

IPAEB



Volume III

Preliminary Report of the work of the
International Pluridisciplinary
Archaeological Expedition to Bactria

2008

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Preliminary Report of the work of the International Pluridisciplinary Archaeological
Expedition to Bactria (2008)

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Institute of Archaeology

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EQUIP DE RECERCA ARQUEOLÒGICA I ARQUEOMÈTRICA
DE LA UNIVERSITAT DE BARCELONA



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University of Barcelona

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This year the development of our project can be divided into two main clearly different parts, on one hand the laboratory work, where the sampled ceramic individuals has been prepared and analyzed and the elaboration of the data obtained during the excavation of 2007 has been finished and, on the other hand, the field work developed at the archaeological site during this specific year (2008).

In the mark of the analytical work a significant number of ceramic individuals (144) from the different stratigraphical units from various areas of the excavation of Termez and Tchinguiz Tepe sampled during the new and previous field works has been archaeometrically characterized. This specific material included individuals dated into the Hellenistic and Sassanian period, which has been confirmed by C14 dating upon organic samples.

At the same time, in the mark of the field work of 2008 the archaeological record, already started to be under study during the excavation of 2007, has been completed and two new archaeological records have been registered on of which is located in the area of Tchinguiz Tepe. For the archeological study the information of the previous geophysical prospecting has been indisputably taken into consideration and the same methodology has been applied to crosscheck the latter archaeological results.

The last important task developed during this year field work had as an objective to locate a new archaeological record working on an, up to now, non excavated area of Termez. In this case, previous geophysical prospecting could not be carried out, because of the clear alterations of the ground by the presence of remaining of old buildings and military installations.

The overall results of the field wok are very interesting up to the present. Fist, a new ceramic works-hop (kiln site) has been located, based upon the information of the previous geophysical prospecting. Second, a new archaeological assemblage has been discovered with a different, up to now unknown, chronological sequence.

It is important to stress out, that during the excavation of 2008 a test hole, which location was indicated already during the field work of 2007, has been excavated. This sample gave a great number of new ceramic materials with a wide typological repertory, which can be directly related to the chronological sequence of the construction and destruction of the city wall (mural) of Tchinguiz Tepe.



Introduction

At the same time, during this year field work an exhaustive geomorphological study of Termez and its hinterland has been started to be able to comprehend specific aspects of its formation as an archaeological site.

Finally, after two long years of archaeometrical work we considered extremely important to extend the archaeometrical characterization into other sites, in order to arrive to a broader understanding of the ceramic culture than the city of Termez can be offer. This new holistic approach gave us an incentive to sample other surrounding archaeological sites like Kampir Tepe and Zar Tepe and also further located archaeological sites like Samarkanda, in collaboration with the French, Italian and Japanese missions.

J. M^a. Gurt i Esparraguera

The cartographic base used in IPAEB corresponds to the figures number 2 (p. 183) and number 20 (p. 203) published by: LERICHE, P.; PIDAEV SH. 2007, *Termez in Antiquity. After Alexander*. Central Asia before Islam (Joe Cribb and Georgina Herrmann edits.) in Proceedings of the British Academy 133, pp. 179-211. British Academy

Archaeological record: Sector RC (Tchinguiz Tepe)

Enrique Ariño



Interpretation of the stratigraphic sequence

Prior work: 2007 season

In the 2007 season, a sample trench was begun at Tchinguiz Tepe in the grid labelled RC, which is one of the sectors defined for the purposes of geophysical prospecting. Sector RC abuts the interior face of the adobe wall alongside Tower 4. The aim of the excavation was to confirm or reject the data gathered by georadar, which had detected possible structures associated with the wall, including indications of possible dwellings. The trench was defined over an area measuring 15 x 5 metres. After removing the superficial level (SU-1), the initial SUs were uncovered presumably intact. The excavation in the 2007 season was limited to an area measuring 25 sq m (5 x 5 m) at the western end of the trench. The stratigraphy, which was described in a previously published report (IPAEB, vol. II), is fairly straightforward. Beneath the superficial level (SU-1), a level of limited potential and area appeared, comprising compact red clay (SU-4). Beneath that, SU-5, which extends across the entire excavated surface, revealed loose grey-brown sand. Another level of sand spreads immediately below it. Although similar to the sand above, it was treated as a distinct stratum (SU-6), because it presented a thin hard crust of compact red clay with white patches (limestone?) at some points. Directly beneath SU-6, some

compact, apparently demolished structures of compressed clay (SU-8 and 9) were uncovered (the interface of these remains were given the label SU-7). The structures, provisionally interpreted as walls, were related to a new level of sand which covered the entire dig area of 25 sq m. This stratum (SU-10) was defined as a new level of dark-brown sand which had a thin, cracked crust on top of it. It was interpreted as a possible dwelling floor demarcated by SU-8 and SU-9. Beneath SU-10, a substrate of sandstone appeared (SU-12), showing signs of weathering in places (SU-11). All the deposits (SU-1, 4, 5, 6 and 10) contained significant amounts of ceramic sherds, all of which were attributable to the period of Kushan-Sassanian settlement.

Excavation in the 2008 season: stratigraphic reading

Work in 2008 was aimed at completing the excavation of the sample trench defined in the previous season. The excavation proceeded in an area measuring 10 x 5 metres along the wall, where only the superficial level had been removed (SU-1). First, the trench was widened a metre to the east in order to reach the inner face of the wall, bringing the total dig area to 5 x 16 m.

Beneath the current ground level (SU-1), the first aspect that can be noticed is the remains of a construction of indeterminate period, which comes into contact with the fortifications at Tchinguiz Tepe (SU-16) and is formed by a wall of adobe fragments (SU-13) and an infill associated with it (SU-15), occupying the area between the wall and the fortifications. To build the structure, the lower stratum (SU-2) has been cut by an interface which creates a horizontal surface that could be interpreted as a floor (SU-14).

SU-2 had already been uncovered in the 2007 season. The excavation in 2008 made it possible to identify it as a level of some potential, containing fallen adobe bricks which had undoubtedly originated from the fortification of Tchinguiz Tepe (SU-16), to which the level abuts. Beneath SU-2 extend three strata which may be considered levels of abandonment (SU-3, 4 and 5). Between SU-3 and SU-4, an animal's burrow (SU-17) appears. Of very limited size, it may have contaminated SU-5 with materials originally from SU-3.

Beneath the eastern end of SU-5, a significant level of compact clays with limestone patches (SU-18) appears. It comprises the first level of the foundation of the fortification, given that SU-18 extends beneath the wall, and it is interrupted by a pit dug in it, which also interrupts the fortification. The pit contains infill from SU-3 and from another stratum that was not distinguishable from SU-18, pointing to the contamination SU-18 by levels of later chronology. The contamination of SU-18 by other agents must also be evaluated, because its upper limit was a circulation path when the fortification was still standing. The materials from the part that may have suffered contamination from higher SUs have been put in separate bags, identified and excluded from the ceramic context of SU-18.

Beneath SU-18, SU-21 has a very similar composition and nearly covers the same area. SU-21 can be differentiated from SU-18 not only by different composition, but also because a wedge of sand (SU-19) has been uncovered in the area farthest from the fortification. SU-21 rests on bedrock (SU-12) in the area nearest the fortification, but a wedge of sand can again be detected beneath it to the western end (SU-22). SU-22 is probably equivalent to SU-10, which was uncovered in the previous season. However, given the removal of the compressed clay structure beneath the level which underlies it (SU-8), the affirmation cannot be made with certainty. Beneath SU-22, a new wedge of clays can be detected, treated separately as SU-23, although its composition is identical to SU-21, which it lies beneath.

As a result, the western end of the test pit contains three SUs of sand (SU-5, 19 and 22) which are superimposed and can only be distinguished because the wedges at the outer limits of SU-18, 21 and

23 are inserted into them. The levels of sand have an identical composition and their interface cannot be differentiated. Only by excavating the complete sequence (including SU-18, 21 and 23) can the three strata be identified within the sedimentary sand pocket.

Beneath the lower levels (SU-21 and SU-23), a substrate of sandstone appears (SU-12). The substrate contains tool markings for levelling and for cutting three steps descending from the fortification. It is interpreted that the levelling and steps relate to the foundation used to build or extend the fortifying wall.

Excavation in the 2008 season: interpretation

The most recently uncovered levels correspond to the remains of a possible construction in advanced deterioration. Only adobe fragments of a wall (SU-13) have been preserved. The wall's foundation lies on an interface (SU-14), which intersects SU-2. The criteria used to date the construction are based exclusively on the level of fill (SU-15) between the wall itself and the adobe fortifications of Tchinguiz Tepe.

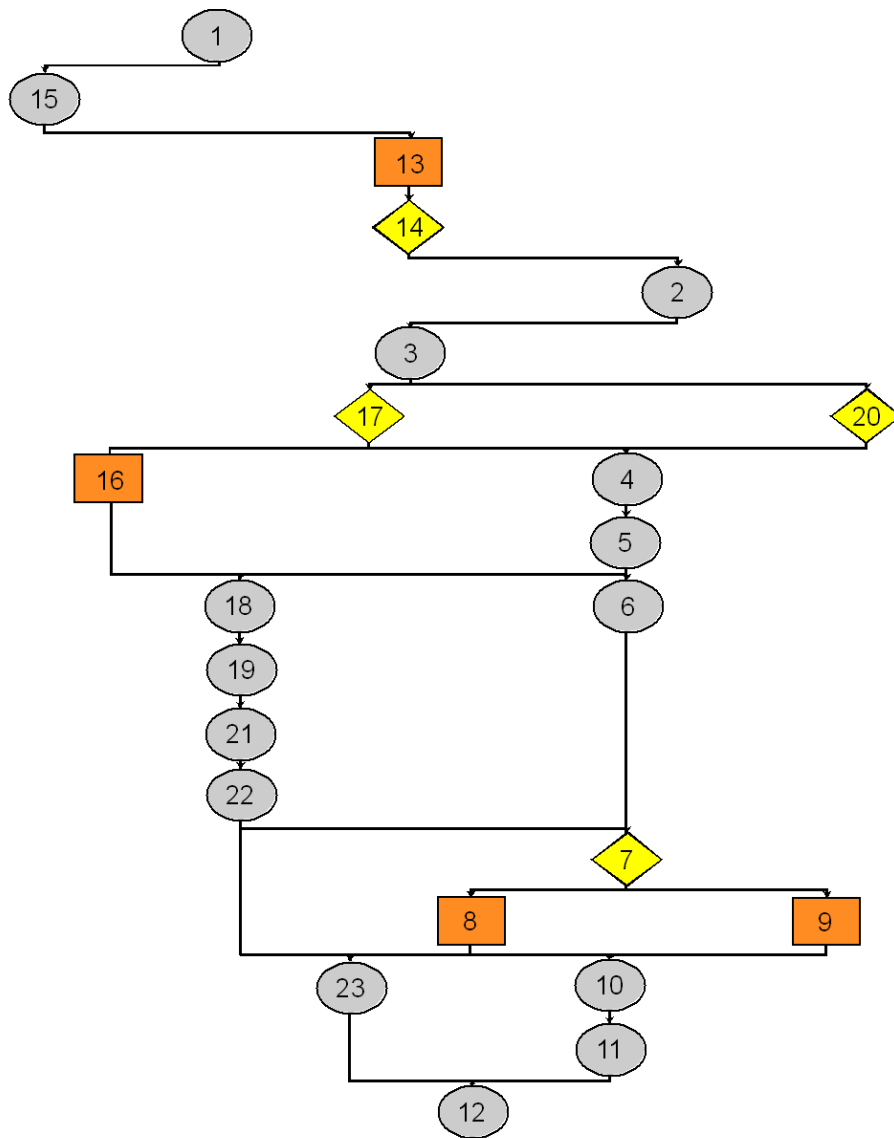
SU-15 contains only ceramics from the Kushan-Sassanian period. The most striking find is a fragment of a cut limestone base. Taken as a whole, the ceramics could be interpreted as part of a domestic dwelling built at a time when the adobe brick fortifying wall had already undergone significant collapse. This is because SU-15 lies over SU-2, which is a level of clay and adobe bricks which have fallen from their original position in the fortifications. SU-2 yielded various fragments of limestone used for architectural decoration, including a fragment of the capital of a Corinthian column or pilaster and a fragment of cornice. It is unlikely that the pieces of architectural decoration come from the fortification, which leads to the necessity of evaluating human contributions in the formation of SU-2.

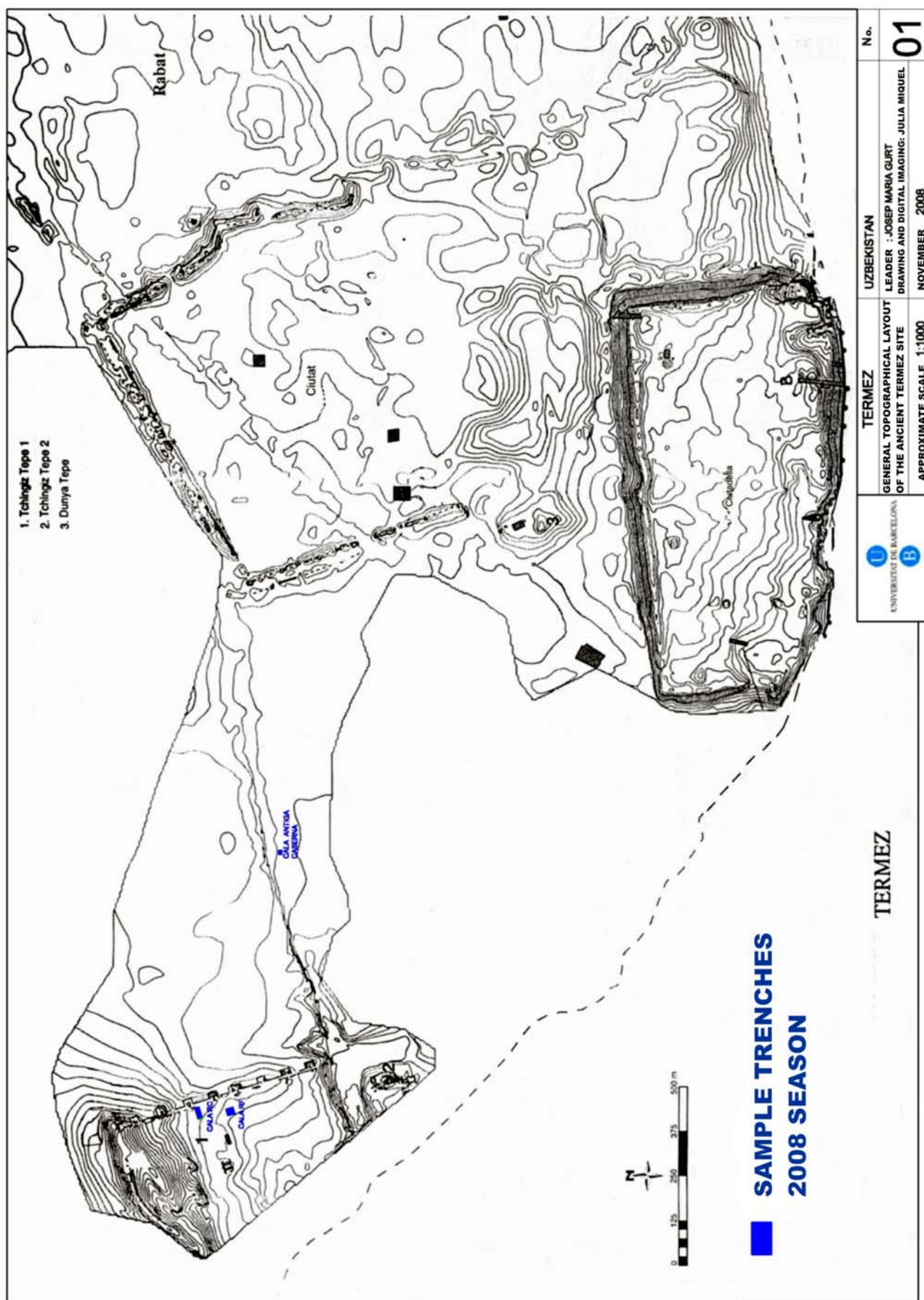
SU-3, 4 and 5 are all strata of abandonment, which differ in their processes of formation. SU-3 is formed by sand mixed with abundant ash and it contains a significant number of ceramic sherds. That supports the notion that it is a level fundamentally of human origin with household waste, although the scarce presence of bone remains (200 gr.) is surprising. SU-4 is a level of compact red clay, possibly formed by the weathering of the fortifying wall's adobe bricks. SU-5 is a level of sand formed by wind action. The presence of ceramics and remains of limestone construction elements, however, are evidence of human intervention throughout the formation of the stratum.

In light of the data from the 2008 season, some of hypotheses posed in the intervention of 2007 must be confirmed. For example, SU-8, is a compressed clay wall, but, in its eastern edge, it was reinforced with various adobe bricks.

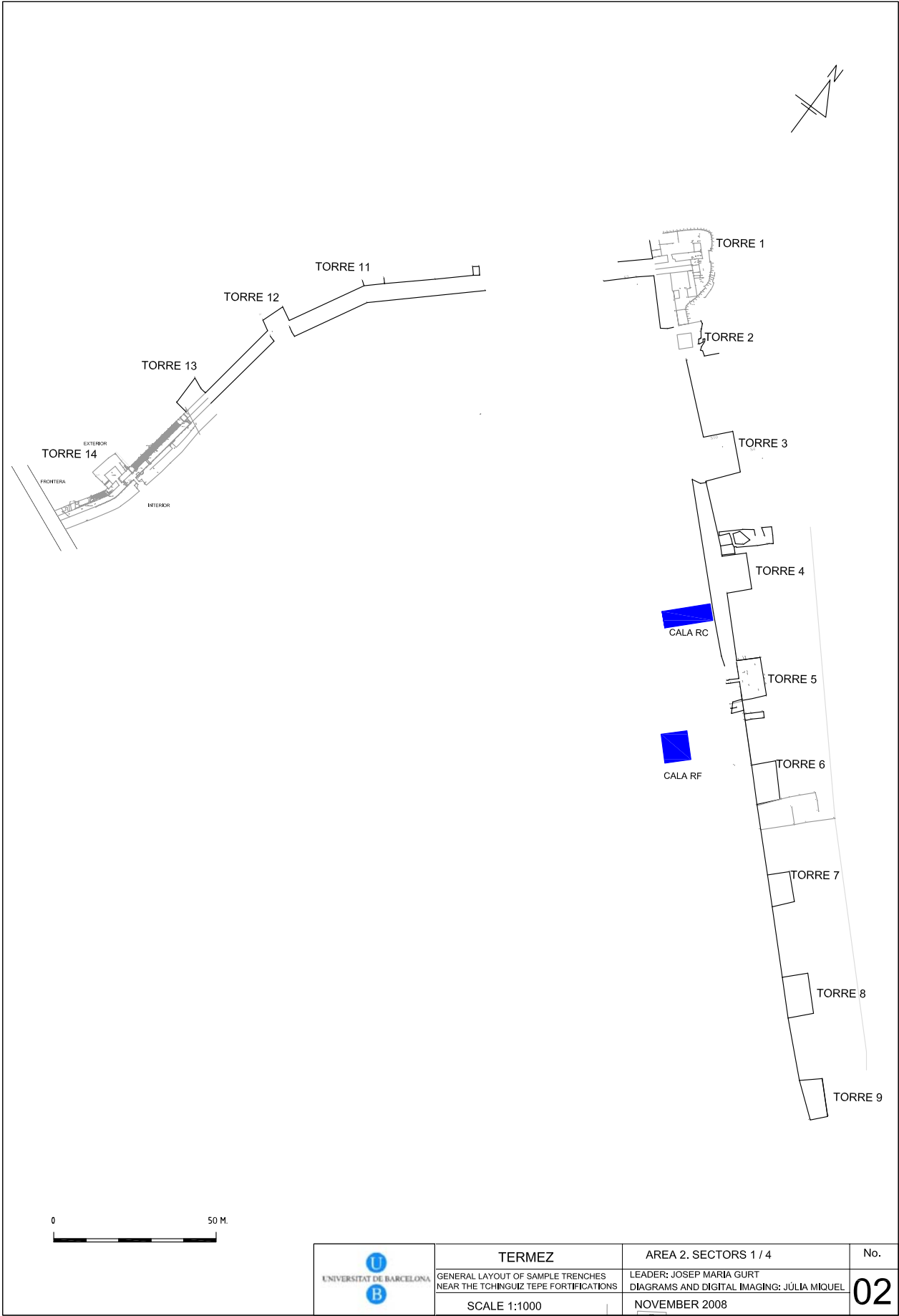
SU-18, 19, 21, 22 and 23 precede the repair of the fortification wall. As noted previously, SU-18 penetrates beneath the interior face of the fortifications and it can be interpreted as foundation. SU-19 and 22 are levels of sand that form wedges between SU-18, 21 and 23, which are levels basically of clay composition. SU-19, 21, 22 and 23 could be dated after the labours of levelling and steps in the substrate and could they could belong to the first stage of sequence, maybe related to the first fortification wall.

SU-18 has provided 14 fragments of limestone architectural pieces. Notably, some of the pieces were undoubtedly related to a monumental building of some kind: two mouldings, a fragment of a base, and particularly, a fragment of the cornice of an arch with decoration painted in red and gold leaf. Together, they indicate that monumental buildings in a state of decay existed within the interior of the Tchinguiz Tepe enclosure when the above strata were forming. That would reinforce the hypothesis of repairs being made.

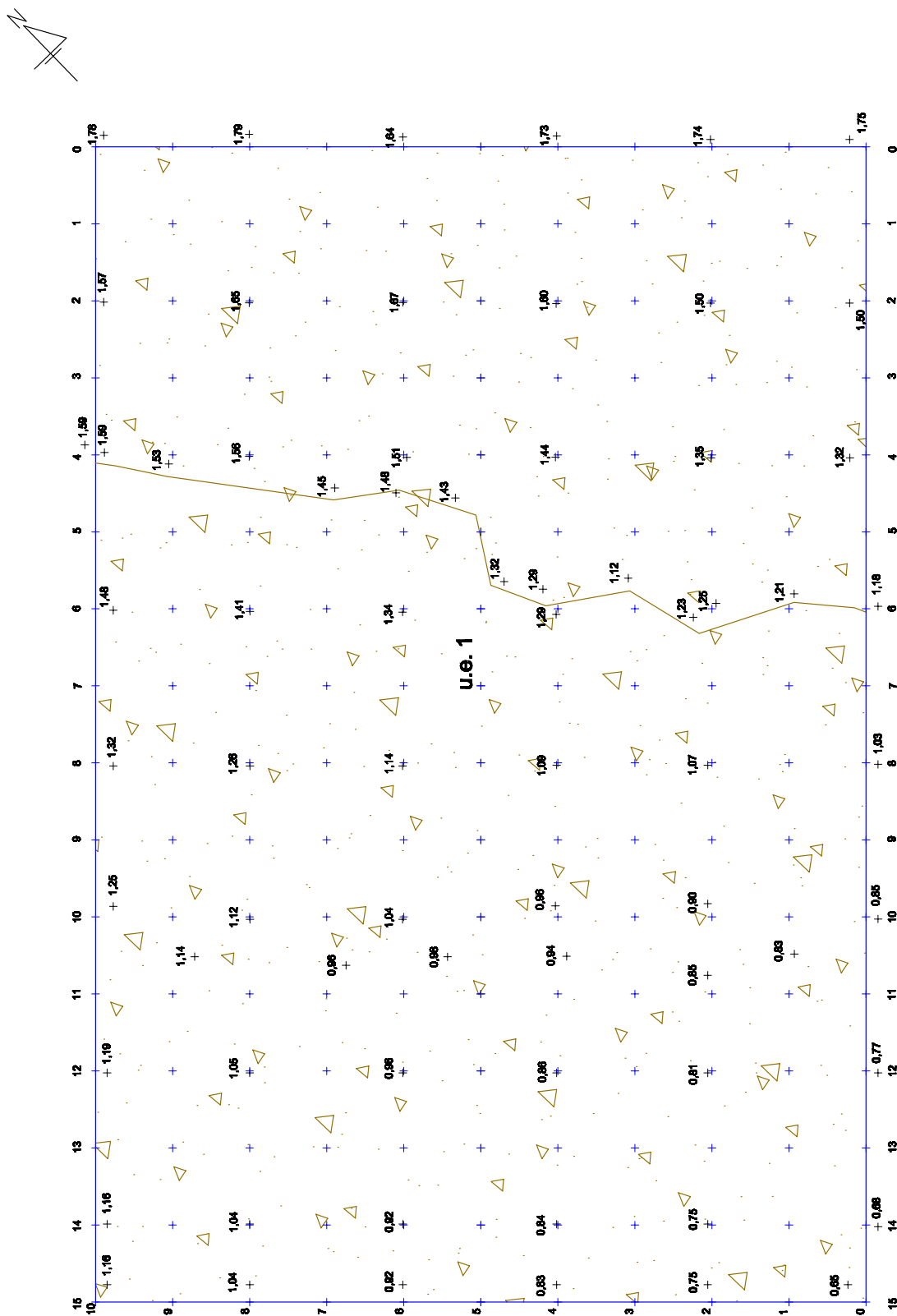





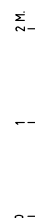
General Topographical Layout of the Ancient Termez Site



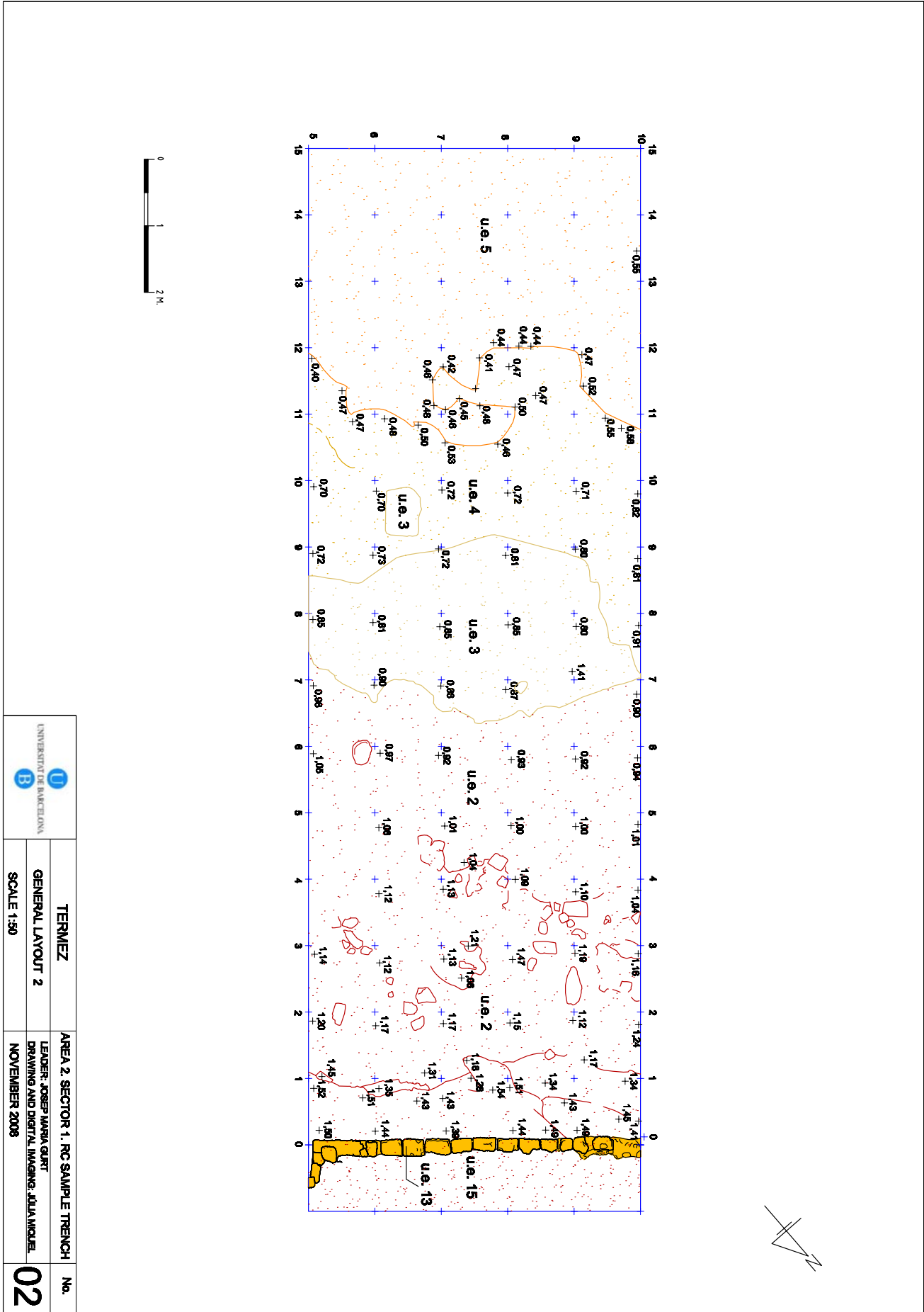
General Layout of Sample Trenches Near the Tchinguiz Tepe Fortifications



