

Report on the Activities of the Fourth Field Season of the Joint Shida Kartli Project (2012)

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Introduction

The fourth 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 16th to July 31st, 2012.

The Italian team arrived in Tbilisi on July 16th, and reached the site of Natsargora on June 18th. Excavation activities started on June 21st and were completed on July 28th. On July 31st, the team left to Tbilisi. 11 workmen from the villages of Natsargora, Vacha, and from the town of Khashuri were engaged in the excavation.

The Italian team was composed by: prof. Elena Rova (co-director, chief of the Italian group), dr. Monica Tonussi (post-doctoral fellow), Katia Gavagnin, PhD, Elisa Giroto (PhD candidate), Eleonora Carminati and Mirko Furlanetto, MA, Giulia De Nobili and Laura Tonetto (MA students) from Ca' Foscari University, prof. Giovanni Boschian, geoarchaeologist, and Barbara Zamagni (PhD candidate), lithics specialist, from Pisa University, dr. Elisabetta Boaretto (Weizmann Institute of Science, Rehovot, Israel), 14C specialist, dott. Veronica Scandellari (Interuniversity SISBA post-graduate school, Universities Ca' Foscari, Trieste and Udine, palaeozoologist) and Kathryn O'Neil Weber, PhD candidate, Cornell University (USA).

The Georgian team included the following students and doctorands in Archaeology at Tbilisi State University: Davit Darejanashvili, Salome Jamburia, Koba Koberidze, Revaz Vadachkoria, joined for shorter periods by Ketevan Bulukhia, Giorgi Khaburzania, Tamar Meladze, Zviad Sherazadishvili and Ana Tevzadze. Both Georgian co-directors (prof. Marina Puturidze and dr. Z. Macharadze) could not join the team this year on a regular basis during the field season because of other commitments, but Marina Puturidze and Bidzina Murvanidze, who acted as representative of the Georgian National Museum, visited the excavation on different occasions. The expedition was also regularly visited by the Director of the Khashuri Museum dr. Revaz Nonadze.

The expedition received the visit of H.E. the Italian Ambassador Federica Favi, accompanied by a journalist of the "Messenger" journal. On 17/07/2012, the excavation was visited by the following television troupes: First Channel, Rustavi 2, Imedi, and Maestro. It also received the visit of prof. Julon Gagoshidze, dr. Mindia Jalabadze, dr. Mikhail Abramishvili, and dr. Kakha Kakhiani from the Georgian National Museum, and of Mrs. Ketevan Davitashvili (also from the GNM) accompanying a group of students from the 11th and 12th classes of Private School no. 6 from Tbilisi in the framework of the "Young archaeologists project" of the Georgian National Museum.

The activities of this year' campaign were the following:

- 1) Completion of the excavation at the site of Natsargora;
- 2) Study, for the final publication, of the material recovered at Natsargora during the 2011 and 2012 seasons, including final control of the material excavated by A. Ramishvili in 1984-1987;
- 3) Collection of samples for radiometric dating and soil micromorphology analyses;
- 4) Archaeological survey of the Khashuri district;
- 5) Other activities.

1) Completion of the excavation at Natsargora

As in 2011, this year's activities concentrated on the renewed excavation of the Natsargora mound (Fig. 1). The aims of the season were: 1) to reach the virgin soil in the Western part of the excavation by excavating the earliest of the Kura-Araxes sequence of surfaces discovered in 2011; 2) to reach the EBA layers in its E part, where a sounding dug in 2011 had shown that the virgin soil was lying more than 1.50 m deeper, but where last year's excavation had not proceeded beyond the LBA levels; and 3) to better clarify the nature of the earliest LBA occupation at the Northern limit of the excavation, where, in quadrant 100.100c, the presence of a series of well preserved superimposed Late Bronze surfaces had been observed just under the present top soil.

For the latter aim, a new 5 x 5 m quadrant (100.100a) was opened at the Northern limit of the area excavated in 2011. Here, we excavated a sequence of four different surfaces of yellowish compacted silt material, which extended over an area of ca 1.5 x 2.5 m oriented in NE-SW direction (Fig. 2). This was flanked on both sides by an alignment of pits (4 of them were excavated on each side), which roughly respected the limits of the yellowish surface. Other pits were however cut inside of the surface, and were covered by its later remakings. At the E limit of the quadrant, a badly preserved mud-brick wall of yellowish colour (locus 0466) appeared to mark the limit of the just described area (most probably an external space) with what might have been a roofed building. Excavation in quadrant 100.100a stopped after dismantling the earliest of this series of surfaces.

