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THE ITALIAN-UZBEK ARCHAEOLOGICAL PROJECT

Since 2008 joint Uzbek-Italian archaeological activities of the Institute of Archaeology of the Academy of Sciences of Uzbekistan, Samarkand (IAASU) and the Università degli Studi di Napoli “L’Orientale” (UNO) have been carried out in the Pstdargom district in the Samarkand area¹.

These field activities located in a crucial part of the historical Sogdiana² followed a two-years (2007-2008) of intense contacts with the Uzbek colleagues, with the former director of IAASU Shakirdjan Pidaev, the present Amriddin

¹ The whole area has for long time been investigated by Soviet, Uzbek, French and most recently Italian, American, Japanese, Australian, German and Chinese scholars. Up to now the results obtained have given the confirmation that the region has represented one of the most important of Central Asia for the proto-historic, historical and late historical time, as the sources accounted. A large amount of sites have been identified, excavated and partially investigated, and trial-trenches and surveys effected in the past decades; all of them have clearly evidenced the centrality of such an inland basin of the upper, middle and lower course of the Zeravshan river and its complicated network of tributaries, canals and consequent correlated valleys which ultimately contributed very much to the cultural development of the area.

² Both old Persian and the ancient Greek names of *Suguda* and *Sogdiana* indicate an eastern very far area from Greece and Iran and an ancient civilization related, in late historical time, to an Iranian speaking people. The area was many times mentioned as a province of the Achaemenid Empire, the eighteenth in the list on the Bisutun inscription of Darius the Great (BD, I. 6), the sixth in the upper inscription of Darius the Great at Naqsh-e Rostam (DNa, 3), and described in another famous inscription of Darius the Great at Susa (DSf, 38) as a region exporting semi-precious stones as lapis-lazuli and cornelian. In the recent parts of *Avesta* (Mihir Yašt, 10, 14), Sogdiana is “listed” as the second of the “good lands and countries” that Ahura Mazda created (Darmesteter 1898) and in the Zoroastrian book of *Vendidad* (Christensen 1943, 1, 4) as the second, after the *Airyanem Vaejah* the “homelands of the Aryans”. In this respect the importance of the region from ancient times was strongly emphasized (Boyce 1992; Christensen quoted), and at different times, Sogdiana could have included the territories around Samarkand, Bukhara and Shahrisabz in modern Uzbekistan, Pandžikent and Khudžand in Suğd province in modern Tadžikistan. Historical Sogdiana lays North of Bactria, East of Khwarezm, and southeast of Kangju, between the Oxus (Amudarya) and the Jaxartes (Syrdarya), embracing the fertile valley of the Zeravshan river (ancient *Polytimetus*). A possible Sogdian political centre, although never really unified, was most probably located around Samarkand as well. The so-called “iron gates” of Derbent could have been, perhaps, the only archaeological evidence of a southern limit of Sogdiana during the Hellenistic period (Rapin *et alii* 2006, 48-59; Rapin 2013, 49).

Berdimuradov and Maurizio Tosi as well, director of the Italian Archaeological Mission of the Università degli Studi di Bologna, Alma Mater (UsB).

The scientific reasons of these activities were and are mostly aimed at trying to study and analyse the archaeological consistency of an area within the 6th - 4th century BC, recorded for the first time in the trilingual inscription of Bisutun of Darius the Great (522-486 BC) with the use of the ethnonym or toponym “Sogd/Sugd”³, and much more known, in a detailed way, in the early mediaeval time for its ethno-cultural and ethno-linguistic eastern-Iranian Sogdian background (4th - 7th century AD)⁴.

Samarkand, has been obviously related to the ancient name of *Afrāsīāb* (Yarshater 2007) related to the king and hero of Turan and an archenemy of Iran⁵. The city was, for the first time, quoted with the name Marakanda in

³ Cf. note no 2. In Herodotus (VII, 66) (Fausti, a cura di, 1984a, Vol. III, 341, 343) a people called *Sogdoi* is mentioned together with the Parthians, the Chorasmians, the Gandarians and Dadicians who participated to the Xerxes’ expedition against the Tracians with the same facilities of the Bactrians; the Greek author (III, 93) (Fausti, a cura di, 1984b, Vol. II, 119, 121) tells as well that the Sogdians, together with the Parthians, the Corasmians and the Areians constituted the sixteenth province of the Achaemenid Empire and that they paid a tribute of 300 talents to the central government.

⁴ A “Sogdian” people and the related “Sogdian” language constitute one of the most controversial and debated historical and linguistic issues, whose problematic is going back to the eastern Iranians which the majority of the scholars chronologically locate in the geomorphologically complex and intricate Zeravshan valley, between the middle of the 4th and the 7th century AD, before the Islamic period. See note 11.

⁵ According to the Iranian mythology in the *Shāhnameh* (Book of Kings), by the Persian epic poet Ferdowsī, Afrāsīāb is considered by far the most prominent of all the Turanian kings; he is a formidable warrior, a skilful general, and an agent of Ahriman, who is endowed with magical powers of deception to destroy Iranian civilization. According to the Middle Persian and Islamic sources, Afrāsīāb was a descendant of Tūr (Avestan, Tūriya), one of the three sons of the Iranian mythical King Fereydun (the other two sons being Salm and Iraj). In the Bundahishn he is named as the seventh grandson of Tūr. In the Avestan traditions, his common epithet *mairya-* (deceitful, villainous) (Nyberg 1938, 257) may be interpreted as meaning an “evil” man. He lived in a sub-terranean fortress made of metal, called Hanakana. According to the Avestan sources, Afrāsīāb was killed by Haoma near Čīčast (possibly either referring to Lake Hamun in Sistan or some unknown lake in present Central Asia), and according to *Shāhnameh* he met his death in a cave known as the Hang-e Afrāsīāb (the dying place of Afrāsīāb), on a mountain top in Azerbaijan. The fugitive Afrāsīāb, having been repeatedly defeated by the armies of his adversary, the mythical King of Iran Kay Khosrow (who happened to be his own grandson, through his daughter Farangis), wandered wretchedly and fearfully around, and eventually took refuge in this cave and died. About the name of Afrāsīāb there is another less legendary interpretation of Livshits (1965, 5) who proposed to see in the name of

the accounts of the campaign of Alexander the Great, seemingly occurred in Sogdiana between the 329th and the 327th BC⁶.

