying done with georadar in the 2006 season and the new survey carried out in 2007 in the same space, confirming the signal detected in the 2006 season. Neither result, however, could clarify very well what it was. In fact, it is worth noting that the signal was very shallow in both cases. The archaeological verification was not extended over the entire georadar survey area, which had been quite large (8x75m). Rather, a limited space was chosen where the signal seemed clearest. The space, which measured 4x20m and lay between 38 and 58 metres of the surveyed area, was then excavated. In this case, the georadar result and the archaeological record match extraordinarily closely. Once again, however, the georadar results can only be interpreted by making use of the archaeological record. The archaeological record detected a set of hardened clayey surfaces, with a number of pottery fragments appearing among them. Some of the surfaces were made of adobe bricks in positions that were not overly clear. The surfaces partly rested over loess deposits, and all of the elements together stand on the bedrock, which appears at shallow depths. The most plausible archaeological interpretation is that they reflect a natural-forming stratification (aided by wind agents or simply by gravity over a steep slope), caused by the destruction/erosion of built structures and human levels nearby and situated topographically in a higher layer.









CRH - UE 1

Definition: Vegetation layer. Current soil level

Interpretation:

Observations: Wind-borne loess. Contains pottery.

Material: Glazed pottery: 86 frags.
Common pottery: 505 frags.
Glass: 1 frag.
Stone bead

Archaeologist: E. Ariño

<i>Composition</i>	Loess. On top, crust with river pebbles
<i>Formation</i>	Caused by wind
<i>Potencial</i>	
<i>Covering (Stratum)</i>	2-3

CRH - UE 2

Definition: Red clay with small rock fragments

Interpretation: Could be a layer of compressed clay. Could also have been formed by compressed clay or weathered adobe swept along platform.

Observations: Red clay with small rock fragments. Evidence of markings made by fallen adobe and clay formed by decomposition. Appears largely destroyed.

Material:

Archaeologist: E. Ariño

<i>Composition</i>	Red clay with small rock fragments
<i>Formation</i>	Human?
<i>Potencial</i>	
<i>Covered by (Stratum)</i>	1
<i>Covering (Stratum)</i>	3

CRH - UE 2



CRH - UE 2



CRH - UE 3

Definition: Grey sands

Interpretation: Stratum of natural origin caused by wind-borne sedimentation and swept across hillside.

Observations: Grey sands, more compact on the floor. Occasional evidence of clay seams. Contains no pottery.

Material:

Archaeologist: E. Ariño

<i>Composition</i>	Grey sands with clay seams
<i>Formation</i>	Caused by wind
<i>Potencial</i>	c. 20 cm
<i>Covered by (Stratum)</i>	1-2
<i>Covering (Stratum)</i>	4

CRH - UE 4

Definition: Bedrock.

Interpretation: Bedrock.

Observations: Bedrock. Grey sandstone.

Dating:

Archaeologist: E. Ariño

<i>Composition</i>	
<i>Formation</i>	
<i>Potencial</i>	
<i>Covered by (Stratum)</i>	3

CRH - UE 4