The rest of the investigated area was the same as in the 2011 season (a ca 200 square meters area, corresponding to eight 5 x 5 m quadrants, located on the present top of the mound, South and East of Ramishvili's EBA soundings), where we continued to follow the sequence of anthropic layers from the level reached last year. As we had already noticed last year, the EBA layers, originally ca 0.5 m thick, had been intensely reworked and disrupted *ab antiquo* by the Late Bronze Age people, who had excavated a very large number of subcylindrical pits, 0.5 to 1.5 m wide and up to 1 m deep; these often cut other previously refilled pits, so that the underlying sediments were almost completely destroyed throughout wide areas, where only few remains of the older features are preserved. Contrary to our hopes, this process had not only affected the Western part of the excavation, but also its Eastern part, where we had hoped to find better preserved remains of the EBA occupation. As a matter of fact, it appears that the top of the natural hill on which the Natsargora settlement had been founded at the end of the 4th millennium B.C. was heavily sloping not only toward the East, but also toward the South. As a consequence of this, the Southern part of our excavation (quadrants 099.099a, b, 099.100a, b) was lying at the settlement's periphery, in an area which was marked from the beginning by a series of irregular steps oriented roughly in NE-SW direction. These steps had been repeatedly re-shaped during the Early Bronze period, as shown by the fact that the yellowish silty surfaces followed their slope. At a later time, these steps were cut into by the Late Bronze inhabitants. These dug a number of large pits which approximately followed their outline, and marked the outer limits of the contemporary settlement.

As for the Early Bronze occupation in this part of the settlement, it exclusively consisted of a sequence of open-air surfaces: similar to those discovered last year, most of these were plastered with a fine layer of yellowish silty soil, but some also showed a coarser paving of small sparse stones and pottery sherds. They were occupied by different types of installations, most of which were obviously connected with fire (hearths and fireplaces of different type, ash-pits, burnt areas, etc.), had been frequently renewed, and often cut into one another (Fig. 3). At the western limit of the excavated area, in quadrant 099.099a, the earliest of these open-air surfaces, which was lying directly on the virgin soil, was partially exposed at the end of the excavation. It was coated with a fine whitish plaster, and was covered by a layer of black burnt soil which contained a large amount of seeds and burnt vegetal matter. In the Eastern part of the excavation, we exposed the latest of a sequence of surfaces which showed comparable features, but were heavily damaged by the Late Bronze pits.

Fig. 1 Natsargora 2012, schematic plan of the excavated area.



From the point of view of chronology, it is important to stress that no Bedeni occupation layers were met with in this part of the excavation, where, as we already supposed last year, the Early Bronze layers were of exclusively early Kura-Araxes (Kura-Araxes II) date, and were overlain by ca 50 cm of almost sterile soil, which accumulated during the period of abandonment preceding the re-occupation of the site at the beginning of the Late Bronze Age. However, in quadrant 099.100a we discovered another pit which contained a complete Bedeni pot (Fig. 4) and fragments of other contemporary vessels. This confirms our hypothesis that the abundant Bedeni material uncovered by Ramishvili in the 1980s mainly derived from similar pits.

Proper EBA dwelling structures appear to have been limited to the Northern part of our excavation area, where last year's excavation had unearthed the remains of a few more substantial structures, tentatively interpreted as huts. This year's excavation in quadrants 100.099b, d, 100.100c, d confirmed this impression, but also showed that the Early Bronze layers here had been very deeply affected by Late Bronze disturbances, to the point that material found in these areas was still mixed by later intrusions. For this reason, the date of the hut discovered in 2011 in quadrants 100.099b and d, which we had tentatively attributed to the Kura-Araxes period, is now less certain: the presence of a few Bedeni sherds in the area might suggest an Early Kurgan period date for this structure, but it must be admitted that at least one Late Bronze sherd was also found in the same context.

The underlying layer, however, appeared to be of definitely Kura-Araxes date. In spite of its poor preservation due to the Late Bronze pits which disturbed it, it yielded the remains of a small rectangular room (locus 0469) with yellowish-greyish mud-brick walls, ca 35 cm wide, of rather poor quality. The room measured 140 x 150 cm, and was provided with two successive floors, both consisting of a smooth surface of yellowish silt. Each of the floors was associated with a fireplace, located along the Southern limit of the room. The later fireplace had partially cut into the earlier one, and had damaged it.

A mud-brick wall, or platform (locus 0735) was also discovered in adjacent quadrant 100.100c, along with a pisè structure of rounded shape (locus 0736) (Fig. 5) No floor was associated with these structures, and their function remains unclear. The area between them was heavily disturbed by the Late Bronze pits, and only small parts of the original EBA layer were preserved. Excavation in the area stopped when we hit the top of a thick layer of ashes, which was clearly earlier than the layer to which these structures belonged.

