

TRIAL TRENCHES AT KOJ TEPA, SAMARKAND AREA (SOGDIANA)
(*Third Interim Report 2011*)

Kazim Abdullaev (Institute of Archaeology of the Academy of Sciences of Uzbekistan) (IAASU),

Bruno Genito (Università degli Studi di Napoli, "l'Orientale")

with contributions by:

Fabiana Raiano and Davide Lunelli

Introduction

The Joint Uzbek-Italian archaeological project in the Samarkand region, aiming at detecting and investigating possible Achaemenid and post-Achaemenid archaeological horizons in the Samarkanda region (ancient Sogdiana), started the activities at Koj Tepa in 2008. After the very short first campaign in May-June 2008¹, the second in June-July 2009², and study activities in September 2010³, the field work continued with a third excavation season (June-July 2011)⁴, through more extensive trial-trenches

¹ The selection of the site was suggested on the basis of the topographic data achieved by the Italian Archaeological Mission of the Università degli Studi di Bologna which had identified different other sites of the period (Genito, Gricina 2009, p. 126-128)

² The second season of activity was mainly aimed at recognizing stratigraphic coordinates and as much as possible evidences of the fortification earthen wall (Genito, Gricina 2010) encircling the high citadel/tepe.

³ The activities in 2010 were mainly devoted to the study of the materials mostly made by Misses Maria D'Angelo and Fabiana Raiano, who utilized the MA dissertation held at the Università degli Studi di Napoli "l'Orientale" (UNO) the 4th April 2011 with the co-supervisorship of Dr. Bertylle Lyonnet and Dr. Serena Massa. I am very much and deeply thank for their precious help and support.

⁴ I take the occasion to express my deepest thanks to the Director of IAASU Dr. A. Berdymuradov for his kind participation to all the stages of the activities of this year, from the organizational to the scientific. The realization of the work has been possible, from the Italian side, thanks to the particular availability of the Rector of UNO Prof. Lida Viganoni and the staff of the International Relationships Office of UNO, in particular Mrs. Marina Guidetti and Nicoletta De Dominicis. The financial support has been also granted by the

at Koj tepa (Figs. 1, 2). The site is, as well known, a rather important settlement, constituted by a central 9 m high truncated-cone sh tepa, and encircling earthen wall and moats. According to the topographic results achieved by the IAM of the Università degli Studi di Bologna, the city walls, though not still clearly identified, because partially cut through by a modern agricultural activity of bulldozers⁵ are similar to a well known settlement pattern of a urban system for sites and cities in the ancient Samarkand and Ustrushana areas in the historical and Hellenistic period.

Kojtepa is located in the Pstdargom (Lower Dargom) area of the Samarkand region in antiquity called Sogdiana or Sogdia in a contact zone between agricultural and steppe areas. The local population till now names the environment of Koj tepa down to the Chandyr village as “dasht” (steppe), meanwhile all this territory is borrowed by fields of cotton, wheat,

Centro Interdipartimentale di Servizi per l'Archeologia (CISA), UNO and for that, heartfelt thanks are devoted to the President Prof. Rodolfo Fattovich, the colleague Prof. Irene Bragantini, Dr. Andrea D'Andrea and Dr. Rosario Valentini. Thanks are also due to the Italian Archaeological Mission in Uzbekistan of the Università degli Studi di Bologna and in particular, to the Director Prof. M. Tosi, and his staff, Dr. Simone Mantellini, Dr. Rita Di Martino and Dr. Giorgia Codini, who made everything very easy with aids and advices. A particular thank is also due to Dr. Dmitry Khosthuskhin for his help as translator and for any other organizational type of support. For the scientific aspect special thanks are due to Prof. Kazim Abdullaev, the co-author of this report both for his scientific suggestions and the operational qualitative and friendly participation to the work activities, to the workmen and the driver Khodjamurad Mahmad Murad. Last but not least special gratitude is also due to the PHD student Fabiana Raiano, MA student Francesco Franzese of UNO and PHD student Li Yusheng of the Peking University, who devoted most part of the time to the excavation, to the material analyses and drawings. Very special thanks are also due to Dr. Davide Lunelli, archaeologist, topographer and draftsman, who with his precious and technologically innovative experience has given a decisive contribution to the quality of the work and who with his personal attitude could offer an unique contribution for the final realization of the activities and to the success of the whole operation.

⁵ Koj Tepa area is 175 m long × 150 m wide (26.250 mq = 2.62 ha) and the difference in the level from the top to the bottom located along the sections no 1 and 2 opened in May 2008 is 9.94 m. The absolute quote located in an unexcavated part between Trench no 2 and Trench no 1 (2009) is: 697.30 a.s.l. (Figs. 1, 2). The geographic coordinates of the site are 42 S 300099.77 m E, 4386573.90 m N (UTM).

orchards. Archaeological studies of the piedmont areas at Sazagan, Agalyk, Mirankul', i.e. territories adjoining the Dargom's steppe, have revealed some groups of kurgans, testifying that the steppe has been also mastered for pastoral lands. In particular, this aspect was the subject of the survey of Suharev (1935-1936).

Other important stage in studying the nomadic barrows of this zone of contacts were the excavations of Obel'chenko undertaken in the 60s of last century. He studied barrows of Sazagan located to the south from Samarkand dating them basically to the late historical period (1966). In a foothill area adjoining to the steppe of the Dargom Canal, barrows at the settlement of Mirankul' were discovered, distributed in the steppe beyond the Dargom Canal alongside 18 km to southwest from Samarkand. The earliest barrows have been dated by Obel'chenko to the 2nd century AD, the later to the early Middle Ages (1969). The earliest barrows have been found out lengthways Agalyksay; there are soil tombs which on the basis of the analysis of the grave goods were dated to the end of 4th - 3rd centuries BC (1972).

The study of these sites of nomadic type allows one to retrace a historical situation of the region which can be characterized as a border of the agricultural zone irrigated besides the natural mud-torrents channels by such large canals as Dargom and Eski Ankhor. Koj tepa, located just in this boundary territory, represents the strengthened site which is fencing off an agricultural zone from the steppe. Special attention turns on two types of protection of settlement, the first, a wide moat, surrounding the site, the second a powerful fortification also surrounding settlement from different directions. The moat was, most likely filled with water of mud-torrent origins coming seasonally from the mountains, on what specifies a significant layer of the sand which is passing under the cultural layers belonging to the final period of dwelling on Koj tepa. Peculiarities of the ancient irrigation of this territory proceeds, as it was told, from natural season channels, washing during spring time significant part of the territory. Till now the channels which dried up to the summer preserved their beds. There are three main channels which form, according to the information of local residents, canals Chilbursay (it is translated as *Skein* - of cords), Dargom and Eski Ankhor.

The site was destroyed from northern part, the fortification wall preserved only in the middle part. It is not excluded, that the ground from

the destroyed wall has been leveled by the bulldozer, having filled the moat. Anyway, now this site represents a plain surface. According to the local residents it has been made in the 80s of the 20th century. Other damage is a trench dug by the bulldozer on the east wall. The ground from the destroyed wall has been moved in moat and used for its overlapping. As it was possible to find out, these overlapping serve simultaneously as boundary path for the individual sowing places. Now these areas are used for cultivation of corn, grapes and other cultures. During a certain period the moat was also used as the tank where waters from surrounding fields flew down. The oozy ground at the bottom of "moat" which is used now under crops was accumulated, most likely, from waters flown down from fields. However, as it was mentioned above, the powerful layer of yellow-reddish sand which is traced from the external side of walls aside moat, is, on all evidence, result of drawing of mud torrent waters. The color and structure of sand at the bottom of Chilbursay that takes the water from the streams following from mountains testify in favor of this assumption. Hence it is possible to assume, that one of opportunities of filling the moat during the ancient period was the using of mud streams.

Archaeological excavations on the site have shown, that ancient population of Koj tepa was engaged in agriculture. Attributes of agricultural activity are numerous finds of millstones. It is possible to tell about the development of cereal culture with confidence. Alongside with it during excavation have been found out peach pits that can testify also to the presence of gardening. Despite of powerful fortification of the site having two defensive constructions (moat and fortification wall), economic activities of the population took the important place in a life of settlement. Other not less important function of Koj tepa was a protection of the oasis against nomad tribes. Above it was already marked, that all adjoining territory of the site represented a border zone between the nomadic steppe and a zone of agricultural culture. Inhabitants of Koj tepa had regularly resisted to the attacks of the enemy, and it is interesting in this respect a find of enough large (30 cm in diameter) stone ball on the surface of the site, served for a throwing at siege or to defense. Towering position of Koj tepa on rather plain landscape attached to it the important strategic significance. The matter is that from its top even on a long distance it is well looked through not only nearby districts, but also the remote points in a southern direction, the settlements located at bottom of mountains - as Sazagan,

Tavukbulok, Khazrati Davud (Aksay), Ibrahim Ata, Jam etc. One shall remind, that at Baysari tepa (Hellenistic period) near Sazagan a tetradrachm of Seleucos I was found during the excavation of Uzbek-Italian archaeological expedition (Abdullaev, Franceschini, Raimkulov 2004, pp. 10-13). The arrangement of this settlement on a height allows one to survey all the Dargom valley. Such arrangement of sites gives the basis to assume use of these points as observant and alarm points in case of movement of the enemy.

The joint Uzbek/Italian team spent 3 weeks about in the area (from 12th June to 3rd July 2011), acting with new field operations⁶.

The premises of the project are related to more precisely define an “Achaemenid” archaeological horizon, especially in the north-eastern periphery of the Empire (in areas such as Margiana, Battriana and Sogdiana); in this perspective at least, four different aspects and levels of interpretations of an Empire should be basically considered:

- 1) the dynastic, identifiable only by inscriptions, numismatics and seals;
- 2) the ethnic, possibly detectable both in the physical-anthropological and cultural grounds;
- 3) the political/imperial, recognizable both in the macroscopic architectonic, art-historical remains and in the material traces of the settlement patterns and the economic investment for the water supply;
- 4) the chronological, interpretable in the differing archaeological horizons connected to the time of the political dominion of the dynasty in the area.

