

Report on the Activities of the Sixth Field Season of the Joint Shida Kartli Project (2014)

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Introduction

The sixth field season of the Shida Kartli project of the Ca' Foscari University of Venice (Italy) in cooperation with the Georgian National Museum (Georgia) took place from June 15th to August 2nd, 2014.

The Italian team arrived in Tbilisi on July 15th, and reached the town of Kareli on June 17th. Excavation activities started on June 19th and were completed on July 31th. On August 2nd, the team returned to Tbilisi. The Italian team was composed by: prof. Elena Rova (co-director, chief of the Italian group), Katia Gavagnin and Elisa Giroto, PhD, Alessandro Armigliato, Davit Darejanashvili MA (PhD candidate at Ca' Foscari University), Livia Gervasi, Veronica Scandellari, Laura Tonetto, MA, Annapaola Passerini, Chiara Mariotto, MA students at Ca' Foscari University (archaeologists), joined for shorter periods by Lorenzo Crescioli, PhD candidate, archaeologist, Valentina Villa, PhD candidate at the University of Paris 1, geoarchaeologist, dr. Elisabetta Boaretto and Eugenia Mintz (Weizmann Institute of Science, Rehovot, Israel), C14 specialists, and Laura Mafizzoli (MA student in Anthropology at Ca' Foscari) and prof. Marilyn Kelly-Buccellati (UCLA University of Los Angeles, USA).

The Georgian component of the team included prof. Iulon Gagoshidze (representative of the Georgian National Museum), Tinatin Chanishvili, Nana Gogiberidze, Tinatin Kutelia (GNM), and the following students in Archaeology at Tbilisi Ivane Javakhishvili State University: Davit Gagoshidze, Mariam Eloshvili, Saba Jokhadze, joined for shorter periods by Nikoloz Chaduneli MA (Mtskheta Museum), Zviad Sherazadishvili (PhD candidate at Tbilisi State University), Levan Losaberidze (student at Tbilisi State University), and Rezi Vadachoria, MA, archaeologists. 12 workmen from the villages of Doghlauri and from the town of Kareli were engaged in the excavation; Mr. Emzari Tzulukidze and Mr. Rolandi Taniashvili drove the mission's minibus and took care of logistics.

The expedition received the visit of the following colleagues: prof. Rolandi Isakadze with Students of Kutaisi University, dr. Zurab Makharadze, director of the Archeological Centre of the GNM, dr. Guram Kvirkeveli, GNM, prof. Marina Puturidze, Tbilisi State University (22/07/2014), prof. Vakhtang Japaridze, prof. Guram Lorkipanidze, prof. Guram Grigolia of the Archaeological commission of the Cultural Heritage Agency (24/07/2014), Mr. David Nagradze of the National Wine Agency of the Ministry of Culture of Georgia and Mrs. Tina Kezeli of the Georgian Wine Association (22/07/2014). It also received the visit of Colonel Mario Segreto (EUMM Georgia) with colleagues, and of the following television teams: Pirveli, Rustavi 2, Imedi (22/07/2014), Dea (23/07/2014), Gori television (25/07/2014).

This year's activities concentrated on excavations at the Aradetis Orgora (Dedoplis Gora) mound, an important multiperiod settlement located on the left bank of the Western Prone River, near the confluence of the latter with the Kura, in the Kareli district. The site has a roughly triangular shape with quite steep sides (**Fig. 1**), and is approximately 70-80 m long and 34 m high on the present level of the river. The archaeological levels at the site amount to a maximum thickness of 14 m, and include remains of the (Chalcolithic), Early Bronze, Late Bronze, Iron, Hellenistic, Roman Imperial and Early Medieval periods. The present top of the mound is occupied

by a palatial building of the Late Hellenistic-Early Imperial age (I cent BC - I cent. AD), in course of investigation since 1985 under the responsibility of prof. Iulon Gagoshidze.

Excavation was carried out in three different areas: Field A, B, and C (**Fig. 2**). The latter represents the continuation of last year's excavation led by prof. Gagoshidze on behalf of the Ilia Chavchavadze State University, and was excavated by the Georgian team under the responsibility of the same prof. Gagoshidze. It is situated on top of the eastern side of the mound, and its aim is to unearth a section of the still unexcavated eastern wing of the Late Hellenistic/Early Imperial palatial building. Fields A and B represent the continuation of the two stratigraphic sounding initiated in 2013 by the expedition on the opposite (Western and Eastern) sides of the mound with the aims of verifying the settlement's pre-classical occupational sequence and of obtaining a corpus of stratigraphically secure artefacts and ecofacts from the different occupational phases: they were excavated by a mixed Georgian-Italian team under the responsibility of prof. Elena Rova.

Geoarchaeological and soil micromorphological research (responsible Valentina Villa), analysis of palaeofaunal finds (responsible Veronica Scandellari), and collection of samples for radiometric dating (responsible Elisabetta Boaretto), as well as for palinological analysis and for archaeometric analysis of pottery and obsidian were also carried out in the course of the season. Finally, during one week of work Laura Mafizzoli completed a short research on the perception of antiquities and archaeology by the local population, which she had started during the 2013 season.



Fig. 1. View of the Aradetis Orgora (Dedoplis Gora) mound with location of Field B, from E.