The 2012 excavation season yielded abundant finds of both the Early and the Late Bronze periods, unfortunately most of them in rather fragmentary conditions and often from mixed contexts (as we could ascertain, Late Bronze pits contained up to 70% of Kura-Araxes material). This makes an evaluation of those materials (e.g. animal bones, but also informal lithic tools), which cannot be dated on typological grounds especially problematic. As for pottery, it is clear that by far the largest component of the EBA pottery assemblage is rather homogeneous, and consists of KA II types. This suggests that the site's Kura-Araxes occupation spanned a rather short period of time. The high number of successive floor levels (at least six) encountered in the Southern sector of the excavation does not contradict this hypothesis, since all uncovered structures appear to have been rather ephemeral in nature, and to have been repeatedly re-built every few years.

The Kura-Araxes II pottery are accompanied by only a handful of Late Kura Araxes, Martqhopi (?) and Bedeni sherds, mainly coming from Late Bronze pits. This points to a very sporadic presence of these later EBA cultures at the site. As for the Late Bronze, ceramic material from the pits confirms the presence a long occupational sequence of this period, as already showed by Ramishvili's investigations. In fact, this material includes both early Late Bronze types (e.g. closed vessels with black surfaces provided with pattern-burnished decoration), which appear to mark the very beginning of the period, and late Late Bronze types (e.g. closed vessels with incised/impressed and combed decoration) which continue into the Early Iron Age.

An important find from the 2012 campaign is represented by three additional fragments of cultic reliefs similar to those discovered in Ramishvili's excavation (Fig. 6): one of them was found

in a Late Bronze pit, but two of them came from good Early Bronze contexts. It is certain that these fragments belong to more than one (probably at least three) reliefs, which showed almost identical features (obsidian-inlaid eyes, spiked top, central raised ridge, etc.). The fact that comparable reliefs have not been hitherto found at any other contemporary sites raises intriguing questions about the religious beliefs of the early inhabitants of Natsargora.

To conclude, the 2012 excavation season has reached the aims to clarify the nature of the Early Bronze settlement on the Natsargora mound and its chronology, especially as far as the relation between the Kura-Araxes and the Bedeni occupation at the site is concerned. Considering the general homogeneity of the uncovered structures all over the excavated area, the overall limited depth of the Early Bronze levels, and their rather poor state of preservation due to later disturbances and previous excavations, it is not considered worth to continue excavating those parts of the site in which virgin soil has not been reached.

Fig. 2 Quadrant 100.100a, Late Bronze Age surface with pits.



Fig. 3 Quadrants 099.099a, b, different types of open-air installations.



Fig. 4 Quadrant 099.100a, pit containing Bedeni vessel.



Fig. 5 View of quadrant 100.100c, with mud-brick wall (?) 0735 and rounded structure 0736, from SW.



Fig. 6 Fragments of EBA cultic relief.



2) Study of the Natsargora material (2011 and 2012 seasons)

All the material (artefacts and ecofacts) collected during the 2012 season have been completely processed (analysed, photographed and drawn) in the course of the present season and permanently delivered to the Khashuri Museum at the end of it. In addition, the team completed the work on the material from the 2011 season, which had been incompletely processed, and on the material excavated by Al. Ramishvili in 1984-87.

In particular Barbara Zamagni and Tamuna Meladze undertook a complete analysis of the macro- and respectively microlithic material from both campaigns, and Veronica Scandellari, with the assistance of Kathryn O'Neil Weber, analysed the whole corpus of animal bones from the excavation. There follows a preliminary synthesis of their results.

Macrolithic

We carried out a typological, petrographic, and use wear analysis of the macrolithic industry of the Natsargora site. Petrographic characterisation was carried out by the geologist of the mission (Giovanni Boschian). Use-wear analyses were carried out by hand lens at 5x and 10x magnification. Only a limited choice of objects was drawn, because of the general homogeneity of the assemblage.

From a typological point of view, the tools can be divided into: grinding stones, grinders, pestles, strikers, polishers, double-functionality tools, and other tools. The associations between identified raw materials and typological groups are the following: volcanic rocks (lava, vughy lava, scoria) are certainly the most common ones, and were used for grinding stones, grinders and polishers; HD-metamorphites were used for strikers and pestles because of their hardness and resilience, while other stones are less frequent: conglomerates, gritstones and sandstones were used for grinding stones and grinders, quartz for strikers; while flint and chert also occasionally occur.

Grindstones and grinders are usually ellipsoidal, with a plano-convex profile. The original shape of the raw material is seldom fashioned by flaking and/or hammering to obtain a peculiar shape. Such sorts of refashioning were more common on broken tools, whose functionality was recovered. The vughy structure of the lava fits very well the grinding of cereals, while the surface of grinding stones made up of other rock types was hammered in order to increase its abrasive power. The surface of some grinders is curved at its ends, originating some sort of "wings", in order to improve the functionality and the adherence to the grinding stone.

Pestles are usually elongated and/or platy, but cube-or sphere-like shapes are also common; the ends are characterised by plain and smooth use surfaces. Conversely, the used surfaces of the strikers are finely pockmarked, indicating that they were used to knap stone (chert, obsidian, basalt), or also to hammer grinding stones or grinders.