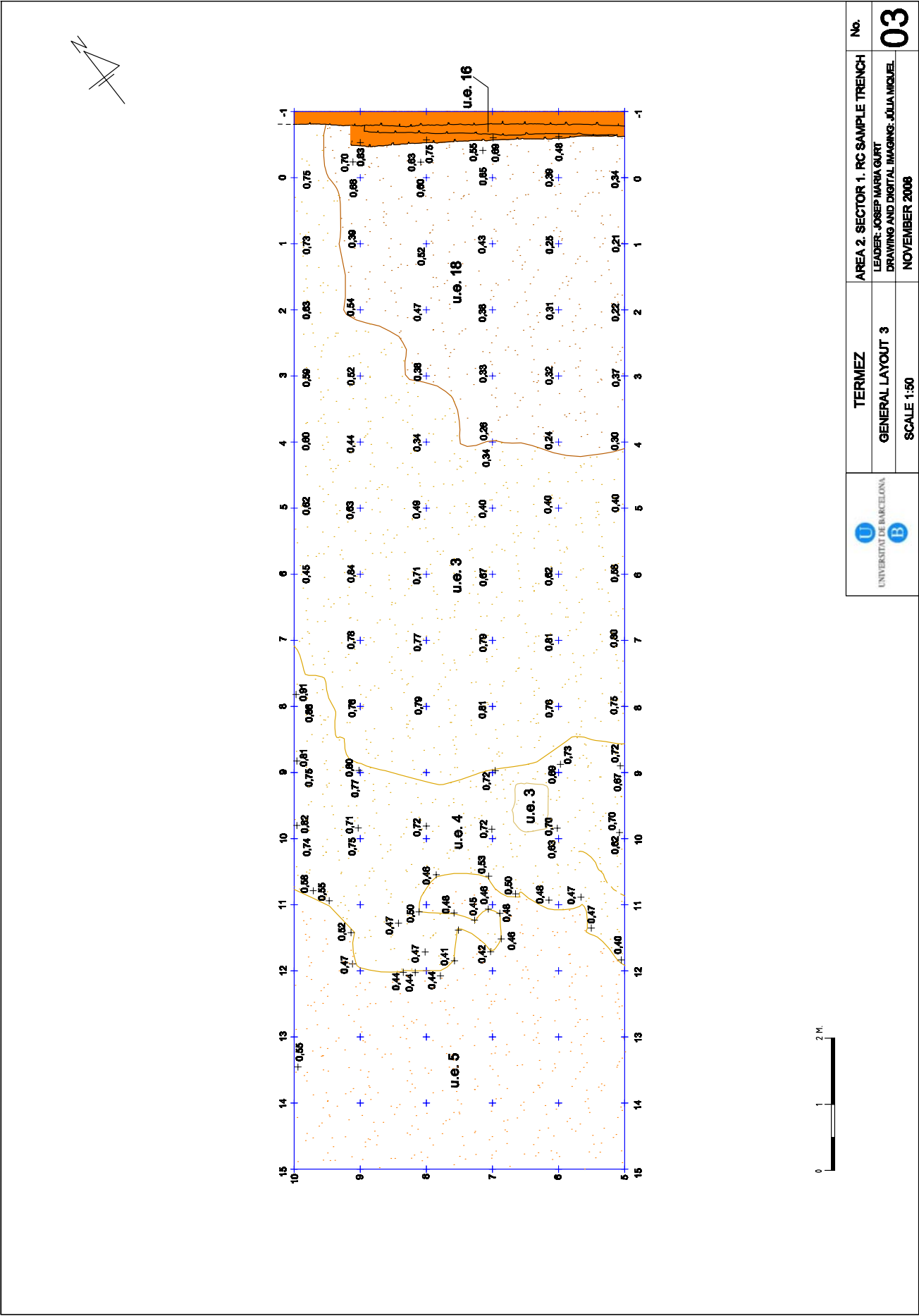
 UNIVERSITAT DE BARCELONA	TERMEZ	AREA 2. SECTOR 1. RC SAMPLE TRENCH	No. 01
	GENERAL LAYOUT 1	LEADER: JOSEP MARIA GURT DRAWING AND DIGITAL IMAGING: JÚLIA Miquel	
	SCALE 1:50	NOVEMBER 2008	




Sample Trench RC1 A3-H

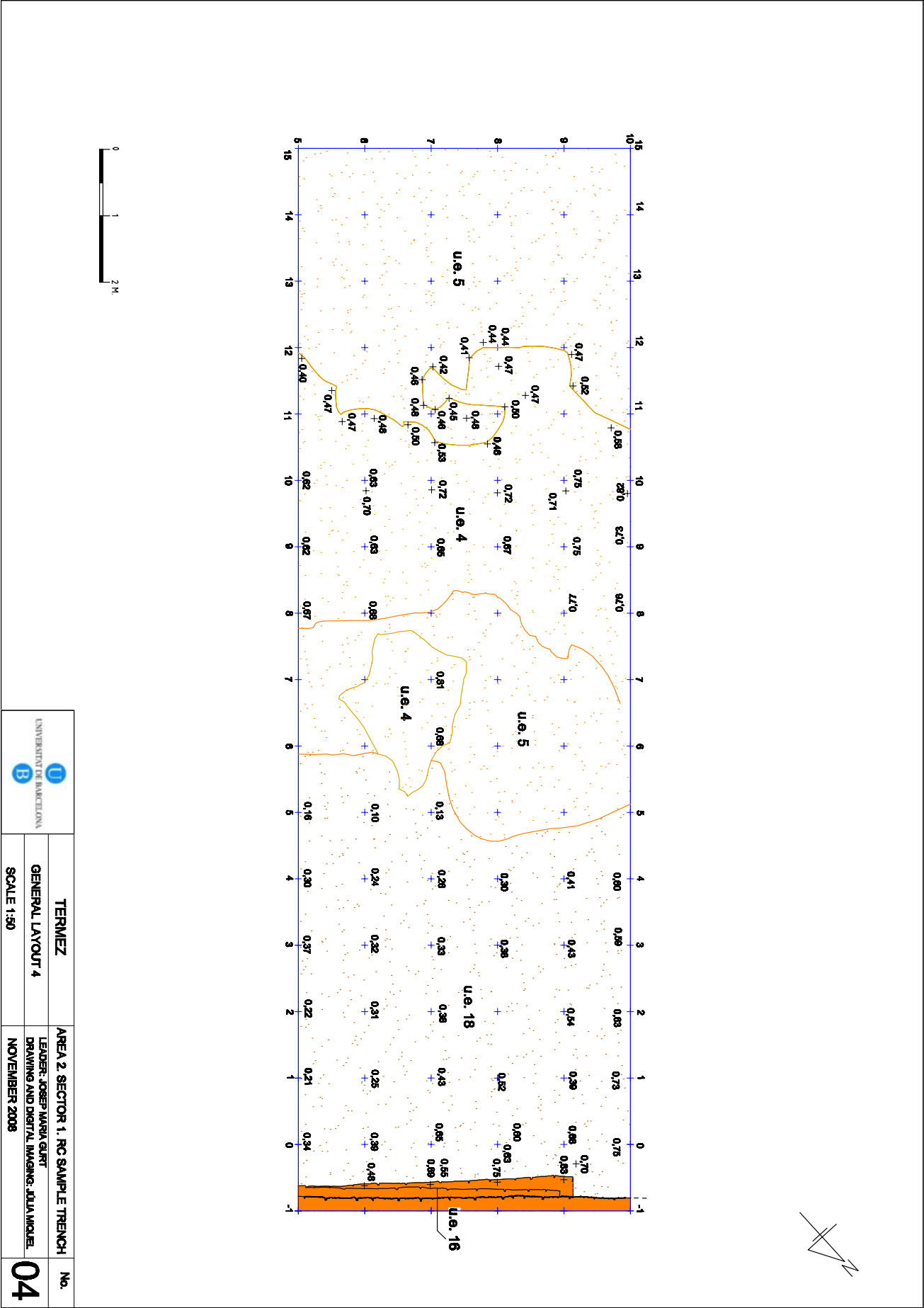


Sample Trench RC2 A3-H

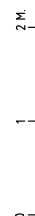
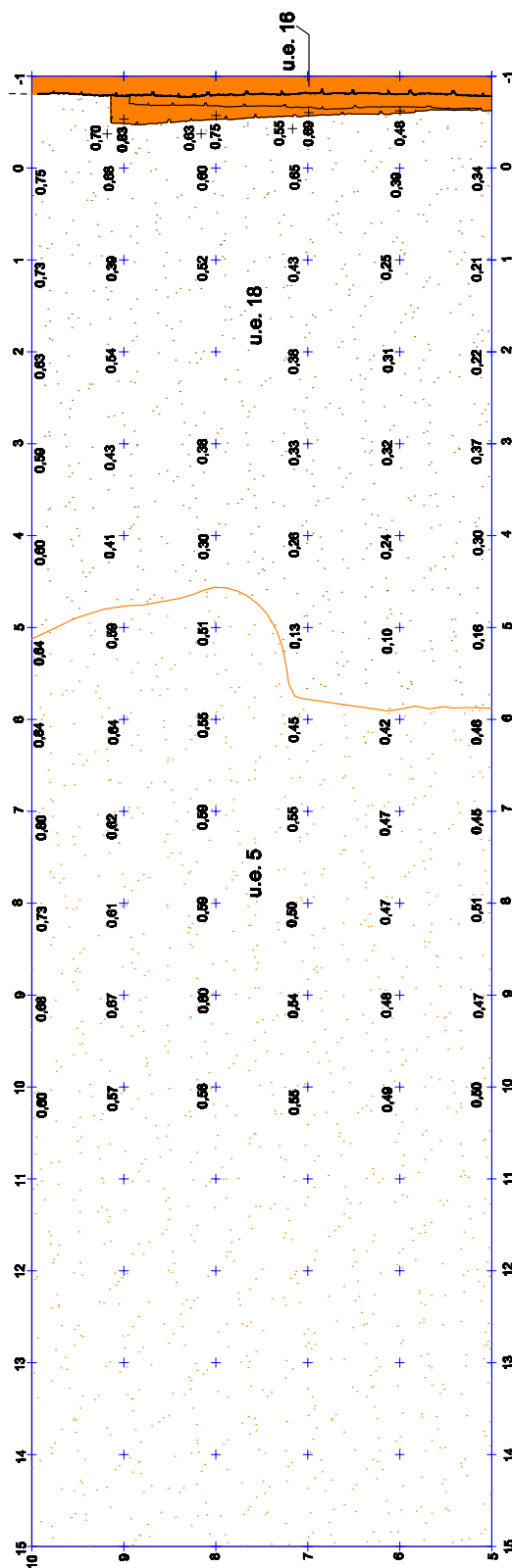



Sample Trench RC3 A3-H

	TERMEZ	AREA 2. SECTOR 1. RC SAMPLE TRENCH	No.
	GENERAL LAYOUT 3	LEADER: JOSEF MARIA GURT	03
	SCALE 1:50	DRAWING AND DIGITAL IMAGING: JULIA MIGUEL	
		NOVEMBER 2008	

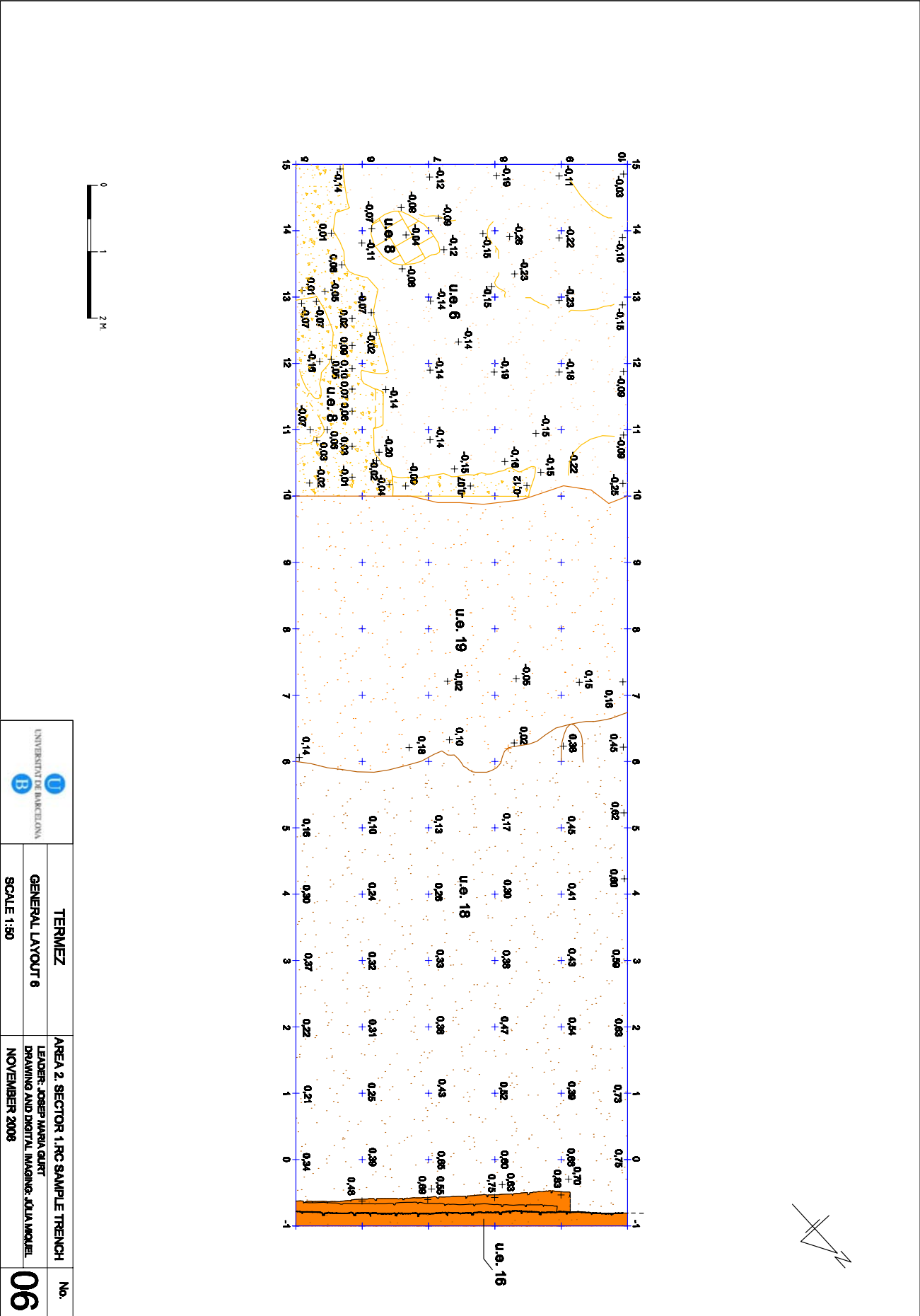


Sample Trench RC4 A3-H

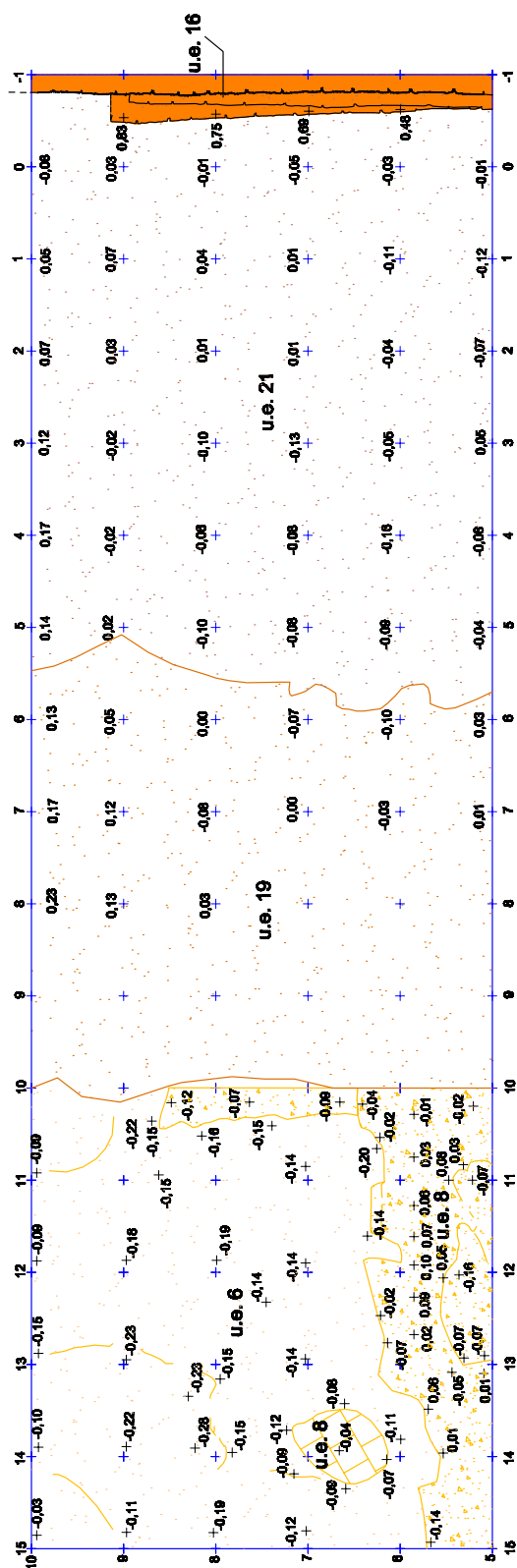



 UNIVERSITAT DE BARCELONA	TERMIEZ	AREA 2. SECTOR 1. RG SAMPLE TRENCH	No.
	GENERAL LAYOUT 5	LEADER: JOSEP MARIA GURT DRAWING AND DIGITAL IMAGING: JÚLIA MIGUEL	05
	SCALE 1:50	NOVEMBER 2008	

Sample Trench RC5 A3-H

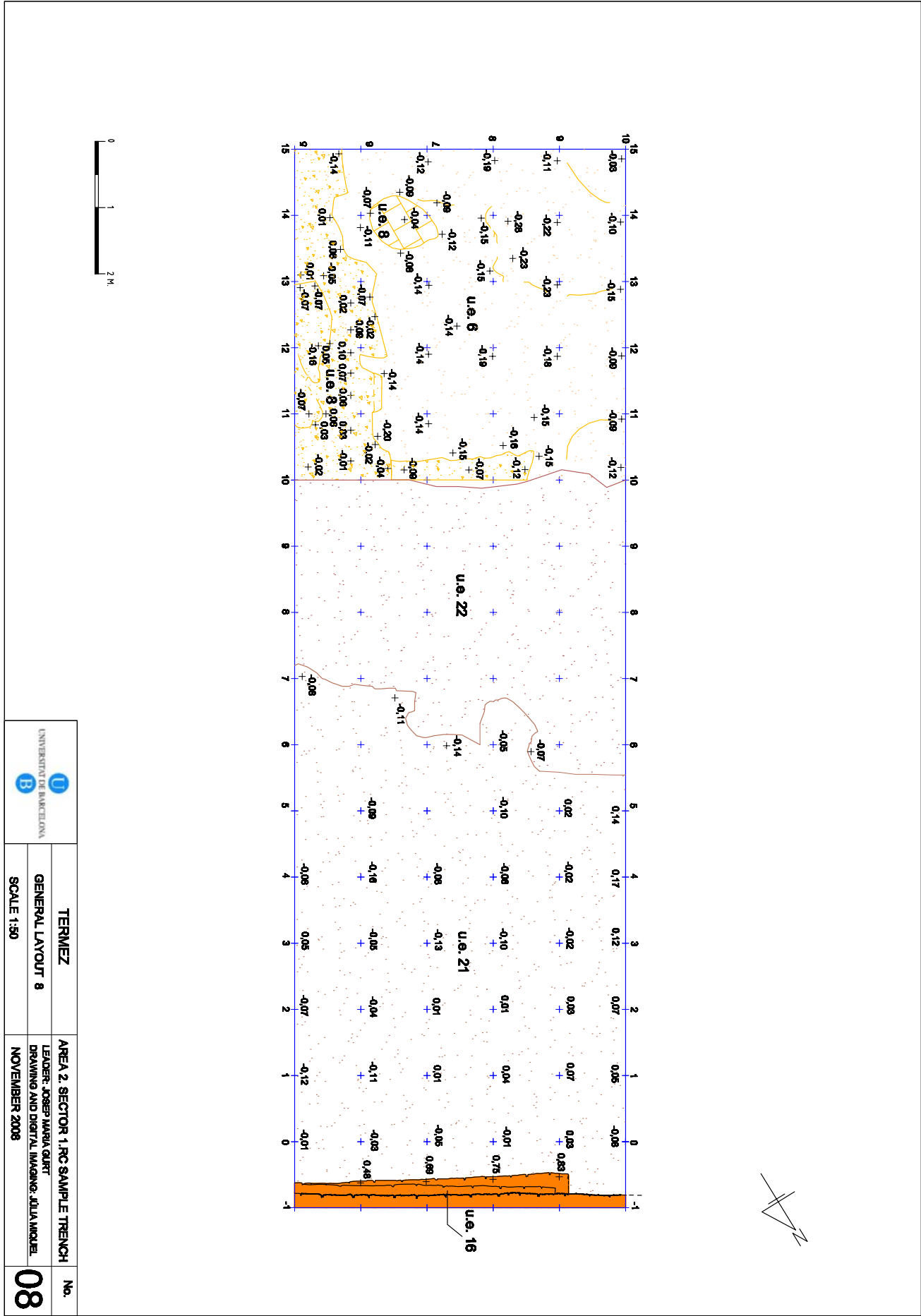


Sample Trench RC6 A3-H

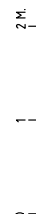



 UNIVERSITAT DE BARCELONA	TERMIEZ	AREA 2. SECTOR 1. RC SAMPLE TRENCH	No. 07 LEADER: JOSEP MARIA GURT DRAWING AND DIGITAL IMAGING: JÚLIA Miquel NOVEMBER 2008
	GENERAL LAYOUT 7		
	SCALE 1:50		

Sample Trench RC7 A3-H



Sample Trench RC8 A3-H

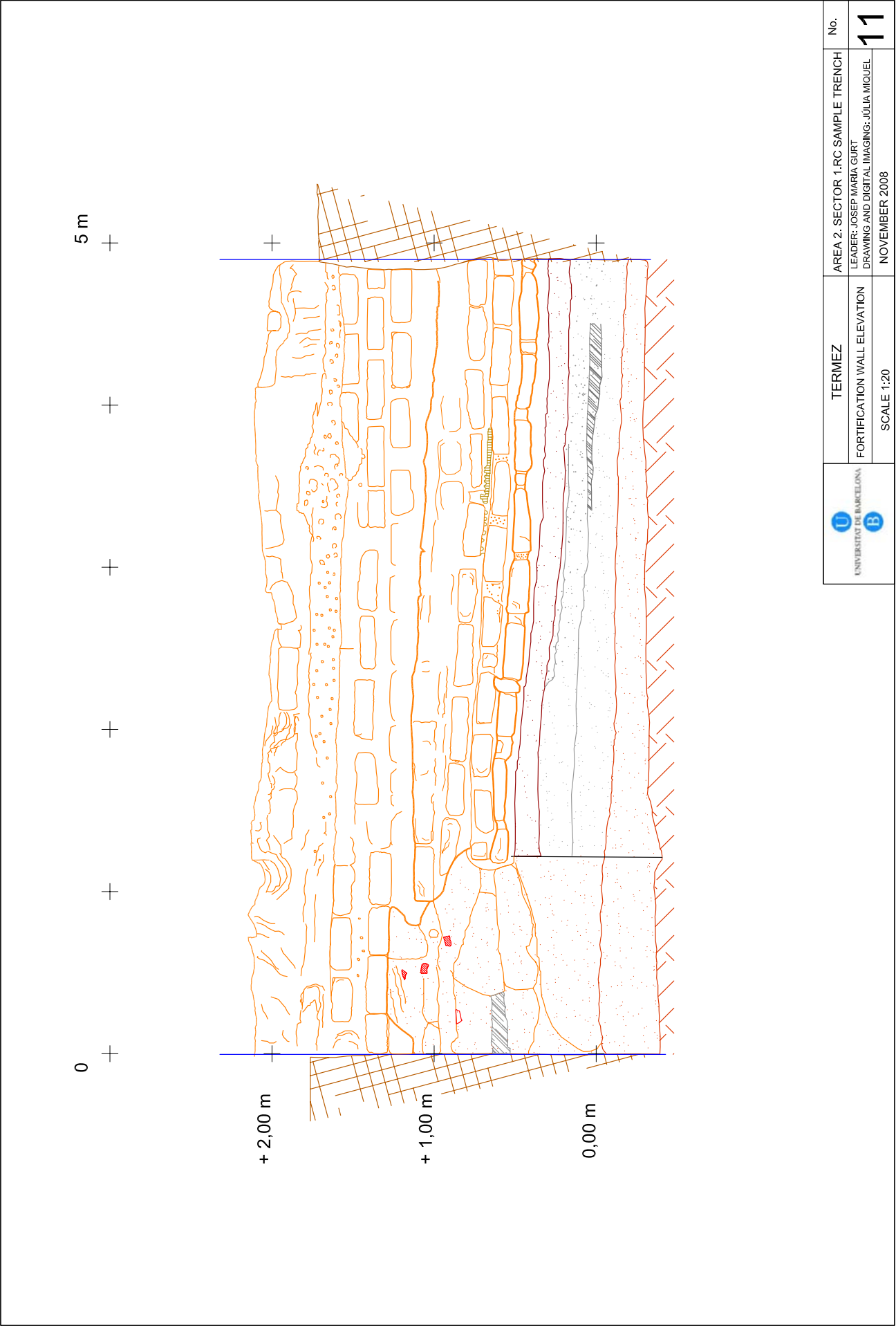


 UNIVERSITAT DE BARCELONA	TERMIEZ	AREA 2. SECTOR 1. RC SAMPLE TRENCH	No. <div style="font-size: 2em; font-weight: bold;">09</div>
	GENERAL LAYOUT 9	LEADER: JOSEP MARIA GURT DRAWING AND DIGITAL IMAGING: JÚLIA MIQUEL	
	SCALE 1:50	NOVEMBER 2008	

Sample Trench RC9 A3-H

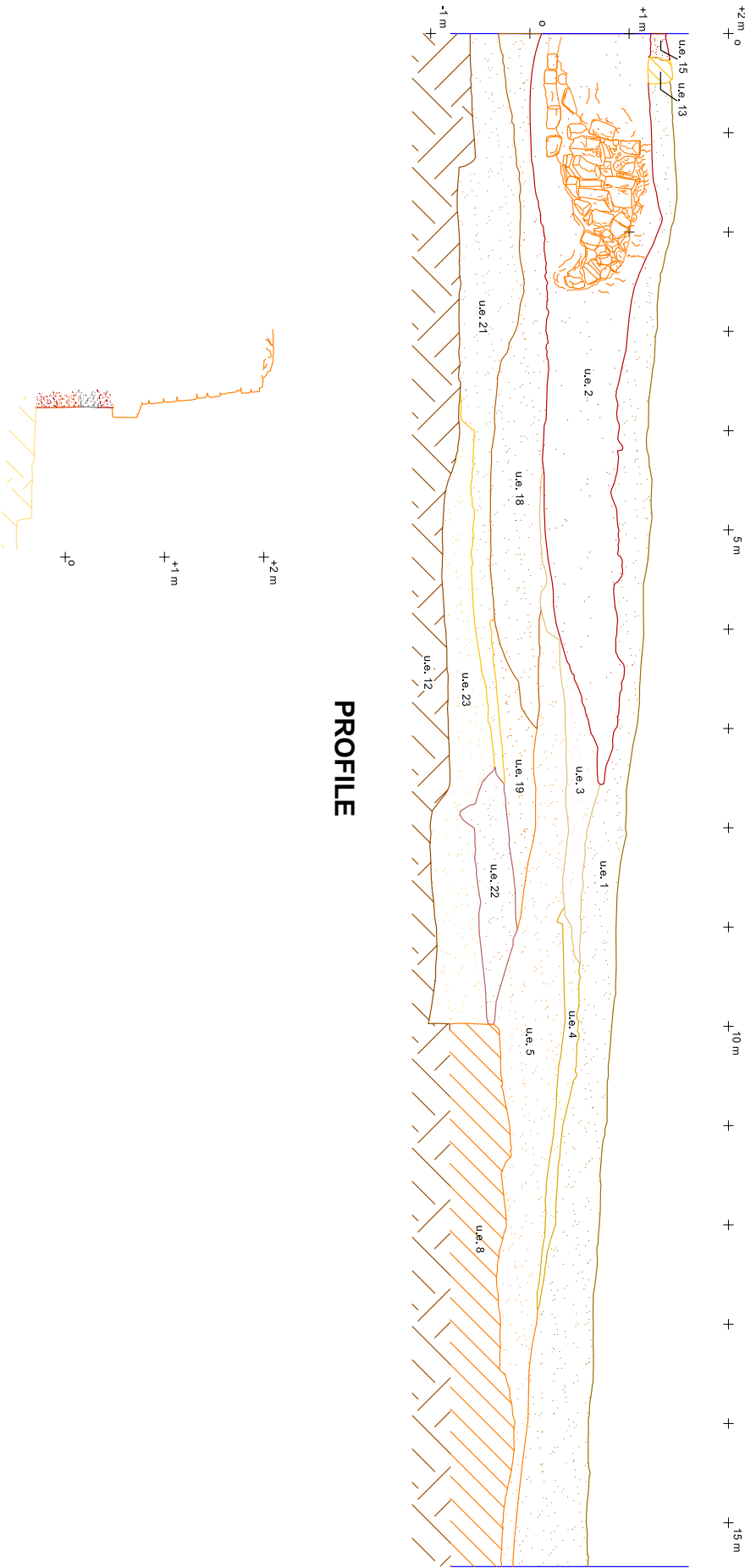
10

22



Trench RC –Fortification Wall Elevation

	TERMEZ	AREA 2. SECTOR 1.RC SAMPLE TRENCH	No.
	FORTIFICATION WALL ELEVATION	LEADER: JOSEP MARIA GURT DRAWING AND DIGITAL IMAGING: JÚLIA MIQUEL	11
	SCALE 1:20	NOVEMBER 2008	



PROFILE

SECTION FORTIED WALL

<div>UNIVERSITAT DE BARCELONA</div> <div><div>U</div><div>B</div></div>	TERMIEZ		No.
	LONGITUDINAL PROFILE OF		
	SOUTHWEST WALL SECTION		
	SCALE 1:40		
	AREA 2. SECTOR 1, RC SAMPLE TRENCH		12
	LEADER: JOSEP MARI GURT		
	DRAWING AND DIGITAL IMAGING: JULIA MOUËL		
	NOVEMBER, 2008		

Sample Trench RC Profile - A3-H





RC - SU 1

Definition: Vegetation layer. Current ground level.