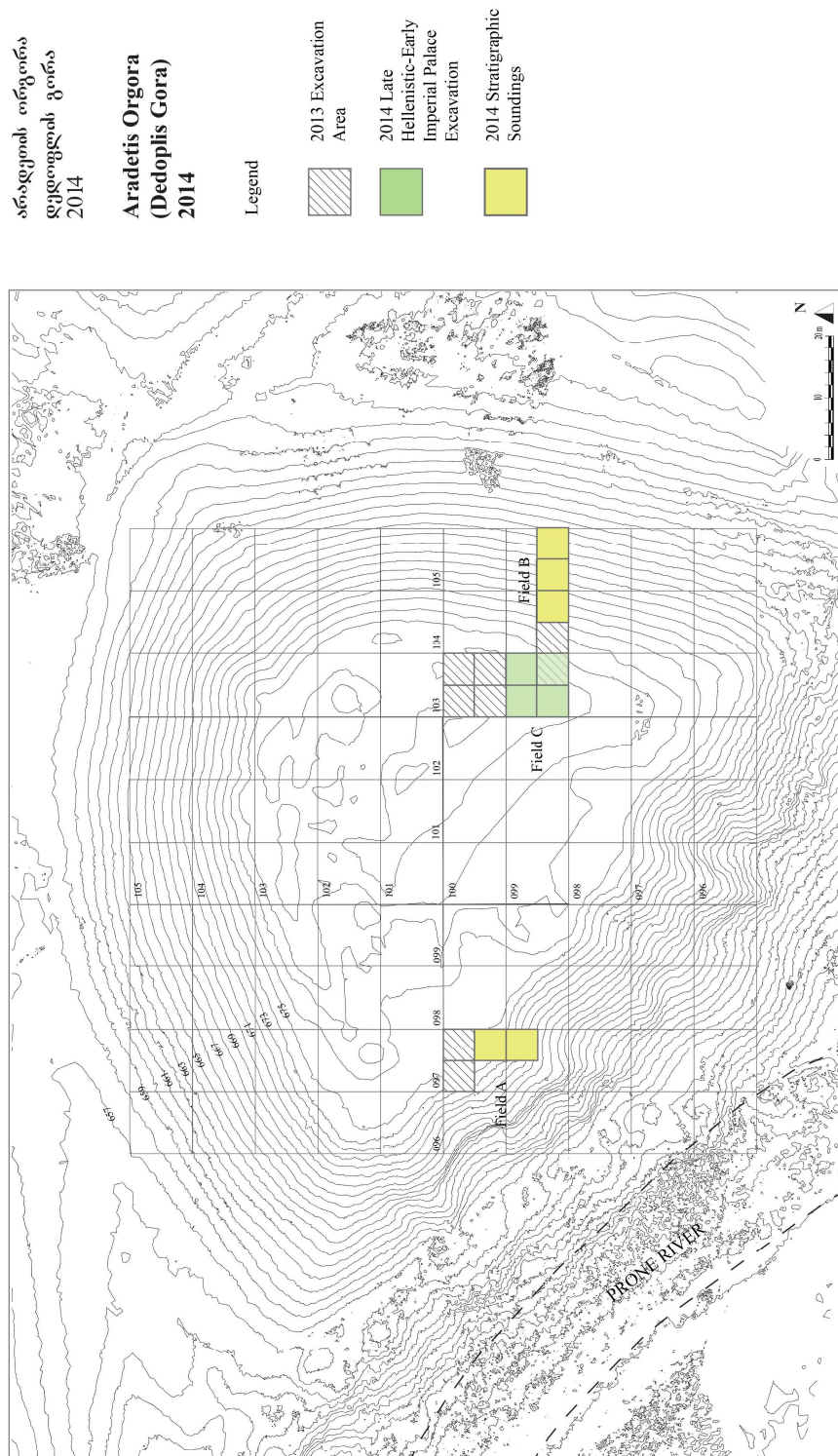


Fig. 2 Contour map of the Aradeti Orgora mound with excavation areas highlighted.

Field A (Western stratigraphic sounding)

Field A (**Fig. 3**) is situated on the South-Western slope of the mound, at a point where this is especially steep, and where in situ Early Bronze material (notably Kura-Araxes and Bedeni pottery) had been noticed on the exposed section on the occasion of a visit to the site by the expedition team in 2009. It consists of two 5 x 5 m quadrants oriented in NS direction (097.100d, 097.099b). This year's excavation started from the top of the Late Bronze levels, which had been exposed at the end of the 2013 season, and resulted in the investigation of ca 1 m of occupational LB deposits, thus bringing the total depth of archaeological layers excavated in the area to more than 4 m, from 672.50 m a.s.l. (corresponding to the bottom of the Late Hellenistic/Early Imperial palace) to ca 668.40 m a.s.l.

Excavation was carried out in parallel on two steps, namely at the top (in the N half of quadrant 097.100d) and at the bottom (in the S half of quadrant 097.100d and in quadrant 097.099b) of the ancient slope of the mound exposed in 2013.

In the former area, only a sequence of filling layers, heavily sloping in S direction, occasionally cut by pits and with rare, very poor remains of tiny collapsed walls, was found under the ancient slope of the mound. The walls discovered last year at the northern limit of the quadrant (Level 5) probably marked the limit of this empty area in northern direction. The above-mentioned sequence of fillings, which contained only Late Bronze material, was underlain by a very thick layer of pebbles (locus 1531-1554), the bottom of which, at alt. 669.70 a.s.l., approximately corresponded to the level of the massive stone walls of space 1399 ("Level 6"), which had emerged last year at the bottom of the slope. The outer face of two of these walls (1400, 1401) was reached and exposed at the end of the season in this part of the excavation. Strangely enough, a number of Kura-Araxes sherds of unknown origin was discovered in the filling leaning to these walls.



Fig. 3. Field A, general view of the excavation area at the end of the 2014 season, from NW.

A quite different situation was met with in the lower portion of the sounding, at the bottom of the ancient slope, which was clearly terraced, since here we found a sequence of successive occupational layers dating to the Late Bronze period. First of all we clarified the relation between the stone walls of space 1399 (1388, 1400, 1401, 1402) and the mud-brick walls of room 1393 (1390, 1404, 1387 and 1407) exposed in 2013, which had then both been attributed to "Level 6". The latter actually represented a later addition (Level 6), possibly contemporary to the Level 5 walls on top of the slope, which had been dug inside space 1339, thus completely obliterating the floor and filling of the latter, which we presently attribute to Level 7. After completing the plan of the walls of space 1399 (**Fig. 4**), thereby discovering an additional stone wall (1421) running from this in S direction, we removed them. The next level (Level 8) was represented by a large number of pits, often cutting each other, to which only a badly preserved pisé wall (locus 1456) could be tentatively associated.

There followed a period (Level 9) in which the excavated area was divided into three different spaces dedicated to distinct functions, a general layout which, in spite of slight modifications in their limits in the course of time, was preserved over the different sub-phases (**Fig. 5**). Space 1630, which occupied the NE part of the area, was filled with successive layers (we could distinguish at least 5 of them, for a total depth of ca 60 cm) containing a huge number of animal bones and pottery sherds, some stone tools (mainly fragments of grinders, pestles etc) and a considerable amount of charcoals. The space had no formal floor, and was delimited, in the different sub-phases, by irregular alignments of stones cemented with clay ("wall" 1612), or simple raised bands of clay ("walls" 1659, 1670) running in NW-SE direction, with a possible opening approximately in its centre. It was most probably an open space in part of which butchering and other food processing activities were possibly carried out, and which was mainly used for disposal of the remains of such activities. A division into a NW and a SW area was marked by the constant presence of a stone assemblage/alignment just S of the supposed entrance.

Space 1637 occupied the SE part of the excavated area. Only a small part of it was preserved, since its southern continuation was damaged by slope erosion. It was also an open space, occupied by small, frequently renewed firing installations (fireplaces 1473 and 1482 in the latest sub-phases fireplaces 1609, 1617 in the earlier ones). Traces of successive surfaces paved with small pebbles (1484, 1636) were found in this area.

The rest of the excavated area (space 1631) was occupied by a surface (1613) which was clearly located on the outer edge of the ancient mound. It was heavily sloping in both S and W direction, and was constantly occupied by shallow pits, frequently cutting each other but apparently disposed in different layers separated by thin layers of compacted soil. Only in the earliest sub-phase, probably contemporary to the bottom of space 1630, a clay installation (1657) was found in the NW corner of this space. This consisted of a sort of clay platform with stepped outer limits delimited by a raised band of clay with remains of a thin white plaster on top, resting on a base of sparse stones, and flanked on the E side by a lens of ashes and charcoals.

During the very last day of excavation, there appeared a number of features which let us suppose that we have reached a stage (Level 10?) in which the area had a different layout. The whole excavated surface was again disturbed by different pits, apparently sealed by a greyish layer containing small charcoals, which extended also over the area later occupied by space 1630. In the area spared by these, we found a sort of ovoid platform of yellowish compacted clay (1719) and, to the S of this, a tiny mud-brick wall running in NW-SE direction, flanked by a narrow and shallow gutter.