All these grounds and topics (Genito 1998, p. 157, fig. 1) must of course be utilized and, in time, correlated to the real archaeological evidence of the research activity. What it is more, ancient Sogdiana has been always considered and it actually was a frontier zone, mainly with regard to the northernmost steppe area; an archaeological “Achaemenid” horizon in the area can be, thus, measured most properly on the basis of the distribution of

⁶ The work has been possible thanks to an official agreement between IAASU and UNO, signed in October 2008 in Samarkand and April 2009 in Naples.

the remains and not only on the evidence of an “Achaemenid” cultural character in the central Asian archaeology.

The activities of the joint working group of the IAASU and UNO in 2011 were conducted in Koj Tepa aiming at singling out possibly cultural horizons related to the periods of the earliest occupation of the site, representing, thus, the third stage of a middle-term project in the area in order to plan future extensive excavations there or elsewhere.

Field Activity (Summer 2011)

Koj Tepa (Kendyk tepe)⁷, is located at less than 100 km south-west from Samarkand and very close to the outskirts of the Chandyr village⁸. The third season of excavation amongst the others, had the following main objectives, all aimed at investigating:

- 1) the flat area between the encircling wall and the central tepe around the past trenches (Trench 7);
- 2) the area of the southern fortification earthen wall in order to possibly identify its architectural evidence (length, width and height) (Trench 6, Trench 6 Ext. South, Trench 6 Ext. North, Trench 8);
- 3) the top of the tepe in order to find earlier architectural and material culture (Trench 5);
- 4) as much as dating material culture possible, in order to achieve a more detailed typological and possibly chronological stratigraphic differentiation.

⁷ For the previous activity in the area and specially for the relationships between the Dargom and the Eski Ankhor canals, see Kabanov (1959), pp. 154-174.

⁸ On the basis of the materials and data collected from the surface, from section nos. 1 and 2 in 2008, from the trenches effected in 2009 and from the study activity in 2010, has presented, for the moment, traces related to the post Achaemenid period (Genito, Gricina 2009; Genito, Gricina 2010; Raiano 2011).

Trench 5 (Fig. 2)

On the top of the central tepe, a new trench is opened, which, following the numbering of the trenches of the second season, is named as no 5; the trench, 4 m long × 3 m wide (N-S oriented) (Fig. 3), is located at 4 m from the trigonometric point (ST 01) (in time located at 701 m above sea level), and covers an area of 25 sq. m. The opening of this trench was made in order to investigate eventual earlier periods on the top of the main citadel.

The first level to be removed in the trench was, as usual, the humus and the surface, rather dark in color and completely full of roots and other vegetal elements. Potsherds come to the light from the first cuttings (Fig. 4), and some fragments of white and pink limestone, modern glass and aluminum spoon, with very fragmented animal bones, and minuscule fluvial pebbles, a tin fragment of a bent lamina, fragments of big jar, as well. In the north-eastern corner of the trench the soil appears more hard than in the eastern, and with the third cutting, SU 1 was defined; this SU, although has more or less the same characteristics of the soil of the second cutting, contains irregular blocks of paxa (artificial pressed clay) (Fig. 5). The hardest part of the soil of SU 1 is left untouched. In the south eastern corner the soil looks like more soft and the cutting was going much deeper than in other directions.

The continuation of the excavation in the trench leads one to observe that the soil starts to become more soft especially in the centre of the trench, while the remaining parts at south, west and north east are still hard and compact. The vegetal remains seem to be more rare and small, and there is a progressively low frequency of potsherds. The entirety of the soil of the trench, including the blocks of hard and compact clay located at south, in north and in the north-eastern corner of the trench (Fig. 6), presents widespread traces of animal holes. Three more different cuttings define a new SU 2.

During the third cutting, pieces of mud clay of consistence very similar to that of a mud brick have been found, two or three millstones and few potsherds as well. Regularizing and leveling the cuttings, immediately two different colors of soil, one more brownish at west and another more grayish at south, can be easily observed. Alongside this difference of color, most probably there is an alignment of a wall, SU 35, running north-east-south-west, approximately 70 cm wide (Fig. 7).

Different cuttings of about 5/6 cm from the north-western side, cross the central blocks of compact clay, not over passing the presumed alignment of the wall (SU 35). The same procedure is also used in the south eastern corner, where the soil seem to be softer than that of the other parts. The removed soil is rich on mineral salts covering also the surface of the pottery materials. The different cuttings yielded less or nothing roots, whilst the animal holes remain.

The only noteworthy aspect is that in the soil there are traces of animals; the consistence of the soil did not change in all the blocks (Fig. 8) of compact and hard clay (south, central, north-eastern) and it seems to be softer after the leveling of the soil. In the south-western corner it was defined a new SU 8, where some burnt reddish plaster came to the light because the possible presence of mud structures (whose possible alignment was already noted at west), makes clear a topographic distinction between the two areas. Along the alignment different excavation procedures are chosen in order to make more fast the work.

Some part of the soil closest to the structure was removed, and in the eastern corner a big granite millstone was found, and more 4/5 cm in the other parts of the trench were removed as well. Parallel to the structure in the north some un-diagnostic potsherds, and in the south some diagnostic have been found; one of which is inserted in the southern side of the trench (Fig. 9).

In the north-east corner, close to the recognized wall, SU 35, traces of remains of its collapse, SU 37 have been also found. Removing the terrain, apparently joining the wall SU 35 with one of the paxa block, another part of paxa and fallen mud bricks can be observed. Between the southern side of the wall, SU 35 and the southern side of the trench, more traces of the wall collapse, SU 37 can be identified (Fig. 10). In the north-west corner “sandy” clay starts to come to the light, and a millstone in the collapse at the centre of the remains of the wall has been found in a new SU, defined as 37 (Fig. 11).

The work in the north-west corner (closest to the wall, SU 35) continues. The sandy soil (about 2/3 cm thick) has a different consistence and presents a light grey color; for that it has been decided to assign a new SU 39, where bones, a pebble and some potsherds were found. In SU 5 (southern side of the trench) a female terracotta figurine (in the style of the so-called *Venus Stydlivaja*) (Fig. 12) is found at 148 cm from the western

side of the trench, and at -73 cm (Fig. 13). Perpendicular to the wall, SU 35, an alignment of a possibly another wall, SU 41, suggested by the presence of a deep line in the soil (Fig. 14), has been found.

As it is possibly to observe in the southern side of the trench a different color in the soil and a big part of paxa have been identified. Considering the possibility that the two walls (SU 35, SU 41) are different in chronology and that the area at the north of the wall SU 35 can represent the remain of its ancient basis (floor), it has been decided to remove part of the clay in the north-western side of the trench assigning, thus, a new SU 40; this area starts, thus, to look like an irregular-sh pit, where some pieces of bones have been found. Removing the collapse, SU 37 of the wall, a spindle-whorl made by the disc-base of a vessel has been found as well, and later more 5 cm in the southern side of the trench has been removed. Part of the soil in the northern side of the wall, SU 35, has been removed and somewhat more than two pits (Fig. 15) come to the light, assigning different SU to them as well, US 39 (western pit) and US 43 (eastern pit). Removing the soil in these last SU bones and potsherds were founded, while the remaining part of the trench at north, remains constituted by a very compact and hard clay defining, thus, a new US, 42.

The small apparently structured wall which seemed to have divided the pits (SU 39, SU 43, SU 40) is removed.

After having removed the huge block of paxa between SU 39 and SU 43, the presumed three irregular pits constitute, instead, clearly only a big-sized cavity, where noteworthy a block of paxa collapsed during the removal of the soil.

Within two pits (SU 39 and SU 43), a small piece of burnt wooden and burnt dust was found. The outline of those pits is very irregular, north oriented and, thus, the former US 39-40-43 becomes a new topographic SU, 45 (Fig. 16).

From SU 45 some potsherds and one millstone have been collected. The shape of the structural element constituted by SU 45 in the lowest part is straightly linear to the north and it is different from the top elliptical-sh part. This situation leads one to define a new SU, 48. More 5 cm in SU 35 was removed and it was possible to note the collapse of the wall along the eastern direction. Later 3 cm of soil in SU 8 at SE was removed and more traces of plaster have been found; also 2 cm of soil in SU 8 at north east is

removed and it was possible to observe traces of roots along the cutting. Some parts of paxa in SU 37 has been removed.

After having completely removed the wall collapse SU 37 in north east direction, one defined rectangular-sh block of paxa (33 cm long \times 29 cm wide \times 11 cm thick) comes out. Part of the structural elements (possibly still SU 35) in the south west direction in order to define the outline of the wall, was removed; when the operation finished, other structural elements belonging to SU 8 have been also defined and a potsherd (rim of jar, diameter 10 cm, covered by a dark colored slip) possibly of later chronology comes to the light (Fig. 17).

Removing part of the soil of SU 35 and SU 8 the level of the soil was kept equal in every part of the trench; the new level reached is SU 42, and during this operation the structural element constituted by SU 41 is more evident. The whole SU 42 was removed and it is possible to observe an alignment of paxa along the direction SW/NE, in correspondence of SU 35 and SU 8 NE. From SU 42 two pottery discs (Figs. 18, 19), fragments of bone at north and south, few potsherds come out; a new possibly alignment of wall is coming to the light along SU 8 at north-east. In SU 45, alongside the unified structure of the presumed three pits, a spindle-whorl came to the light (Fig. 20).

A new SU 50, a wall close to US 35 at - 15-20 cm comes to the light, and another SU 51, constituted by the area delimited by the wall SU 41, SU 50 and SU 8 as well (Fig. 21). One millstone in SU 42 at north east close to SU 8 north east was found (Fig. 22). Starting to remove soil in SU 42 for about 3 cm the pommel of a fragmented lid and one unshaped millstone, few potsherds and a little piece of bone were found. Trying to regularize at the same level the terrain, part of soil in SU 42 was removed and in the south-eastern corner of the trench three pieces of pottery were found, probably belonging to a jar, one of which located on the edge of the trench. Another big fragment of the pottery came to the light, inserted in the eastern side of the trench as well, the jar (SU 53) and the close elliptical elongated millstone (Figs. 23a, b) are, at last, removed.