Interpretation: Current ground, 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.

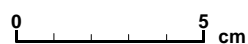
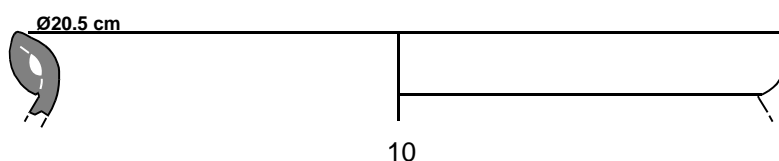
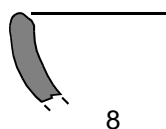
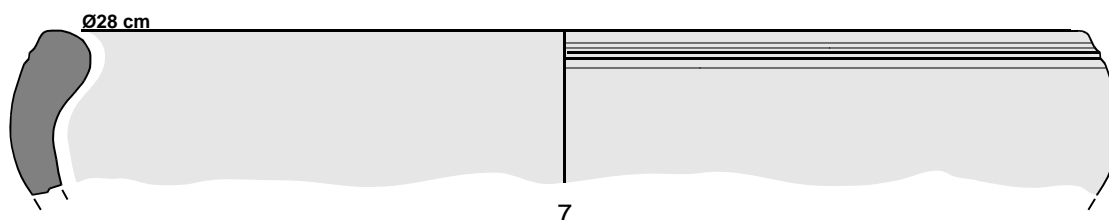
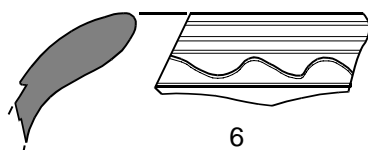
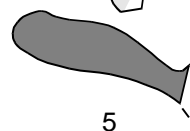
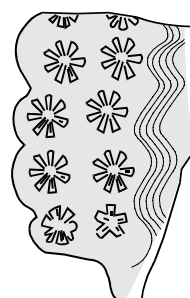
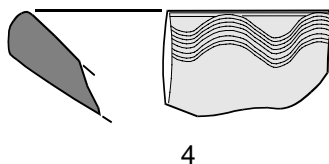
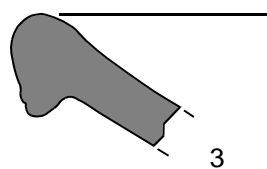
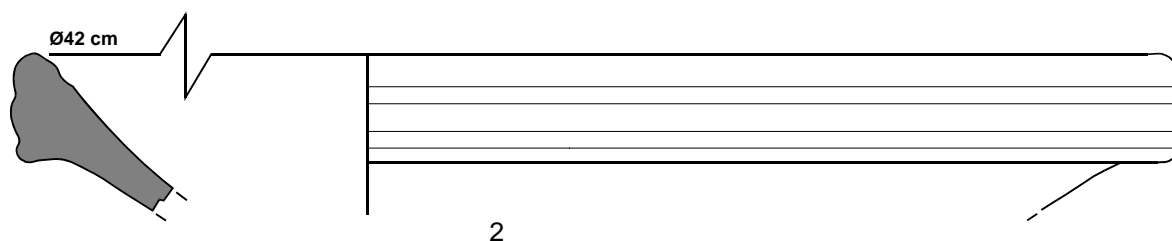
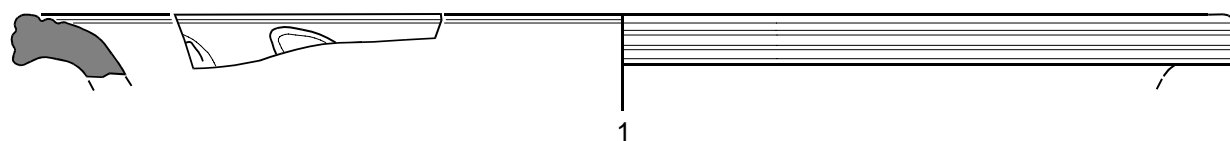
Observations: Wind-borne sand of brown-grey colour. Surface is covered by a hard crust featuring small pebbles (less than 5 cm in size) and it extends into grids E-O / 6-10. Containing pottery.

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

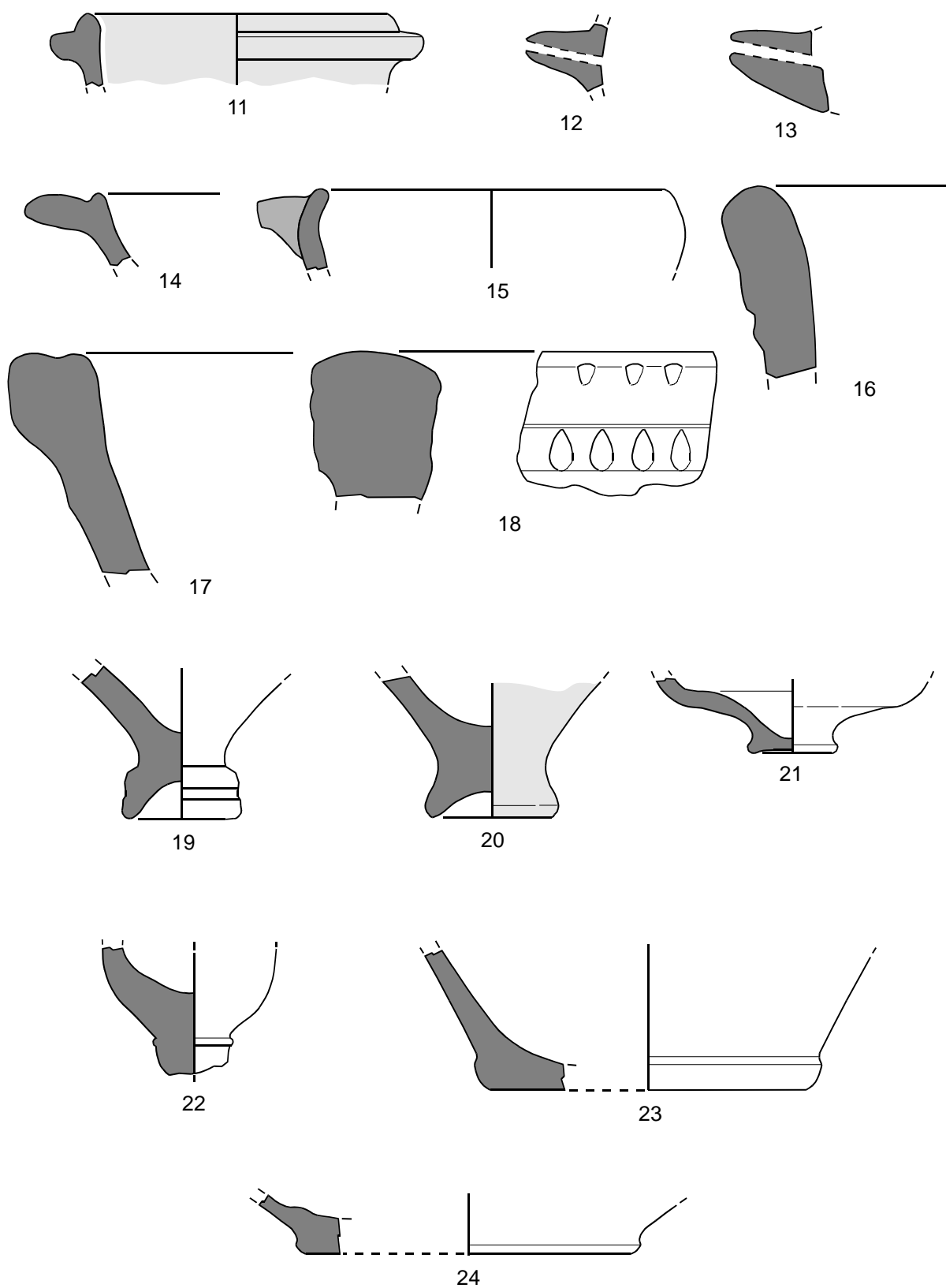
Archaeologist: E. Ariño

<i>Composition</i>	Sand. On top, crust with river pebbles
<i>Formation</i>	Caused by wind
<i>Potential</i>	15-65 cm
<i>Covering (Stratum)</i>	2-4-5-15-3
<i>Covering (Structure)</i>	13
<i>Covering (Negative)</i>	14
<i>Leaning on (Structure)</i>	16

RC- SU 1



RC- SU 1



0 5 cm

RC - SU 2

Definition: Level of fallen adobe bricks

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

Observations: Adobe wall fragments in a clay matrix. In the immediate area of the wall, the adobe bricks appear whole and in a fallen position. Four complete adobe bricks were recovered (one of them with a letter), and several more can be seen on the southern edge. The stratum retains considerable humidity and it can be removed easily, but it gets firmer upon drying. Yielded several fragments of limestone used for architectural decoration, including a fragment of the capital of a Corinthian column or pilaster and a fragment of cornice. Containing pottery.

Material: Slip ware: 429 frags.
Common ware: 619 frags.
Cooking ware: 49 frag.
Sewage channel: 10 frags.
Stone construction elements: 7 frags. (1 shapeless piece, 4 carved pieces, 1 fragment of cornice, 1 fragment of a capital of a Corinthian column or pilaster)
Bone: (0,800 kg)

Archaeologist: E. Ariño

<i>Composition</i>	Adobe fragments in a clay matrix
<i>Formation</i>	Natural agents. Wind erosion
<i>Potential</i>	
<i>Supporting (Structure)</i>	13
<i>Intersected by (Negative)</i>	14
<i>Covered by (Stratum)</i>	15-1
<i>Covering (Stratum)</i>	3
<i>Leaning on (Structure)</i>	16
<i>Covering (Negative)</i>	20

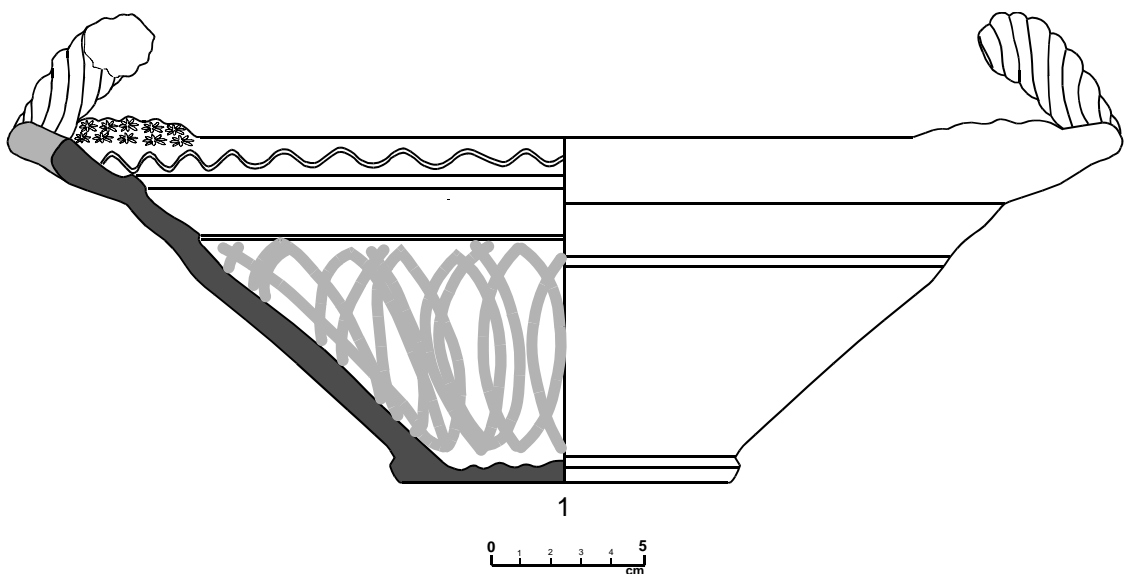
RC - SU 2



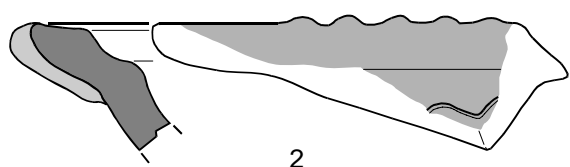
RC - SU 2



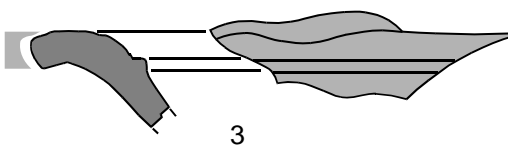
RC - SU 2



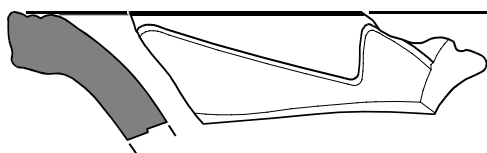
RC- SU 2



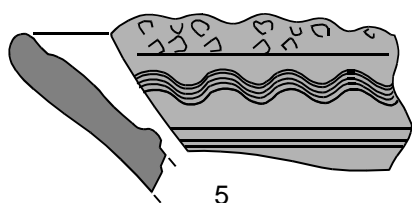
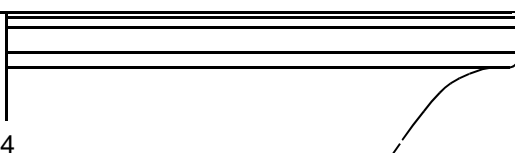
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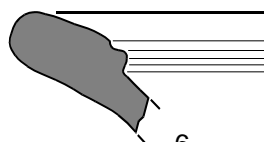
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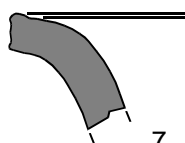
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5



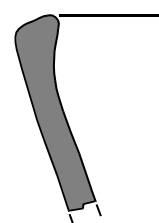
6



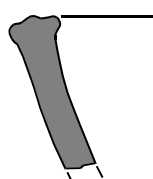
7



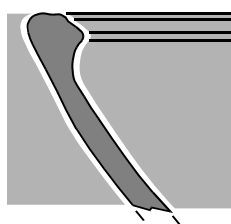
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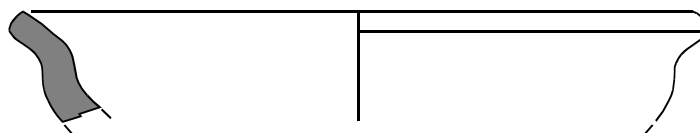
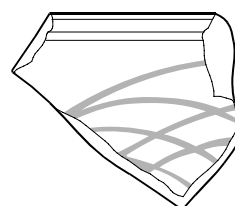
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10



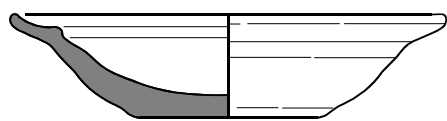
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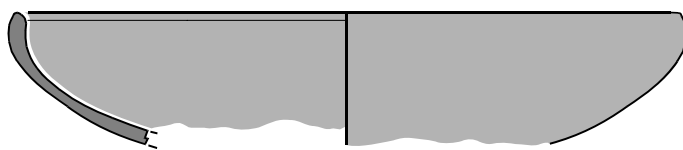
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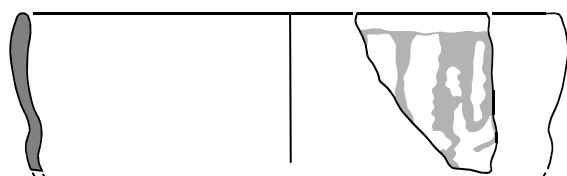
RC- SU 2



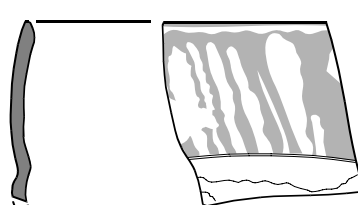
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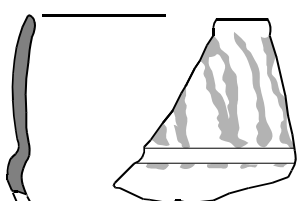
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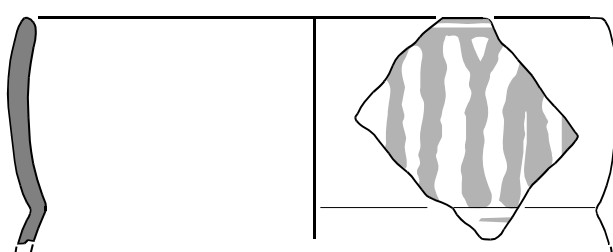
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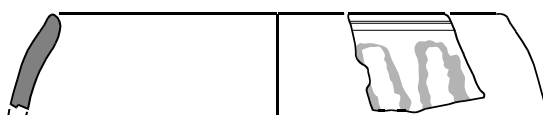
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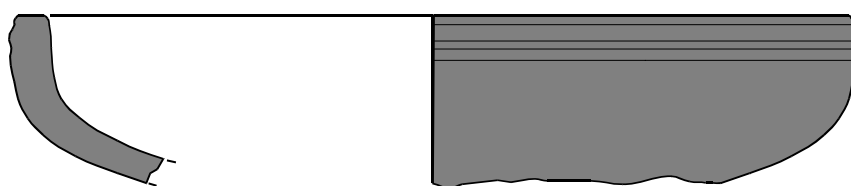
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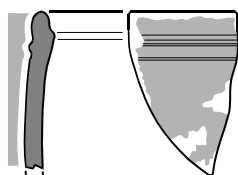
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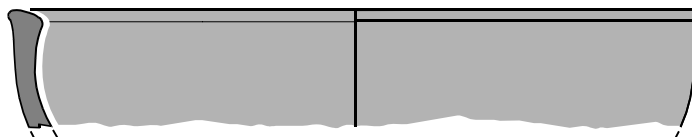
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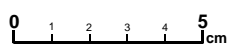
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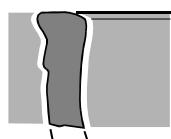
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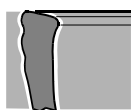
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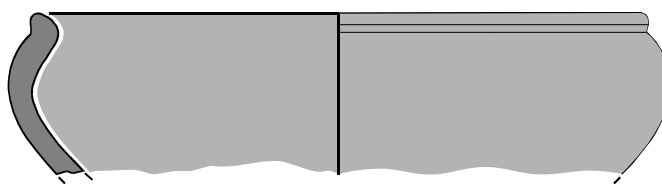
RC- SU 2



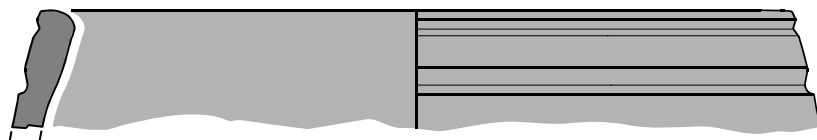
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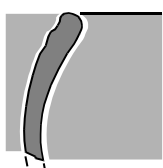
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25



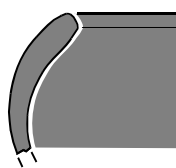
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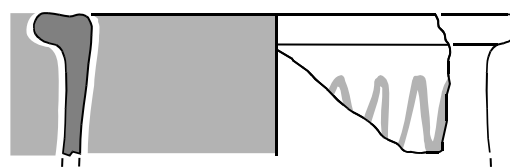
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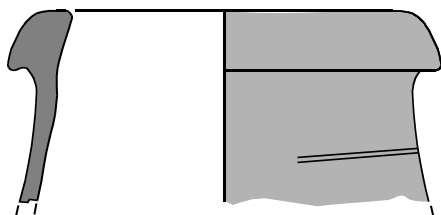
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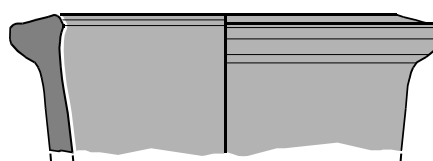
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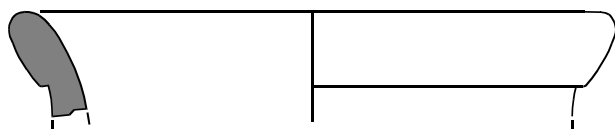
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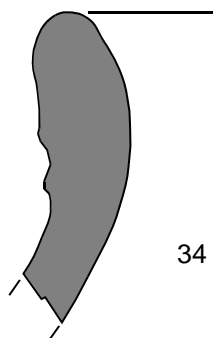
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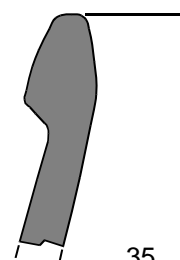
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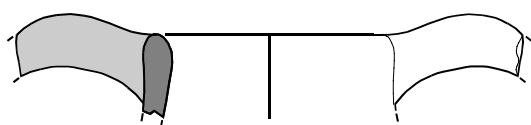
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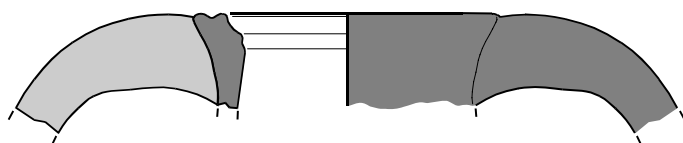
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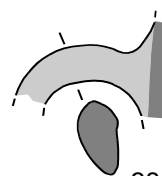
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36



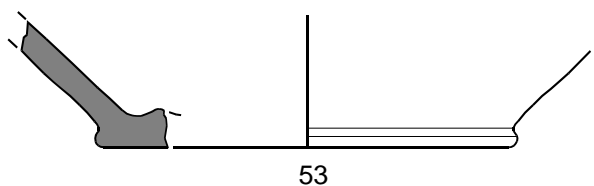
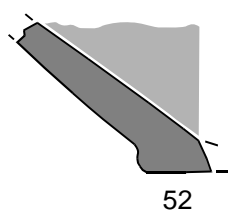
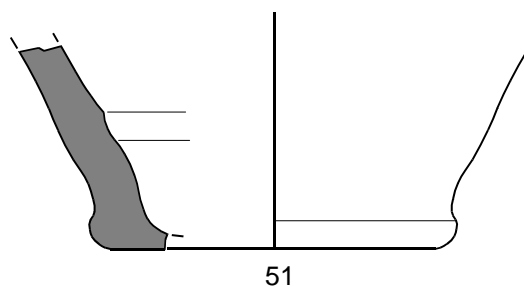
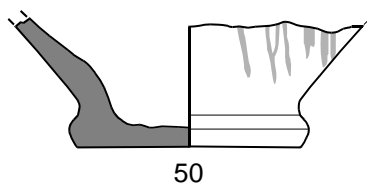
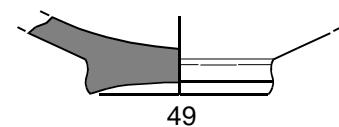
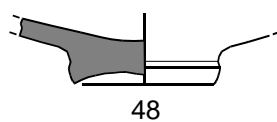
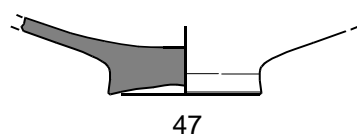
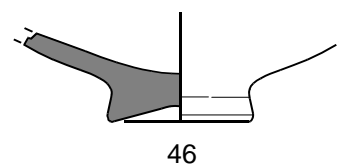
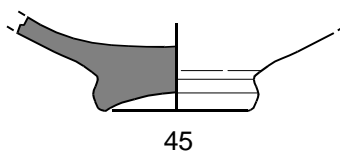
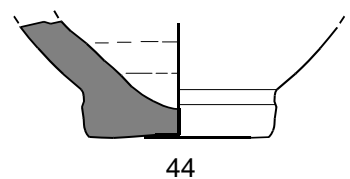
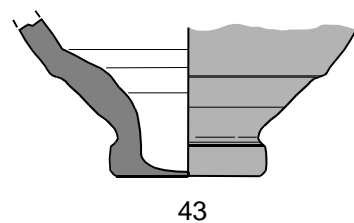
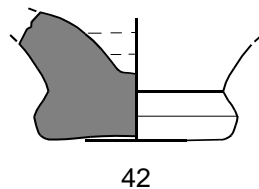
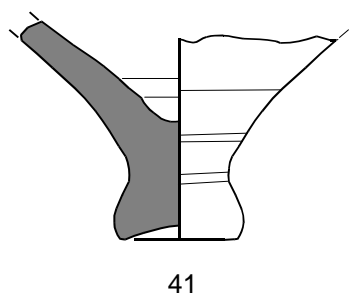
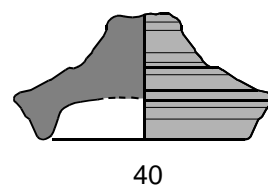
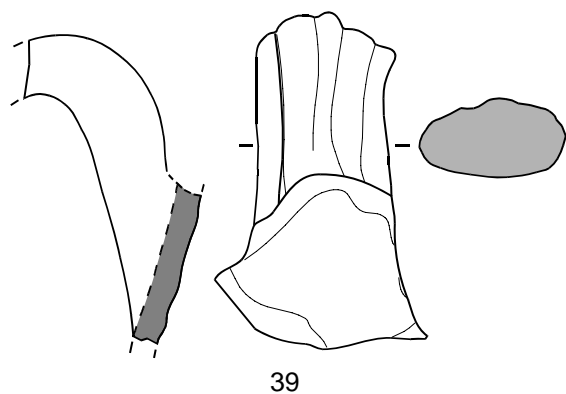
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38