The investigation of this level will be the first task for next year's campaign. The aim of the next season in Field A will be to complete the investigation of the LB accumulation, to reach the top of the Early Bronze (Bedeni and Kura-Araxes) levels, which should lie less than 1 m deeper, and proceed with their excavation. To judge from preliminary observations of the exposed section of the Prone River, virgin soil in the area may lie about 3 m deeper.










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2014

Aradeti Orgora
(Dedoplis Gora)
2014

Field A

Level 9 - Late Bronze Period

Legend

-  = Stone
-  = Wall
-  = Pit
-  = Slope
-  = Installation
-  = Pebbles Pattern
-  = Limit of Square
-  = Limit of Quadrant
-  = Limit of Excavation

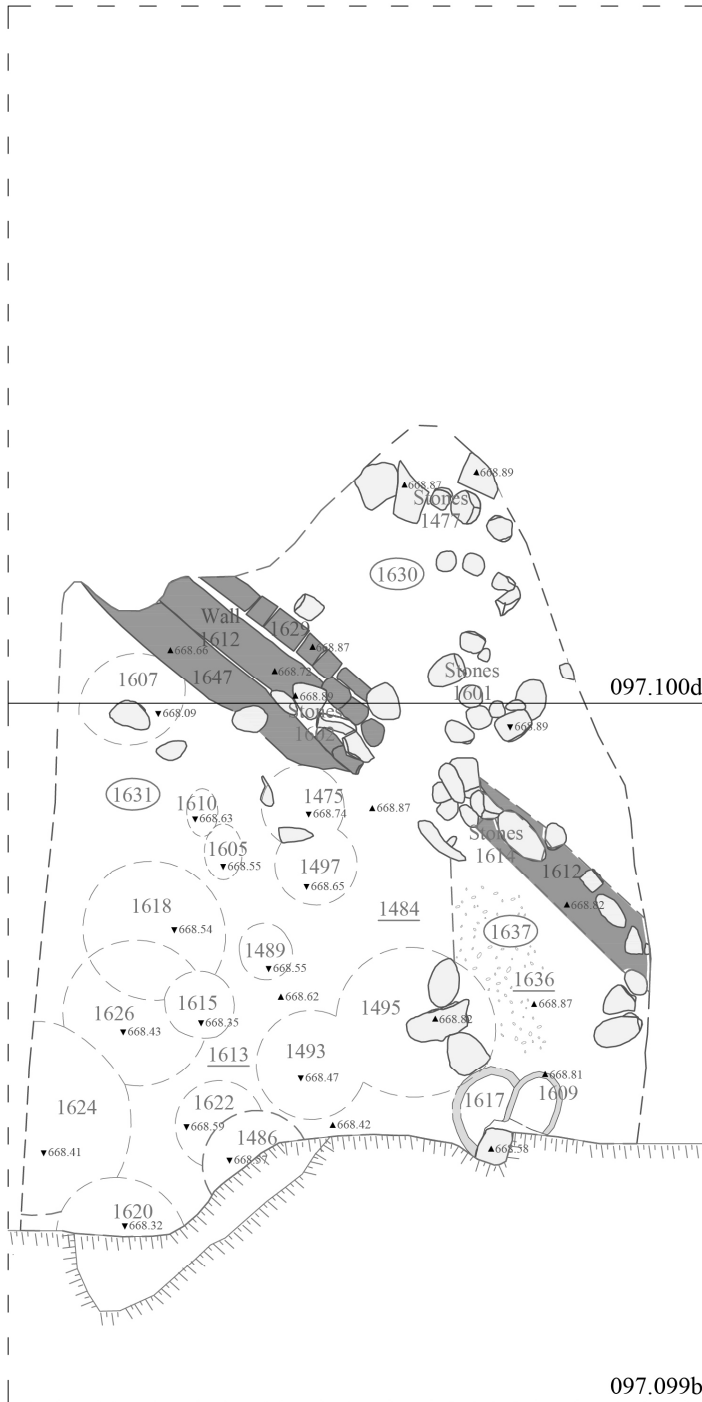


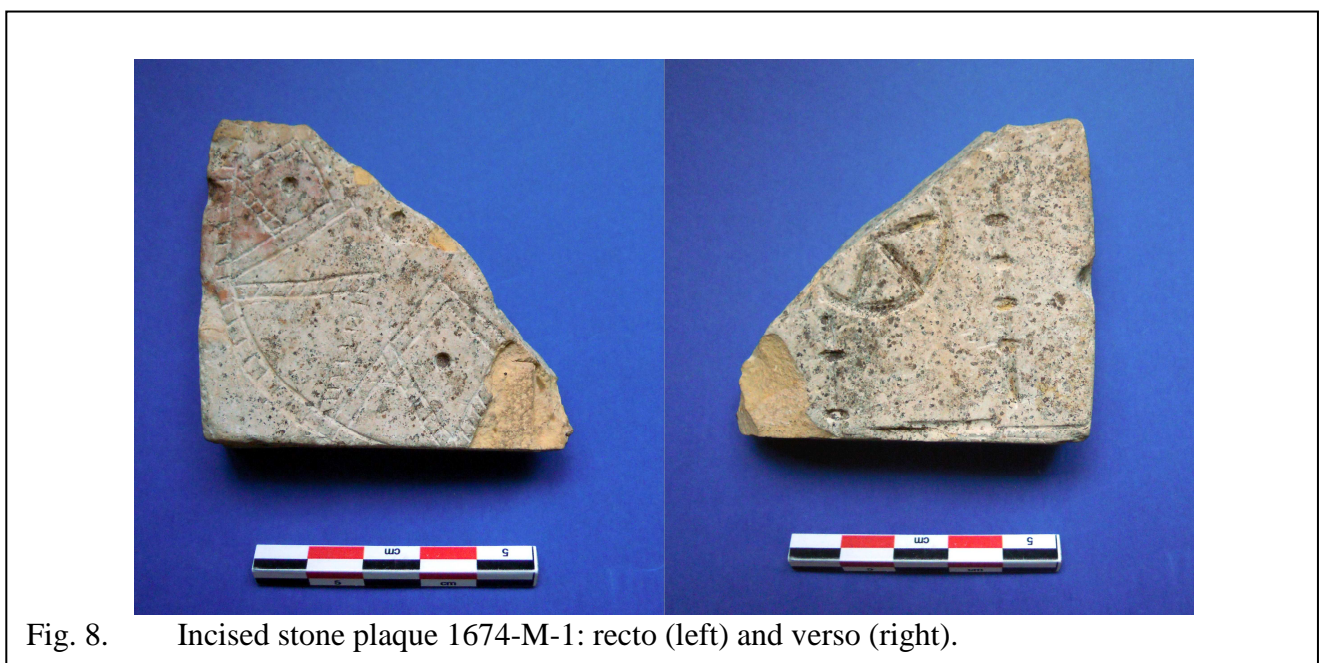
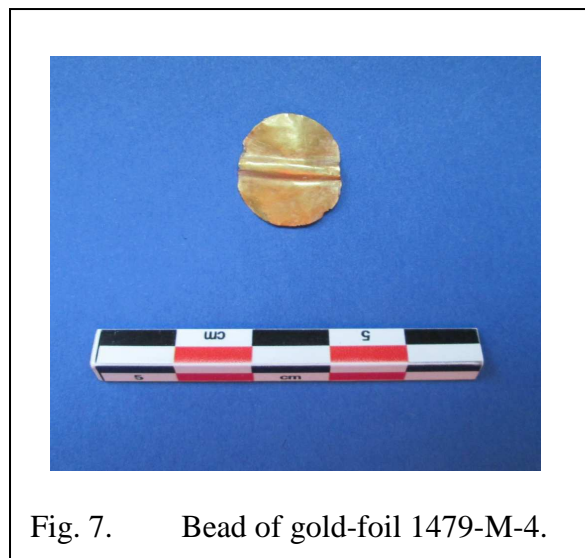
Fig. 5. Field A, quadrants 097.100d, 097.099b, plan of level 9 (Late Bronze period).