The tools used for smoothing are usually made up of scoriaceous lava: their surfaces are smooth, sometimes with glossy patches probably due to wear on soft organic materials (leather). Double-use tools are rare: these are mainly strikers/anvils, strikers/retouchers, strikers/sharpening stones. Among the diverse tools, and unfinished pear-shaped clubhead is especially noteworthy.

Summing up, the Natsargora macrolithics are well diversified, both as to typology and raw materials, testifying to all the possible activities of a settlement, connected to food processing and handcrafting activities. Moreover, not all the rock types used as raw material are directly available on site, and their choice indicates good technical skills and knowledge of the territory.

Microlithic (chipped lithic)

The 2012 excavations at Natsargora yielded more than 500 items of chipped lithics. These include: 8 flint and obsidian arrowheads, 32 blades, cores and end-scrapers, and several flakes with retouch and traces of use.

With the exception of cogged blades (supposed sickle blades), of different shapes, which are made of flint, since obsidian is too flexible for making sickle blades, the largest majority of finds

consists of obsidian flakes, most of which are just flakes, and not specific tools, but still show the presence of retouch and signs of use.

As for arrowheads, we found 3 obsidian and 5 flint projectile points. All of them are made on one flake, well retouched, and with double flaking. Three of them are tanged and five are concave-based (Fig. 7). They represent the most interesting finds because of their dating potential, since their typology allows an easy distinction between Early Bronze period and Late Bronze Period items. Such a distinction is more problematic for the remaining items, most of which come from mixed contexts (mainly Late Bronze pits which contain a large number of Early Bronze period finds).

The longest arrowhead measures 2.8 cm, and the smallest 1.6 cm. So, it is clear that they could only be used when hunting on birds or other small creatures. Tanged flint arrowheads (both triangle and leaf-shaped) are very typical for EBA sites in both Eastern and Western Georgia. They were widely spread on KA sites (Kvatskhelebi, Amiranisgora, Khizanaantgora), but also on Bedeni sites (Khovlegora). Flint arrowheads of the same shape are frequently met in Kura-Araxes cemeteries, and, as burial goods, during the whole Bronze Age.

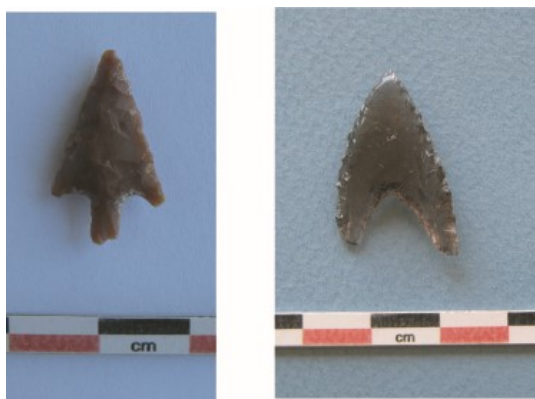
Concave-based items first appear on EBA sites and reach their highest spreading on Middle Bronze sites (Tsagvli cemetery, Meskhet-Javakheti kurgans). Concave-based arrowheads of earlier periods are characterized by a well-expressed hafting area, and more rounded edges. Rectangular hafting areas are more characteristic for Late EBA and Middle Bronze arrowheads (Bedeni kurgans, Berikldeebi), while arrowheads with rounded/oval hafting area represent the most common type, which is in use during the whole LBA period (Tsagvli, Atskuri kurgan, Irganchai).

Cogged blades are all made of flint of mostly light or dark brownish and grayish colour. Their shape is generally rounded; only few of them show a rectangular or crescent shape. All of them have fine retouch on both sides, treated with double pressure flaking. The working edge is cogged and the polished surface common on sickles can be seen on both sides. Flint cogged blades are known since the early periods in Georgia, and are especially common on Kura-Araxes period sites. According to L. Dzidziguri (Early Farming Culture of Transcaucasia, 2000) the blades of this period are mainly rectangular in shape and, unlike items from the earlier periods, they are made with double pressure flaking. During the Bedeni period, flint cogged blades are mostly of crescent shape. Late Bronze period sickle blades are not very different from the ones we meet in earlier layers. In this period flint blades were gradually substituted by metal sickles, although both types co-exists for some time, e.g. in Beshtasheni cemetery.

The sickle blades discovered at Natsargora come from different layers. Some were found in EB, some in LB contexts, but mainly from layers and not from pit fillings. They are made with an advanced technique (double pressure flaking), which reflects a developed manufacturing economy.

Almost all remaining blades are made on obsidian flakes. Most of them are well retouched: among them we can identify: lamellae, end-scrapers, and cutters.

Fig. 7 Examples of tanged (left) and concave-based (right) arrowheads from Natsargora.