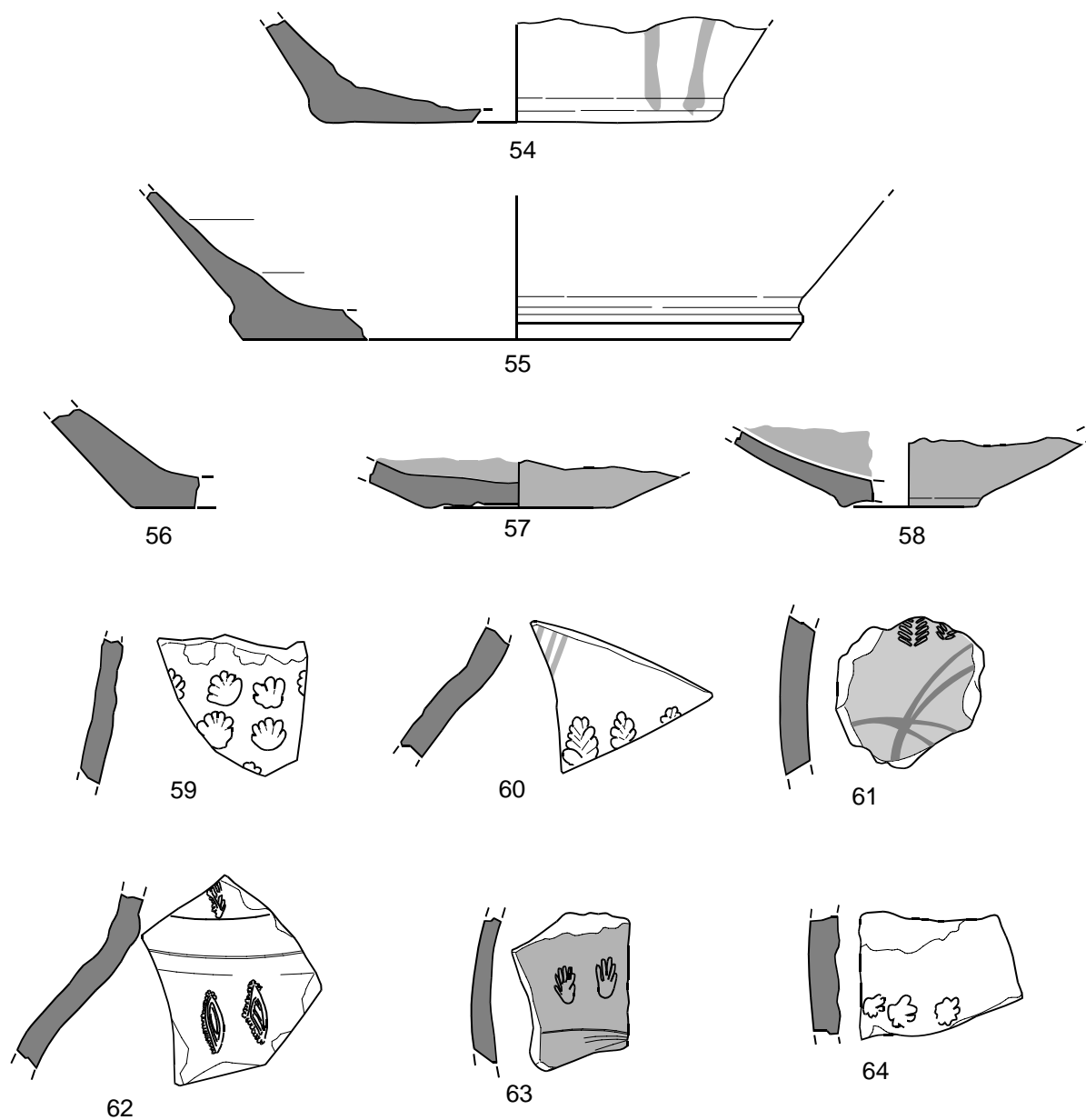


RC- SU 2

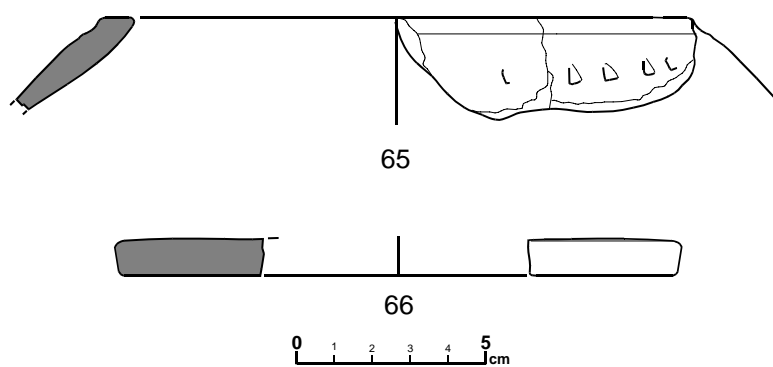


0 1 2 3 4 5 cm

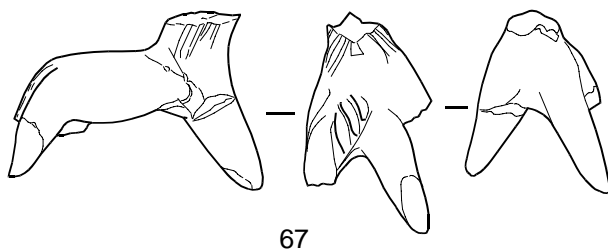
RC- SU 2



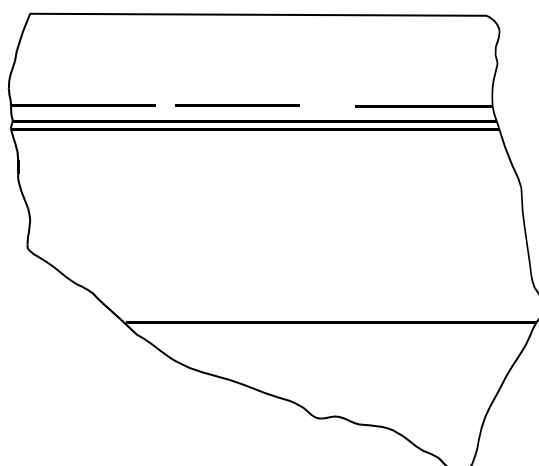
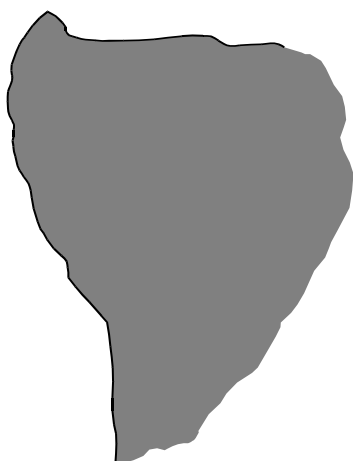
Cooking ware



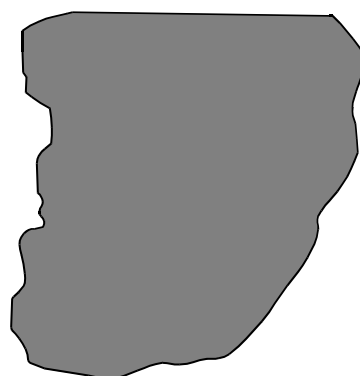
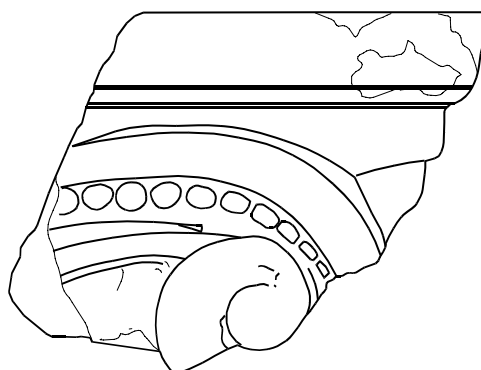
RC- SU 2



67



68



69



RC - SU 3

Definition: Level of ash in a sand matrix.

Interpretation: Level of human origin caused by intentional dumping of household waste. Disturbed by an animal's burrow (SU-17).

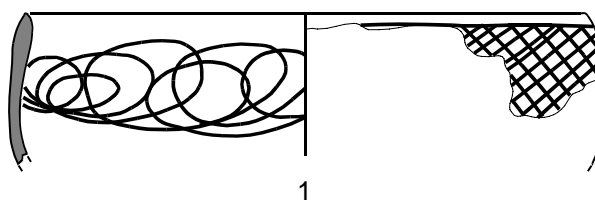
Observations: Ash and isolated fragments of coal in a sand matrix. Contains abundant pottery. SU-3, SU-4 and SU-5 could be considered a single stratum as any appreciable differences appear to be variations within a single sequence.

Material: Slip ware: 190 frags.
Common ware: 193 frags.
Cooking ware: 65 frag.
Bone: (0,200 kg)

Archaeologist: E. Ariño

<i>Composition</i>	Ash in a sand matrix
<i>Formation</i>	Human origin. Household rubbish
<i>Potential</i>	1-30 cm
<i>Covered by (Stratum)</i>	2-1
<i>Leaning on (Structure)</i>	16
<i>It is refilling (Negative)</i>	17-20
<i>Covering (Stratum)</i>	18-4-5

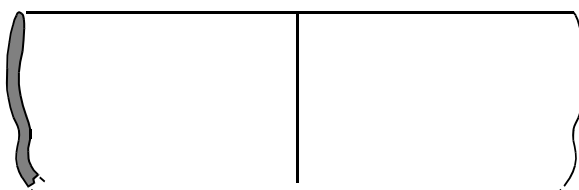
RC- SU 3



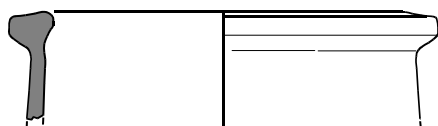
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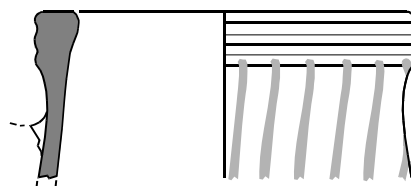
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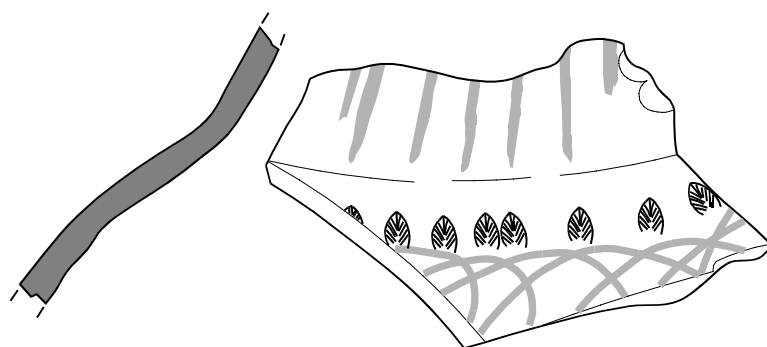
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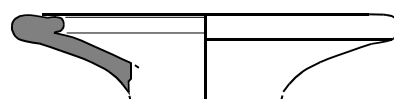
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5



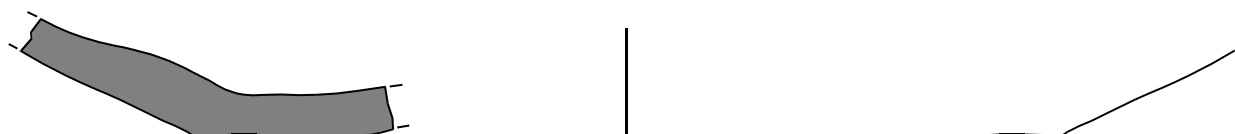
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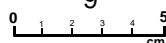
7



8



9



RC - SU 4

Definition: Level of compact red clay

Interpretation:

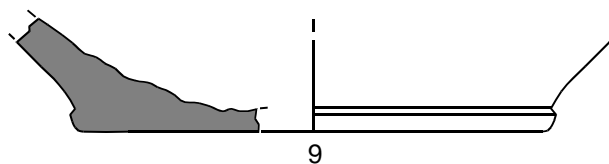
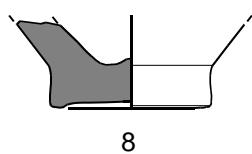
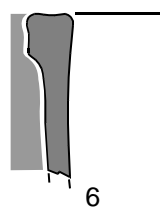
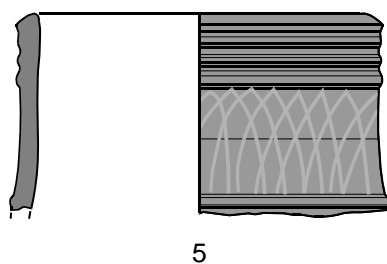
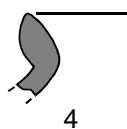
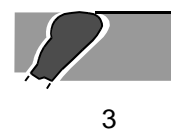
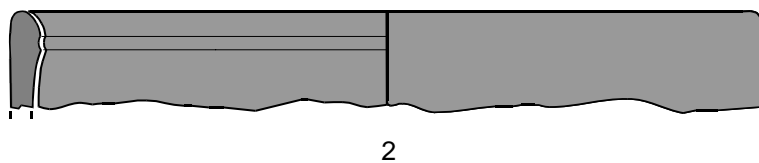
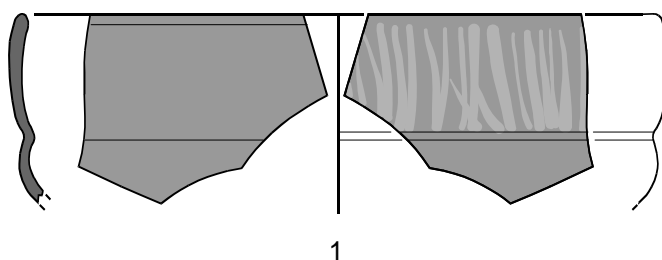
Observations: Compact red clay. Possible weathering of adobe bricks. Containing pottery. SU-3, SU-4 and SU-5 could be considered a single stratum as any appreciable differences appear to be variations within a single sequence.

Material:
 Slip ware: 164 frags.
 Common ware: 193 frags.
 Cooking ware: 38 frag.
 Sewage channel: 1 frag.
 Bone: (0,95 kg)

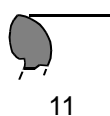
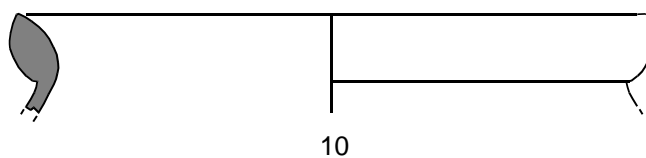
Archaeologist: E. Ariño

<i>Composition</i>	Compact red clay
<i>Formation</i>	Possible weathering of adobe bricks
<i>Potential</i>	c. 20 cm
<i>Covered by (Stratum)</i>	1-3
<i>Intersected by (Negative)</i>	17
<i>Covering (Stratum)</i>	5

RC- SU 4



Cooking ware



RC - SU 5

Definition: Level of sand

Interpretation: Level of sand deposited by wind action. Ongoing wind action depositing sediments taken from a single source hampers differentiation between SU-5 and SU-19. SU-5 could be considered a eolic stratum. Yielding no human content with the exception of pottery fragments, probably arising from locations of frequent use at the time of the deposit's formation.

Observations: Level of sand, brown-grey colour, loose. Containing pottery. Yielded 24 fragments of brick and a fragment of limestone used in architectural decoration. SU-3, SU-4 and SU-5 could be considered a single stratum as any appreciable differences appear to be variations within a single sequence. The level extends beneath SU-3 and 4 and above SU-18, but another level (SU-19) is found beneath it with the same composition, penetrating beneath SU-18 and making it impossible to differentiate between SU-5 and SU-19 when the sequence does not appear in its entirety. The only difference is the scarce presence of pottery in SU-19.

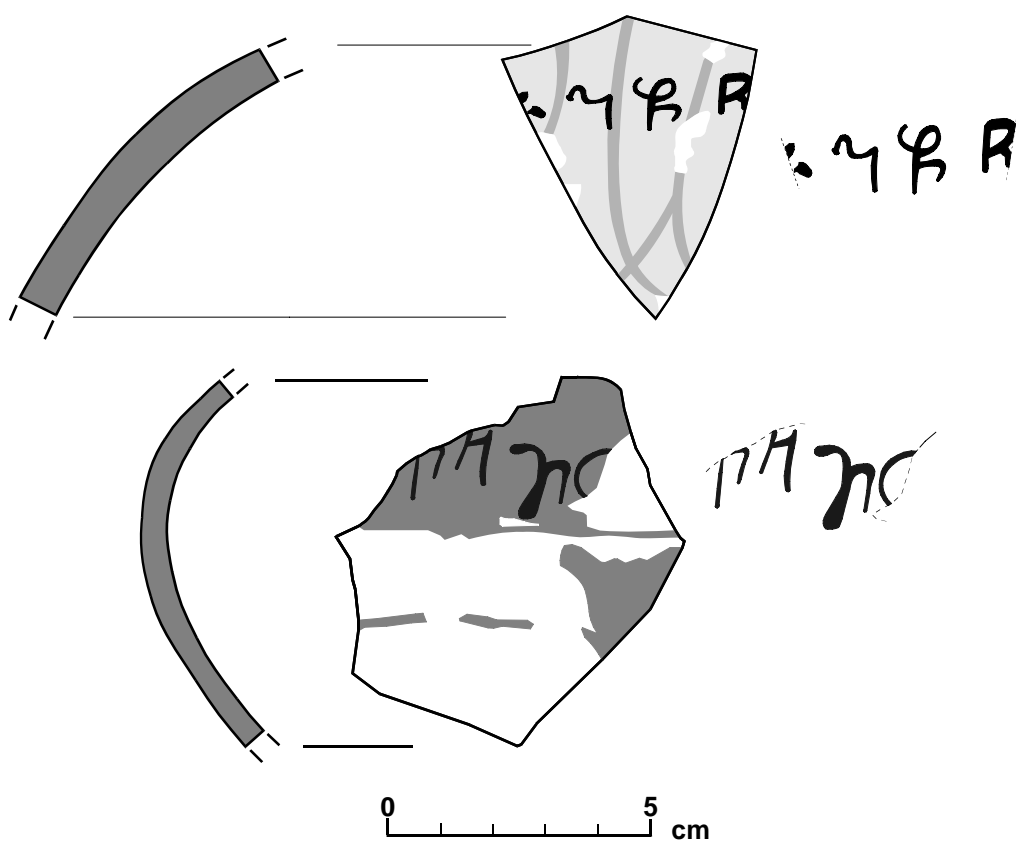
Material: Slip ware: 615 frags.
Common ware: 620 frags.
Cooking ware: 108 frag.
Ceramic architectural covering: 85 frags.
Construction elements: 2 frags.
Common ware tokens: 5
Bone: (2,600 kg)
Stone construction elements: 1 carved fragment

Archaeologist: E. Ariño

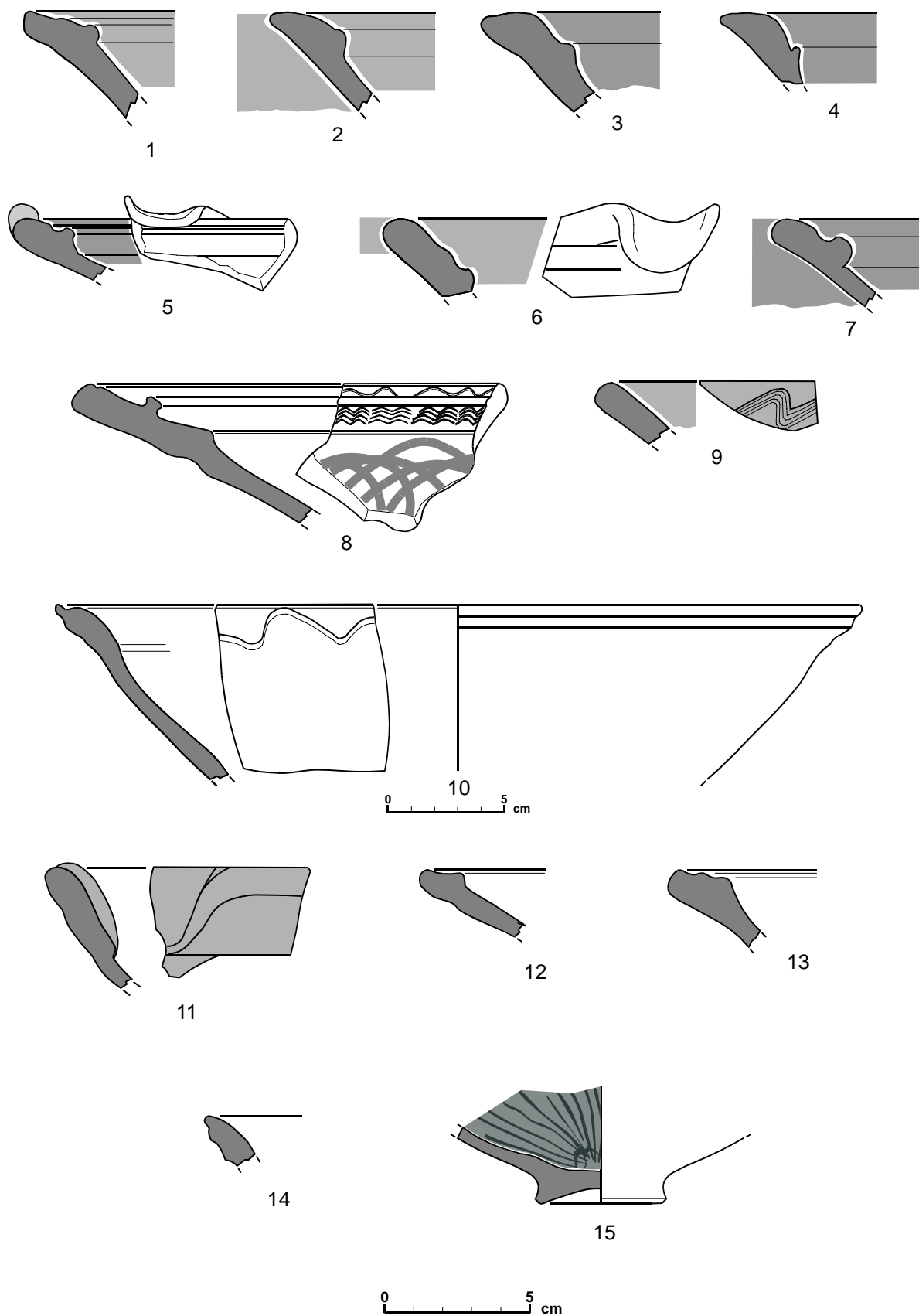
Composition	Sand
Formation	Deposited by wind
Potential	2-70 cm
Covered by (Stratum)	1-3-4
Covering (Stratum)	18-19-6



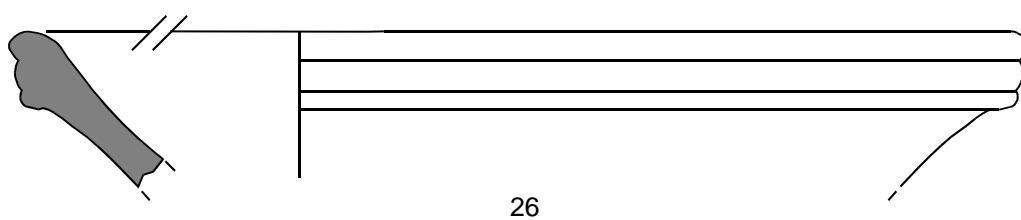
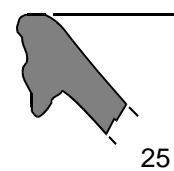
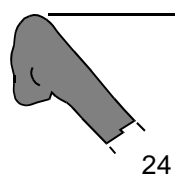
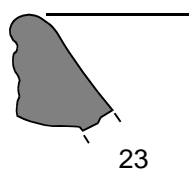
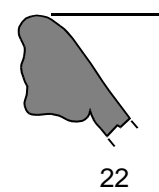
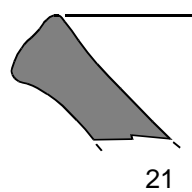
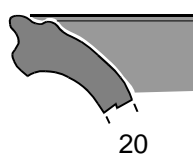
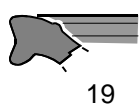
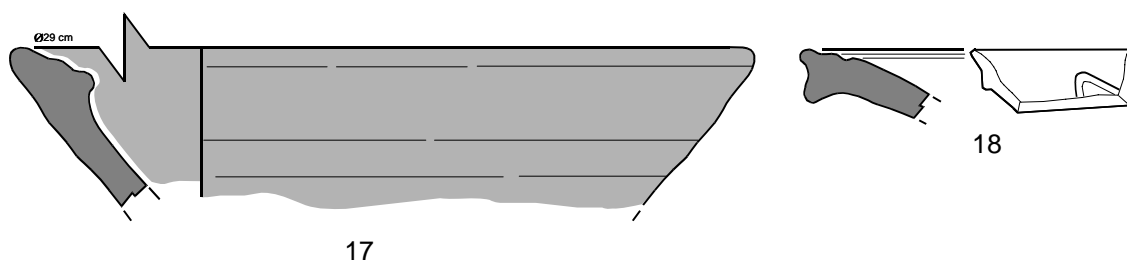
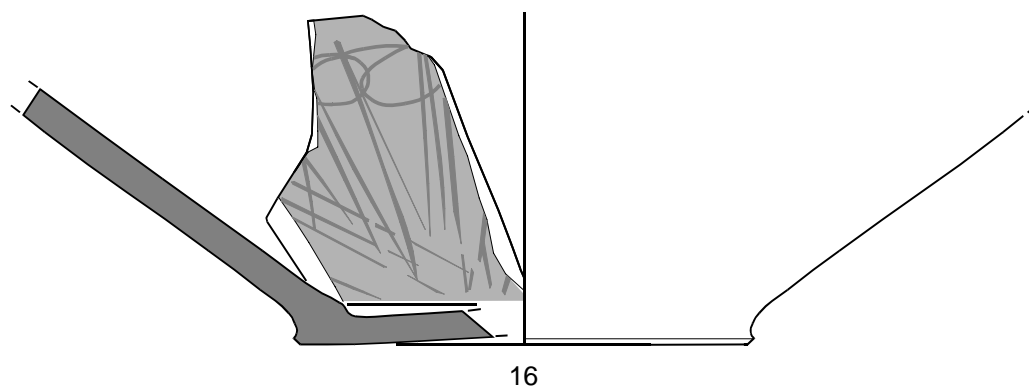
RC - UE 5



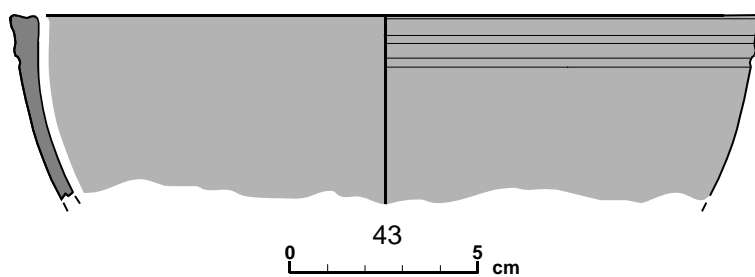
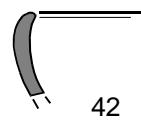
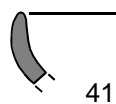
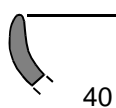
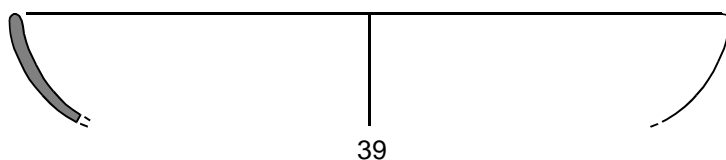
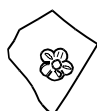
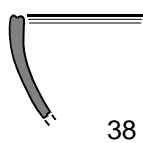
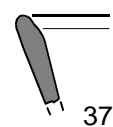
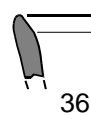
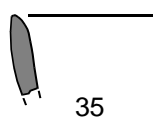
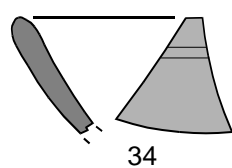
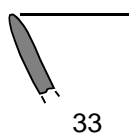
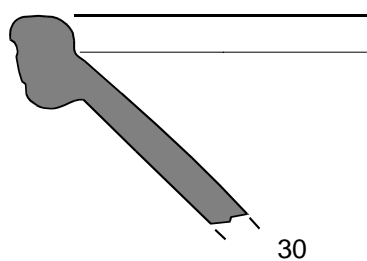
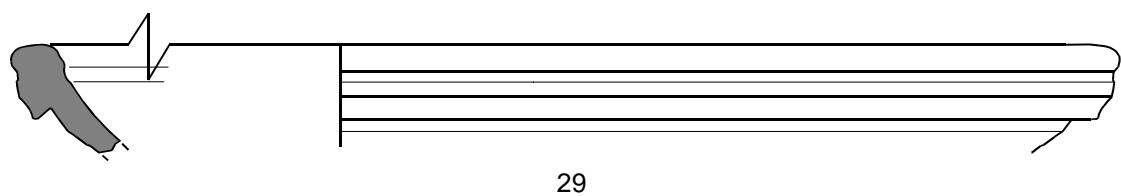
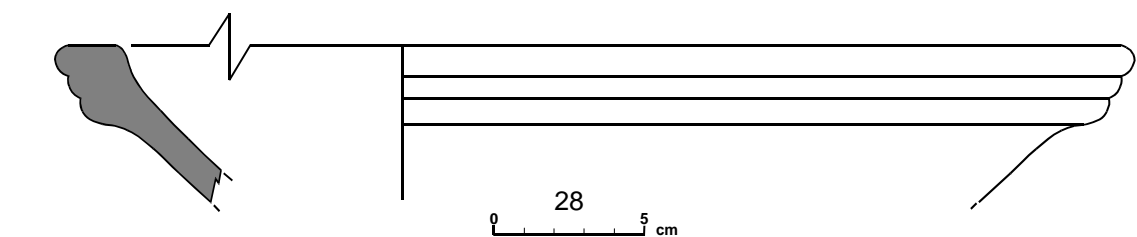
RC- SU 5



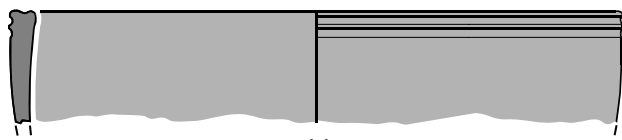
RC- SU 5



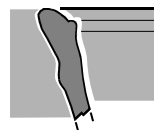
RC- SU 5



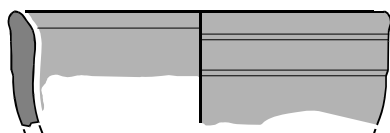
RC- SU 5



44



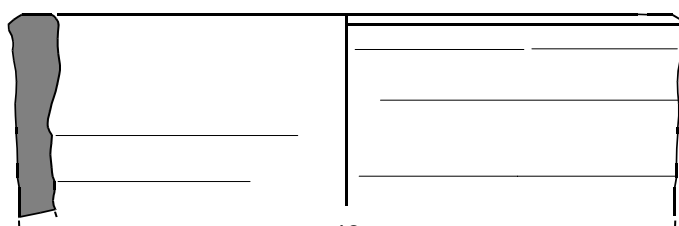
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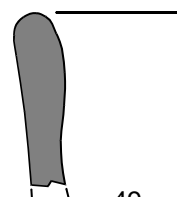
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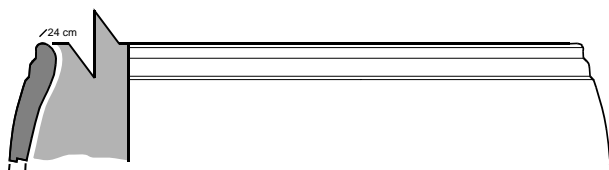
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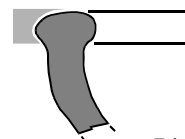
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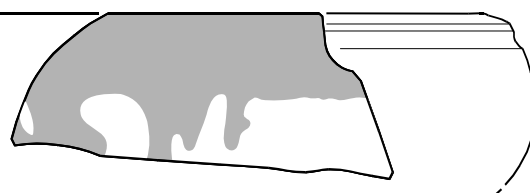
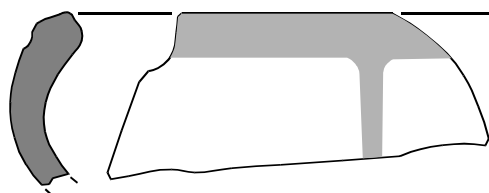
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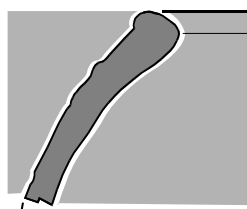
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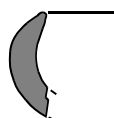
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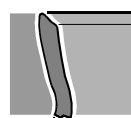
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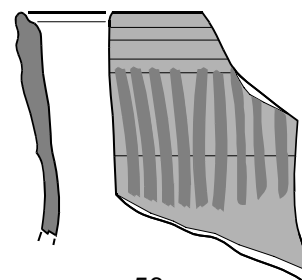
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54