The 2014 excavation in Field A yielded a rich repertoire of stratified LB pottery, much of it with incised and plastic decorations (zoomorphic handles, etc.), dating to the early (14th-13th cent.) as well as to the later (12th-11th cent.) phases of the period. Together with the contemporary pottery excavated this year in Field B (see *infra*) and with the pottery of the Transitional Late Bronze-Early Iron period and of the later EI excavated in both fields in 2013, this material (**Fig. 6**), which is in course of study in the framework of a PhD dissertation at Ca' Foscari University of Venice, will offer the possibility to obtain a reliable ^{14}C -supported ceramic sequence for the Shida Kartli region in the later 2nd and 1st millennium BC, to be compared, e.g., with that of the neighbouring settlement of Khovle Gora.



Fig. 6. Examples of Late Bronze pottery from the 2014 season (Fields A and B).

The two most important small finds of the season come from this part of the excavation, more precisely from the succession of fillings of open area 1631. The first is a bead of gold foil (1479-M-4) with bitumen (?) traces on the back (Fig. 7). Gold finds are quite rarely found in LB levels in Georgia. The bead belongs to a type which is very common in the 3rd mill. BC, and might therefore have been re-used, although some similar items (in bronze) have been found in LB graves in the neighbouring Doghlauri cemetery (I. Gagoshidze, personal communication). The second one is a fragment of a small stone plaque (1674-M-1) decorated on both sides with incisions (Fig. 8). One of the sides shows a finely incised ten-pointed star: this is strongly reminiscent of the Mesopotamian symbols of the sun-gods Shamash and/or of the goddess Ishtar (the Venus planet), which frequently occur since the Old Babylonian period in both Mesopotamia and Syria (see, among others, the famous golden pendants from Dilbat, Ebla, etc.), but are hitherto unattested, as far as we know, in contemporary levels in the Southern Caucasus. The back side of the plaque shows a number of more coarsely incised designs, maybe resulting from secondary working: it may have been used in the production of small jewels in metal foil. The discovery of these two remarkable objects confirms the importance of the site during the second half of the 2nd millennium BC and highlights the existence of wide-ranging connections of the Shida Kartli region in this historical phase.



Field B (Eastern stratigraphic sounding)

This year we continued the EW-oriented step-trench sounding opened in 2013 on the SE side of the mound (**Fig. 9**). The first two "steps" (quadrants 103.099d and 104.099b) of the sounding, which had yielded a sequence of layers dating from the late Hellenistic to the earlier Iron Age, were abandoned this year. Excavation was continued in the two lowest quadrants (104.099d, 105.099c), while a further quadrant (105.099c) was opened to the E of the latter, in order to try to reach the virgin soil. This was actually met at alt. 664.40, at the base of a succession of ca 4 m of Kura-Araxes levels. Excavation continued for ca 75 cm inside the virgin soil, until alt. 663.85, thus bringing the total depth of excavated deposits in Field B to more than 13.50 m.

Excavation in quadrant 104.099d allowed first of all to clarify the date of the massive stone wall (2202) with a face of squared sandstone blocks discovered in 2013 in quadrant 105.099c, which we had tentatively attributed to the Early Iron Age. In fact, ca 2.40 m to the W, we exposed the collapsed western face of the wall (locus 2128). This was made of irregular pebbles and stone blocks, and was apparently supported at the base by short projecting buttresses, the core of the wall being made of similar, loosely connected irregular stones. West of wall 2202-2128, we excavated a sequence of layers leaning to its W face. Contrary to our expectations, however, these yielded exclusively Late Bronze Age pottery (mainly of 12th-11th cent. date, with the exception of the top ones, possibly to be attributed to the Transitional LB-EI period), which forces us to attribute the wall itself to the latter period. The revised date of wall 2202-2128 opens the possibility that its construction was contemporary to that of the LB walls (2210, 2211 etc.) discovered last year to the E of it; in this case the function of the latter would have merely been to support the steep slope of the mound.

The area to the W of wall 2202-2128 (space 2179) was an open area occupied by a number of different installations, which showed a considerable continuity over the time (**Fig. 10**). Installation 2180 (**Fig. 11**) was located near the N limit of quadrant 104.099d, in its W half. It consisted of a stepped clay platform, on top of which a shallow basin with a layer of pebbles at the base was situated. The top of the basin had been repeatedly coated with a whitish plaster, which showed traces of burning inside it. A number of fish bones were found inside the basin, and bones of swan and equids were recovered elsewhere near the platform, which may therefore have been used for special (ritual ?) purposes. On the lower step of platform 2180, we recovered two complete pottery vessels: a shallow bowl with a handle in the shape of a horned animal and a small bottle.

To the S of platform 2180 we unearthed a sequence of successive firing installations (fireplaces 2154, 2188), reaching a total depth of ca 80 cm. The best preserved of these, fireplace 2154, had a layer of river pebbles at the base, and was surrounded by a raised band of clay of yellowish colour. It had a squarish shape with rounded corners (it measured 1.00 x 1.10 m). Its N part was filled with several successive layers of small pebbles alternating with pottery sherds, presumably belonging to different remakings, topped by a burnt surface of reddish clay, while its S part was filled with ashes. Its predecessor, fireplace 2188, was very similar to 2154, but had a more rounded outline. Among the significant finds from this square, also worth mentioning is a cluster of 10 flint sickle-blades (**Fig. 12**).



Fig. 12. Examples of flint sickle blades from cluster 2162-M-1.

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Aradefis Orgora
 (Detoplis Gora)
 2014