A new operation was made in removing soil in SU 42, and the same level of SU 53 was reached, assigning, thus, a new SU, 55. The consistence of the soil is continuously changing from a soft terrain of SU 42 to a more hard of SU 55. The removal soil in SU 51 was made in order to level the soil in all the part of the trench and it is possible to note a sort of cavity

closed between the wall SU 50, and the northern limit of the trench. The consistence of the soil is quite different from that of SU 51, deeper and more sandy. A cavity along the northern limit of the trench was found; inside more pieces of bones have been found, assigning thus, another SU 56. Later the removal of three cm in SU 55 and part of the collapse (SU 37), allowed one to find one big millstone, some pieces of potsherds and two pieces of bones, thus assigning a new SU, 58. Later six cm of soil in SU 51 in order to level SU 51 and 56, and 3 cm of soil in SU 55 were removed. Under the collapse (SU 37) there seems to be an alignment of a structure south-north oriented, ending at the level of SU 50, evidenced by the division in two part of SU 55 (Fig. 24).

Part of the soil in SU 55 and 51 was removed; although the doubts about the nature of SU 58 (collapse 37 SU or wall SU 35) remain, it is possible to confirm that SU 58 divided SU 55 in two parts. It was decided, thus, to assign a new SU located between SU 35 and SU 58 on one side, and the limit of the trench at south from the other. Proceeding to remove the edge of the cavity, SU 56 collapsed, and after the second cutting the depth is the same of that of the top of SU 48. SU 51 and 56 end at the top of SU 48, where a new SU 63 has been identified. Removing part of the soil in SU 48 it was possible to find its eastern limit.

Removing another part of soil in SU 55 and 63 anything was found, whilst SU 63 allowed one to unearth a large pierced stand in terracotta in the corner of SU 41 and SU 63, at - 1.96 cm from the plain of campaign. During the removal of soil in SU 63 a big millstone in north-western corner of the trench was collected. Proceeding to remove soil in SU 55 and 63, a portion of reddish burnt clay, containing a large quantity of ash (most probably belonging to a semicircular fireplace with a diameter of 41 cm) at - 1.74 cm from the plain of campaign was found. It was decided, thus, to assign a new SU, 66 collecting small samples of ash to be analyzed (Fig. 25). At this level SU 55 ends and starts a new SU, 67 with potsherds and animal bones. The consistence of the soil seems to be more compact with a different color from that found in SU 55. During the removal of soil in SU 63, instead, a little stand in terracotta and two pottery disks were also found. The removal of soil in SU 67 led one finally to define the edge of SU 66. Removing soil in SU 63 a kind of floor (?) (Fig. 26) comes to the light; its consistence is very hard and compact light grayish colored, to which was decided to assign a new SU 68.

Removing soil in SU 67, two millstones in the corner of SU 58 and SU 50 were found. Proceeding with another removal of SU 67, potsherds and a stand similar to that found in SU 68 were found. Later proceeding further removal of soil, small pieces of ceramic and animal bones were found. It was decided, thus, to assign a new SU, 70. Removing soil in SU 66 nothing interesting came to the light, and in SU 68 a fragmented base of jar with 4 pieces overlapping each other was found. It was decided, thus, to assign a SU for jar, 71 and another for the soil just beneath (Fig. 27).

Trench 6 (Fig. 2)

The opening of this new trench, located at about 50 m southward of Trench no 5 (4 m long × 4 m wide) just over the edge of the southern section of the encircling fortification earthen wall, has been necessary because a modern, sudden and illegal break-in yielded a large amount of potsherds, stones, bones, ceramic waste and millstones (Fig. 28). The whole area results full of reddish burnt clay together with grayish colored clay too, and suggests the presence of structural elements covering or being part of the wall. The surprising character of this sudden and casual discovery is strictly related to the nature and historical development of the fortification encircling earthen wall at the site. It is evident, in fact, that the presence of such large amount of pottery typologically and technologically similar to that found alongside the sections nos 1 and 2 of the previous seasons of excavations, means that the area of the fortification wall here, and there as well, when not any more utilized, was occupied by other later structural elements (pits, working activity areas etc.). The decision of opening this trench has been done first in order to regularize the break-in, to identify and to define the structural elements, and finally to recognize the inner structure of the fortification earthen wall.

At first a removal of the soil located inside the modern break-in has been conducted; in the northern side of the break-in a large amount of clay plasters, over fired concretions and ceramic waste, has been collected (Fig. 29); in the southern, there is, instead, an high concentration of potsherds widespread within a dark and grayish colored more soft soil (Fig. 30). The most part of the potsherds coming from the southern side is constituted by red splashed ware datable to the late Hellenistic time. Amongst the main

shapes recognized during the collecting activity are: goblets with a slightly carinated profile with stemmed and disc-shaped bases, globular cups with 15/20 cm of diameter (Fig. 31). In the rest of the trench the complete removal of the surface constituted by humus and plant remains, is conducted. In the southern side the soil seems to be more soft, whilst in the western there is a medium frequency of clay plaster, and in the eastern a major frequency of potsherds.

The excavation with an operation of detailed cleaning activity inside the break-in reveals at north a medium frequency of clay plasters, a millstone, and a medium frequency of pottery, some of which vertical, and in plain placed and other assembled with clay and pottery specially in the north-eastern side (Fig. 32). The cleaning operation of the outline of the break-in contributes to remove about 10 cm of soil. In the southern side there is a middle frequency of potsherds and a more soft soil from reddish to gray colored. In the rest of the trench, SU 1 in the rest of the trench is constituted by a very hard and compact soil; in the north eastern part a red soil with plaster comes to the light, most probably connected to the compact clay of the break-in. This red soil is spread over the whole half of the eastern side with potsherds also in plain located; in the north western sector the soil remains mostly grayish and compact.

In the north-eastern corner, the continuous presence of soft and reddish type of soil, led one to define, according to the excavation at Trench no 4 in 2009, as SU 31 (Genito and Gricina 2010, p. 124); in the western side, instead, it helps one to recognize traces of burnt clay and animal bones, and the eastern shows still reddish soil and bones, whose presence seems to suggest that SU 31 could most probably represent an activity level (Fig. 33). SU 1 is constituted by the usual grayish soil and in the middle of the eastern side the soft and reddish colored soil seems to be linked to the south-west side (SU 31). The break-in seems to cover a possible ancient pit in which an horse bone surrounding by some potsherds, has been also collected.

The removal of SU 1 still led one to see in the north-eastern side of the trench the slightly line between SU 1 and SU 31 and the collected potsherds are not very significant. The reddish soil constituting SU 31 seems to be a little bit more extended than expected before, reaching the north-east quarter of the trench. After the removal of SU 1 just in the middle at north-west side the fortification earthen wall (SU 38) seems to appear. The excavation proceeds going down at the south-eastern corner where the

soil is more hard and grey, and many fragments of pottery and burnt clay come to the light (amongst which some significant walls of a jug with handle). In the middle of the eastern side the cutting led one to define a new SU 34 whose soil is different than that of the others areas of the trench, slightly compact and soft, more grayish in color with some thin vegetal roots and high presence of potsherds, some of which of great interest; clay plasters are very few (Fig. 34).

Three more cuttings in SU 1 and SU 31 in the north-eastern part of the trench, led one to collect more potsherds quite similar to the others, coming from the previous cuttings, and also two millstones come out. The removal of SU 34 in the south-western and south-eastern sector of the trench clearly seems to clarify the fortification earthen wall (SU 38) (Fig. 35) alongside an encircling outline apparently delimiting the break-in. In removing SU 34 there is cut out also a little part of SU 31 in the SE corner, close to the wall. The excavation proceeds removing SU 34 in the southern side, trying to isolate the profile of an original pit, cleaning the wall profile; the reddish burnt soil of SU 31, clearly emerged also at the limit of SU 34 in the south-western side where the whole profile of an over fired vessel has been found. In the south-eastern corner, cleaning the profile of the modern break-in a large quantity of animal bone are found. In the south-eastern corner pieces of mud clay emerged and different cuttings of SU 34 in the western side, led one to observe differences between SU 34 in the western (the soil seeming more dusty) and in the eastern (the soil seeming more compact and hard). Removing SU 34 in the southern side of the trench, SU 31 emerged apparently more clearly with its characteristic reddish soil (Fig. 36).

Cutting again inside SU 34 in south-eastern corner of the trench more or less the same level of the modern break-in is reached. The cutting of SU 1 in the northern side started, following the harder soil and trying to single out the fortification earthen wall SU 38. From SU 34 angular-sh plaster come to the light, probably pertinent to architectural units. In the south western corner apparently part of the outline of SU 38 comes to the light.

A further step in the excavation consists in removing again part of SU 31 in the northern side, following the outline of the presumed fortification earthen wall cut by the break-in. The material collected are rather significant: fragments of gypsum plaster, goblets and a terracotta

female figurine with the arms, one longitudinal to the body and the other folded (Fig. 37) (in the style of the so-called *Venus/Anahita*). Excavating the central part a black colored spot of soil come to the light (diameter about 7 cm), and in the north-eastern 4 big sized millstones come to the light.

New cuttings are executed in order to make the entire trench in the same level, which allows one to unify SU 31 and SU 34 as SU 49. During the excavation, a section of the fortification earthen wall (SU 38), which was made up with scorched green-brown clay, was again apparently recognized. The wall (120 cm long) is approximately parallel with the southern side of Trench 6 (18-24 cm away from the side). SU 49 is still full of potsherds, lime and plasters (including some framed as channeling and fingering).

Numbers of potsherds and plasters were continued to be found, and SU 31 preserved in the western part is much softer than imagine and extends much west than expected. Close to the eastern side of Trench 6, a part of an activity floor (SU 54), which was broken by SU 49, was recognized (Fig. 38). The level, whose surface was 42-56 cm in deep, 33-40 cm in wide, was hard to dig and had an arc sloping profile extended down to the north, but the depth is still unknown. The discovery of this floor contribute to increase doubts to the presence of SU 38 (fortification earthen wall) at north.