Animal bones

The analysis done upon the animal findings during the Natsargora 2012 campaign consisted of preliminary observations of the animal bones both on the field and in the house laboratory. The bones were washed, restored, photographed and then recognised by direct observation, paying special attention to the possible presence of cut and bite marks on the surface of the bone, with the aim of recognising anthropic activity. When possible, measurements were taken using the common guide edited by the Peabody Museum of Archaeology and Ethnology (Angela Von Den Driesch, 1976); for teeth finds, special analysis concerning the dental wear stage were made, with the aim of indentifying the class age of the animal at the time of their death.

It is possible to draw a preliminary overall statistics of the species represented in all (EBA and LBA) contexts. These are, in order of decreasing frequency: bovines, pigs, ovines, deers, dogs, jackrabbits, and birds. The samples generally consisted of small and medium amounts of bone fragments, mostly from pits and installation fillings, while floors and walls gave very small amounts of rather small fragments. On the whole, finds from Late Bronze contexts were larger and better preserved, while the Early Bronze (mainly Kura Araxes) contexts yielded smaller amounts of badly preserved bone fragments.

In spite of these limits in documentation, it can be stated that Early Bronze findings were mostly composed by sheep/goat, pigs and, in order of decreasing frequency, bovines, with a high incidence of game (mostly deers and jackrabbits); just a few fragments could be recognized as bird bones. The Late Bronze contexts, conversely, were mostly composed by bovines and pigs, with a more limited presence of sheep/goats, and with a lower incidence of game (deers and jackrabbits); in the latter contexts, some fragments belonging to horses and dogs were also recovered.

In general, it is possible to recognise an high incidence of young and young adult individuals, while adults and senile individuals are less represented. An high incidence of fetal individuals is also characteristic for these contexts, mostly as concerns pigs.

Finally, a human first phalanx, a human fragment of maxilla with the included cheektooth row, and a single human molar were found in three different pit fillings from Kura Araxes and Early Bronze contexts.

3) Collection of samples for 14C, soil micromorphological and other analyses

Sampling for 14C analysis

In the framework of the continuing project for increasing the corpus of 14C dates from Georgia in order to develop a more reliable absolute chronology of the area (see previous reports), to be synchronised with that of the neighbouring regions, dr. Elisabetta Boaretto took part from July 8th to July 15th 2012 to the excavation at Natsargora, where she undertook selective collection of samples for 14C analyses from different contexts, both Kura-Araxes and LB in date, in highly controlled environment. In addition, she also collected samples from the early Kura-Araxes settlement of Trelis (Tbilisi region), kindly provided by the excavator, dr. Mikhail Abramishvili (GNM), and from the newly excavated kurgan of the Early Kurgan period at Chincharis Gora near Chabukiani village in Khakheti region, kindly provided by the excavator, dr. Zurab Makharadze (GNM). Like those collected in 2010, 2011, the samples will be analysed at the 14C laboratory of the Weizmann Institute of Science (Rehovot, Israel).

Results from the previous seasons suggest a date around 3000 cal B.C. for the Kura-Araxes settlement at Natsargora (1 sample from Ramishvili's old excavation and two samples from the 2011 Georgian-Italian excavations). On the other hand, a date around 2500 cal B.C. is suggested for Kurgan no. 5 at Bedeni, of the Early Kurgan period.

Sampling for soil micromorphology analysis

Samples for soil micromorphology analysis were collected on the field from July 1st to July 11th by prof. Giovanni Boschian, who will carry out their analysis in Italy, and, after his departure, by the team's archaeologists. Geoarchaeological studies had been started on the Natsargora mound site during the 2011 field season; as in 2011, the main aim of these studies is to elucidate the influence of past human activities on sediment production and deposition, and on the site formation processes, in order to understand the use of the site and of its areas. The soil micromorphological technique can be applied in order to find clues to these issues, because several types of traces of human activity can be put into evidence at microscopic level, including ash, phytoliths, dung remains, trampling, etc.

The cm-sized or finer layers of which the floors are comprised can be studied particularly well at microscopic level, and sequences of traces of past human activities can be found concentrated in the layers that cover them, even if these are rather thin. The extensive application of soil micromorphology can therefore provide invaluable information about the meaning of some features and on the organisation and use of the space within the site.

Samples for micromorphological analyses are usually undisturbed sediment blocklets approximately 9 x 6 x 6 cm that are carved out from excavation profiles or surfaces. The preparation of the samples is carried out in specialised laboratories; after thorough drying, the monoliths are impregnated by polyester resin at low pressure, cut into slices by diamond disks, polished by corundum abrasive and glued on microscope slides. Their thickness is then reduced to 30 micrometres by grinding on corundum. The slides are finally covered by a thin glass slide. These thin sections can be observed under a standard polarising microscope and described following standard procedures.