Field B

Final Plan

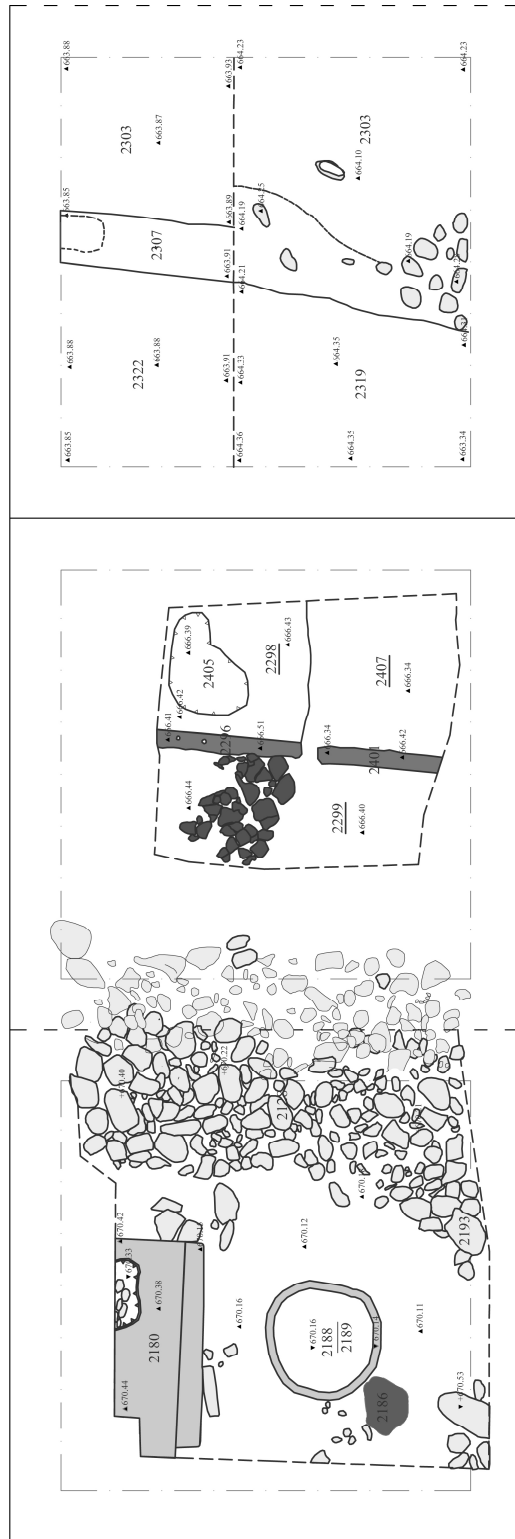
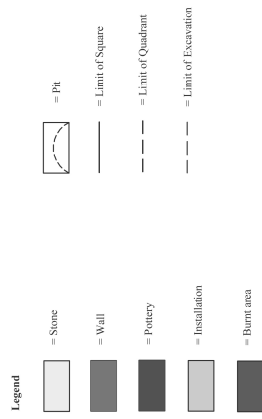


Fig. 9. Field B, quadrants 104.099d, 105.099c, 105.099d, final plan.



Fig. 10. Field B, quadrant 104.099d, view of space 2179 with fireplace 2154 and stone wall 2202-2128 from S.



Fig. 11. Field B, quadrant 104.099d, view of space 2179 with platform 2180 from S.



Fig. 13. Field B, quadrant 105.099c, view of spaces 2287 (to the left) and 2288 (to



Fig. 14. Field B, quadrant 105.099c, wall 2296-2401 and floors 2407 (to the left) and 2299 (to the right) with smashed in situ jar, -from N.

On the next step of the sounding, in quadrant 105.099c, we continued the investigation of the densely packed sequence of Kura-Araxes layers initiated in 2013. Two levels, in particular yielded very interesting architectural structures. In the upper one (**Fig. 13**) we discovered a round structure (locus 2287, reconstructed diameter ca 2.50 m) surrounded by a clay wall, on the outer side of which a row of stones set in vertical position was deeply embedded in the clay. The building had two successive plastered floors, on which however no in situ material was recovered; the lowest of these lay on a preparation of small pebbles. Building 2287 cut another building (locus 2288) of similar shape and dimensions, the outline of which was marked by a thick band of clay plaster. This was equipped with an irregular clay bench on the outer side. Building 2288 also had two successive floor layers resting on a pebbles preparation; no in situ material was recovered from these, as well.

Excavation in the quadrant stopped at alt. 666.40 ca, after reaching the floor of the second of the above mentioned levels (**Fig. 14**). This yielded a ca 20 cm thick rectilinear wattle-and daub wall (2296-2401) crossing the whole excavated area in NS direction, and continuing in the unexcavated areas on both sides of it. Inside wall 2296-2401, small burnt post-holes set at a regular distance from each other could be observed, a building technique which has well known parallels at other Kura-Araxes sites in the Shida Kartli region, e.g. at Kvatskhela. Plastered floors were found on both sides of wall 2296-2401. The floor on the E side (2298-2247) had been damaged and re-made at least once: two Kura-Araxes carinated pots of Red-Black Burnished Ware were found on the upper of these surfaces. A large smashed Kura-Araxes jar of RBBW ware was found on the floor (2299) on the W side of the wall.

A less preserved intermediate level yielded no clear architectural structures, but a small round-shaped installation surrounded by a raised band of clay (locus 2285) and some interesting materials, among which a complete one-handed carinated jar and a small flint spearhead, both of them belonging to well-known Kura-Araxes types (**Fig. 15**).



Fig. 15. One-handed carinated jar (to the left) and flint spearhead (to the right) of the Kura-Araxes period from quadrant 105.099c in Field B.

In the easternmost quadrant of the step-trench (105.099d) after removing surface soil, we met an up to 1.50 m thick sloping layer of pebbles (2302-2303) which contained mixed pottery, mainly of Late Bronze date, deposited by slopewash activity since the construction of the large stone wall 2202-2128. As we had already ascertained last year in quadrant 105.099c, this pebble layer sealed an eroded ancient slope of the mound, on the surface of which some remains of Late Bronze Age retaining walls were found. The layers under the ancient slope were exclusively of Kura-Araxes date, and consisted of a succession of three clay platforms (Fig. 16), up to 40 cm high, whose top and sides were covered with whitish clay plaster, which were covered in their turn by a ca 30 cm thick succession of ash layers. A row of small post-holes was found on the surface of the latest platform (locus 2312), and a row of larger ones (Fig. 17) under the earliest platform (locus 2314), but no other traces of buildings were found over them. Two successive surfaces of pebbles, found in the N half of the quadrant under the base of the earliest platform, and directly overlying the natural soil, represent the earliest human occupation in this area. It thus appear that at least this section of the Aradetis Orgora settlement was founded during the Kura-Araxes period, and that the supposed Chalcolithic occupation, if present at all on the mound, should be looked for in other parts of it, presumably near its centre, or on the Western side, where a few Chalcolithic sherds are said to have been recovered by previous excavators. To prove or disprove their existence will be one of the aims of the next field seasons at Aradetis Orgora.



Fig. 16. View of the W section of quadrant 105.099b in Field B, with sequence of Kura-Araxes platforms, overlain by ash layers, over virgin soil, from E.



Fig. 17. View of the row of post-holes 2317 at the base of platform 2314, from N.

Field C (Excavation of the Late Hellenistic/Early Imperial palace)

Excavation in Field C, at the E limit of the Dedoplis Gora mound, near its highest point, involved six different quadrants (103.099a, b, c, d, 103.100c, d), two of which had been already investigated in 2013. Ceramic sherds of the Early Medieval period recovered from the topsoil allowed us to suppose that this sector of the settlement contained important remains of the medieval period. In particular, the presence of tiles led us to hypothesise the existence of an important building with tiled roof, since, in fact, none of the buildings (including the temple) previously excavated on the mound had been covered by tiles. The 2013 and especially the 2014 seasons revealed that this building had been built in the 4th, or at the limit between the 3rd and the 4th century AD, and restored (or re-built) at least twice until the 6th century, when the Dedoplis Gora settlement ceased to exist. Evidence of this has been found during the excavation of the topsoil layer, where we discovered three different types of tiles. The first of them, which is of semi-cylindrical shape and painted in red, shouldn't be later than the 3rd-4th century. In the same layer, however, we also recovered a different type of tiles: these are thicker and their curve is lower, and they have a grooved line in the upper part. According to their typology, they shouldn't date earlier than the 6th century. Finally, there were also tiles, whose shape is in-between these two types.