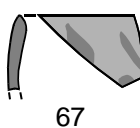
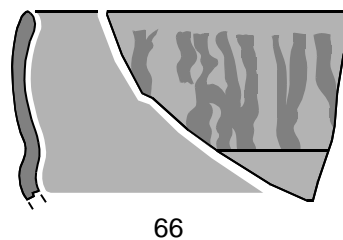
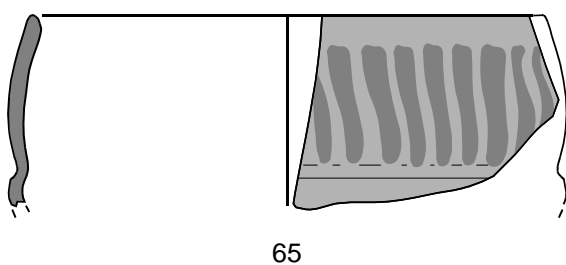
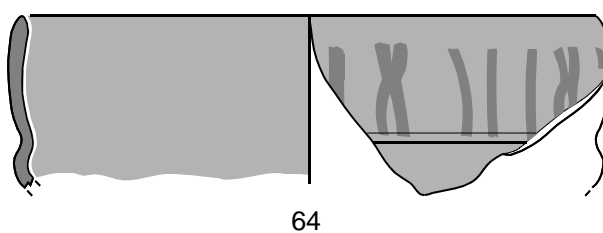
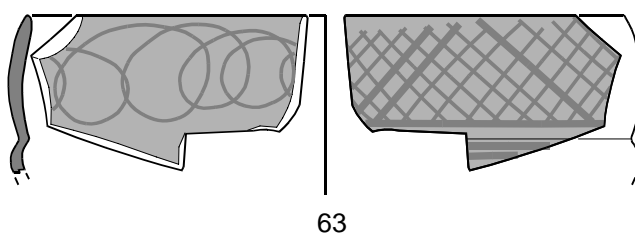
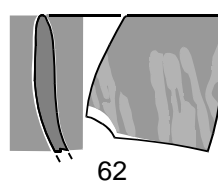
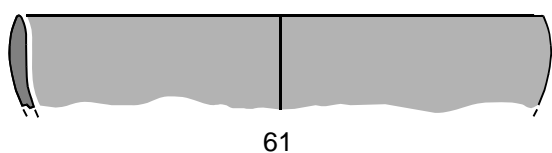
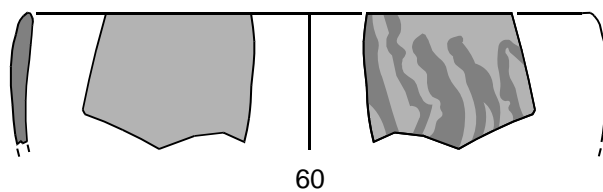
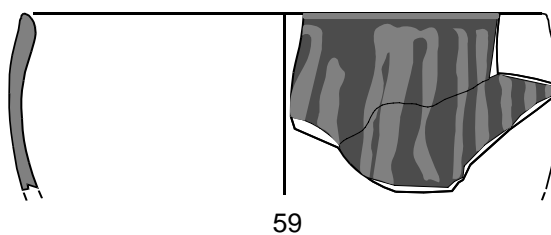
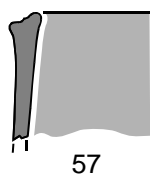
55



56

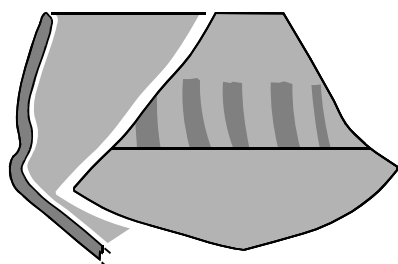
0 5 cm

RC- SU 5

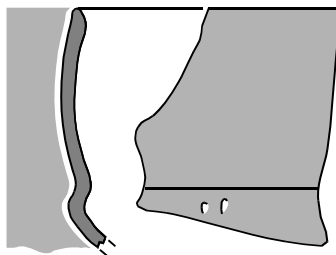


0 5 cm

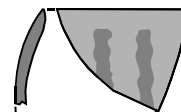
RC- SU 5



68



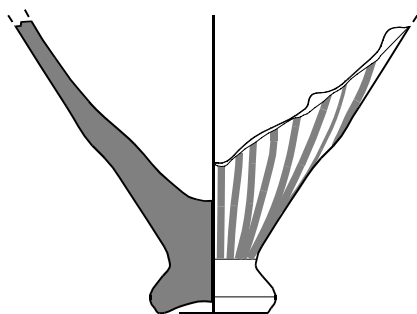
69



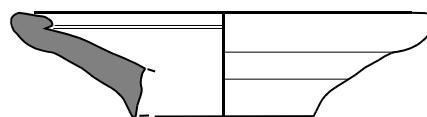
70



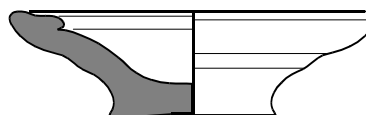
71



72



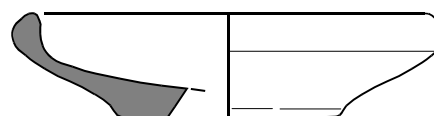
73



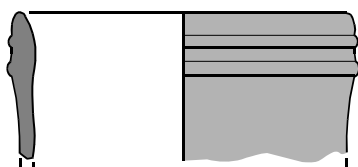
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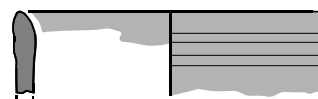
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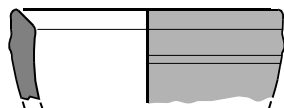
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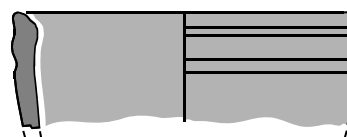
77



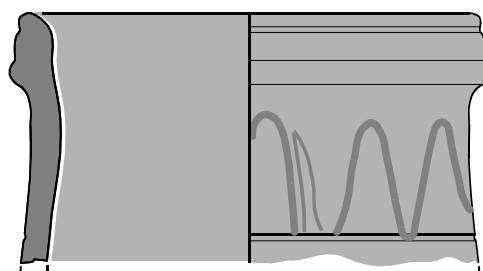
78



79



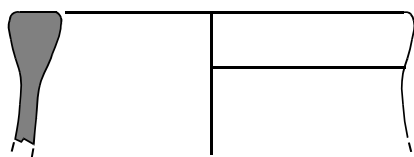
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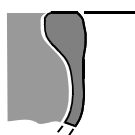
81

0 5 cm

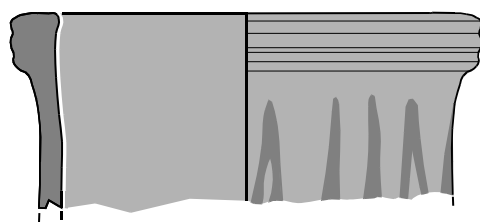
RC- SU 5



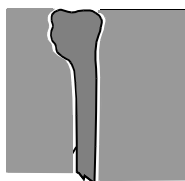
82



83



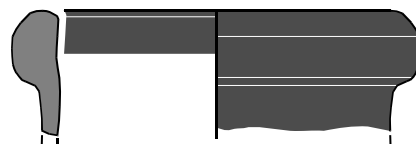
84



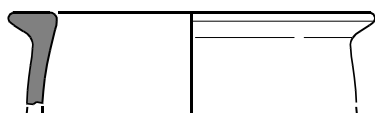
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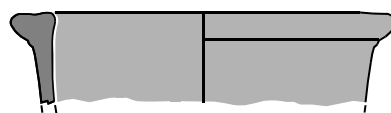
86



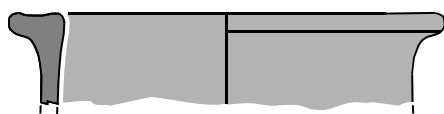
87



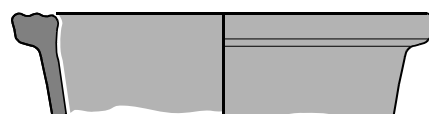
88



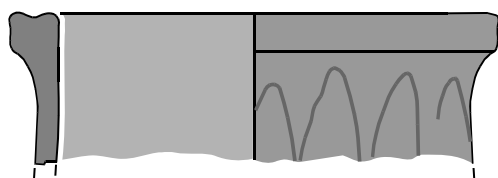
89



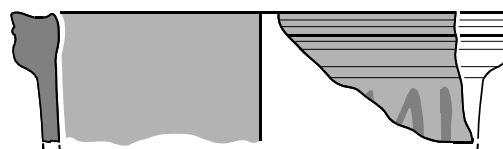
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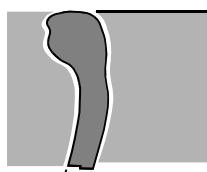
91



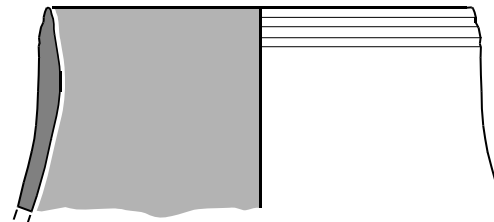
92



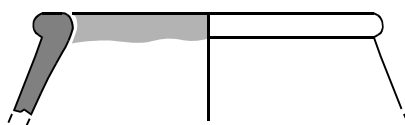
93



94



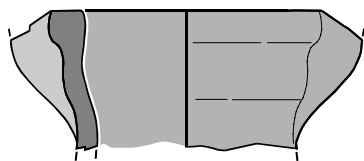
95



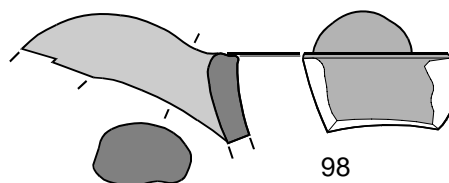
96

0 5 cm

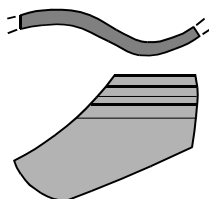
RC- SU 5



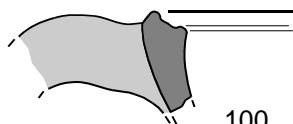
97



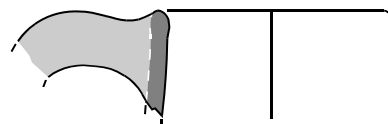
98



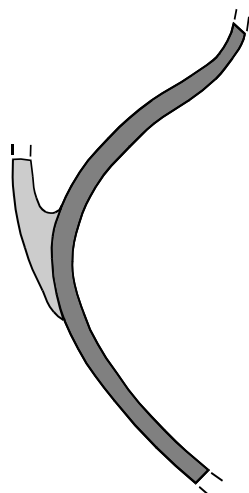
99



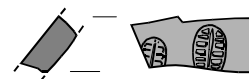
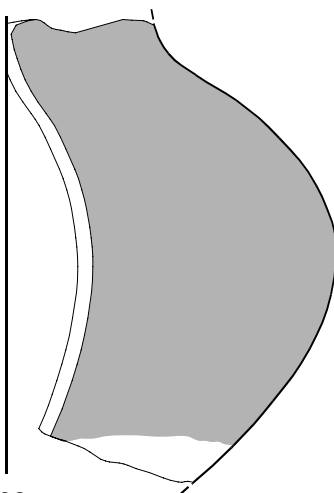
100