It has been decided, thus, to divide most part of the soft soil SU 49 into two halves, and choose the western part to excavate. After 2 cuttings, a part of an activity floor SU 59, close to the middle part of the northern side of the Trench, was found. With a flat top, SU 59, the texture of which is compact, hard and with the surface green colored, goes sloping down under SU 57 (Fig. 39), recognized and identified after the appearing to the light of SU 59, whose excavation area is about 120 × 140 cm with a depth from 10 to 50 cm; SU (57) is full of soft soil and materials including potsherds, plaster and animal bones. During the excavation in SU 57, two different layers have been found, the border between which was very clear. The two layers may be collapsed, and below the soil is still very soft. SU 59 seems to go very deep to the eastern and western side under the supposed US 38 (Fig. 40). Two fragments of framed sculptured terracotta, small bricks come to the light, one in SU 49 and another in SU 57 and a simple terracotta fragmented figurine comes to the light as well in SU 31 and 49 (Fig. 41).

SU 59 presents a sloping shape, and the excavated area has already extended to the western and northern side of Trench 6, which is 56 - 63 cm

in deep and with an area of 230×160 sq cm. The surface of SU 59 is still in green color, but the texture under it has a brown color, and still compact. Some difference was found in the eastern part, a layer, which is full of ashes but no fragments, exists under SU 59. The ash layer is about 150 cm in width and 12 cm in depth. On the southern side, the soil found before, 50 cm in depth, extended in plan to the north. SU 57 was, thus, separated as SU 61 in east and SU 62 in west (Fig. 42).

It has been decided to remove the soft soil SU 62, and the brown, hard soil emerged, 85 cm in depth. SU 64, which is close to SU 62, was also excavated. At the same time, SU 59, which was located in the northern part of Trench 6, was being excavated continually; the soil was very hard to remove and almost without materials. Then because of the removal of SU 59, SU 65, the ash layer found before emerged at all. The section of SU 65 was sloping up, but disappeared closely to the west side of Trench 6. Fragments of bones and potteries were mostly discovered between SU 59 and SU 65.

The scorched green-brown clay in the southern side of the trench was excavated out till the bottom, below which was the same sand layer also discovered in the south diaphragm of Trench 6 (SU 52) without materials (Fig. 43). The height of the wall here is 85 - 90 cm. Then the clay which located between SU 61 and SU 62 was cut, the distribution of the compact green soil, in which rare materials was found, was in a sloping shape up to the west with the depth from 3-25 cm. In the southwest corner of the trench, the excavation of SU 62 was finished, too. The profile was very clear in the section. In the northern part, SU 59 and SU 65 were completely removed, so the section of the west side emerged clearly in south-north orientation. During the excavation of SU 65, the second ash layer, which was named as SU 69, was discovered below, and few materials in this SU, were too. In the eastern part, because of the excavation of SU 61, the east section also distinctly emerged. With a depth of 107 cm in total, both of the upper and bottom layers were soft, full of fragments, the middle layer was hard to dig, with few materials. The approximate thickness of each layer was as follows (from top to bottom): 57, 20, and 30 cm. There were no materials found in almost all the parts of the western half of Trench 6.

The area full of sand (SU 52), with large quantity of potsherds was excavated from the northern part of the trench during the first three cuttings and small objects in mud clay, including loom weights and/or spindle

whorls (Fig. 44) and also a just sketched clay figurine (Fig. 45), a big upside down jar, about 140 cm away from the west side and 135 cm from the south side of the trench, were discovered (Fig. 46) on dirt floor to which new SU, was given, 73. The floor (140-150 cm in deep), was made up of exquisite pure yellow/brownish soil, and rare materials were found on the floor (Fig. 47). With a white stucco cover (about 1 cm. thick) outside, the jar (SU 74) stands upside down, full of bones, small clay balls with holes, fragments of pottery and cooked soil. At the same time, after the removal of the layer of sand (SU 52), which was 25-30 cm thick, the activity floor around the jar was recognized, too. Close to the western side, the area of unexcavated to the floor was about 74-80 cm wide, 260 cm long and 30-35 cm in depth.

Trench 7 (Fig.2)

Trench 7, which is 3 m wide × 4 m long (Fig. 48), located at the plain connection place between the central Tepe and its eastern wall, was open in order to understand the archaeological consistence of this part of the site; the surface is fully covered with herbaceous plants; during the first cut of which rootstalk and gravel were found, but there were no materials.

After a new cut of 5-8 cm deep, the new layer, already named as SU 1, was evidenced. The color of SU 1 is tawny, with a stony, compacted texture in which the grit is well-distributed; it is rocklike and hard to dig. Another new cut about 5-7 cm deep did not make an essential difference in the color and texture of the soil. Fragments of potsherds were rare to find, a nail and cortexes were also found in this layer.

During the leveling of the trench, the soil in the southeast corner was found to gradually become soft. There was still no trace of any man-made phenomenon.

In order to understand and reach soon the original depth of the basal soil of the area between the central Tepe and the encircling fortification wall, an area of 50 cm wide close to the northern wall side, which was named as Sector A, was excavated down continually. A new layer appeared inch by inch, the color was darker than the up layer and with a soft, wet texture. Only few fragments of potsherds were unearthed, most of which were red in fabric.

It was decided to check up the eastern and northern sides of the Sector A and draw the section of the northern side. Until now, the northern side of Sector A is made up of 4 layers, the thickness is as follows:

- 1) surface (S), 6-12 cm;
- 2) SU 1, tawny, with a stony, compacted texture in which the grit is well-distributed, disappeared up to surface close to the western side, thickness of the eastern half: 18-23 cm;
- 3) SU 2, 14-39 cm;
- 4) basal sandy clay (V) dark yellow colored with a exquisite and pure texture.

There were no materials in this layer, the excavation has not be finished yet, but probably this layer is close to the original virgin soil which reveals a soft soil with well-distributed grit. Fragments of potsherds, the surface of which is covered with white power (salty?), are still rare. There are no fragments to find during the last three cuttings, but the color and texture of the soil does not change essentially, maybe it has already been close to the original soil. Until the end of the excavation, Sector A is 104-114 cm in depth.

It has been decided to enlarge Sector A, whose width is increased from 50 to 70 cm at last. During enlargement, few fragments are found. After another three new cuttings, which means 20 cm in depth, were executed, there were still no fragments found; it has been decided to stop the excavation of Sector A. On the basis of the three layers already existed, SU V was approximately divided in two parts, because of the disappearance of fragments. Generally speaking, both of the two layers can be regarded as the transition to the virgin soil, there was still no essential change in the color and texture and SU V may extend more certain depth close to the virgin soil. Sector A is now 118-123 cm in depth, finally (Fig. 49). The depth reached in 2009 at a point between section no. 1 and section no. 2 was QP 692,15 and the basal clay soil here in trench 7, is QT 691.54.

Trench 8 (Fig. 2)

This trench is open at about 21.24 m west of Trench 6 in order to check if more parts of the area, possibly occupied by the encircling fortification earthen wall, was still standing or was re-settled later. Trench

was 63 m long (N-S) × 2 m (E-W) wide (Fig. 50). The first cutting removes SU S and 1. After 15 cm in depth the wall SU 38, is actually found (Fig. 51).

Trench 6, Ext. South (Fig. 2)

In the same time a new trench has been open called Trench 6, Ext. South, at south of Trench no 6, 13 m long × 2 m wide, whose southernmost extreme points are located at about 96 m from St 1 (Fig. 52). A short diaphragm is left for about 1.10 m from Trench 6. The first cutting is about 10 cm deep, encountering first vegetal roots, SU, S, humus and large amount of potsherds.

The excavation activity goes with cutting SU 1. In the north-western side at about 70 cm from the northern side of Trench (diaphragm) the upper parts of big fragments of two jars in situ came to the light (Fig. 53); at about 2 m from the northern side it has been found a modern gummy strip. After the second cutting big fragments of jars appear, the first one at west, 70 cm of diameter, the second more 10 cm at south-west (at about 1.50 m from the northern side) (diaphragm), 45 cm of diameter (Fig. 54). After the removal of SU 1, the presence of a type of soil never met before suggests one to define a new SU 44; it is constituted by a greyish-green coloured very compact soil (Fig. 55). At south of the fragments of jars, the consistence of the soil changes in a brownish terrain, still containing big roots.

During the removal of SU 44 it has been decided to define the content of the eastern jar come to the light, as new SU 46 (Fig. 56). The bottom of the eastern jar lies a little bit beneath the level reached in SU 44 and contains a huge quantity of animal teeth (mutton, sheep), a big millstone in pink granite and a rather good quantity of potsherds. It is filled by a very characteristic very hard and compact clay mixed with gypsum. It has been decided to cut the half of the jars where also some traces of red color come to the light. In the western jar SU 47 a small piece of bronze (rattle with two holes (Figs. 57, 58) has been found and its bottom or rim is disappeared.

The eastern jar (SU 46, base diameter 40 cm) and SU 44 have been removed, few material are collected including some gypsum plaster. The activity continues with 4 cuttings in the northern part and SU 2 does not yield any material. The consistence of the soil (brownish colored) is soft and

sandy and in the first cuttings some very small fragmented blue color comes also.

The excavation activity continues with a further cutting still removing sandy clay, which came to the light beneath the two jars. The only potsherd come to the light are coming from the southernmost side of the trench, where part of the fortification wall SU 38 and SU 52 brownish colored sandy clay (Fig. 59) were found.

Trench 6 Ext. North (Fig. 2)

Another new trench 2 m (east-west) × 13 m (north-south) wide, is opened and immediately surface S is removed, leaving the usual diaphragm of 1.10 cm wide between the trench and the extension (Fig. 60). There few materials and two pieces of iron waste are collected.

Just beneath the soil appears hard and compact and light grayish. Very few potsherds are coming from. It is definitely identified the earthen fortification earthen wall (SU 38) over the whole area after few cm. of the removal of SU S. The soil looks like very hard and compact along the whole removed part of soil (Fig. 61).