After the examination of the 2011 thin sections, this year's work mostly focused on two aspects:

- floor construction and use, mostly as indicators of possible differences in site use between the Early and Late Bronze ages. In this perspective, sequences of prepared floors (including the sediments deposited on them) were sampled, with special attention to a precise determination of their age and cultural attribution. Where available, floor sequences were sampled within the same area of the site. Considering that very few traces of animal husbandry were put into light by the examination of the 2011 thin sections, more efforts were put in testing the hypothesis that animals - if present- were kept outside the settlement, or in dedicated areas.

- earth “walls” and other similar installations that may belong to dwelling features. These installations are mainly crescent-shaped and not more than 20 cm high, often burned, and may represent a residue of higher features that marked the perimeter of roofed areas. The micromorphological sampling was aimed at collecting a number as large as possible of samples from these features, in order to elucidate construction techniques and use.

Samples were also taken from firing installations of different kind, in order to improve the corpus of those collected in 2011.

As a consequence of the excavation of a test sounding at the Eastern limit of the excavation area, in quadrant 099.100b, the original soil on which the settlement was founded was put into light, under a sequence of occupation spanning the EBA and LB periods. The unearthed soil profile is very well preserved on a thickness of about 60 cm, and can be studied with good detail; its characteristics indicate development of forest cover under mild temperate conditions, together with a fast burial of the original surface by human activities.

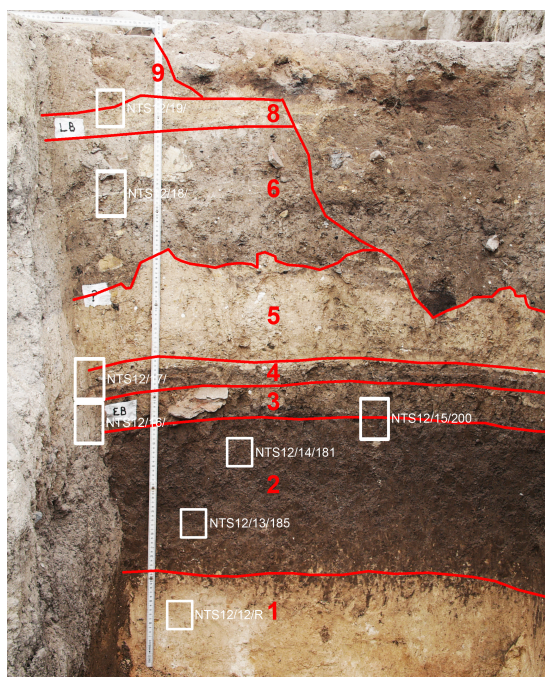
Fig 8 shows the W profile of the test pit, including bedrock (1), the forest natural soil (2), and a sequence of cultural levels including the first traces of human activity on the site (3) and some Kura Araxes and LB prepared floors (4; 8) with the location of the soil micromorphological samples taken from it.

Other sampling

Paleobotanical samples collected from both dry-sieving and flotation of different contexts were delivered at the end of the season, together with those collected during the 2011 season and not used for 14C analysis, to dr. Nana Rusishvili (GNM), who will analyse them for publication.

Finally, we also collected a number of samples from a section of the deep sounding spanning the whole remaining sequence (both LB and EB down to the original natural soil) of the Natsargora site for palinological analysis, which we intend to deliver to prof. Eliso Kvavadze (GNM), who kindly agreed to examine them.

Fig. 8. Western profile of sounding 1, with position of soil micromorphological and palinological samples.



4) Archaeological survey of the Khashuri district

The survey team, composed by Giulia De Nobili and Giorgi Khaburzania, did not work on the field this year because of the unfavourable seasonal conditions (heavy vegetation cover and presence of cultivated fields before the harvest season everywhere in the region), except for one day, which was devoted to re-checking some sites discovered in the course of the 2011 survey.

The season's work, which lasted ca 15 days, was devoted, instead, to completing the analysis and the interpretation of the material collected during the 2011 season, in order to prepare it for publication. Unfortunately, most of the collected material did not show high dating potential. From a total of more than 2800 collected pottery sherds, we ended up with only 222 diagnostic ones. These were analysed, photographed and drawn. Since most of the sherds were too small to give an idea of vessel morphology, our analysis concentrated on decoration/surface treatment typologies in association with fabric types. With this method we were able to divide the material into 6 main period categories: Early Bronze, Late Bronze/Early Iron, Iron, Hellenistic, Antique, and Medieval (Fig. 9). Many discussions arose for the distinction between Late Bronze, Early Iron, and Iron age material. The Late Bronze/Early Iron class groups together sherds dating to the beginning of the Late Bronze period, as well as later materials that clearly show a hint of transition toward Iron Age pottery traditions. These differences are specified in the description of individual sherds, but for the sake of the overall sherds count and statistics all this material was treated as a single large class. Some of the surveyed sites did not yield any diagnostic sherds and remain therefore problematic.

Last year survey focused on two main purposes: the survey of Khashuri region and the survey of the Natsargora's lower settlement. The results of the two surveys are summarised in the following.