In spite of the fact that we found thousands of tile fragments, we couldn't discover any clear architectural plan of this period, since the corresponding level (Level I, of the Early Medieval Period) was very damaged; we therefore proceeded to excavate Level II under it, which corresponded to the remains of the royal palace of the Late Hellenistic/Early Imperial period (1st century BC-1st cent. AD). The bad preservation of Level I can be attributed to two different reasons. The first one is wind erosion, which must have especially affected the E part of the top of the mound: in fact even nowadays, when strong wind is blowing on the E, highest part of hill, on the W, lower part one can't often even feel it. We assume that another reason could be that, when at the beginning of the 20th century the local population ceased to live in semi-subterranean dwellings and began to built houses at ground level, they opened a stone quarry on the E part of the mound, as we proved during previous excavations in the palace area. Such quarrying activities caused significant damage to the Hellenistic palace's outer wall; we therefore assume that any traces of stone Medieval architecture (if present at all) would have also been obliterated by it.

Level I (Early Medieval Period)

Under the topsoil layer we found a burnt surface, which extended over the southern part of quadrant 103.099a, the SW part of 103.099b, and the W part of 103.099d. No artefacts were recovered from this feature, which could exactly date it. There was also no direct connection between this burnt surface, continued in the unexcavated part of quadrant 103.099c, and the building which we suppose was located to the N of it. Under this feature, ceramic fragments were discovered, which undoubtedly belonged to the first dwellers that settled in the area after the destruction of the Hellenistic palace. In our opinion, this reoccupation took place not before the 4th century AD, as proved, for example, by a fragment of large storage jar, discovered in quadrant 103.099a square, but especially by a jug with a scratched Greek letter ("A") (**Fig. 18, left**), the shape of which appears to be characteristic for the final 3rd-early 4th century.

The rest of the area excavated in 2014 (in the N half of 103.099a and in quadrant 103.100c, as well as in the E part of quadrants 103.099b and 103.099d) showed a different situation. Here the remains of the palace were preserved almost up to the level of the contemporary surface, but their top was cut by some large storage jars of Early Medieval date (**Fig. 19**), which had been inserted into them. All of the jars belong to characteristic types of this period, have a high neck, a flat base and show relief decoration on the body. They were all used for wine, except for one, which was recovered at the limit between quadrants 103.100c and 103.100a. This large jar had no base, and had been set on a base of cobblestones, apparently as part of a toilet construction. Several similar

installations had been excavated in previous years at the site. Among the most significant finds from the level was a fragment of the base of a marble vase (**Fig. 20, right**) from quadrant 103.100c: an unique luxury artefact, which seems completely inappropriate for the rather poor social group to which the Medieval settlement discovered by our excavation should be attributed.



Fig. 18 Jug with scratched Greek letter ("A") (left), and fragment of marble vase (right) from Level I (final 3rd-early 4th century a.D.).



Fig. 19 View of the large in situ storage jars from Level I.

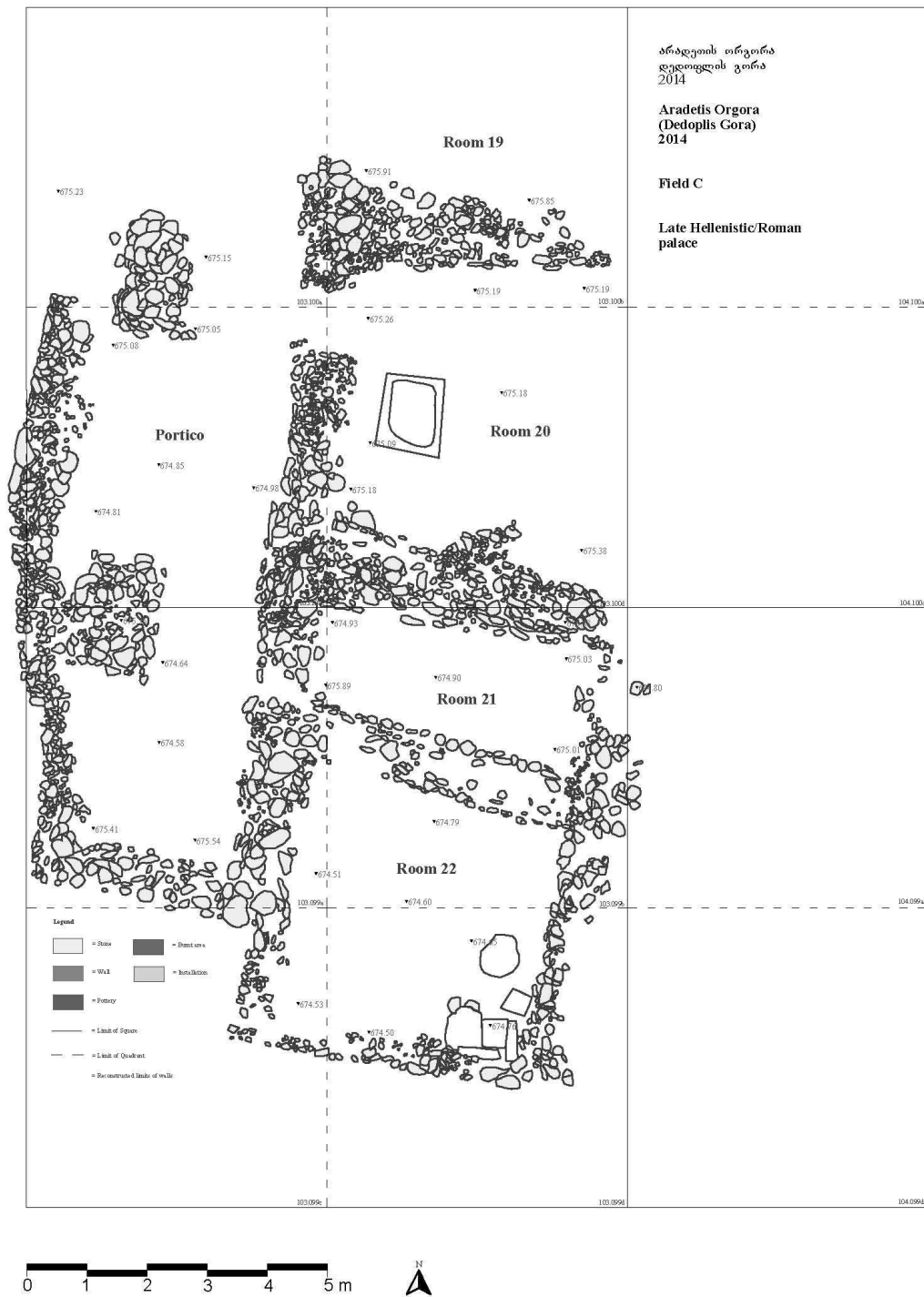


Fig. 20. Field C, quadrants 103.099a, b, c, d, 103.100c, d, final plan.