Trench 6/ Trench 6 Ext. South (Fig. 2)

According to the evidence of the small E-W oriented portion of a wall (SU 38) it has been decided to remove the diaphragm (1.20 m × 2 m) between Trench 6 and Trench 6 Ext. South. After the removal of SU S and SU 1, clearly the same SU 44 (green-grayish soil) where the jars SU 46 and SU 47 have been found, is appearing. The nature of this soil, for the location and the consistence, should have been looked as a wall, and according to the situation excavated and revealed in Trench 6 Ext. South, never could have been considered a wall (Fig. 62).

Pottery 2011

The pottery materials coming from the excavated areas (Trenches 5, 6, 7, 8) were preliminarily studied during this archaeological campaign: it has been decided to start the work from the inventoried items and the

diagnostic potsherds; it will be, thus, necessary to complete the work on the un-diagnostic materials during next months.

A preliminary step in the work dealt with the distinction between the diagnostic potsherds (667 fragments, mostly rims, whole profile and bases referring to a recognizable shape) and the un-diagnostic (6550 fragments, mostly walls and fragmentary bases). The second was dealt with the inventory of the significant potsherds (78 fragments).

A further step was concerned the assignment of each diagnostic and significant potsherd to a pertinent fabric, on the bases of the macroscopic observation and according to the description of the fabrics of 2008. All the distinctive features of each sample of the fabrics have been described by means of a macroscopic analysis which was conducted by the observation of the main visible features.

All the inventoried items, chosen by means of their main features, i.e. preservation status, functional peculiarities, shape recognition, etc., were drawn and photographed in order to create a collection useful to making typology.

Then, all the diagnostic potsherds and inventoried materials were stored in a MS Access™ database with an accurate description of all feature (SU provenances, excavation date, fabric, quantity, decoration, dimension). All these data will help to build up a definite typology, planned for the next months.

The shapes repertory, after a preliminary analysis, seems to be similar to the results achieved during the previous work seasons: necked (Fig. 63) and un-necked jars (Fig. 64), of big or small dimensions, are pertinent to fabric 4; cooking pots (Fig. 65), usually with traces of burnt, are exclusively associated to Fabric 2; goblets (Fig. 66) and cups (Fig. 67), with straight, carinated or rounded walls, to fabrics 6, 6.1 and 7.2.

Moreover, there are also some shapes not found during the 2008 and 2009 field work: truncated-cone cups (Fig. 68), with dark brown splashes on the interior and exterior surface, probably derived from the Hellenistic fishplate (Fig. 69); big lid with rounded handle on top (Fig. 70), probably used to cover big dimension jars; ring-shaped bases of vessel, red burnished (Fig. 71).

The preliminary chronology of the materials suggested in an MA thesis (Raiano 2011) seems to be confirmed: big and small dimensions jars and pots (fabric 4) belong to Hellenistic period (Afrasyāb 2nd -3rd, see

Genito, Raiano, 2011, p. 112-113), 2nd century BC - 1st century AD) and Kušān period (1st - 4th century AD); goblets could be dated from 2nd century BC to 2nd century AD; cooking ware could be chronologically distributed along a long period of time, embracing the whole chronology of the site.

As well as a new field work season planned for 2012, during next months the collected data coming from the excavation will be elaborated in order to achieve an accurate preliminary typology of the pottery. Next step in the study will be the completion of the catalogue of the un-diagnostic potsherds, and the comparisons with the materials concerning sites in the same area, like Afrasiāb, Kok Tepe (MAFOUZ), and Kafir Kala (Università degli Studi di Bologna⁹).

Topographical Survey at Koj Tepa (Fig.1)

During the third archaeological season at Koj Tepa, a new topographical survey was required, aimed at extending the data collected during the 2008 and 2009 campaigns.

Those previous campaigns, the first in May-June 2008 and a more extensive with trial-trenches in summer 2009, investigated the area of the site, constituted by a central citadel, encircled by an earthen fortification walls and moats. The initial step was consisting in collecting all the topographical data available thanks to Dr. Luciano Rendina, archaeologist and topographer in charge during the previous campaigns. Starting from that, a new cartography in A1 format was elaborated overlapping the data from different sources (topographical maps, GPS relieves, 3D scanned images)

After a first surface survey done in the first days of work, the attention was drawn by the deep and wide ditches stretched parallel to the earthen walls on three of the four sides of the site: more concretely to east, west and south sides.

Nowadays these ditches, having a trapezoid section and laying about - 3 m under the present top level of the wall, are in use as cultivated fields.

⁹ The project *Archaeological Map of the Middle Zerafshan Valley* is directed by Prof. M. Tosi of "Università degli Studi di Bologna".

The top side, dryer and external to the ancient wall, is cultivated with cereals; the bottom of the ditches is artificially irrigated and cultivated with different kinds of vegetables.

For their form, size, section and position, the ditches look like nothing but moats, encircling the citadel walls on three of its four sides. It is highly probable that the northern side presented its own defensive moat, but this part of the site is the more modified and altered from a topographical and archaeological point of view. In fact the northern wall has been notched in a very large portion in north-east direction in order to allow the passage of tractors and sewers; if there was, the ancient moat has been filled quite certainly with the same earth of the notched wall and it is absolutely undistinguished from the rest of the cultivated plain.

In a lesser way, defensive moat appears altered or interrupted in the south-east and south-west corners. In the first an artificial small levee closes the moat, clearly in order to prevent the water flow away from the irrigation grooves. In the south-west corner the agricultural works have altered the *continuum* between the southern and the western branches of the moat: from the end of the north-south oriented path, running on the western wall top, now a pretty triangular shaped small plain lays where once there were the moat and the external rampart: no tracks of the junction between the southern and western external ramparts remain nowadays.

After all these observation, the work in threefold way was planned:

- 1) outlining the entire site in order to check out the old data and take the new;
- 2) supporting the archaeological activity by fixing cardinal points of the trenches excavated and by a daily outlining the quoted points;
- 3) focusing very carefully the moats, the fortification wall and the large extension between the central tepa/citadel and the rest of the site in order to provide possible new interpretation on which aspect the citadel should have had;

In order to achieve an extensive and highly detailed outlining of the entire site including the mentioned moats, two dominant points have been fixed on the top of the Tepa. These two points, named TS1 and TS2, were chosen to allow one with a total and complete topometric process at 360° in the whole site.

The prism was calibrated at the standard measure of 3.0 m with a constant of -30.0 mm. Just in few cases, when the outlining circumstances required it, the prism was calibrated at 4.0 m or 5.0 m, but always with the same constant.

The points were outlined with a maximum interval of 3.0 m on plain and homogeneous terrains; and a minimum of few cm where broken profiles or sensible differences of quote in a short space required it.

During the 2011 campaign a Total Station TRIMBLE M3 DR 3" has been utilized and about 1.460 points outlined, all geo-referred. Thanks to this intensive topometric process one has been able to improve and to extend the old data and to correct some imperfections.

All the data collected will be carefully elaborated to propose a high detailed new cartography and a 3D rendering of the entire site.

References

Sources:

al-Tabari, Ibn Jarir (1988-2007) *Tarikh al-Rusul wa al-Muluk (Tarikh al-Tabari)*, ser. II, p. 1590. New York.

Ibn al-Fakih, al-Hamadani, (1967) *Compendium libri Kitab al-Boldan*, ed. M.J. de Goeje, BGA, p. 19. EJ. Brill.

Ibn Khordadbeh, Abu'l Qasim Ubaid'Allah, (1889) *Kitāb al Masālik w'al Mamālik*, de Goeje (with Fr. tr., 2nd ed., 1967) p. 33. Leiden.

AA.VV. (1969-1975) *Afrasiaba* (Sborniki I-IV), Taškent.

AA. VV. (1992-1996-1999) *History of Civilizations of Central Asia (Vol. 1 - The Dawn of Civilization: Earliest Times to 700 B.C.; Vol. 2 - The Development of Sedentary and Nomadic Civilizations: 700 B.C. to A.D. 250; Vol. 3 - The Crossroads of Civilizations: A.D. 250 to 750)*. UNESCO Publishing, Paris.

Abdullaev, K., Franceschini, F., Raimkulov, A. (2004) The Tetradrachm of Seleucos I from Sazagan Region of Uzbekistan, *Circle of Inner Asian Art and Archaeology*, pp. 10-13. London.

Barthold, W. (1997) *The Encyclopaedia of Islam*, vol. IX (C.E. Bosworth *et alii* eds.) s.v. "al-Sughd", pp. 772-773, Leiden.

Bernard, P. (1987) Les Nomades conquérants de l'Empire Gréco-Bactrien. Réflexion sur leur identité ethnique et culturelle, *CRAI*, pp. 758-768, Paris.

Cattani, M. and Genito, B. (1998) The pottery chronological seriation of the Murghab Delta from the end of the Bronze Age to the Achaemenid period: A preliminary note. (Gubaev, A., Koshelenko, G. e Tosi, M., eds.) *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990-95*, pp. 75-88. Roma.

Francfort, H.P. (1988) Central Asia and Eastern Iran. (Boardman, J., Hammond, N., Lewis, D. e Ostwald, M., edd.) *The Cambridge Ancient History*, vol. IV, pp. 165-193. Cambridge.

Francfort, H.P. (2005) Asie Centrale, *L'archéologie de l'empire achéménide. Nouvelle Recherches, Actes du Colloque organisé au Collège de France par le "Réseau International d'études et des recherches achéménides*, 21-22 novembre 2003, *Persika*, 6, pp. 313-352. Paris.

Frumkin, G. (1970) *Archaeology in Soviet Central Asia. Handbuch der Orientalistik*, vol. III, 1. Leiden-Köln.

Genito, B. (1996) The Iranian Empires and Central Asia: an Archaeological Perspective, *Accademia Nazionale dei Lincei Atti dei Convegni Lincei*, 127, *La Persia e l'Asia Centrale da Alessandro al X secolo*, in collaborazione con l'Istituto Italiano per il Medio ed Estremo Oriente, Rome 9-12 November 1994, pp. 401-421, Rome.