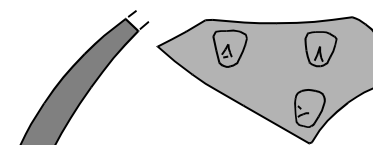
101



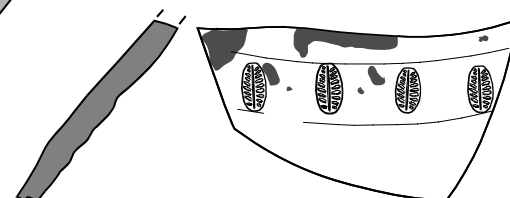
102



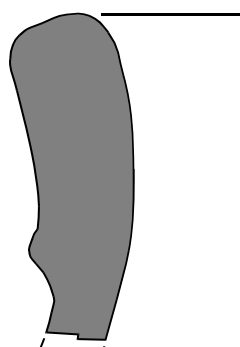
103



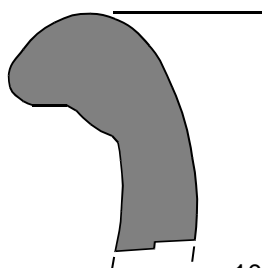
104



105



106



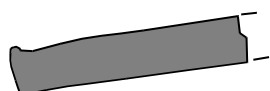
107



108



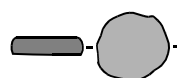
109



110



111



112



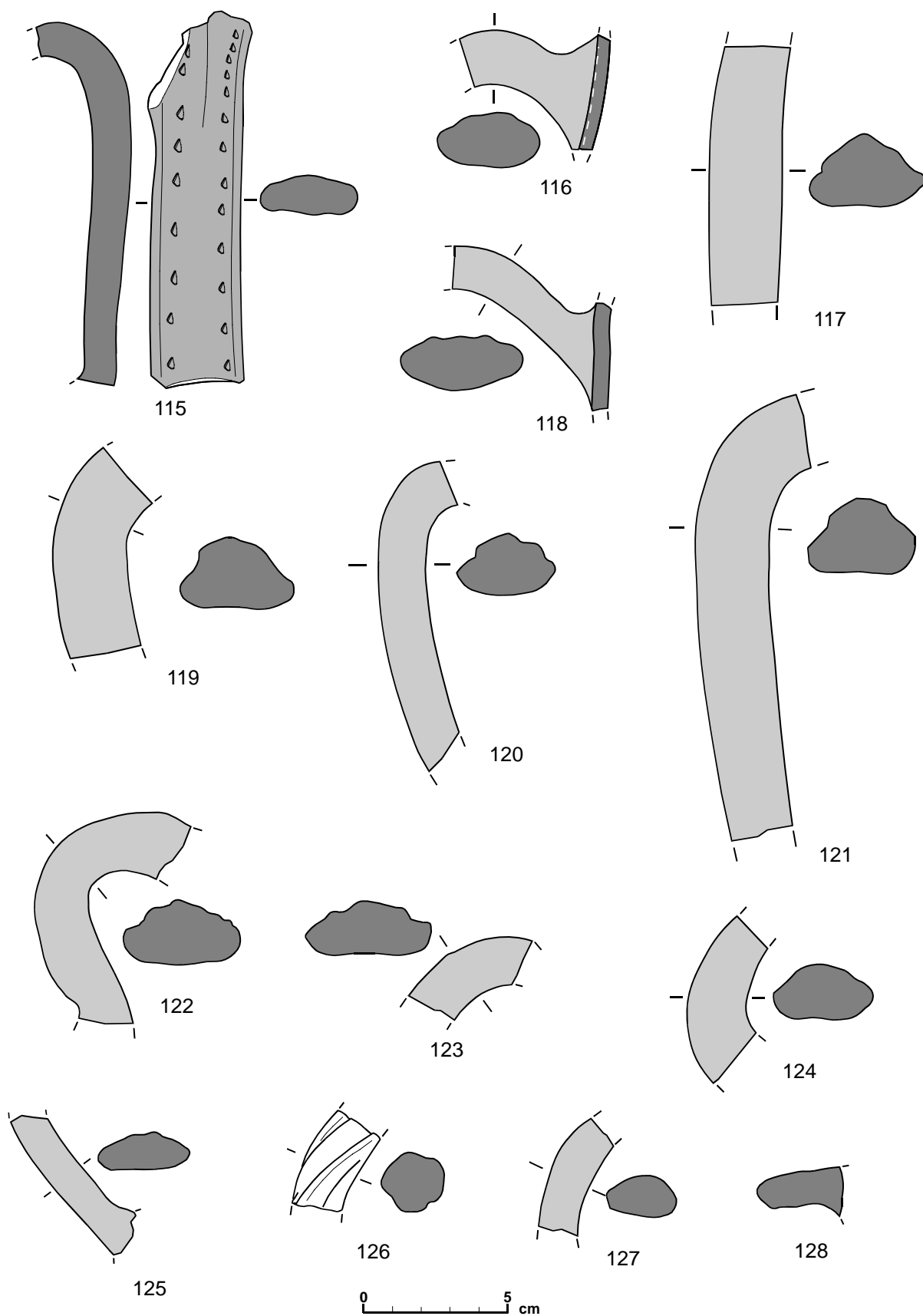
113



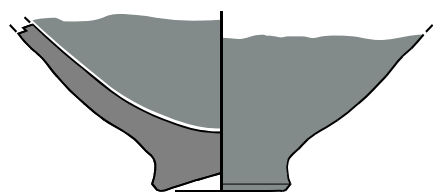
114



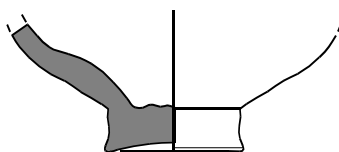
RC- SU 5



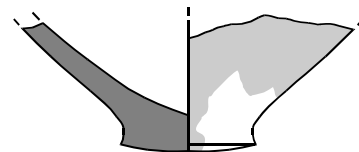
RC- SU 5



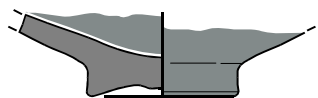
129



130



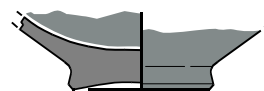
131



132



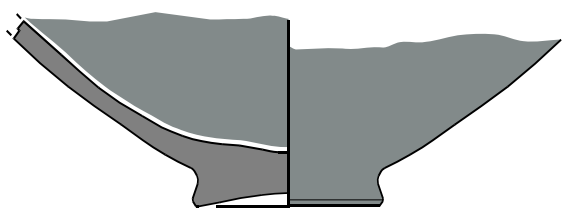
133



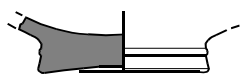
134



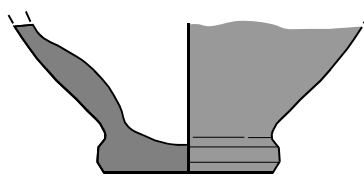
135



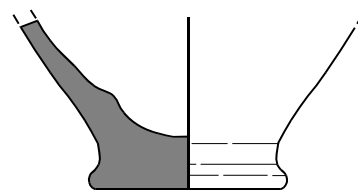
136



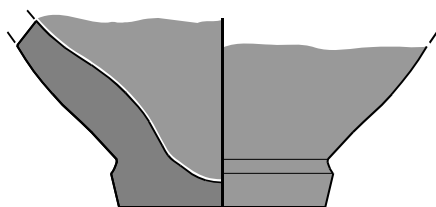
137



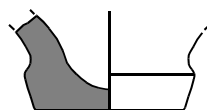
138



139



140



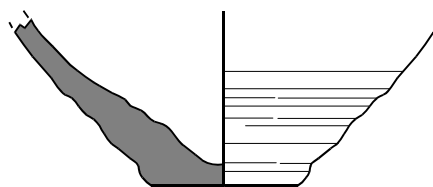
141



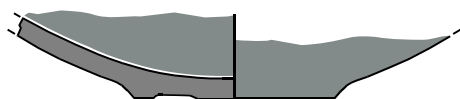
142



143



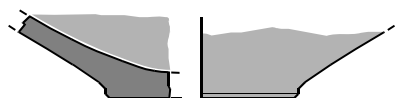
144



145



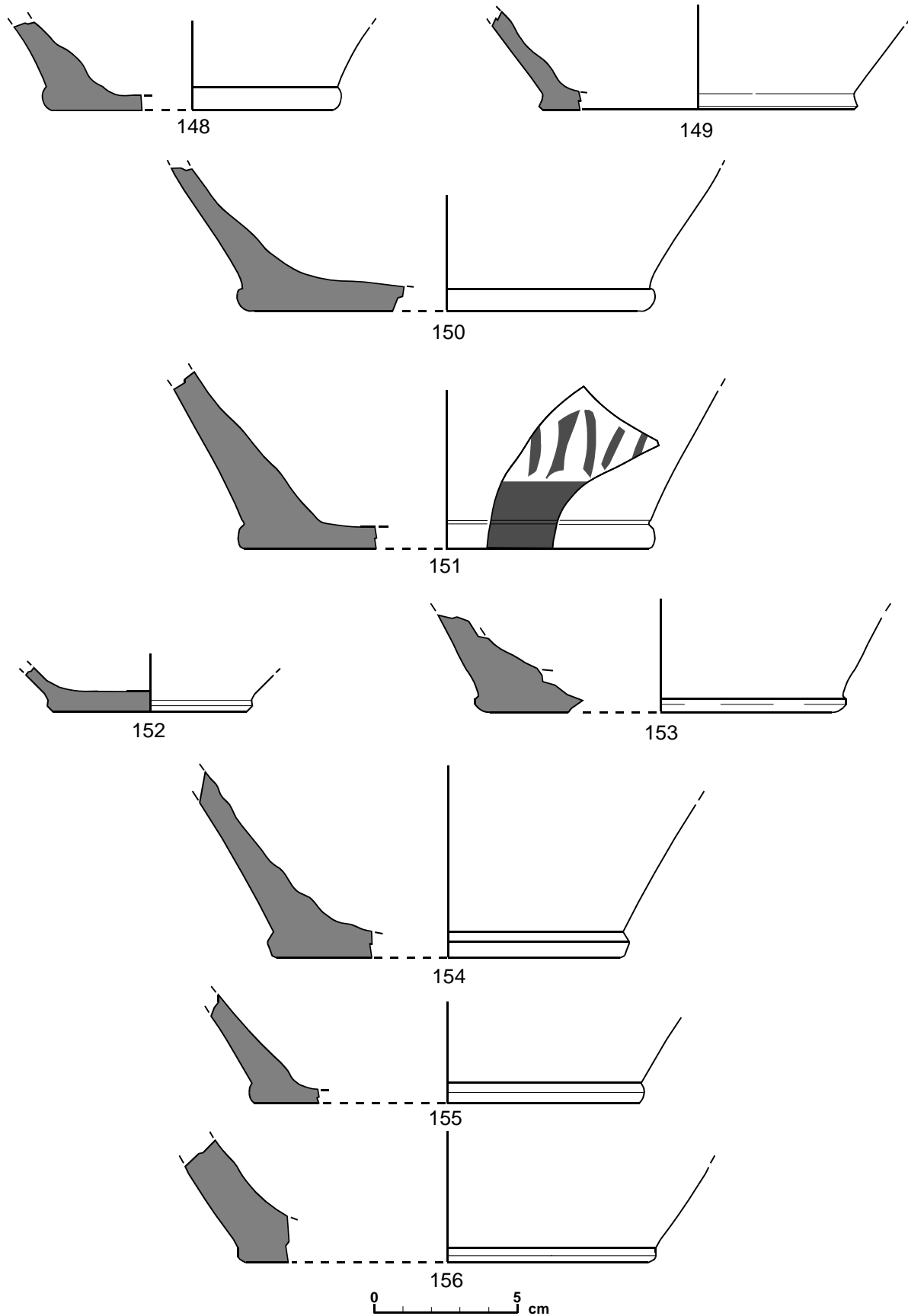
146



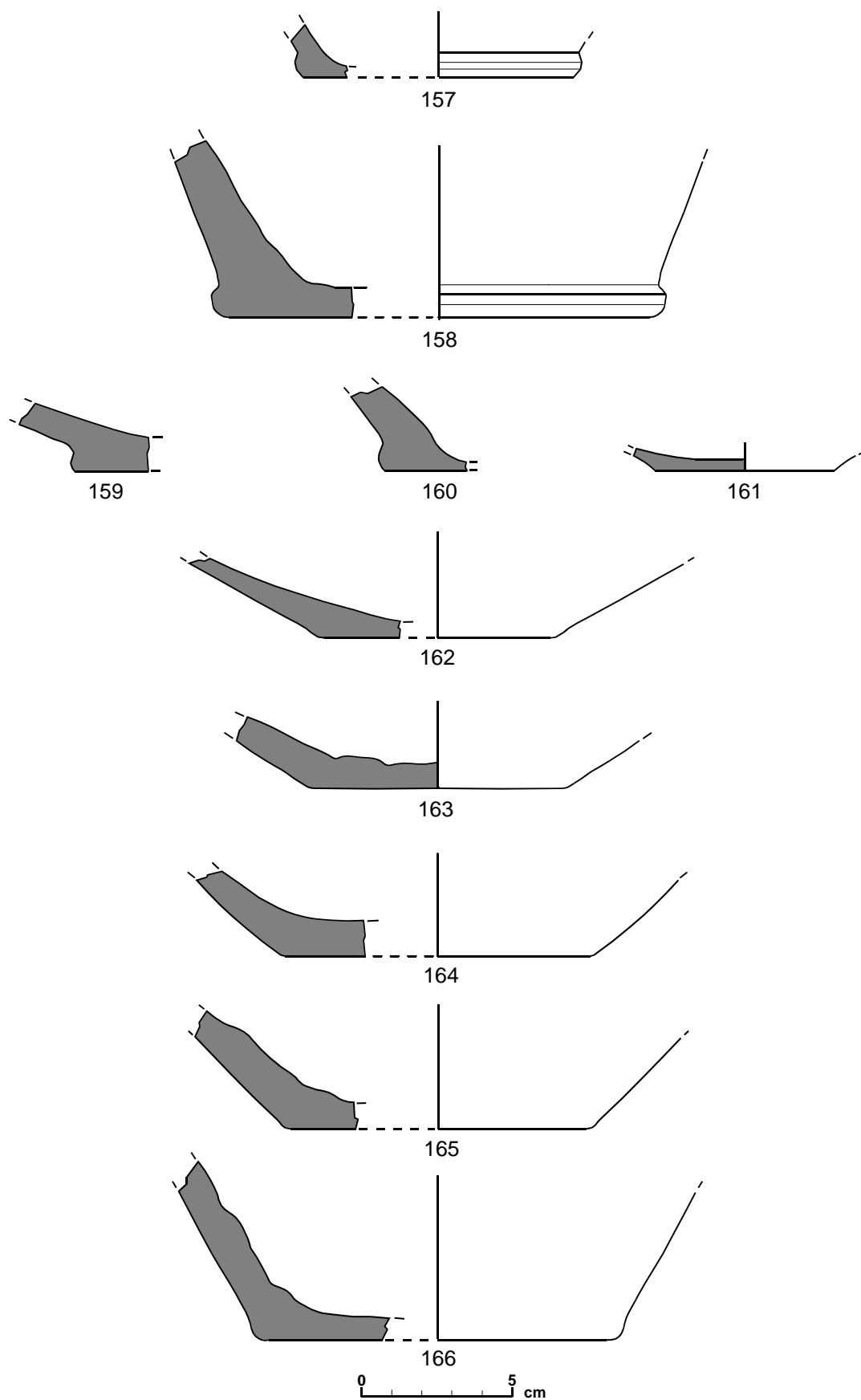
147

0 5 cm

RC- SU 5



RC- SU 5



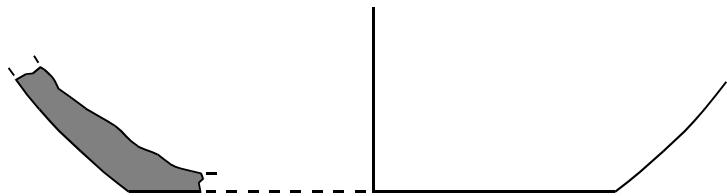
RC- SU 5



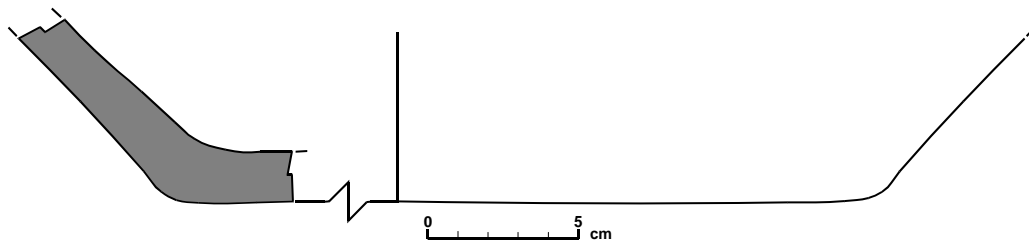
167



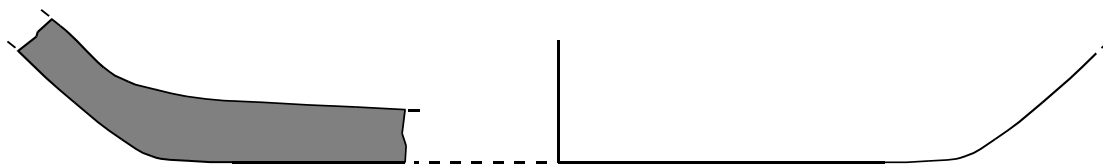
168



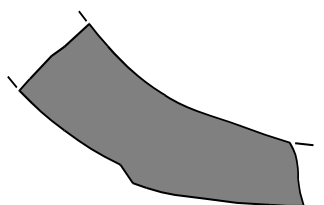
169



170



171



172

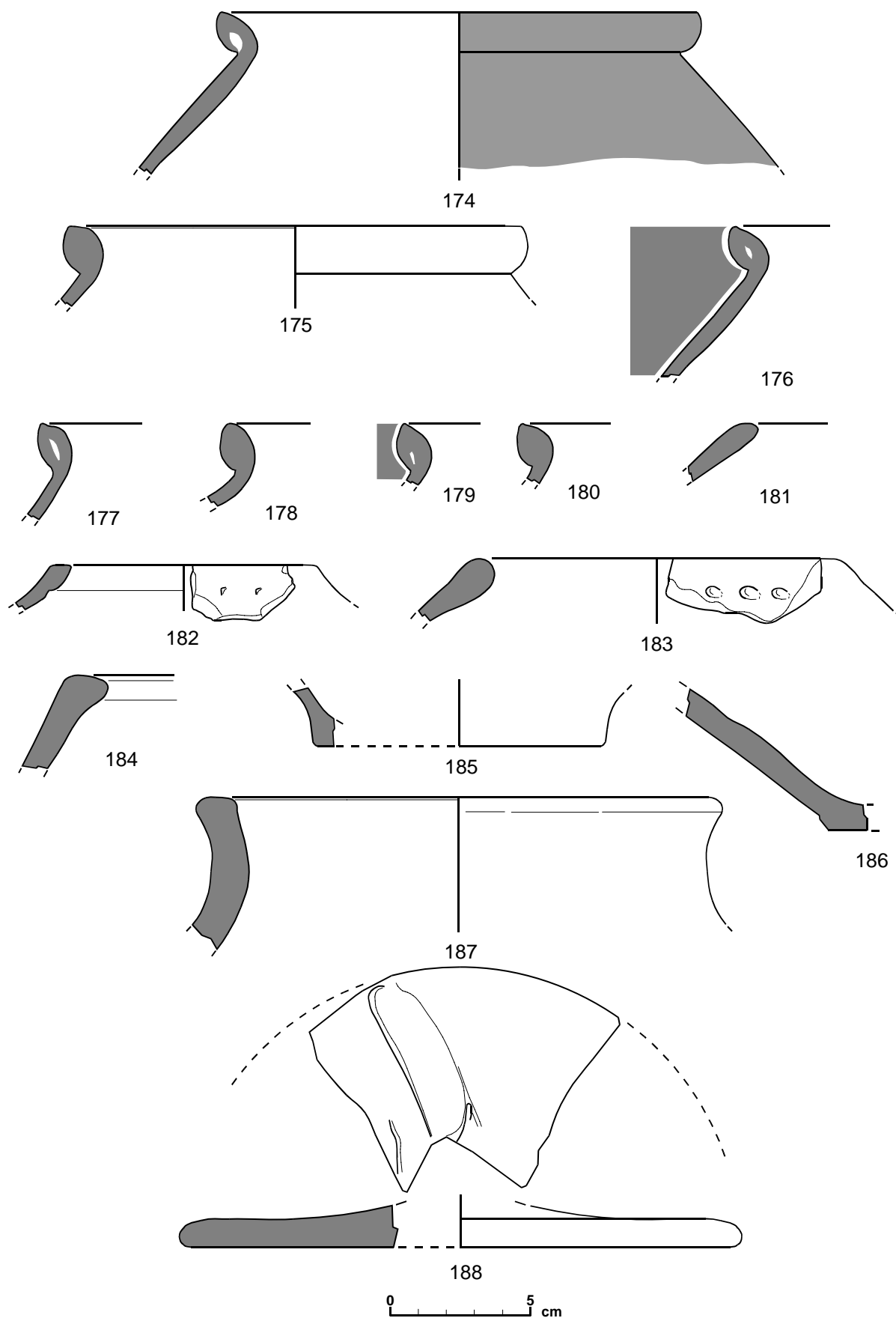


173



RC- SU 5

Cooking ware



RC - SU 6

Definition: Level of sand

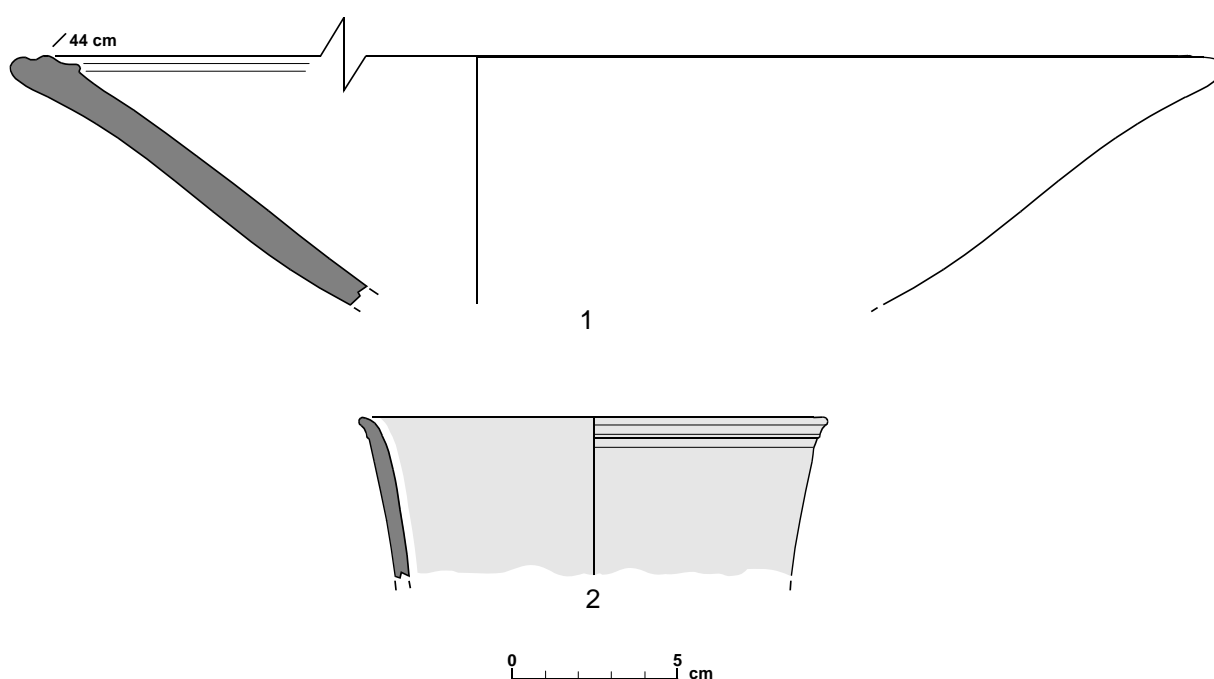
Interpretation: Level of sands deposited by action and slopes debris

Observations: Level of sands, brown in colour, compact. At some points, there is a thin hard crust of compacted clay on top, with white patches (of limestone?). Containing pottery. Yielded four brick fragments. Could be considered equivalent to SU-21.

Material: Slip ware: 29 frags.
Common ware: 143 frags.
Cooking ware: 19 frags.
Stone mortar: 1 frag.
Bone: (>0,50 kg)
FORMS
Slip and common ware: 2 (Total frags. 172)

Archaeologist: E. Ariño

<i>Composition</i>	Sand
<i>Formation</i>	Wind origin with human contributions
<i>Potential</i>	10-15 cm
<i>Covered by (Stratum)</i>	5
<i>Covering (Negative)</i>	7
<i>Covering (Structure)</i>	8-9
<i>Covering (Stratum)</i>	7



RC - SU 7

Definition: Level of destruction of compressed clay walls.

Interpretation: Interface of destruction of compressed clay walls.

Observations: Interface of destruction of compressed clay walls.

Material:

Archaeologist: E. Ariño

Covered by (<i>Stratum</i>)	6
Intersecting (<i>Structure</i>)	9-8

RC - SU 8

Definition: Level of compressed clay wall

Interpretation: Possible dwelling. Could also be a work space for the preparation of construction materials for the fortification.

Observations: Structure defines a perceptibly quadrangular space. SU-8, which was interpreted as a wall of compressed clay in the 2007 season, may actually be a temporary structure related to work on the construction of the fortification. On its eastern side can be seen various adobe bricks which appear to be stacked.

Material:

Archaeologist: E. Ariño

Covered by (<i>Stratum</i>)	6-22
Intersected by (<i>Negative</i>)	7
Resting on (<i>Stratum</i>)	10-23

RC - SU 9

Definition: Level of compressed clay wall

Interpretation: Possible dwelling. It could also be a work space for the preparation of construction materials for the fortification.

Observations: Wall of compressed clay in the NW corner of the trench (quadrant 10-O).

Material:

Archaeologist: E. Ariño

<i>Covered by (Stratum)</i>	6
<i>Intersected by (Negative)</i>	7
<i>Resting on (Stratum)</i>	10

RC - SU 10

Definition: Level of sands

Interpretation: Level of sands formed by wind action

Observations: Level of sand, dark-brown colour. On top, a thin cracked crust. Containing pottery, bone remains and ash.

Material: Slip ware: 137 frags.
Common ware: 410 frags.
Cooking ware: 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)

FORMS

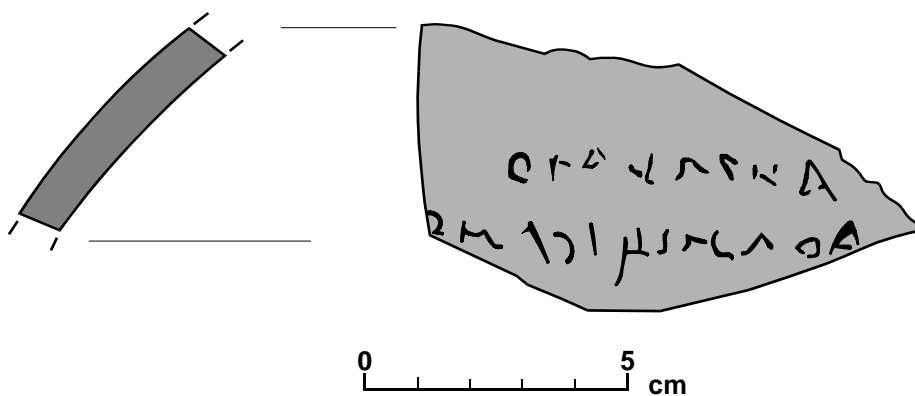
Slip and common ware: : 101 (Total frags. 547)

Cooking ware: 11 (Total frags. 61)

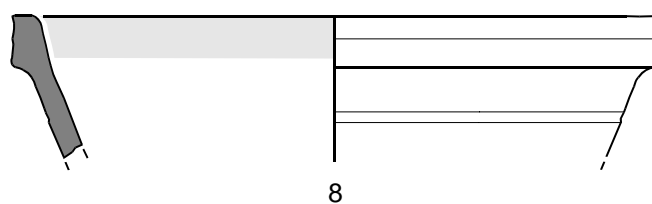
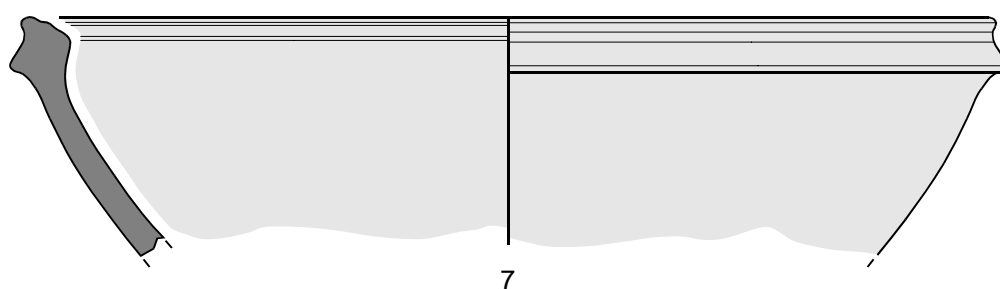
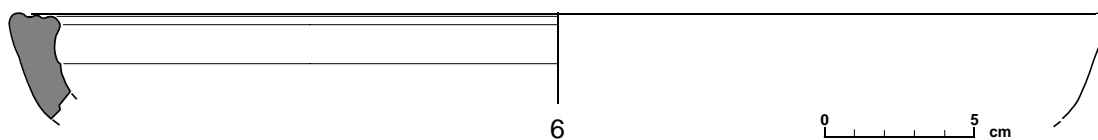
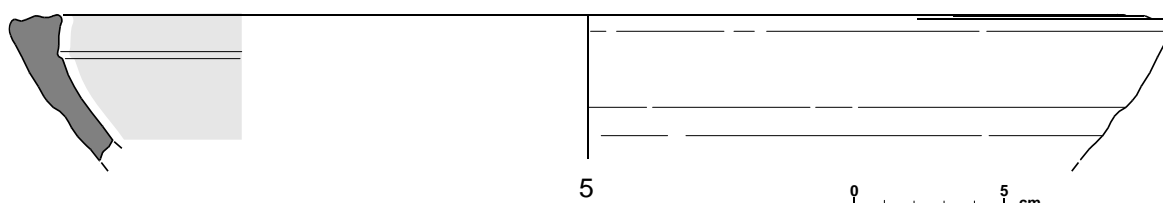
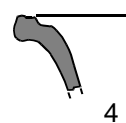
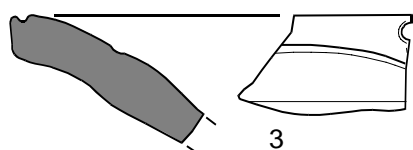
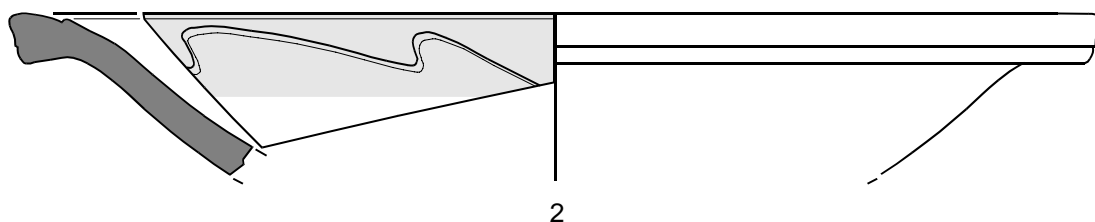
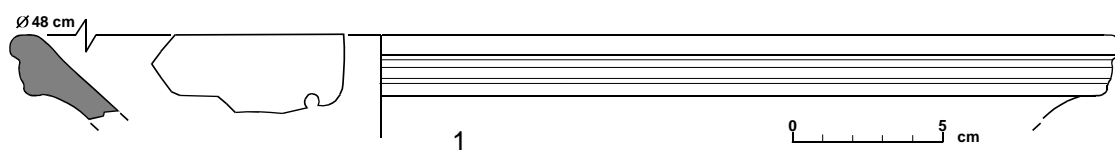
Archaeologist: E. Ariño

<i>Composition</i>	Sand
<i>Formation</i>	Manmade
<i>Potential</i>	11 cm
<i>Covered by (Stratum)</i>	6
<i>Supporting (Structure)</i>	9-8
<i>Covering (Stratum)</i>	11-12

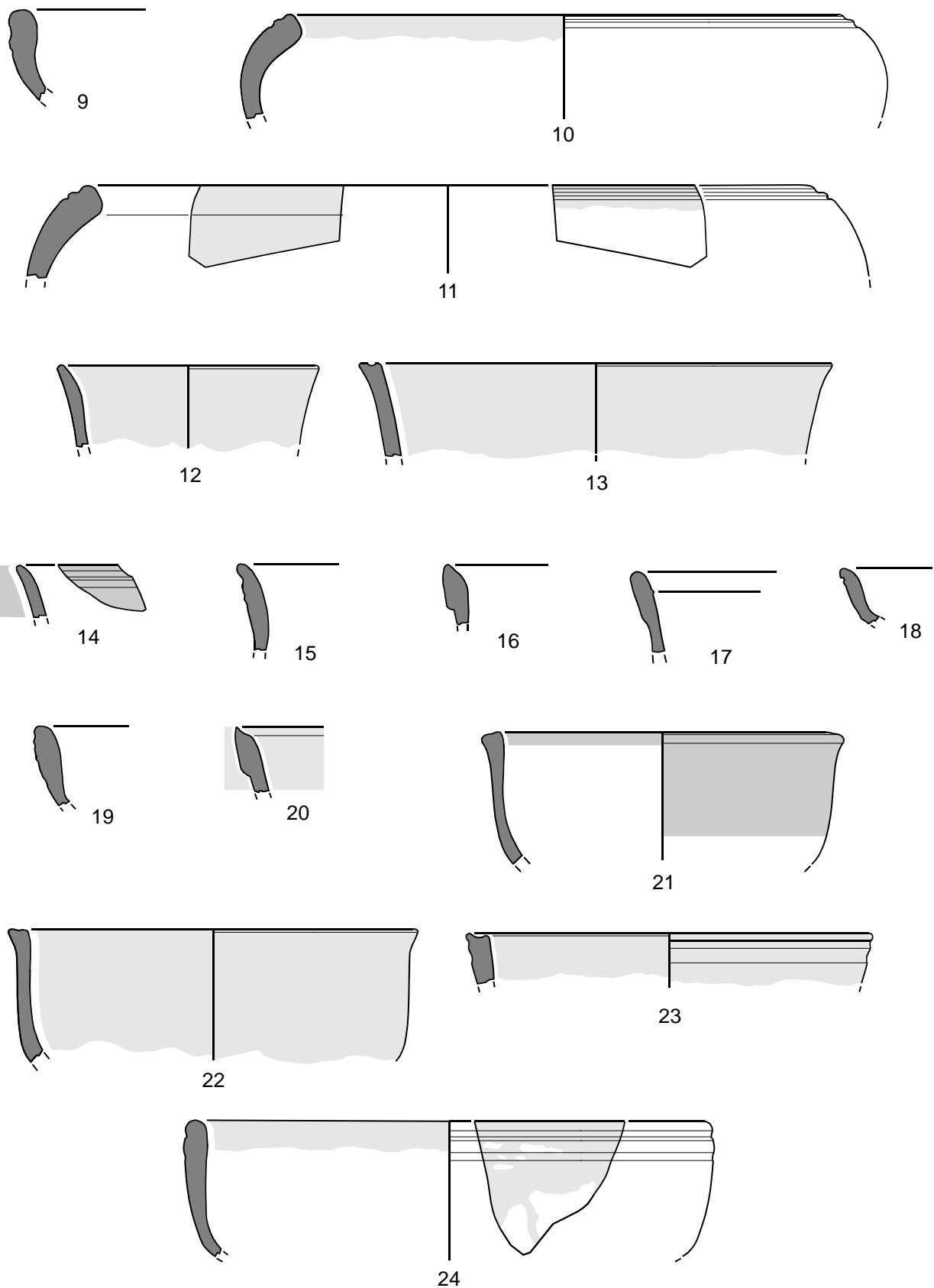
RC - SU 10



RC- SU 10

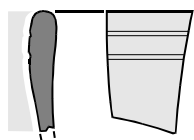


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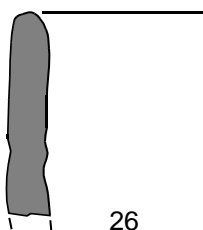