Level II (Late Hellenistic/Early Imperial palace)

Room no. 20

Room no. 20 had been excavated during 10 days in the course of the 2013 season, without workmen and with the help of the students of Ilia University. During the 2014 season, it was re-excavated and integrated in the new general plan (**Fig. 20**). Room no. 20 has a “standard” size: it measured 4.70 m in E-W, and 5.30 m in NS direction; the door is located on the NW side. The room's walls were plastered and the floor consisted of compacted clay. A complete, undamaged altar was discovered in the central part of this room, not far from its W wall. A mass of materials blended together by fire lay on the altar's upper surface: since it was impossible for the archaeologists to clean them properly, a professional restorer, Mr. Teimuraz Fanjikidze, transported them to the GNM laboratory. After one year of restoration work, the mass turned out to be composed of bronze and silver figurines of Artemis, Apollo, the mother-titaness Leto, Tyche-Fortuna, Silen, an eagle, a raven and a dolphin, joined by a silver censer, a gold laurel branch, two pheasant's eggs and 15 coins (13 coins of August, and two imitations of coins of Alexander the Great) (**Fig. 21**).



Fig. 21 The altar in room no. 20 (above), and selected finds from the votive deposit (below).

Among the other interesting items discovered in Room no. 20 there are several iron objects (a knife, a handled plate, etc.) and two sealed bullae. These were discovered near the room's doorway and bore impressions of two different stamp seals, one with a roman style design, and the other with a local style pattern. In the SW corner of the room, under a flat stone inserted into floor, we discovered a fragment of pottery jar fragment of greyish colour with polished surface and thinned rim, which apparently dates to the Achaemenid period. This is the first time that items of this period are discovered directly under remains of the palace.

Rooms nos. 21 and 22

During the 2014 season we excavated rooms nos. 21 and 22, which are located to the S of Room no. 20. They were filled with a similar heterogeneous mass of melted material, looking like metal slag, which we assume was created by the violent fire which destroyed the building. This "conglomerate" contained a large number of different poorly preserved materials, which made their investigation quite difficult. An exception was a bronze balance scale, whose remains were found in the filling of Room no. 21, The beam had been deformed and twisted by fire, but had survived, while only fragments of the weighing pans were preserved. Many items were also found in the filling of Room no. 22. Especially interesting is a door-lock consisting of a flat iron plate with key-hole on it; fragment of the key were also discovered in the filling.

Room no. 21 is situated to the S of Room no. 20. It is an elongated space of trapezoidal shape: its length amounts to 4.70 m; the W wall is 2.05 m long, and the E wall measures 2.50 m. The doorway is located on the W side, and opens into the pillared portico. To the exception of a bone plate, nothing was found in this room, which we suppose had the function to accommodate the stair to the upper floor. Other spaces with a supposedly similar function years (Room no. 2, excavated in 1986, and probably Room no. 17, excavated in 2004) had been excavated in previous years.

As we mentioned above, a large part of the E, outer wall of the building had been destroyed by villagers quarrying building material for their houses. In this area we therefore dug a small sounding in order to expose the wall's base, and try to understand how wide the outer wall originally was. The wall's base was found at a depth of 40 cm from the level of the palace's floor: it was 2.80 m wide, and consisted of cobblestone (**Fig. 22**). Several pottery fragments with polished surface and dotted ornamentation, which resemble Middle Bronze Age materials, were found in the nearby filling.



Fig. 22. View of the cobblestone base of the palace's wall at the E limit of Room no. 21, from S.



Fig. 23. View of the oven in Room no. 22, from E.

Room no. 22 lies to the S of Room no. 21. Its N and S walls are 4.70 m long; the E wall (4.40 m) is slightly shorter than the W one (4.80 m); a ca 1 m wide doorway providing access to the portico is located in the S part of the W wall. The room's walls are plastered on the outer as well as on the inner side. Room no. 22 was probably a kitchen, since a mud-brick oven was discovered in its SE corner (**Fig. 23**). This consisted of two different sections, the proper baking place, and a narrow ashy area. A flat tile (*solenos*) was placed upside down on the bottom of the installation; a clay lamp was lying over it. It appears that it had been covered by a similar tile, after removing ashes from the oven's bottom to the ashy section. The cover tile was actually found on the floor, in front of the oven.

Several pottery vessels and fragments thereof, and two basalt grinding stones were found in the room's filling and on the floor. One of the grinding stones has a flat, slightly concave shape, which is characteristic for the Hellenistic period in Georgia, the second one is quadrangular, and is probably to be considered an innovation of the Roman period, when, as far as we know, this type of grinding stone was first introduced in the Kartli region, while in Western Georgia it was already in use during the Hellenistic period. Grinding stones are often found in kitchens; in this case two heaps of cereals grains were also discovered in the room. An almost vitrified semicylindrical tile (*calipteros*) was recovered in the SE corner of the room, between the oven and the S wall; it was impossible to separate it from the melted conglomerate during fieldwork. We assume that it belonged to an oven originally located on the second floor. In fact, ovens consisting of two cover- or ridge-tiles had previously been discovered in Rooms no. 10 and no. 16.

Portico

During the 2014 season, we excavated the part of the pillared portico lying in front of Rooms nos. 20 and 21, and partially in front of Room nos. 19 and 22, in quadrants 103.099a,

103.100c and (partially) 103.099c (**Fig. 24**). Two complete pillars were located in this section of the portico: the first one in front of the doorway of Room no. 20, and the second one in front of the doorway of Room no. 21. Since the level of the portico's floor in front of Room no. 19 is slightly higher (20 cm) than in front of Room no. 20, a wooden step had been constructed between Room no. 20 and the pillar. Since the same situation is met with in front of Room no. 21, one could expect the presence of a similar wooden construction there, but no clear evidence was found for it.

The pillars in this part of the portico have the usual rectangular shape (they measure 1.60 x 1.30 m), and are built in the same technique as the palace walls. In the lower part they consist of a framework of wooden beams filled with pebbles and clay, while the upper part (over the height of 2 m) is made of mud-bricks strengthened by wooden beams. Similarly to the rooms' walls, pillars are also plastered. The excavated pillars provide evidence of how the palatial building may have been affected and destroyed by an earthquake, since an up to 1.30 m high part of the pillars had been violently displaced and thrown at a distance of over two meters. This process is particularly clear in the case of the first pillar, whose upper part, including the section made in mud-bricks, was found, with bricks still in their original connection, in SW part of the excavation area. During the Early Medieval period, a pit for inserting a wine jar was dug exactly in the centre of the mud-bricks of the displaced pillar.

The destruction of the pillars provoked the collapse of the upper storey, evidence of which was also encountered while excavating this part of the building. The portico was filled with stone pebbles and mud-bricks debris. As we explained above, in the Medieval period wine jars were inserted into this mixed debris. During the 2014 season we also excavated a small section of the palace's inner court, beyond the limit of the portico; here, in its NW corner, we discovered some iron grill sticks.



Fig. 24. View of the pillared portico, from N.