Genito, B. (1998) Trial-Trench at Site No. 215. (Gubaev, A., Koshelenko, G. e Tosi, M., edd.) *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990-95*, pp. 125-35. Roma.

Genito, B. (1998) The Achaemenids in the History of Central Asia, (A. Gubaev, G. Koselenko e M. Tosi eds.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990-95, Reports and Memoirs Series Minor*, III , pp.149-158, Rome.

Genito, B. (2002) The Elusive Frontiers of the Eurasian Steppes, *I Primi Popoli d'Europa, Proposte e riflessioni sulle origini della civiltà nell'Europa mediterranea* a cura di S. Molinas e A. Zifferero, pp. 49-70, Firenze.

Genito, B. (2006) From the Scythians to the Achaemenids: A Nomadic Alternative, *Societas Iranologica Europaea, Istituto Italiano per l'Africa e l'Oriente, Alma Mater Studiorum-University of Bologna, Branch of Ravenna, Proceedings of the 5th Conference of the Societas Iranologica Europaea held in Ravenna, 6-11 October 2003, Vol. I, Ancient & Middle Iranian Studies, (A. Panaino & A. Piras eds.)*, pp. 71-100, Milano.

Genito, B., Gricina, A. *et alii* (2009) The Achaemenid Period in the Samarkand Area (Sogdiana): with contributions by: Luciano Rendina, Maria D'Angelo, *Newsletter Archeologia (CISA) - Volume 0*, pp. 122-141, Naples, ISSN 2036-6353
http://www.iuo.it/userfiles/workarea_231/file/Articoli/Genito,%20Gricina%20et%20alii,%20UZB%20122-141.pdf

Genito, B., Gricina, A., *et alii* (2010) The Achaemenid Period in the Samarkand Area (Sogdiana): Trial Trenches at Koj Tepa 2009 Campaign, *Newsletter di Archeologia (CISA) -Volume1*, pp.113-161, Naples, ISSN 2036-6353
http://www.iuo.it/userfiles/workarea_231/Genito%286%29.pdf

Genito, B., Raiano, F. (2011) Ceramics from Koj Tepa (Samarkand Area Uzbekistan): *A Preliminary Study Report (2009-10)*, *Newsletter di Archeologia (CISA) - Volume 2*, pp. 103-177.

Gubaev, A., Koshelenko, G.A. e Tosi, M. (eds.) (1998) *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990-95*. Roma.

Gumbah G. (1974-1975) Ptolemy and the Middle Asia in Kushan epoch, *Middle Asia in Kushan epoch. Works of the international conference on a History, Archaeology and Culture of the Middle Asia in Kushan epoch* (Dushanbe, 1968). 2 tom. Moskva.

Inevatkina, O.N. (1983) Citadel' Afrasiaba, *Istituta Material'naja Kul'tura Uzbekistana*, 18. Tashkent.

Inevatkina, O.N. (1995) Akropol' drevnego Samarkanda v structure goroda (VI do n.e.-V n.e.). *Avtoreferat kandidackoj dissertacii*. Moskva.

Isamiddinov, M.Kh., (2002) *Istoki gorodskoj kul'tury Samarkandskogo Sogda*, Tashkent.

Lazard, G., Grenet, F. and de Lamberterie, C. (1984) Notes bactriennes, *Studia Iranica*, 13, pp. 199-239.

Meškeris, V.A. (1977) *Koroplastika Sogda*, Dušanbe.

Kabanov, S.K. (1959) Arheologičeskaja Nabljudenija na stroitel'stve iski-angarskogo kanala, *Istorija Material'noj Kul'tury Uzbekistana*, 1, pp. 154, 174. Taškent.

Koshelenko, G.A., ed. (1985) *Drevnejšie Gosudarstva Kavkaza i Srednej Azii*. Moskva.

Lyonnet, B. (1997) *Prospections archéologiques en Bactriane orientale (1974-1978) Sous la direction de Jean-Claude Gardin. Volume 2. Céramiques et peuplement du Chalcolithique à la conquête arabe. Mémoires de la Mission Archéologique Française en Asie Centrale*. Tome8. ERC. Paris.

Mantellini, S. (2001) The Dargom Canal and the Early Settlement of the Middle Zeravshan Valley, *Italo-Uzbek Scientific Cooperation in Archaeology and Islamic Studies: An Overview (Rome, January 30, 2001)*, (S. Pagani ed.), pp. 41-48, Rome.

Mantellini, S. (2009) Alma Mater Studiorum - Università di Bologna DOTTORATO DI RICERCA ARCHEOLOGIA Ciclo XXI Settore/i scientifico disciplinari di afferenza: AREA 10, L-ANT/10 *La gestione dell'acqua come oggetto d'indagine per la ricostruzione delle dinamiche insediamentali e delle trasformazioni del territorio. Il caso di Samarcanda nella Media Valle dello Zeravshan (Uzbekistan) Settlement Dynamics and Water Management for the Reconstruction of the Landscape Transformations: A Case Study from the Middle Zeravshan Valley (Samarkand, Uzbekistan)*. Ravenna.

Mantellini, S., Rondelli, B. (2003) Strategie e metodi per la storia del popolamento nella Media Valle dello Zeravshan (Uzbekistan). La ricostruzione in ambiente GIS attraverso survey, cartografia storica, telerilevamento e modellazione tridimensionale, Teoria e Pratica nell'analisi e interpretazione della cultura materiale antica, *I Convegno degli Studenti di Archeologia*, 26-28 maggio 2003, Napoli.

Massa, S. (2011) The Analysis of the Un-Glazed Pottery: Methodological Problems and Preliminary Results, *Adamji Project, From the Excavation (1972-1978) to the Archive (2002-2010), in the Masjed-e Jom'e, Isfahan* (Bruno Genito and Faribah Saiedi Anaraki (eds.), Italian Embassy, Teheran, Iranian Cultural, Handicraft and Tourism Heritage Organization, Teheran, Istituto Italiano per l'Africa e L'Oriente, pp. 171-185, Tehran.

Masson, V.M. e Sarianidi, V. (1972) *Central Asia before the Achaemenids*. London.

Obel'čenko, O.V. (1966) Sasaganskije Kurgany, *Istorija Material'noj kul'tury Uzbekistana*, Vyp. 7, pp. 66-81, Taškent.

Obel'čenko, O.V. (1969) Mirankul'skie Kurgany, *Istorija Material'noj kul'tury Uzbekistana*. Vyp. 8., pp. 80-90. Taškent.

Obel'čenko, O.V. (1972) Agalyksajskie Kurgany, *Istorija Material'noj kul'tury Uzbekistana*. Vyp. 9., pp. 56-72. Taškent.

Pugačenkova, G.A. and Rtveladze, È.V., (1985) s.v. Afrasiab, *Encyclopaedia Iranica*, I, edited by Ehsan Yarshater, pp. 576-578. London, Boston and Henley.

Raiano, F. (2011) Unpublished MA Thesis, *L'attività Archeologica Italiana nell'Antica Sogdiana (Area di Samarkanda). Scavi e Produzione Ceramica a Koj Tepa nel Contesto Storico-archeologico dell'Asia Centrale*. Università degli Studi di Napoli, L'Oriente, Napoli.

Rapin C., Isamidinov M., Hasanov M. (2001) La tombe d'une princesse nomade à Koktepe près de Samarkand, *CRAI*, pp. 33-92, Paris.

Rondelli, B., Mantellini, S., Bonora, G.L. e Franceschini, F. (2003) Carta Archeologica della Media Valle dello Zeravshan: aspetti diversificati per una comprensione diacronica del popolamento antico - Missione Archeologica italo-uzbeka a Samarcanda: campagna 2002, *Ocnus, Quaderni della Scuola di Specializzazione in Archeologia - Università di Bologna*, 11, pp. 35-63. Bologna.

Rostovcev O.M. and Ivanickiy I.D. (1976) Raboty v Samarkandskoj oblasti, *Arheologičeskie otkrytiya*. Moskva.

Rtveladze, E.V. (1981) Ksenippa - Paretaka. (Litvinskij, B.A., ed.) *Kavkaz i Srednjaja Azija v drevnosti i srednevekovye (istorija i kul'tura)*, pp. 95-101. Moscou.

Sagdullaev, A.S. (1987) Osobennosti osedlogo rasselenija v južnom Sogde v epohu antičnosti, (Pugachenkova, G.A. e Askarov, A., edd.) *Gorodskaja kul'tura Baktrii-Tokharistana i Sogda*, pp. 131-134. Taškent.

Schaeder, H.H. and Bosworth, C.E. (1995) s.v. Samarkand, *The Encyclopaedia of Islam - new edition*, English version, VIII, pp. 1031-1034. Leiden.

Shirinov, T. and Tosi, M. (2001) Land behind Samarkand. The Archaeological Map of the Middle Zeravshan Valley: Perspectives and Geographical Repartitions, *Italo-Uzbek Scientific Cooperation in Archaeology and Islamic Studies: An Overview (Rome, January 30, 2001)*, edited by Samuela Pagani, pp. 13-40, Rome.

Stride, S. (2001) Le programme de prospection de la MAFOuz B dans la région du Sourkhan Darya. (Leriche, P., Pidaev, C., Gelin, M., Abdoullaev, K. e Fourniau, V, eds.). *La Bactriane au carrefour des routes et des civilisations de l'Asie centrale. Termez et les villes de Bactriane-Tokharestan. Actes du colloque de Termez 1997*, pp. 173-183. Paris.

Sulejmanov, R.K. (2000) *Drevnij Nahšab. Problemy civilizacii Uzbekistana VII v. do n. e. - VII v. n. e.* Samarkand-Taškent.

Suharev, I.A. (1935-1936) *Otčet ob arheologičeskoj razvedke v Samarkandskoj gruppe rajonov, (1935-1936) Rykopolis' Myseja Istorii Kul'tury v Samarkande.* Inv. 252, pp. 71-73.
Tosi, M., Rondelli, B., Menghi, E. e Mantellini, S., (2002) Interventi archeologici in Uzbekistan, *Ocnus, Quaderni della Scuola di Specializzazione in Archeologia - Università di Bologna*, 9-10, pp. 343-351, Bologna.