The Khashuri region survey concentrated around 36 modern villages and their surroundings. We collected a total of 949 sherds, most of them were not diagnostic. As we already noticed last year at the end of the field season, 90% of these sherds are Medieval in date, although some Antique and some LB/EI sherds are also attested. Fig. 10 shows the distribution of sites according to their periodization.

The Natsargora's survey was differently organized: we surveyed the fields S of the mound along 3 lines: 2 E/W and 1 N/S lines (Fig. 11), in order to understand the extent of the settlement, possibly in its chronological development. The results of this survey are not completely satisfying: as the image shows, since the distribution of pottery appears to be rather random, possibly due to heavy agricultural re-working of the area in recent times, and to the runoff of sherds along the slope. It is however clear that the majority of recovered sherds belong to the LB/EI period.

Fig. 9 Examples of diagnostic ceramics of different periods

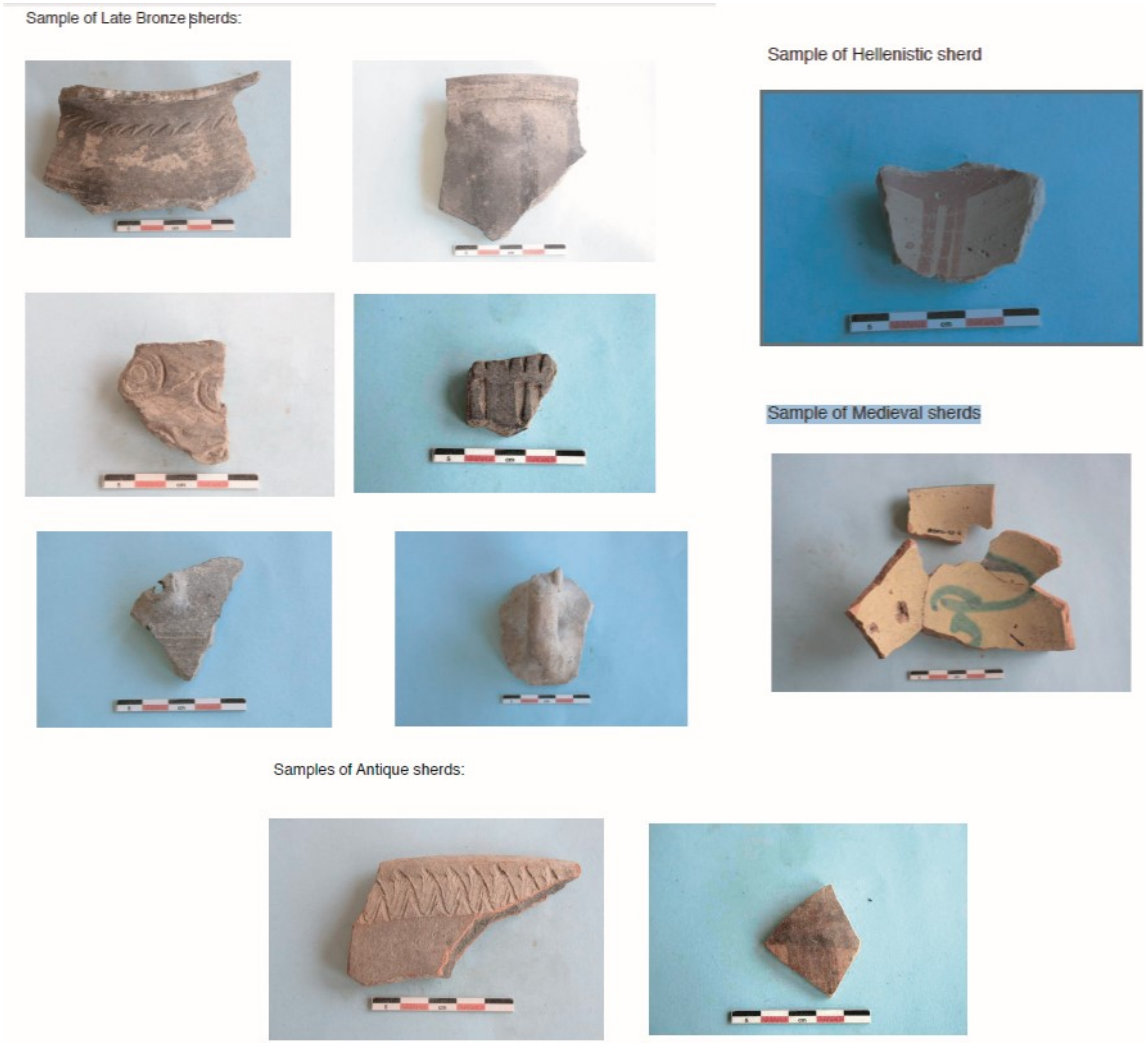


Fig. 10 Khashuri regional survey, sites distribution.