0 1 2 3 4 5
cm

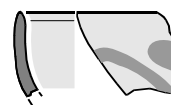
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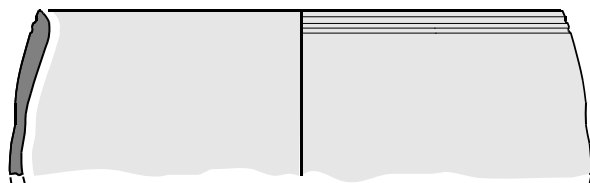
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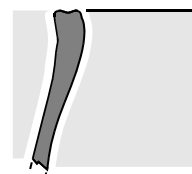
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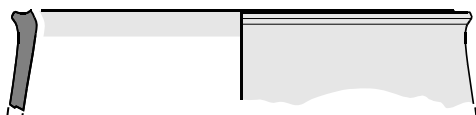
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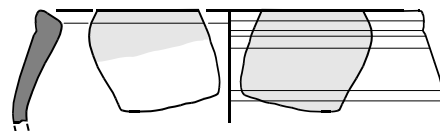
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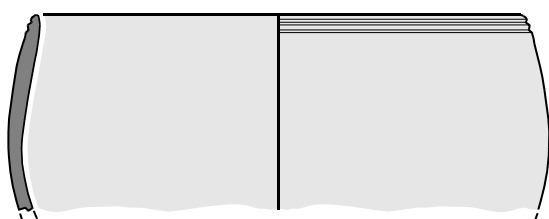
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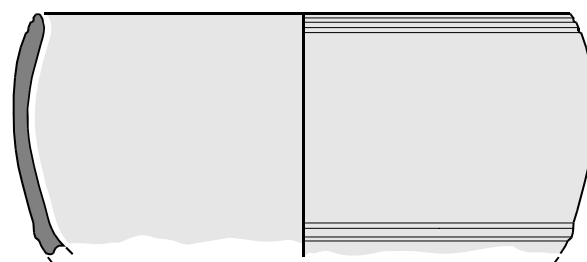
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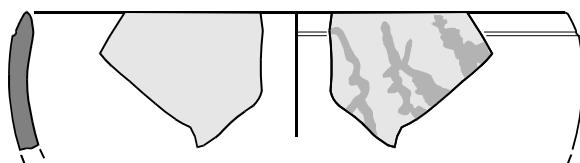
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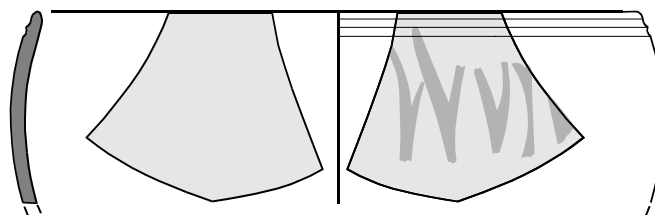
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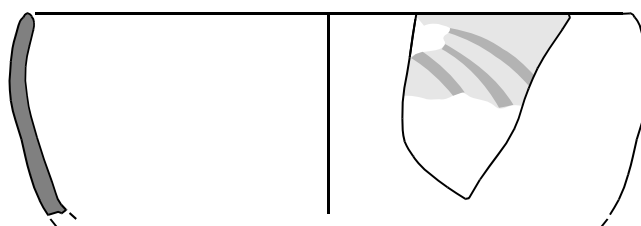
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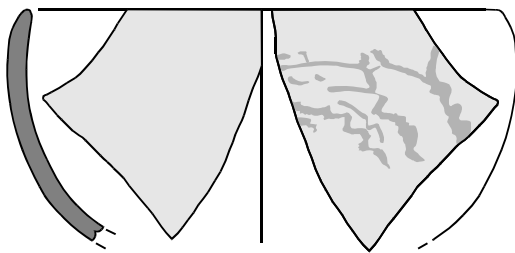
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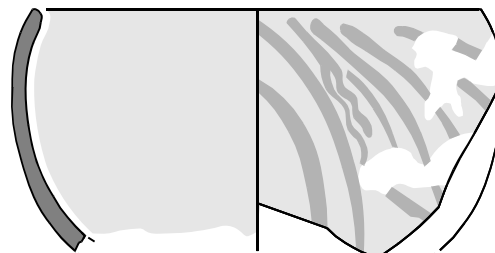
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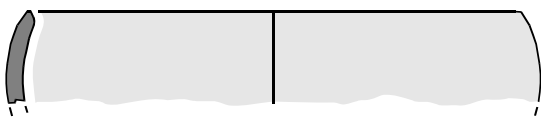
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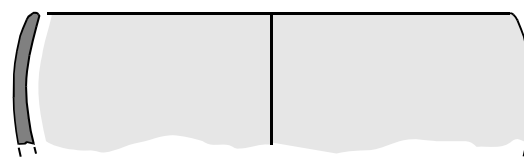
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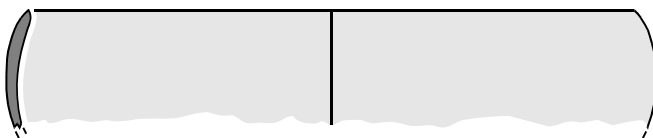
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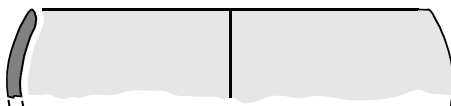
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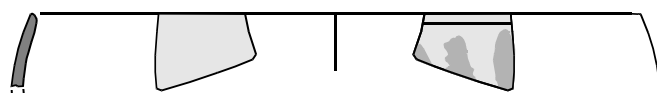
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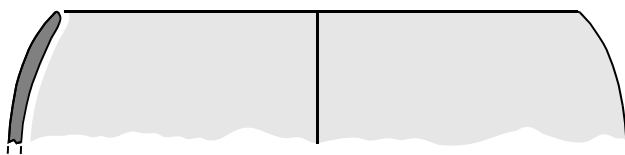
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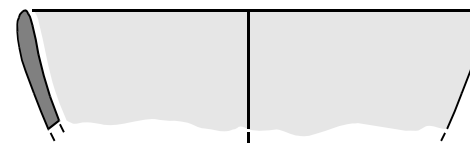
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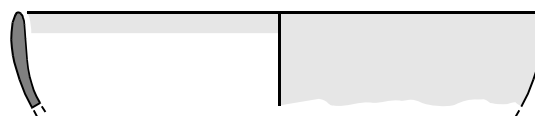
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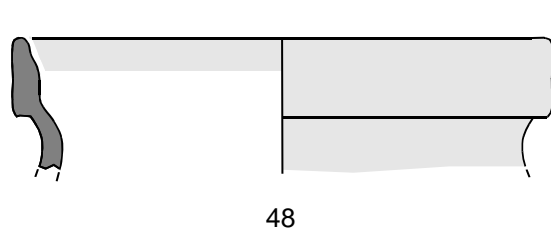
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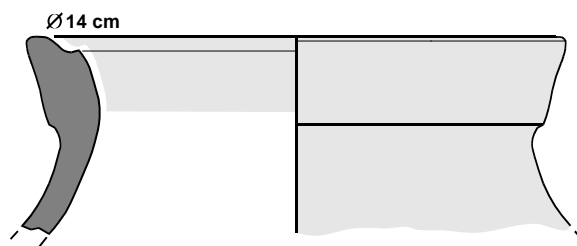
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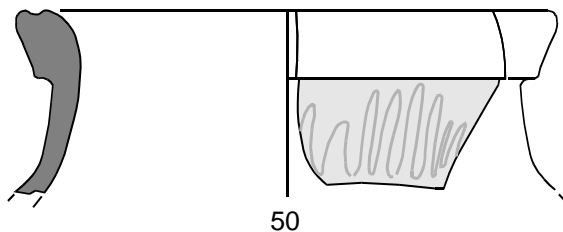
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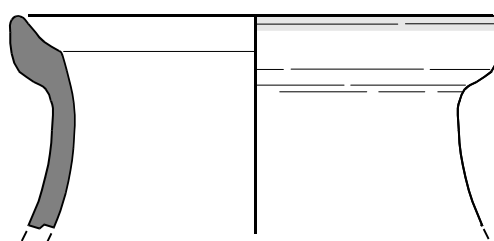
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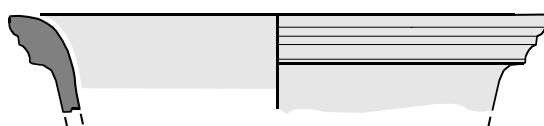
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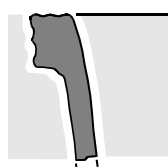
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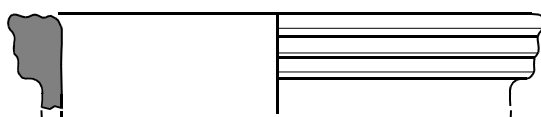
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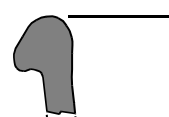
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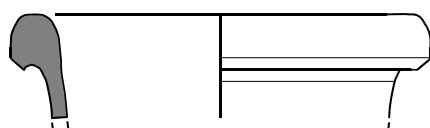
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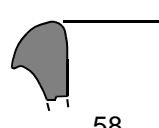
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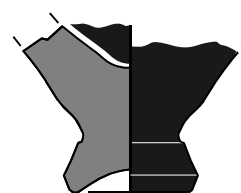
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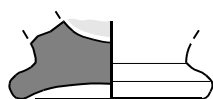
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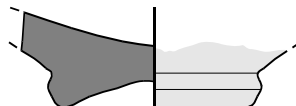
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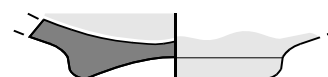
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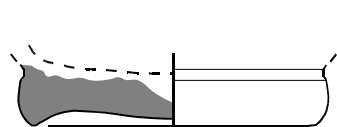
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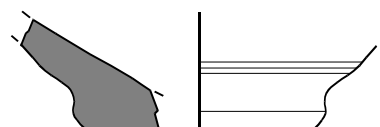
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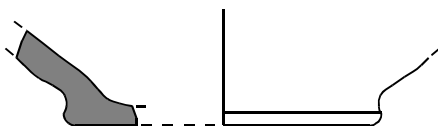
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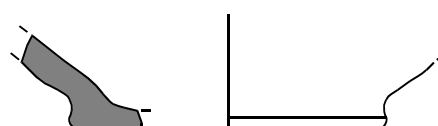
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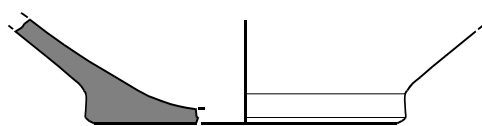
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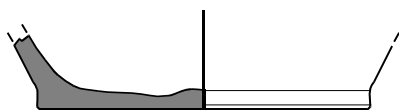
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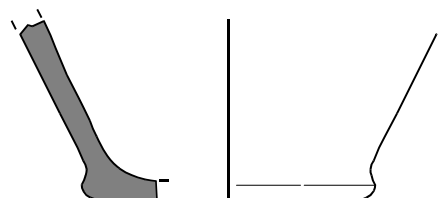
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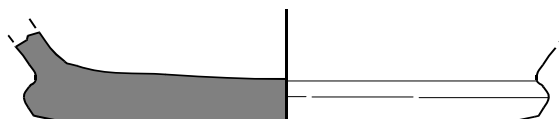
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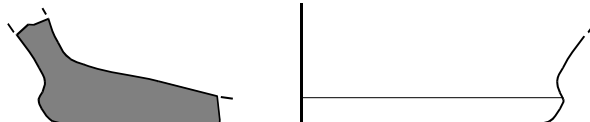
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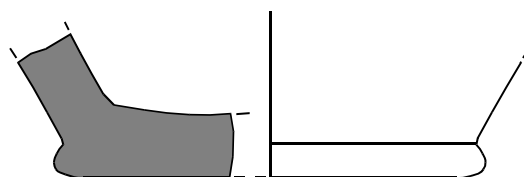
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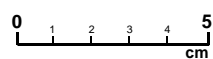
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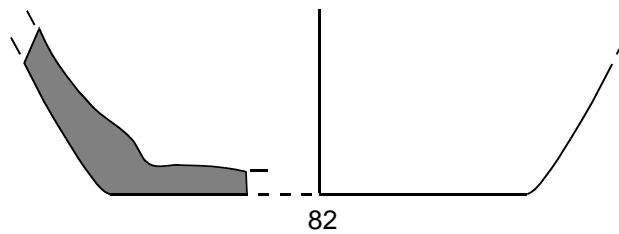
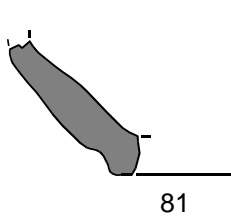
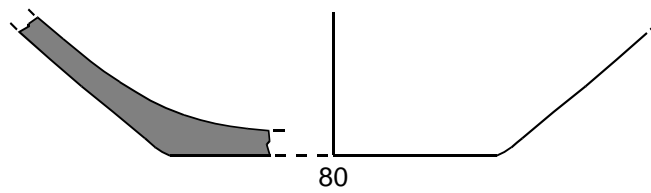
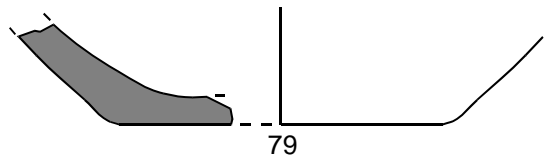
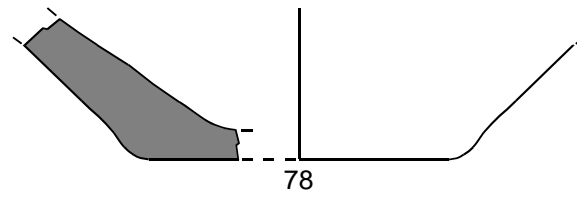
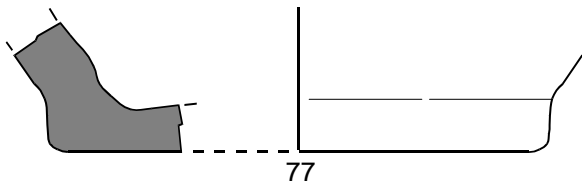
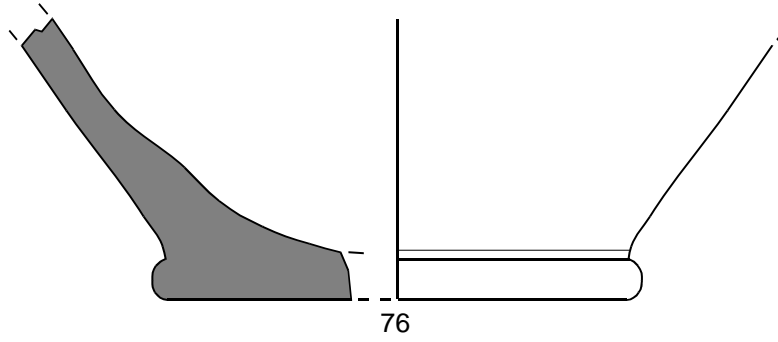
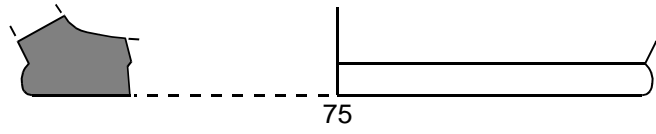
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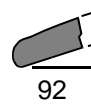
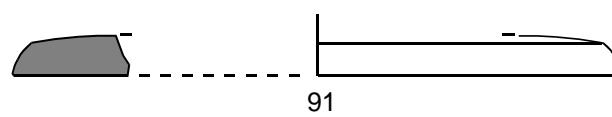
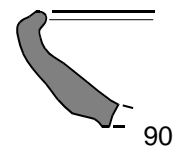
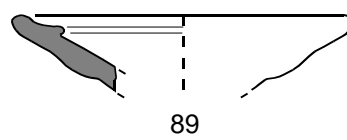
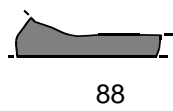
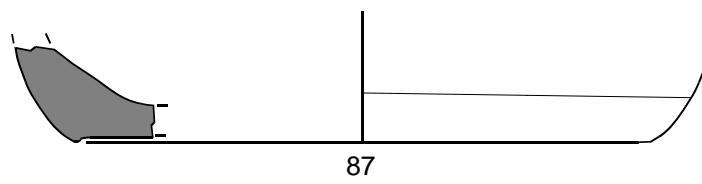
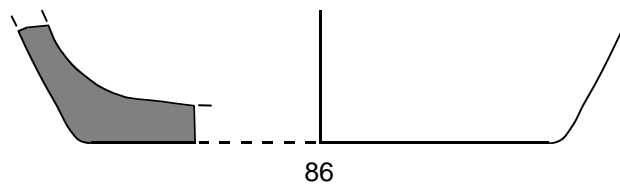
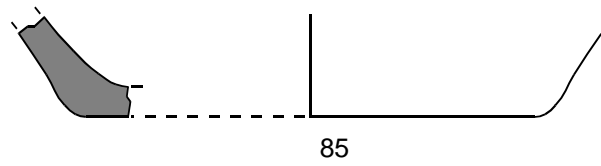
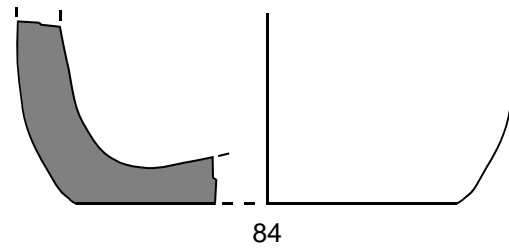
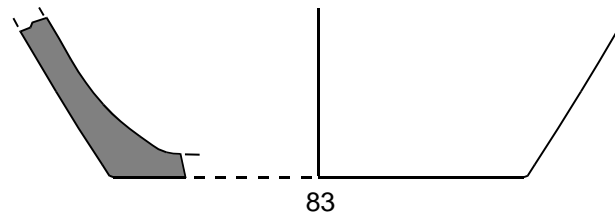
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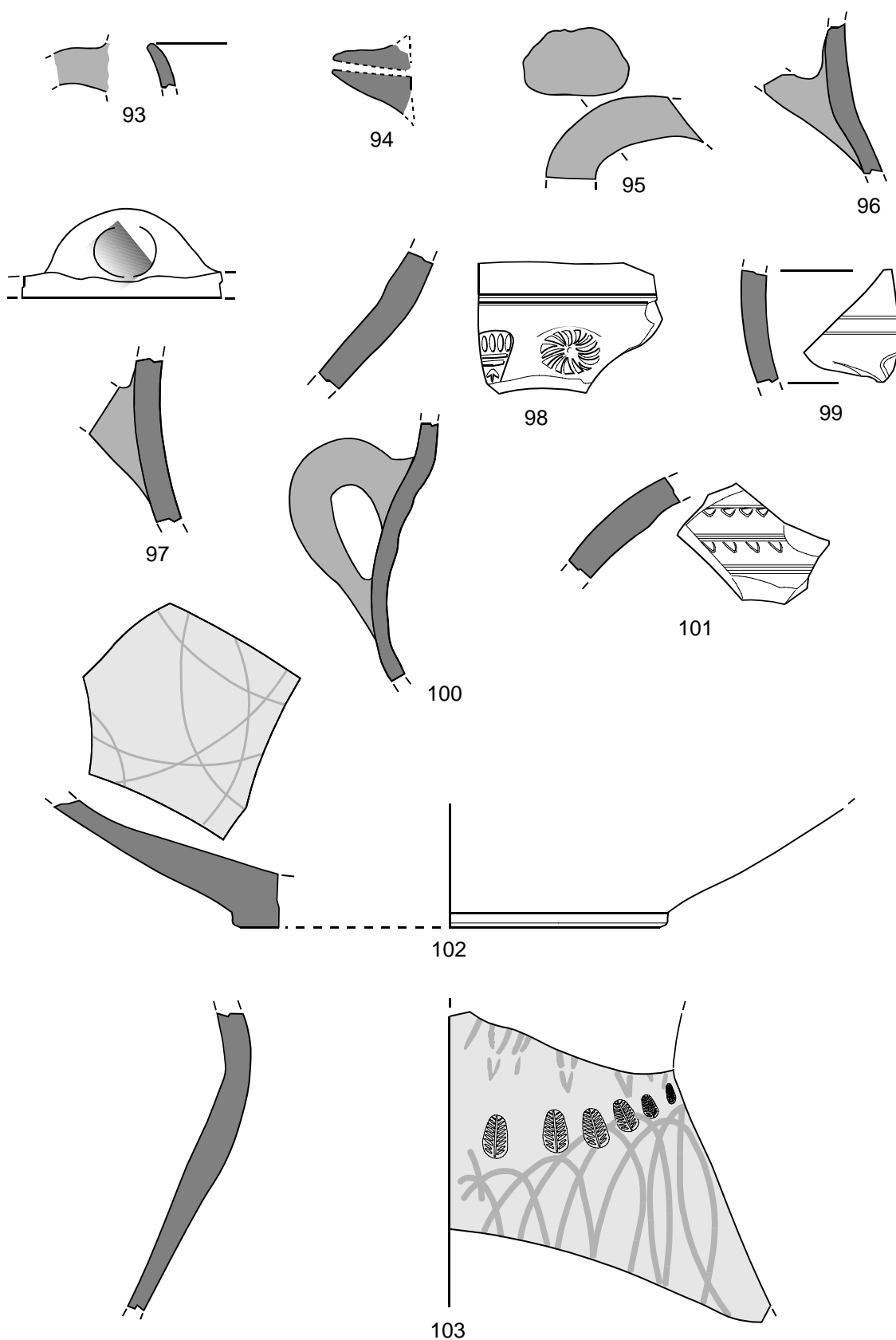
RC- SU 10



RC- SU 10

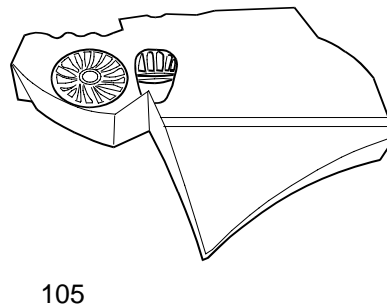
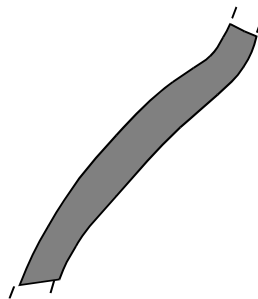
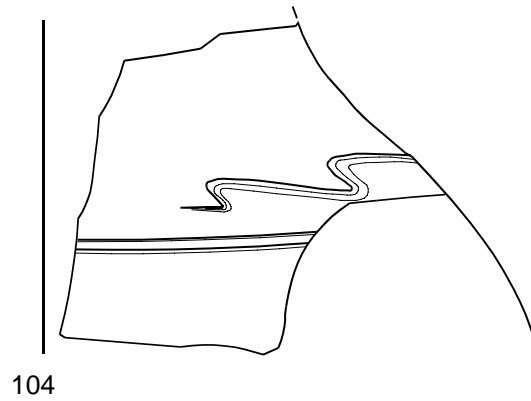
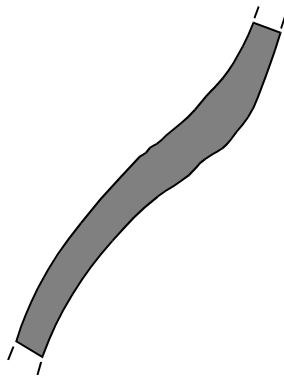


RC- SU 10

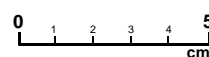
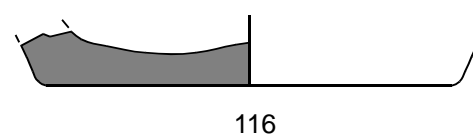
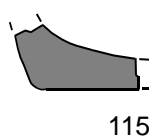
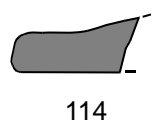
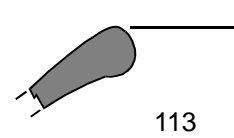
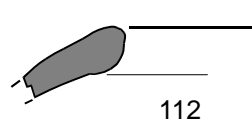
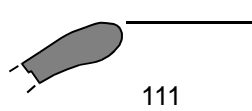
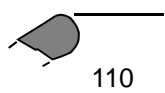
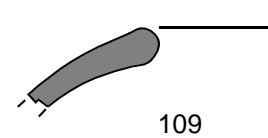
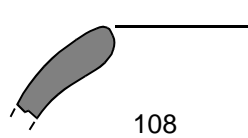
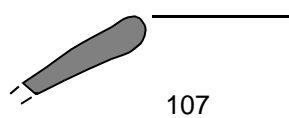
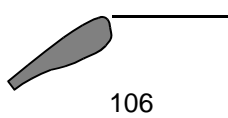


0 1 2 3 4 5
cm

RC- SU 10



Cooking ware



RC - SU 11

Definition: Level of weathered (sandstone) bedrock

Interpretation:

Observations: Level of low potential with fragments of sandstone. Could be of natural origin. Only yielded two bone fragments and one pottery shard.

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 - SU 12

Definition: Level of bedrock

Interpretation: Bedrock.

Observations: Bedrock. Grey sandstone.

Material:

Archaeologist: E. Ariño

Covered by (Stratum)	21-10-23-11



RC - SU 12



SU12

RC - SU 12



SU8, SU12

RC - SU 12



SU 12

RC - SU 13

Definition: Level of wall of adobe brick fragments

Interpretation: Wall of adobe brick fragments, running parallel to the line of fortification. Supported directly over the level of fallen adobe bricks (SU-2), cut (SU-14) to lay the foundations of the structure.

Observations: Wall of reused adobe bricks. Running parallel to the line of fortification.

Material:

Archaeologist: E. Ariño

<i>Covered by (Stratum)</i>	1
<i>Supporting (Stratum)</i>	15
<hr/>	
<i>Resting on (Stratum)</i>	2
<i>Resting on (Negative)</i>	14
<hr/>	
<hr/>	

RC - SU 14

Definition: Floor or surface of frequent use

Interpretation: The wall of adobe brick fragments (SU-13) stands on this interface. Little surface is preserved and its function is hard to define.

Observations: Floor or surface of frequent use. It cuts the level of fallen adobe bricks originally coming from the fortification (SU-2).

Material:

Archaeologist: E. Ariño

<i>Covered by (Stratum)</i>	1
<i>Supporting (Structure)</i>	13
<i>Covering (Stratum)</i>	2

RC - SU 15

Definition: Level of infill between SU-13 and the adobe wall of fortification.

Interpretation: Stratum of human origin. Probably an intentional infill between the wall of adobe brick fragments (SU-13) and the fortification wall (SU-16), created at the same time that SU-14 was cut to serve as a floor of a room.

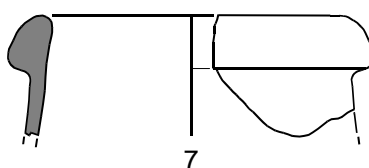
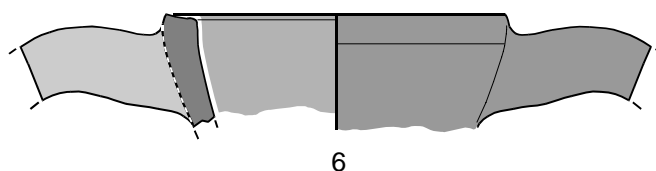
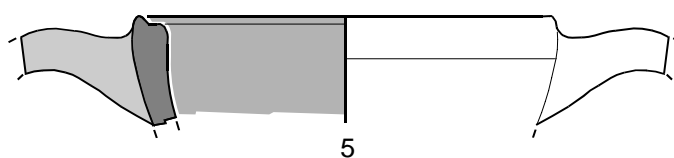
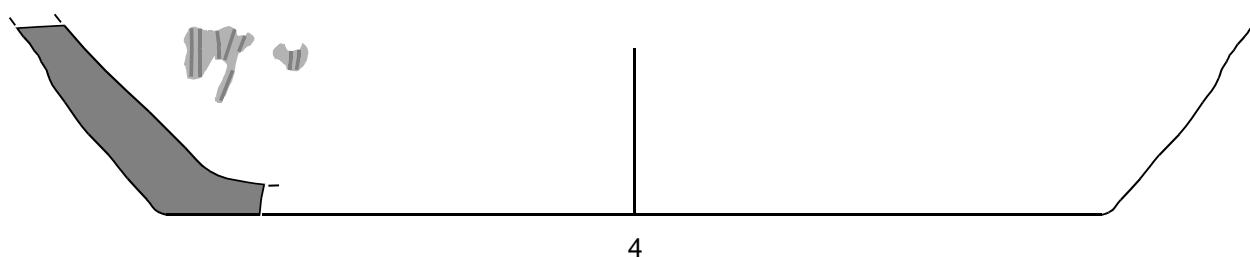
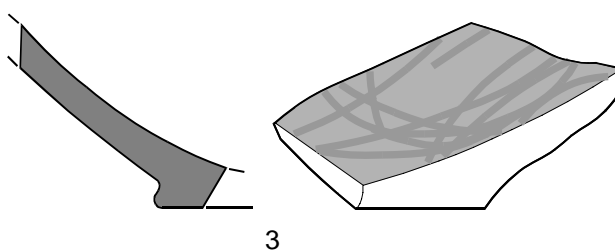
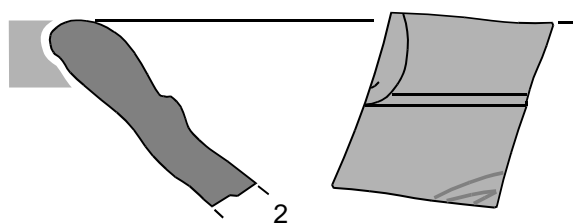
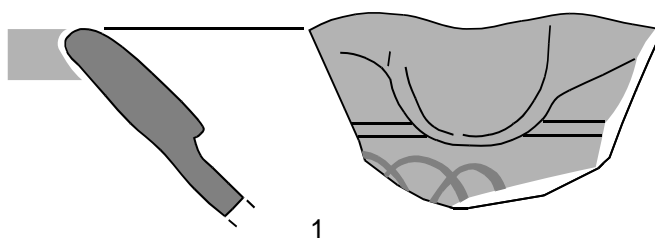
Observations: Infill between SU-13 (wall of adobe brick fragments) and the adobe fortification (SU-16). Composed of compact red clay with small fragments of adobe (probably extracted from SU-2). Yielded remains of limestone used for architectural decoration, including fragment from the base of a column or cornice. Containing pottery.

Material: Slip ware: 20 frags.
Common ware: 47 frags.
Stone construction elements: 2 frags. (1 carved fragment, 1 base fragment)

Archaeologist: E. Ariño

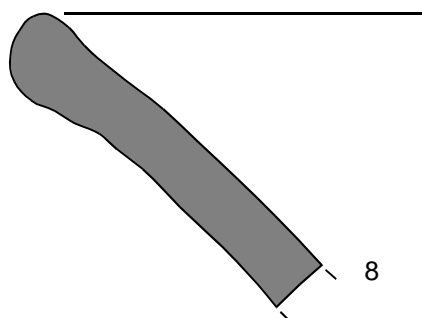
Covered by (Stratum)	1
Covering (Stratum)	2
Leaning on (Structure)	13-16

RC- SU 15

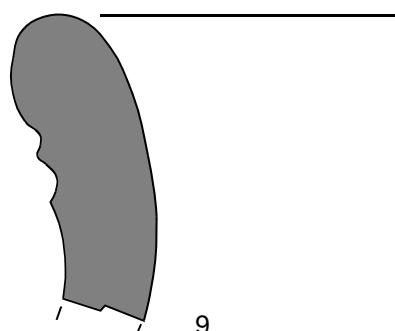


0 1 2 3 4 5 cm

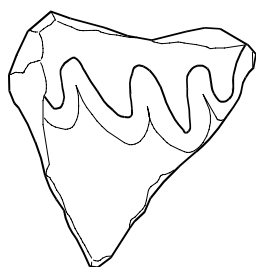
RC- SU 15



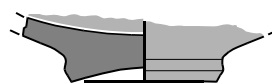
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9



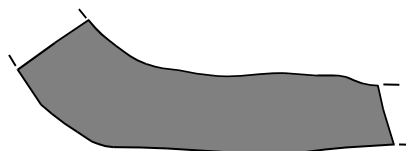
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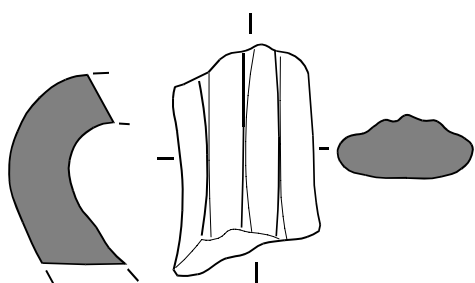
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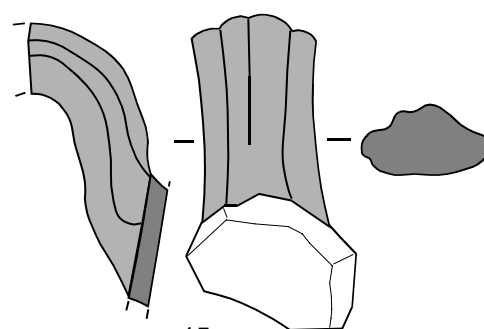
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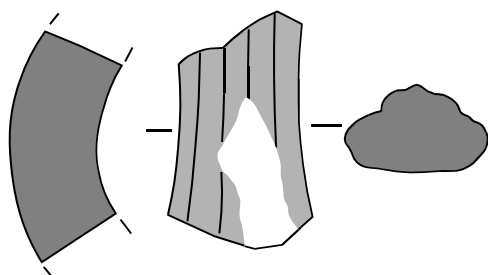
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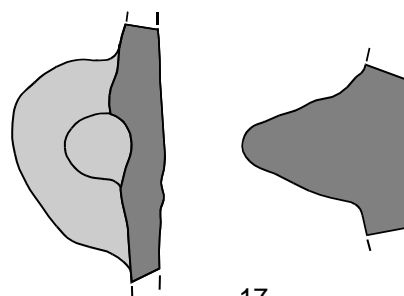
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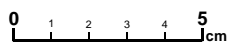
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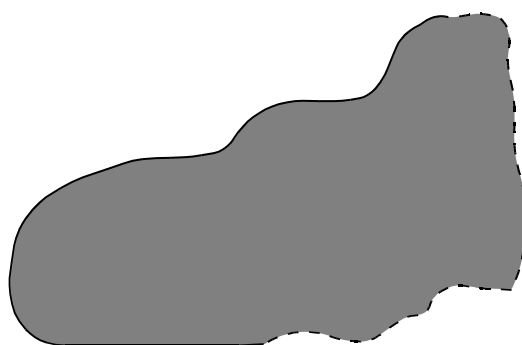
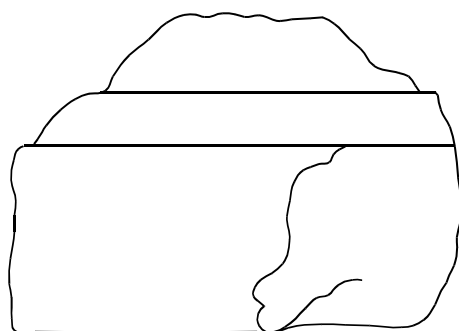
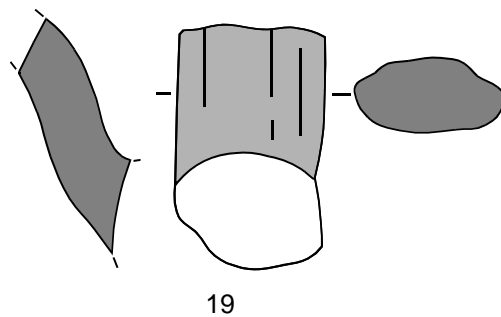
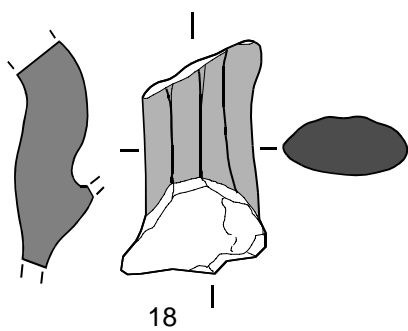
16



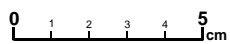
17



RC- SU 15



20



RC - SU 16

Definition: Level of fortification wall made of adobe bricks

Interpretation:

Observations: Adobe brick fortification around the Tchinguiz Tepe enclosure.

Material:

Archaeologist: E. Ariño

<i>Supporting (Stratum)</i>	2-3-1-15
<i>Intersected by (Negative)</i>	20
<i>Resting on (Stratum)</i>	18

RC - SU 17

Definition: Animal burrow

Interpretation: Could have contaminated SU-3 and 4.

Observations: Animal burrow. Filled in by SU-3 and intersecting SU-4.

Material:

Archaeologist: E. Ariño

<i>Filling (Stratum)</i>	3
<i>Intersecting (Stratum)</i>	4

RC - SU 18

Definition: Clay and sand with white patches

Interpretation: Formed by various sources, including materials from ruined buildings (adobe remains, remains of a white plastering coming from walls) and ash of uncertain origin, pebbles and sand carried by the wind. Despite its heterogeneous composition, it is the level on which the fortification of Tchinguiz Tepe (SU-16) was built. The SU is intersected in its SE corner by SU-17, which was not seen during excavation and has contaminated the record. The material is kept apart in separate bags. A much earlier contamination must be evaluated on the level's surface, which was presumably the circulation floor during its period of settlement.

Observations: Level of yellowish sand, of average grain size, mixed with clay. It contains pebbles and nodules of adobe. Isolated patches of intense black ash appear. Scraping, white patches could be seen, which constitute their most distinctive feature. Yielded fragments of limestone used in architectural decoration, some of which had been worked. Among them, a fragment of the cornice of an arch with decoration painted in red and gold leaf. Also a female terracotta figurine. Containing pottery.