Tosi, M. et alii (2007) *La Carta Archeologica della Media valle dello Zeravshan: strategie e metodi per la storia del popolamento nella regione di Samarcanda*, in «The Role of Samarkand in the History of World Civilization (Material of the International Scientific Symposium devoted to the 2750th Anniversary of the City of Samarkand, Samarkand, 24-26 May 2007)», pp. 68-73. Taškent

Vafaev G., Ivanickyj, I.D. (1992) Laylakuytepe - ranneantičnoe sel'skoe poselenie Samarkandskogo Sogda, *Uzbekistan v drevnosti i srednevekov'e. Tezisy dokladov respublikanskoj konferencii molodyh istorikov.* Samarkand.

Vogelsang, W. (1992) *The Rise and Organization of the Achaemenid Empire. The Eastern Iranian Evidence.* Leiden.

Acknowledgements:

Republic of Uzbekistan:

- Ministry of Culture
- Institute of Archaeology of Uzbek Academy of Sciences
- The Embassy of Uzbekistan, Rome

Republic of Italy:

- Ministry of Foreign Affairs (DGCS & DGPCC)
- Italian Institute for Africa and the Orient (IsIAO)
 - Università degli Studi di Bologna
 - Università degli Studi di Napoli “L’Orientale”
- Italian Embassy at Taškent

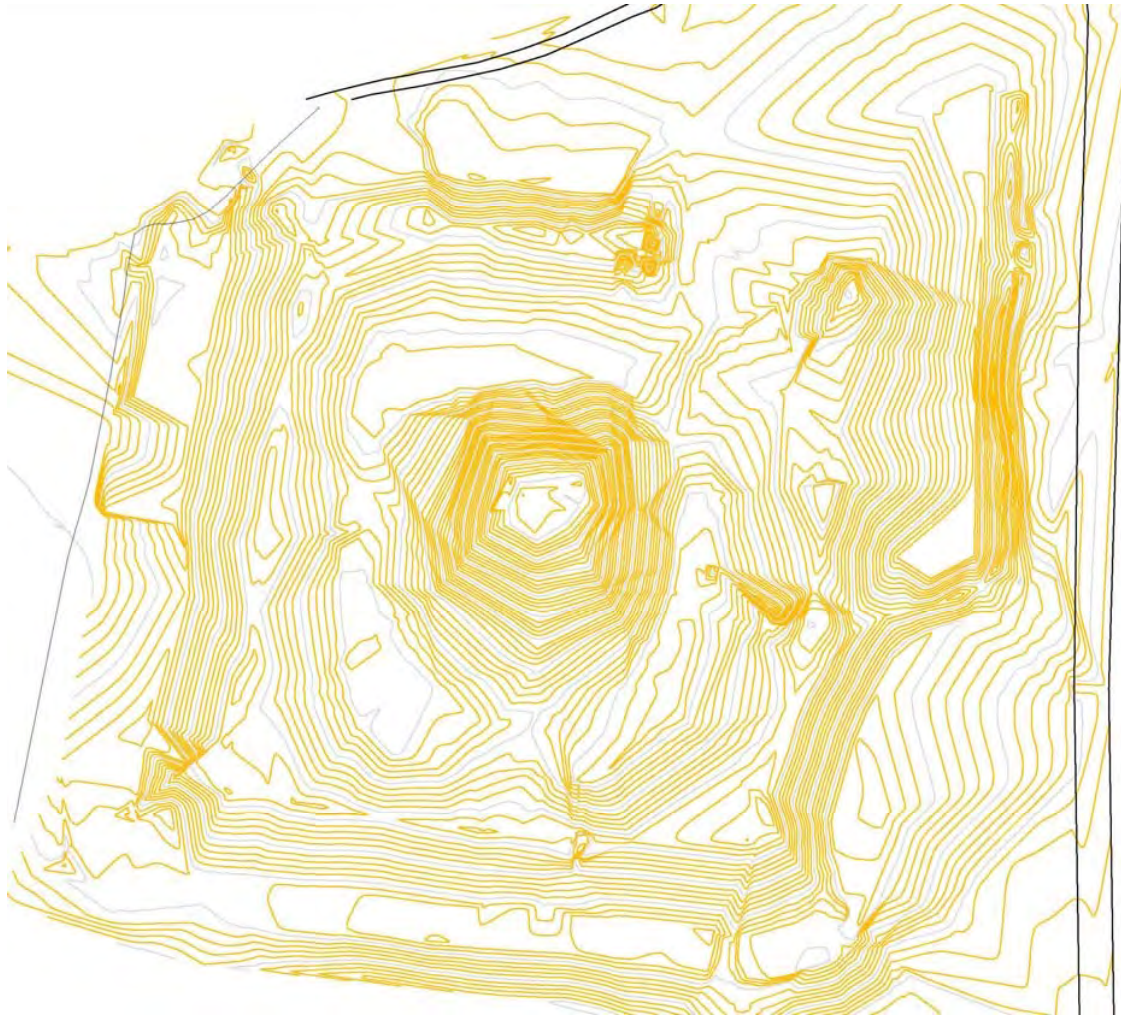


Fig. 1 - Map of Koj Tepa, up to date during the 2011 season, topographic, graphic processing and Autocad delineation by Davide Lunelli

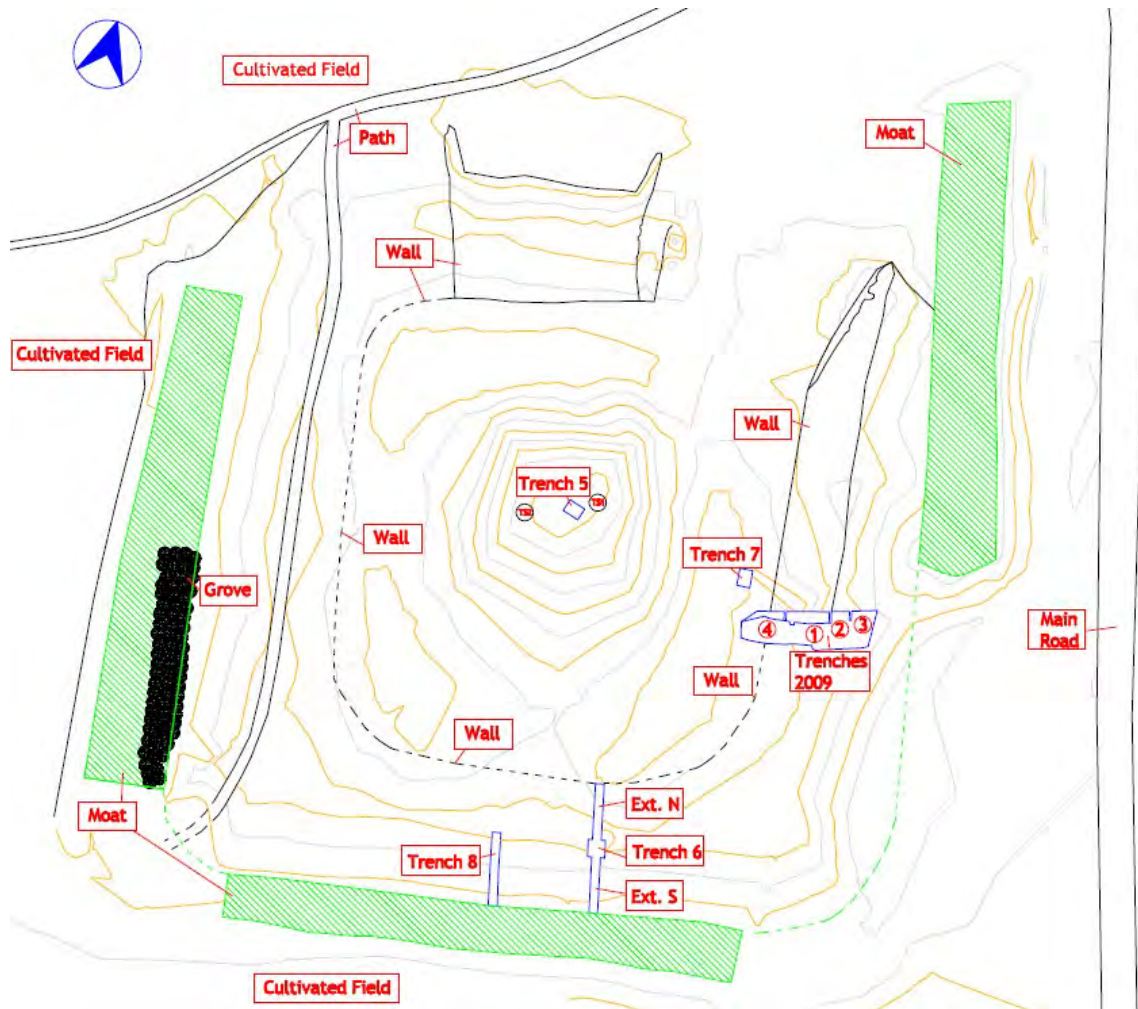


Fig.2 - Location of the trenches of the site, topographic, graphic processing and Autocad delineation by Davide Lunelli



Fig. 3 - Trench 5 at the beginning of the excavations, after MAI



Fig. 4 - Trench 5 at the first cuttings, after MAI



Fig. 5 - Trench 5 blocks of hard and compact clay in the first cuttings, after MAI



Fig. 6 - Trench 5, blocks of hard and compact clay located at south, north and the north-eastern corner, after MAI



Fig. 7 - Trench 5, alignment of a wall, SU 35 (E-W), after MAI



Fig. 8 - Trench 5, blocks of compact and hard clay and the alignment of wall, after MAI



Fig. 9 - Trench 5, diagnostic potsherd inserted in the wall SU 35, after MAI



Fig. 10 - Trench 5, collapse SU 37 of the wall SU 35, after MAI



Fig. 11 - Trench 5, collapse at the centre of the remains of the wall in SU 37, after MAI



Fig. 12 - Trench 5, SU 5, fragmented terracotta figurine in the style of the so-called *Venus Stydlivaja* in situ, after MAI