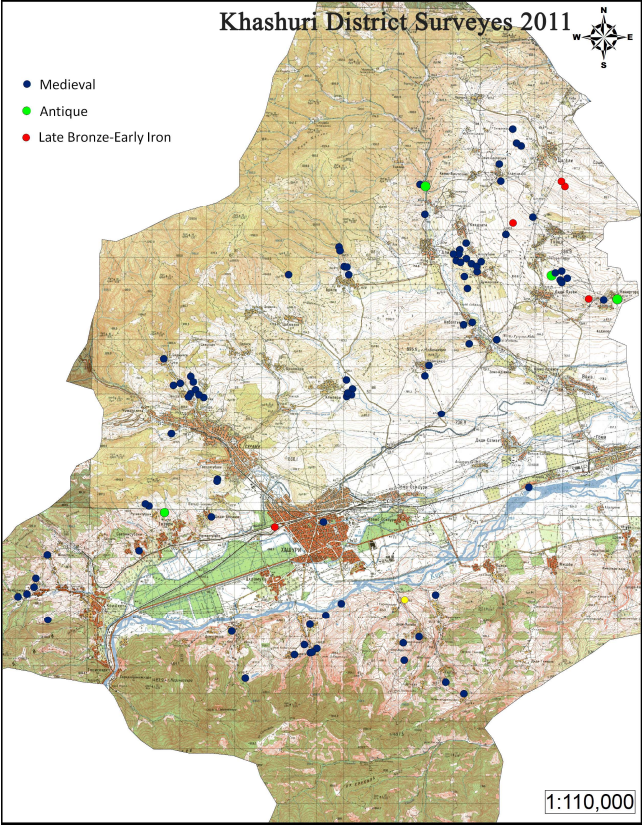
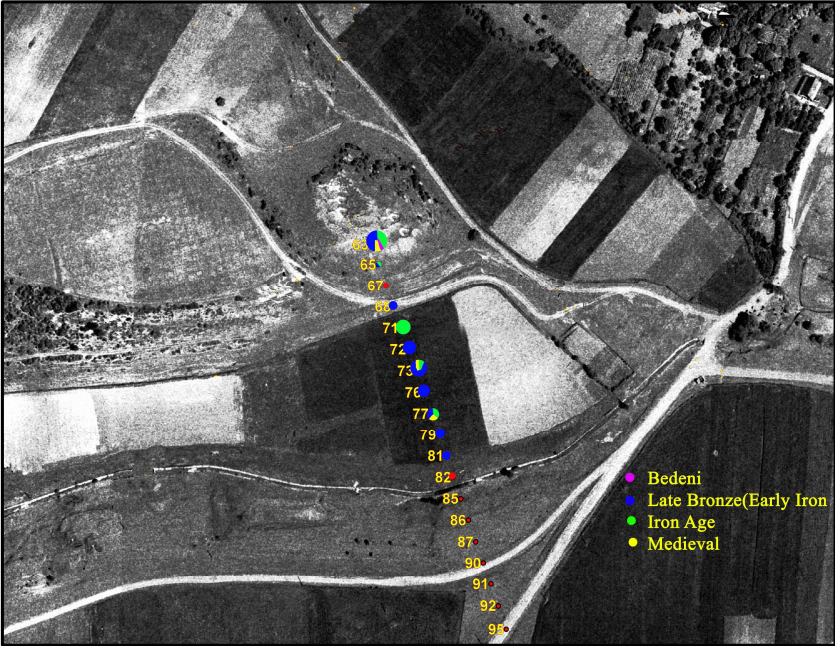


Fig. 11 Natsargora lower town survey, N/S line, sherds distribution



5) Other activities - Divulcation of the expedition results

In the course of the season, some days were spent by the following specialists in checking and re-analysing the macrolithic (Barbara Zamagni), microlithic (Tamuna Meladze) and bone objects (Ana Tevzadze) from Ramishvili's excavation of the Natsargora settlement, in order to prepare the relevant chapters of the second volume of the old excavations publication: M. Puturidze, E. Rova (eds.), *Khashuri Natsargora: The Early Bronze Settlement* (Publications of the Georgian-Italian Shida Kartli Archaeological Project I) (Subartu series), Turnhout. All articles of this volume are presently in preparation, and its delivery to the publisher is foreseen for the end of 2013.

The first volume of the publication – M. Puturidze, E. Rova (eds.), *Khashuri Natsargora: The Early Bronze Graves* (Publications of the Georgian-Italian Shida Kartli Archaeological Project I) (Subartu 30), Turnhout, has appeared in July 2012.

The third volume will be dedicated to the results of the 2011-2012 seasons of excavations. The results of the 2011 season have been presented in two communications at the 8th International Congress on the Archaeology of the Ancient Near East (ICAANE) (Warsaw, 30/04/-04/05/2012).

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