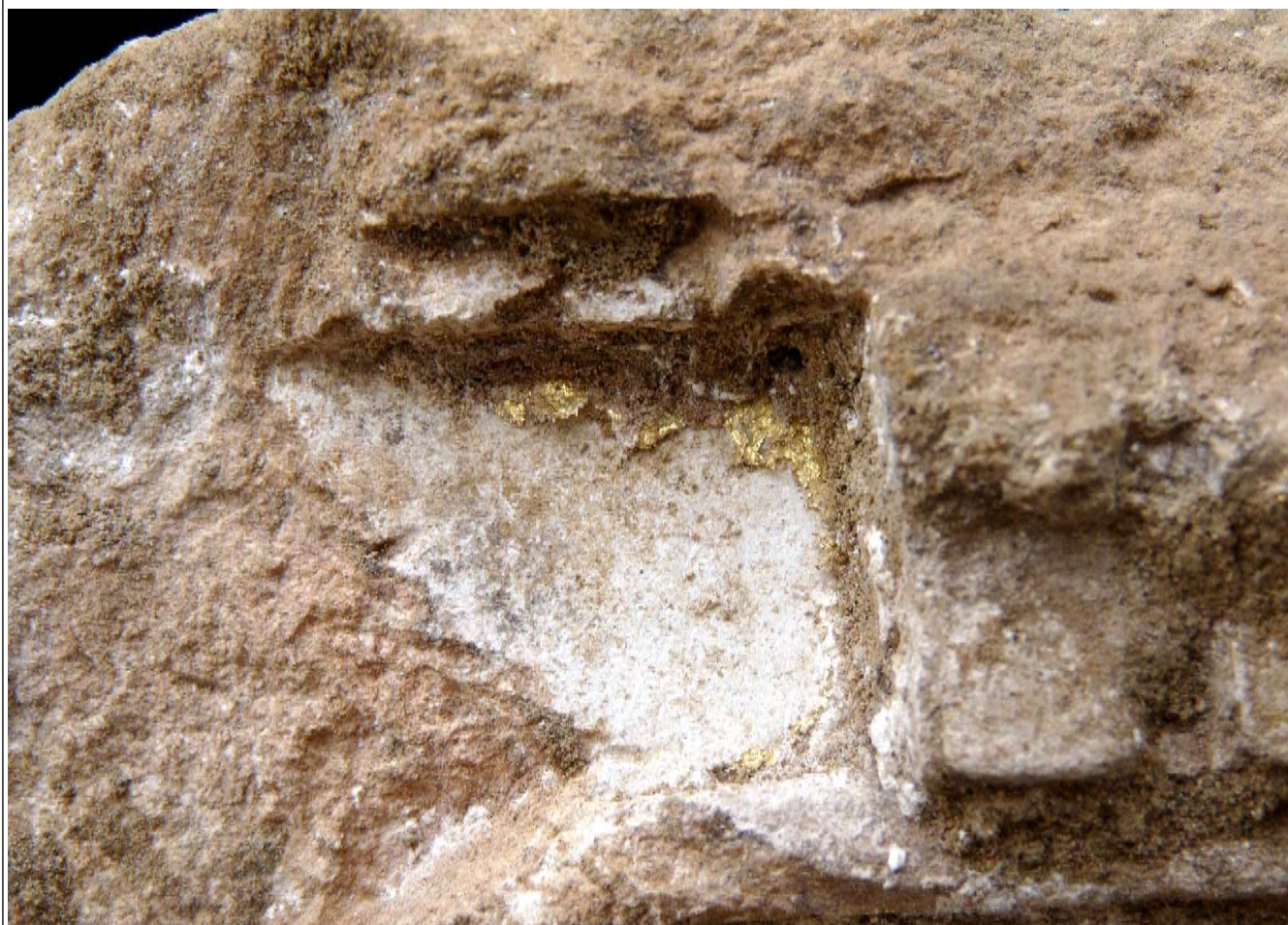
Material: **SU-18 (uncontaminated)**
 Slip ware: 639 frags.
 Common ware: 707 frags.
 Cooking ware: 60 frags.
 Architectural covering: 20 frags.
 Bone: (0,400 kg)
 Stone construction elements: 14 frags. (2 mouldings, 1 base fragment, 6 carved fragments, 1 fragment of the cornice of an arch with decoration painted in red and gold leaf, 4 shapeless fragments)
 A female terracotta figurine.

SU-18 (contaminated)
 Slip ware: 264 frags.
 Common ware: 327 frags.
 Cooking ware: 13 frags.
 Bone: (4 kg)

Archaeologist: E. Ariño

<i>Covered by (Stratum)</i>	5-3
<i>Supporting (Structure)</i>	16
<i>Intersected by (Negative)</i>	20
<i>Covering (Stratum)</i>	19-21

RC - SU 18



Fragment of a painting kesyton of arch from SU 18

RC - SU 18

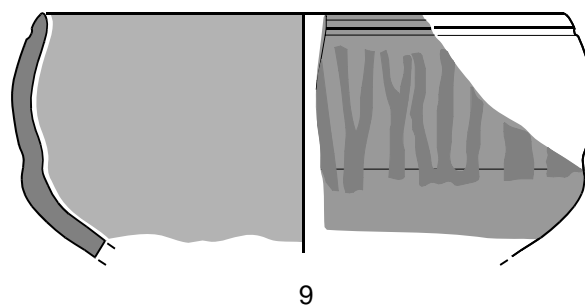
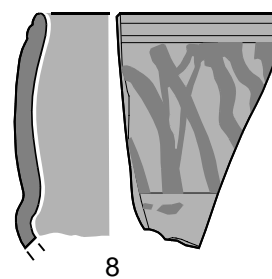
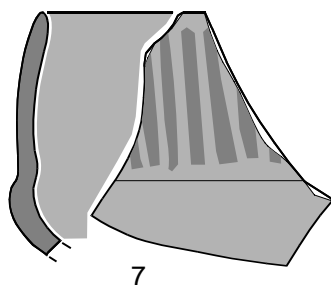
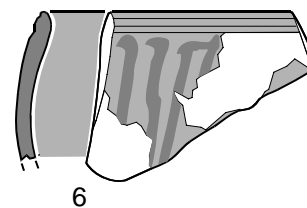
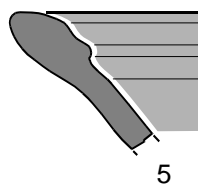
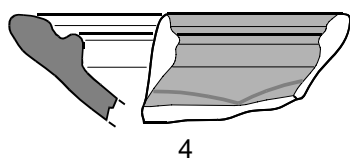
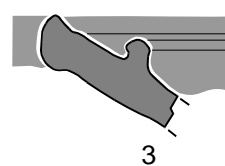
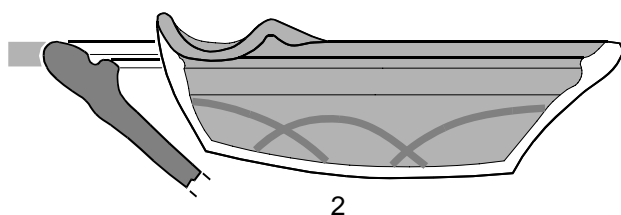
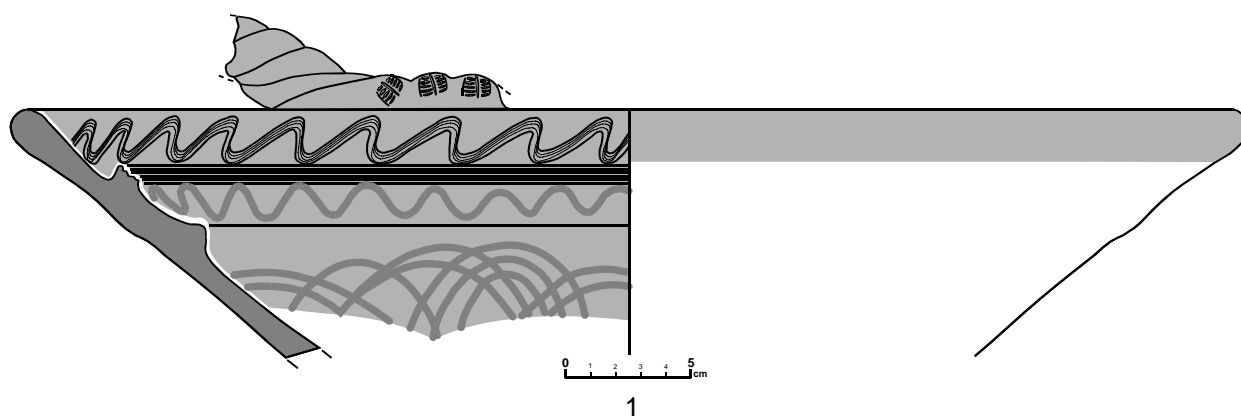


Fragment of a corinthian capital from SU 18

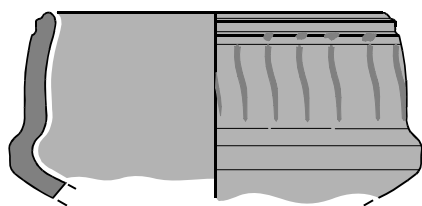


Female figure of terracota from SU 18.

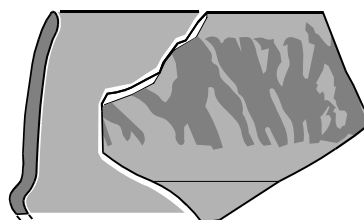
RC- SU 18



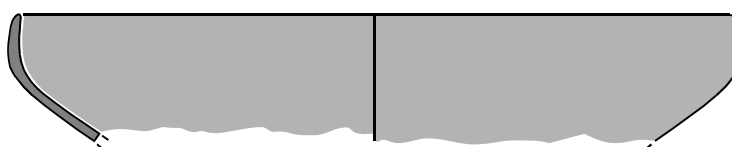
RC- SU 18



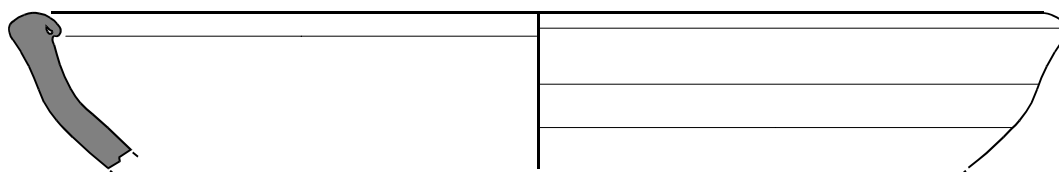
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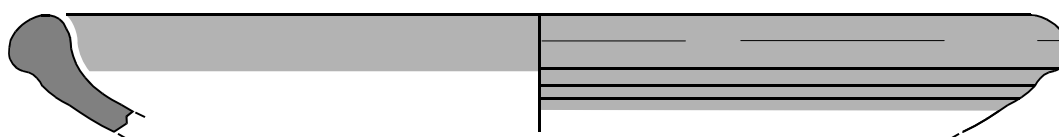
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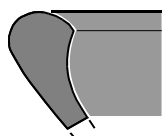
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13



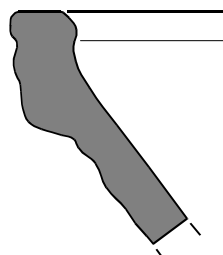
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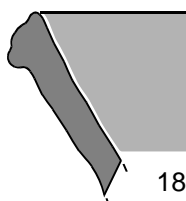
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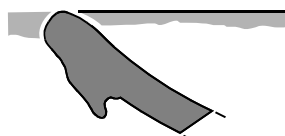
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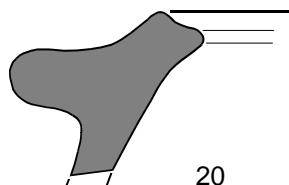
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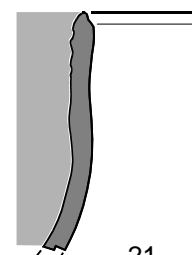
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19



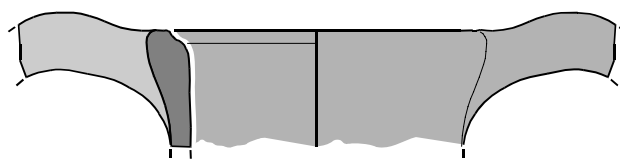
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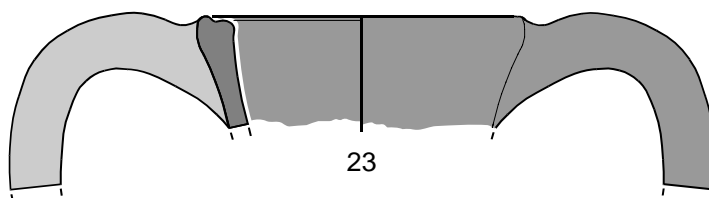
21

0 1 2 3 4 5 cm

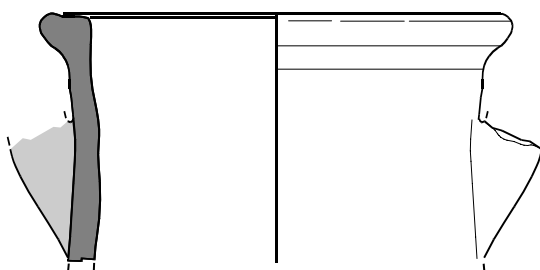
RC- SU 18



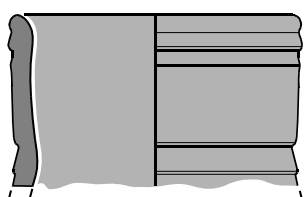
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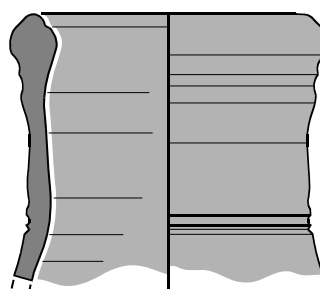
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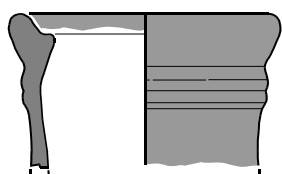
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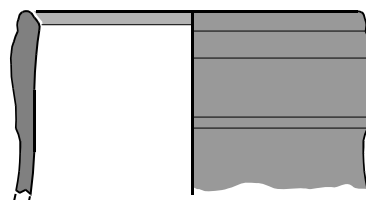
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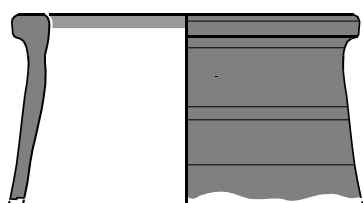
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27



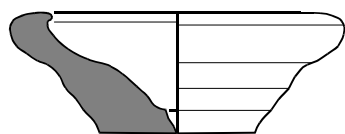
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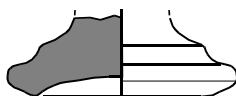
29

0 5 cm

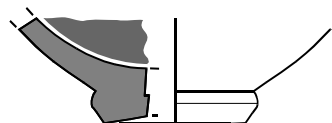
RC- SU 18



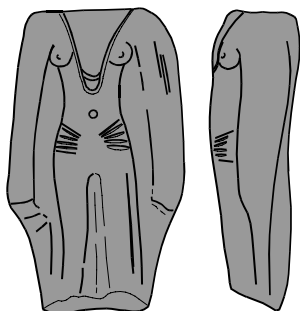
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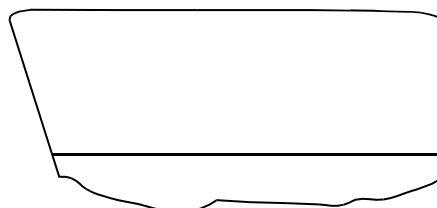
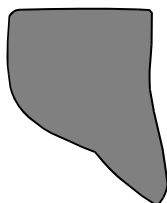
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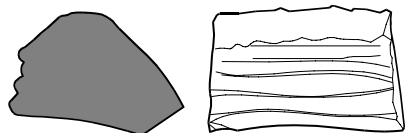
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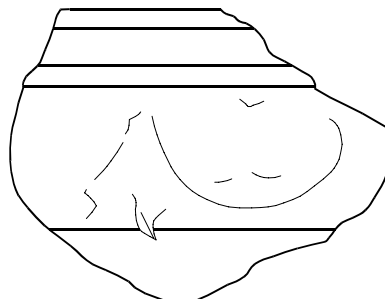
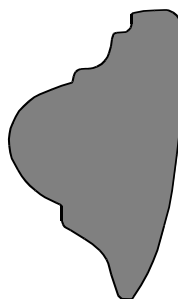
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34

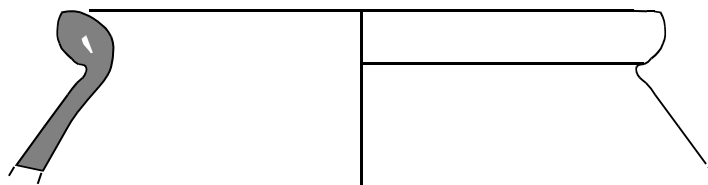


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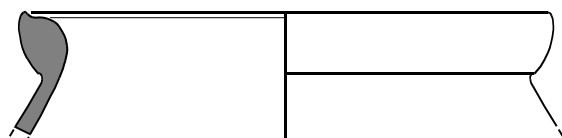


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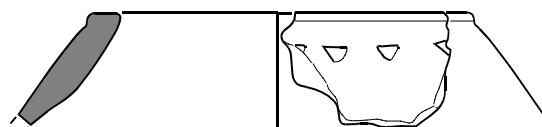
Cooking ware



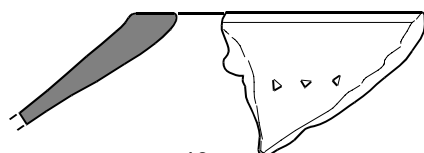
37



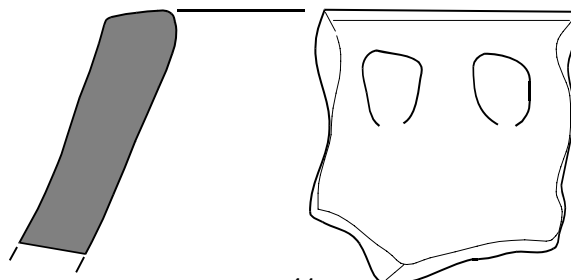
38



39



40



41

0 5 cm

RC - SU 19

Definition: Level of sand

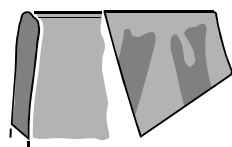
Interpretation: Level of sand formed by wind action.

Observations: Level of grey, fine-grained sand. Containing pottery, but very little in quantity. In some areas it appears compacted.

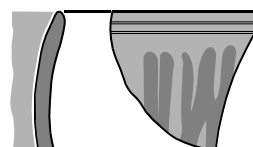
Material:
Slip ware: 18 frags.
Common ware: 15 frags.
Bone: (0,150 kg)

Archaeologist: E. Ariño

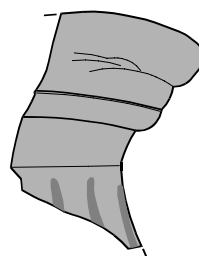
<i>Composition</i>	Sand
<i>Formation</i>	Deposited by wind
<i>Potential</i>	
<i>Covered by (Stratum)</i>	18-5
<i>Covering (Stratum)</i>	21-22



1



2



3



RC - SU 20

Definition: Level of interface piercing the fortification of Tchinguiz Tepe

Interpretation: Ancient perforation sealed by the level of fallen adobe (SU-2).

Observations: In the NE corner of the sample trench, a negative structure of limited area (no greater than 2 sq m) is found. It pierces the fortification of Tchinguiz Tepe to create a tunnel that traverses the wall. The hole was drilled before the adobe bricks (SU-2) fell and it was filled in by SU-3. However, it also contained other infill which could not be individually determined and which has been incorporated in SU-18, the unit which it actually cuts. The contaminated material is labelled in separate bags.

Material:

Archaeologist: E. Ariño

<i>Covered by (Stratum)</i>	2
<i>Filling (Stratum)</i>	3
<i>Intersecting (Structure)</i>	16
<i>Intersecting (Stratum)</i>	18

RC - SU 21

Definition: Level of compact red clay

Interpretation: This stratum could belong to the first stage of sequence, maybe related to the first fortification wall.

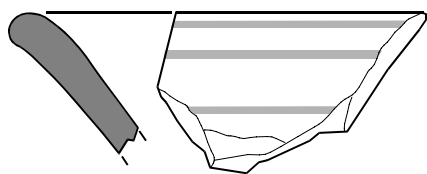
Observations: Stratum composed of successive horizontal layers of clay, which contain small strata of sand between them. The cross-section makes the alternating layers perfectly observable. Located beneath SU-18, the level can be distinguished from SU-18 by its lack of white patches and adobe fragments. Yielded several fragments of limestone, one of which presents decorative mouldings. Other materials recovered: an adobe fragment and eight brick fragments. Containing pottery.

Material:
 Slip ware: 495 frags.
 Yuezhi pottery: 1 frags.
 Common ware: 937 frags.
 Cooking ware: 26 frags.
 Ceramic architectural covering: : 16 frags.
 Construction elements: 27 frags. (13 shapeless, 10 carved, 1 moulding, 3 stucco fragments)
 Cooking ware: 6 frags.
 Bone: (2 kg)

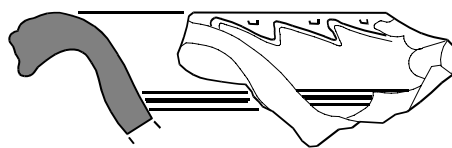
Archaeologist: E. Ariño

Covered by (Stratum)	19-18
Covering (Stratum)	12-23-22

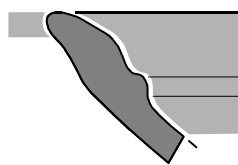
RC- SU 21



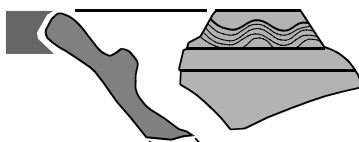
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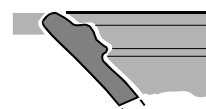
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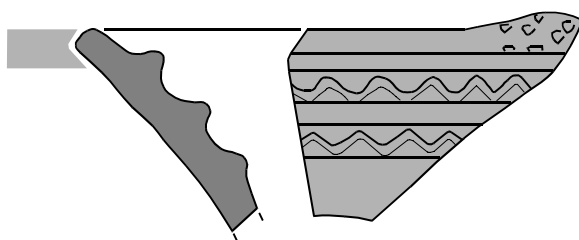
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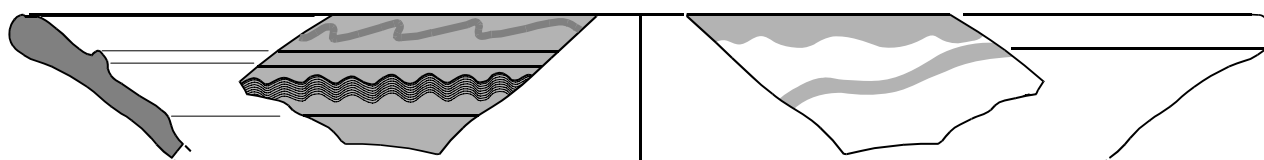
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5

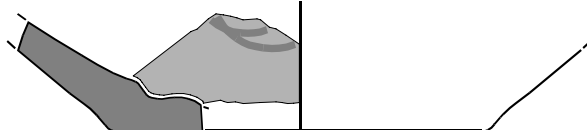


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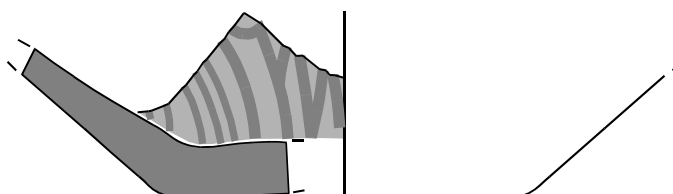


0 1 2 3 4 5 cm

7



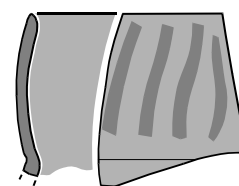
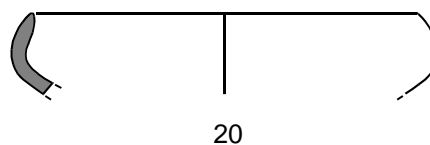
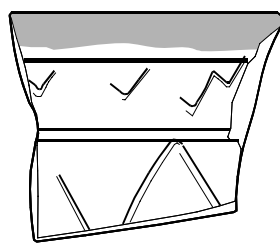
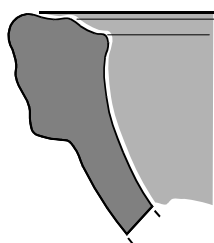
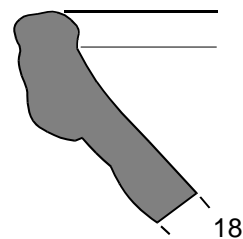
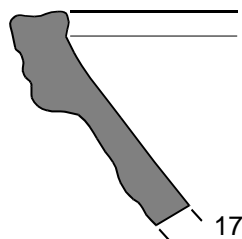
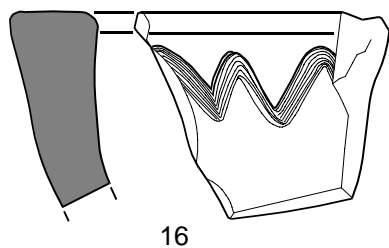
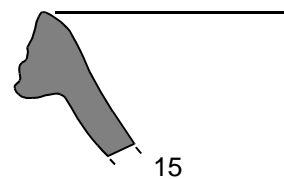
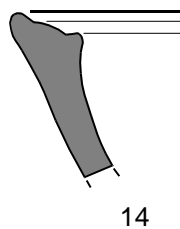
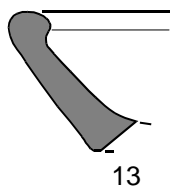
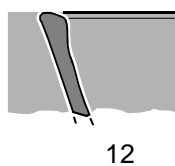
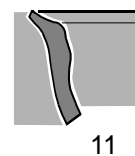
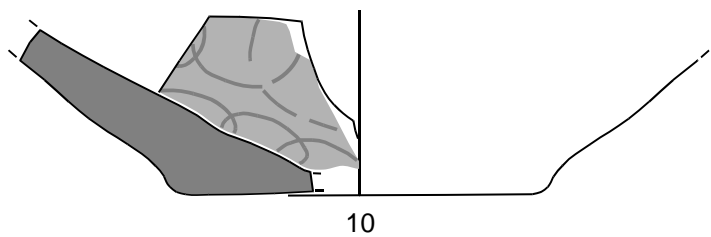
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9

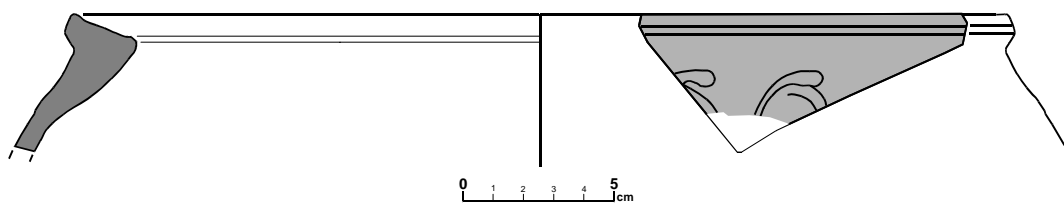
0 1 2 3 4 5 cm

RC- SU 21

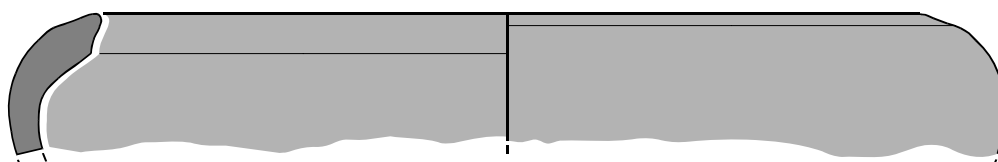


0 1 2 3 4 5 cm

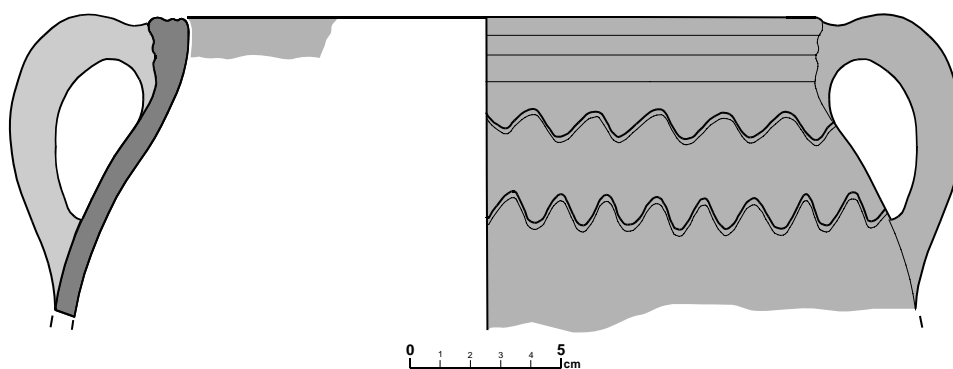
RC- SU 21



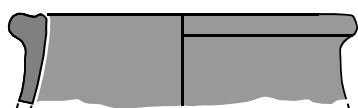
23



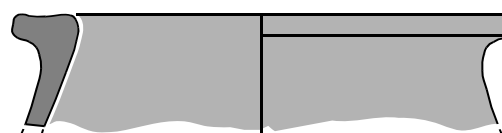
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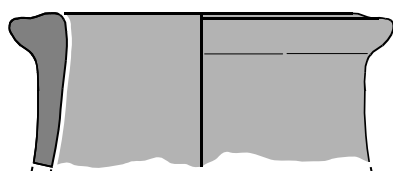
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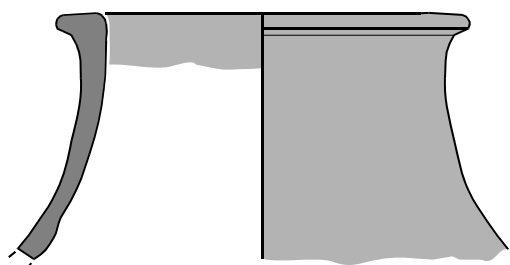
26



27



28



29