Fig. 13 - Trench 5, terracotta figurine in the style of the so-called Venus *Stydlivaja*, after MAI



Fig. 14 - Trench 5, the alignment of a wall SU 41, perpendicular to the wall SU 35, after MAI



Fig. 15 - Trench 5, part of the soil in the northern side of the wall SU 35, with unified pit SU 45, after MAI

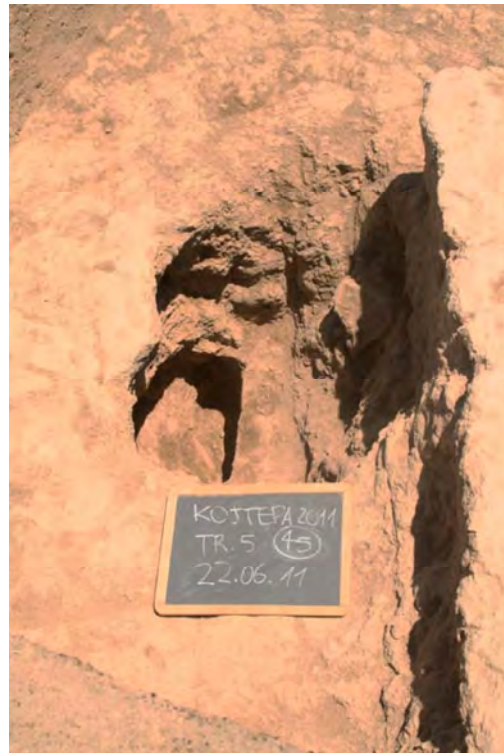


Fig. 16 - Trench 5, US 39 (western pit) US 43 (eastern pit) and the very compact and hard clay of SU 45, after MAI



Fig. 17 - Trench 5, rim of jar, diameter 10 cm, covered by a dark colored slip SU 8, after MAI



Fig. 18 - Trench 5, pottery disk, SU 42, after MAI



Fig. 19 - Trench 5, pottery disk SU 42, after MAI



Fig. 20 - Trench 5 pottery disc SU 45, after MAI



Fig. 21 - SU 51, constituted by the area delimited by the walls SU 41, 50 and SU 8, after MAI



Fig. 22 - Trench 5, SU 42 in the eastern part, after MAI



Fig. 23a - Trench 5, jar (SU 53) and the elliptical elongated millstone, after MAI



Fig. 23b - Trench 5, jar (SU 53) and the elliptical elongated millstone, details, after MAI



Fig. 24 - Trench 5, under the collapse (SU 37) an alignment of a structure south-north oriented, ending at SU 50, evidenced by the division in two part of SU 55, after MAI



Fig. 25 - Trench 5 fireplace, SU 66, after MAI



Fig. 26 - Trench 5, SU 63, the area between wall SU 35 and wall SU 41, after MAI



Fig. 27 - Trench 5, SU 71, the bottom of a jar *in situ* (left) and detail (right), after MAI



Fig. 28 - Trench 6, modern break-in in the southern side of the encircling fortification wall, after MAI



Fig. 29 - Trench 6, the northern part of the modern break-in, after the cleaning with more reddish clay, after MAI



Fig. 30 - Trench 6, the southern part of the modern break-in with more grayish clay, after MAI



Fig. 31 - Trench 6, disc-shaped basis of a vessel from the modern break-in, after MAI



Fig. 32 - Trench 6, the inner part of the modern break-in with large amount potsherds, animals bones, burnt clay and ash, after MAI



Fig. 33 - Trench 6, the modern break-in clean out, defining SU 31 in or over the fortification earthen encircling wall at south, after MAI



Fig. 34 - Trench 6, removal of the first cuttings and the definition of SU 34, slightly compact and soft, more grayish colored, after MAI



Fig. 35 - Trench 6, the encircling outline delimiting the modern break-in, after MAI



Fig. 36 - Trench 6, SU 1 (left and up), SU 31 (low) inside the modern break-in with its characteristic reddish soil, after MAI



Fig. 37 - Trench 6, SU 31, terracotta figurine of the so-called female type of *Venus/Anahita*, after MAI



Fig. 38 - Trench 6, a part of another activity floor (SU 54), broken most probably by SU 49, after MAI



Fig. 39 - Trench 6, western half of the trench, SU 59, texture compact, hard with a green colored surface, under SU 57, after MAI



Fig. 40 - Trench 6, western half, SU 59, cut by SU 34 and 31, after jointly named 49, going very deep to the eastern and western side under the supposed US 38, after MAI



Fig. 41 - Trench 6, simple terracotta fragmented figurine in SU 49, after MAI



Fig. 42 - Trench 6, SU 61 in east and SU 62 in west, after MAI



Fig. 43 - Trench 6, SU 52, constituted by sandy clay and fragments of the fortification wall SU 38, after MAI



Fig. 44 - Trench 6, spindle-whorl in mud SU 52, after MAI



Fig. 45 - Trench 6, sketched clay figurine in SU 52, after MAI



Fig. 46 - Trench 6, jar discovered in SU 73 upside down located very close to the fragmented fortification wall at south, after MAI



Fig. 47 - Trench 6, general view of floor SU 73 and the jar SU 74 and fragments of the fortification wall SU 38, after MAI



Fig. 48 - Trench 7 at south-east from the top of the tepa, before the excavation, after MAI



Fig. 49 - Trench 7, four different SU recognized on the northern section of sector A in the trench, and the SU 52 (basal sand clay), after MAI



Fig. 50 - Trench 8 at about 21.24 m from the Trench 6, before the excavation, after MAI



Fig. 51 - Trench 8, the fortification earthen wall SU 38 appearing after the first cuttings, after MAI



Fig. 52 - Trench 6 Ext. South, 13 m long \times 2 m wide, at about 96 m from the St 1, after MAI



Fig. 53 - Trench 6 Ext. South, two jars in the SU 44, after MAI



Fig. 54 - Trench 6 Ext. South, two jars in SU 44, after MAI



Fig. 55 - Trench 6 Ext. South, SU 44 after the removal of two jars, after MAI



Fig. 56 - Trench 6 Ext. South, the eastern jar SU 46, after MAI

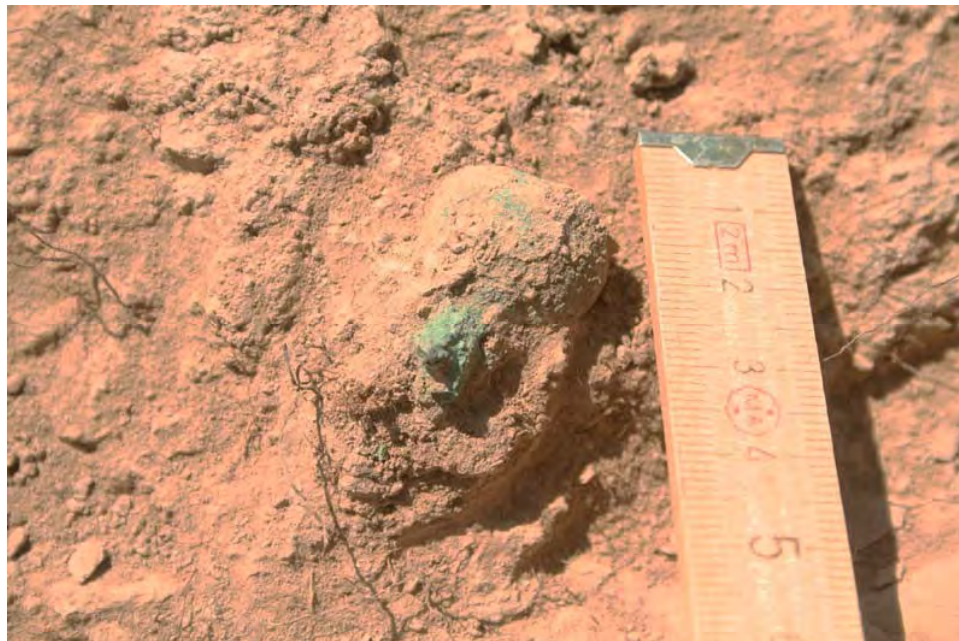


Fig. 57 - Trench 6 Ext. South, a small piece of bronze (rattle with two holes) inside the western jar SU 47, after MAI



Fig. 58 - Trench 6 Ext. South, a small piece of bronze (rattle) from the western jar SU 47, after MAI



Fig. 59 - Trench 6 Ext. South, SU 52 (basal sandy clay) at the northern part, brownish colored, after MAI



Fig. 60 - Trench 6 Ext. North, removal of SU S, after MAI



Fig. 61 - Trench 6 Ext. North, fortification earthen wall SU 38 after the first cuttings, after MAI



Fig. 62 - Trench 6/Trench 6 Ext. South, SU 44 (first sight) and fragments of fortification wall SU 38 (background), after MAI



Fig. 63 - Inv. 0182, fabric 4:
necked, after MAI



Fig. 64 - Inv. 0225, fabric 4:
un-necked jar, after MAI

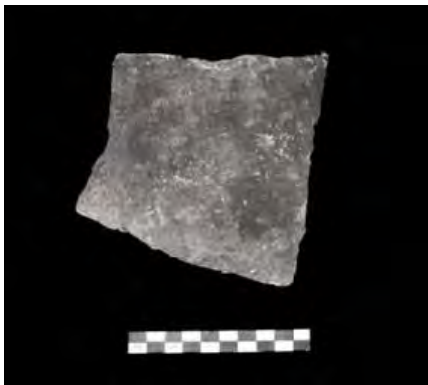


Fig. 65 - Inv. 0204, fabric 2:
cooking pot, after MAI



Fig. 66 - Inv. 0219, f. 7.2:
goblet, straight walls, after
MAI



Fig. 67 - Inv. 0153, f. 6: cup
with: rounded wall, after MAI



Fig. 68 - Inv. 0188, f. 4:
truncated-cone cup, after MAI



Fig. 69 - Inv. 0044, fabric 4:
fishplate, after MAI



Fig. 70 - Inv. 0167, f. 4: lid
with rounded handle, after
MAI



Fig. 71 - Inv. 0210, fabric 4: ring-shaped base, after
MAI