Palaeoenvironmental research, sampling for soil micromorphology and archaeometric analyses, radiometric dating

Animal remains from Fields A and B were analysed on the field and in the house laboratory by Veronica Scandellari. The bones were washed, restored, photographed and then recognised by direct observation (E. Schmidt, "Atlas of Animal Bones for Prehistorians, Archaeologists and Quaternary Geologists", Amsterdam-London-New York, 1972), paying special attention to the possible presence of cut and bite marks on their surface, with the aim of recognising traces of anthropic activity. When possible, measurements were taken using the common guide edited by the Peabody Museum of Archaeology and Ethnology (Angela Von Den Driesch, "A guide to the measurement of animal bones from archaeological sites", Peabody Museum Bulletins, 1, Harvard University, 1976); for teeth finds, special analysis regarding the dental wear stage were made in order to identify the animal's class age at death, using Annie Grant's method, as displayed in Simon Hillson, *Teeth – Cambridge Manual of Archaeology* ed. by G. Barker, Cambridge University Press, 2005.

In general, the samples collected gave huge amounts of fragments of size varying between very small to medium/large, and covering different stages of preservation, an especially interesting assemblage of animal bones being represented by the successive fillings of space 1630 in quadrants 097.100d, 097.099c, of the LB period. The surface of the bones is generally very eroded, and shows wide crackings due to high weathering incidence on the preservation. Anyway, almost from every sample it was possible to recognise and determine an high percentage of the findings and to understand age, size (and possibly sex) of the individuals at the moment of death. This will allow to reconstruct patterns of animals distribution and use at the site in the different periods.

Preliminary faunal analysis revealed the presence of the most common domestic species of the area (*Ovis/Capra*, *Bos*, *Sus*) joined by rare cases of less usual or exceptional animals (*Cervus*, *Canis*, *Lepus*, *Equus*, rodents - *Mus/Sorex* and *Castor*-, birds, in particular *Cygnus*, *Ardea*, *Anas*, and fish). The presence of the various species ordered by numerical representation is the following: *Ovis/Capra*, *Sus*, *Bos*, *Cervus*, *Lepus*, Rodents, *Equus*, Birds, Fish, *Lepus*, *Rana*, *Castor*.

According to the first impressions from this season finds, animals (both domestic and wild species) were present at the site in a very high quantities. The considerable presence of fish bones in the archaeological record reveals that the river Prone was an important source of food for the site's population and played an important role on its development.

Palaeobotanical remains from Field A and B were collected by both dry-sieving and flotation and delivered to dr. Nana Rusishvili (GNM) who will analyse them in Tbilisi. Unfortunately, contrary to the 2013 season, the amount of seeds recovered this year at Aradeti Orgora was not large, and their preservation state was rather poor. Sequences of samples for palinological analyses were collected from the sections of the two excavation fields and delivered to Dr. Eliso Kvavadze (GNM), who will take care of their analysis. Charcoaled wooden beams and other kind of charcoaled fragments were sampled by Veronica Scandellari in order to recognise the plants used for buildings and fuel, with the aim to reconstruct the environment around the site.

Due to the very favourable conditions of the encountered anthropic deposits (recovery of well stratified undisturbed contexts in all excavated areas), this year sampling especially concentrated on soil micromorphology analysis, which represents a powerful tool to highlight traces of human activity (including ash, phytoliths, dung remains, trampling, etc.) by sediments analysis of floor sequences etc. at a microscopic level. The use at Aradeti Orgora of this analysis technique had been initiated in 2013 by prof. G. Boschian, and was continued this year by Valentina Villa, who collected 40 samples from various contexts of different periods (Early and Late Bronze, Hellenistic) from all excavation fields (A, B, and C). Micromorphological studies, which will be carried out in Italy, will be focused on the sedimentary record of human activities in the site, in order to better understand the stratigraphic sequence, and the site-formation and site-modifying

processes. The aim is to recognise specific site-settlement activities to understand the use of the site and of its areas.

Samples (40 undisturbed monoliths of sediment) were collected on the field during one week, from July 17th to July 25th. Sample localisation was chosen in strict collaboration with the archaeologists, aiming to answer specific questions about the archaeological features and to refine the stratigraphic setting established during excavations; this will assure perfect continuity between macroscopic observation in the field and microscopic studies. Samples were collected from the stratigraphic profiles of trenches and from structures during their excavation. Hearths and burnt layers were sampled in order to understand building techniques, function, type of fuel, and to possibly recognise superimposed phases of re-use.

Some blocks were collected from floors and occupation surfaces, with the aim of understanding how they were built or prepared. These samples include the layers directly overlying floors, which may contain traces of past human activities and help to infer the use of different areas and the organisation of the settlement. Other installations were sampled in order to understand their function, the composition of their filling and to possibly differentiate their primary purpose from secondary use. Samples of floors, plaster and burnt layers were also collected from the Hellenistic/early Imperial palatial building (Field C).

During one week at the end of the campaign, Elisabetta Boaretto and Eugenia Mintz continued the programme of intensive sampling for radiometric dating in highly controlled environment, by taking samples from different periods and contexts in Fields A, B, and C.

Finally, we took samples for archaeometric analysis of pottery and obsidian samples of the different phases of the Late Bronze and of the Early Bronze (Kura-Araxes) periods, which will be analysed in Italy (persons in charge profs. D. Visonà, University of Padua, prof. L. Lazzarini, IUAV University of Venice), and respectively in France (person in charge dr. B. Gratuze, CNRS Bordeaux).

In the perspective of developing a long-term project of palaeoenvironmental research of the Aradetis Orgora site, samples collection was extended to the Hellenistic palace excavation as well, in order to get a complete record of all the site's occupational phases. In particular, Elisabetta Boaretto and Eugenia Mintz (Weizmann Institute of Science, Israel) took samples from the altar in Room no. 20, and also sampled a wooden beam for dendrochronological dating. Cereals found in Room no. 21 have been sampled for radiocarbon dating, and bones discovered behind the oven (the rib of a sheep, fish bones) have also been analysed. Finally, samples for palaeobotanic and palynological analyses were also taken from Field C.

Conclusions

The 2014 campaign at Aradetis Orgora proved extremely successful: not only it achieved most of its aims (to reach the virgin soil in Field B, to uncover well stratified sequences of pottery and materials for the Early and Late Bronze periods), but also brought some important unexpected discoveries. Among these, one should first of all mention the discovery of significant Kura-Araxes structures (round building with vertical stones and rectilinear wattle and daub building in quadrant 105.099c, Kura-Araxes platforms in quadrant 105.099d), some of them with in situ material, as well as of interesting Late Bronze installations (sequences of fireplaces and platform in quadrant 104.099c) in Field B. The season was also rather rich in pottery and small finds from both Fields A and B. Besides a very rich assemblage of Late Bronze pottery, which includes several complete vessels and a large repertory of decorations, it yielded a less numerous but still significant sample of Kura-Araxes vessels, including some in situ material. As for small finds, the discovery of remarkable items (golden foil bead, incised stone plaque) from the Late Bronze levels in Field A confirms the importance of the site and its long-distance connections during this period, and suggests the possibility that official buildings of this period might have been located in the vicinity

of the stratigraphic sounding. The investigation of the Late-Hellenistic/Early Imperial palace in Field C was equally successful and rich of finds. Results are very impressive, and much new information will be provided by the results of interdisciplinary studies, which are under way in Georgia, Italy, France and Israel. For the first time, sampling for palaeoenvironmental analysis was extended to this important official building of the Antiquity period, in preparation for the future campaigns, the aim of which will be the reconstruction of the whole occupational history of the site and of its natural environment, as well as its future valorisation, in a closer interaction between the Georgian and the Italian components of the expedition.

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