Afrāsīāb the old Persian *apara siab*, namely “that which is on the siab = sogdian *paršawab* and Albaum (1975, 6) for whom it could be meant “beyond of the Black Water” = Sīāb Canal. In the XVIth century the ruins of Afrāsīāb were called as “Hissar-i Kuhna”. Although the identification of the Turanian tribes with the Turks is a late development, since the term Turanian originally was applied to Eastern Iranian tribes of Central Asia, Turks cultivated the legends of Afrāsīāb as a Turkish hero as well, after they had come in contact with the Iranians. Mahmud al-Kashgari quotes in his *Dīwān loġāt al-Tork* (5th/11th century) a number of elegiac verses lamenting the death of Alp Er Tunga (Atalay 2006). Afrāsīāb city was, thus, one of the earliest in the cultural and political history of Sogdiana, whose archaeological remains mostly belong to the 6th and 8th centuries AD, when, under the Ephtalite and Turkish rule it reached an exceptional cultural level, particularly testified to the extraordinary artistic production. The city assumed a triangular shape bounded on North by the Sīāb river and on East by the “Obi Mashkhad” channel. Four boundary walls have been identified, with different shape and dating, among which the most striking building is the Royal Palace that housed the rulers of Samarkand. The palace was characterized by a long series of rectangular chambers, built with clay and a layer of plaster used for decorations. The room reserved for the hearing of the king turns out to be the richest decorated with pictorial and plastic elements both of historical derivation, as the representation of guests from Asia, and religious, such as gifts to various gods. On the western wall (the main front entrance) the ruler of Samarkand Varkhuman is represented receiving tributes and gifts (rolls of silk offered by the Chinese) by foreign delegations on the occasion of the feast of the New Year coinciding with the Now Ruz winter equinox on 21th March, deeply felt celebration in the Iranian world; the southern wall represents the second part of the celebrations, with the procession to the temple dedicated to the ancestors of the sovereign and the commemoration of the dead (Marshak 1994, 5-20); the northern wall is devoted to China, an ally of the king of Samarkand, with the depiction of the Chinese Imperial couple in the act of celebrating the feast of Duanwujie (Dragon Boat Festival); finally, the eastern wall, badly damaged, may have been dedicated to India and the Turks.

⁶Arrian (Anabasis Alexandri) (III, 30, 6) (Sisti, a cura di, 2001, 295) (IV 3, 6; 5, 2; 5, 3; 6, 3; 16, 2; 16, 3) (Sisti, Zambrini a cura di, 2004, 15, 21, 25, 57,), and basically Quintus Curtius Rufus (*Historiae Alexandri Magni*) (VII, 6, 10, 24; 9, 20) (Atkinson, Gargiulo, a cura di, 2000, 135, 139, 161) (VIII, 1, 7, 19; 2, 13) (Atkinson, Gargiulo, a cura di, 2000, 177, 179, 189) use the name *Μαρακάνδα* which, coincide with the earliest part of the present Samarkanda (Fig. 1). With regards to the foundation of the city, a pre-Achaemenid dating, between 650 and 550 BC, would seem confirmed (Pugačenkova and Rtveldze 1985) by Arrian as well who defines it *βασιλεία τῆς Σογδιανῶν Χώρας* (III, 30, 6) (Sisti, a cura di, 2001, 295). Alexander occupied it many times during the clash with Spitamenes and, according to Strabo (XI, 11, 4), did he also razed it to the ground. During the time of the *Diadoches* the city became the capital of Sogdiana, and belonged at the time to Bactriana. The Seleucids lost their control of Bactria (and therefore of Sogdiana) when Diodotos proclaimed its independence and founded the Graeco-Bactrian Kingdom (250-140 BC). Since then up to the Islamic conquest Bactria and Sogdiana did not seem to have had very much in common with the history of the Iranian plateau, both from economic, and historical-cultural points of view (Schaefer

As it is known, the area had been since long time documented by differing archaeological evidences; almost all of them are territorially merged in a network of significant canalization works, whose ancient origin is still under scrutiny. Such earthworks originated from the Zeravshan river, and among these one may mention the most important, Dargom⁷, already quoted by

and Bosworth 1995). About the date of foundation of the site cf. the new proposition of Širinov, Pidaev, eds. 2007.

⁷ Among the channels of the left bank of the Zeravshan river the Dargom is the larger. The history of this channel has been discussed by experts of irrigation and historical geography, which have proposed different views on its nature and construction. Scholars wanted either to define the artificial nature of the channel or to reconstruct the chronological steps that may be extrapolated from the type of archaeological sites closely related to the channel itself. Grigor'ev (1939) assumes that the Dargom was seasonal and that it could be created through the use of water courses from the foothills. Even Lebedeva (2004) who performed a series of reconnaissance during the 80s along the Dargom has come to establish the semi-artificial nature of the channel, coming to date its construction to the Medieval period (5th century AD) in base of the presence of archaeological material dating back to that period especially in the steppe area. However, the discovery of archaeological sites dating to the Hellenistic period in the irrigated area, especially in the Pastdargom area (Šiškina 1975) refutes the thesis of Lebedeva. Muhamedžanov (1975, 278-271) and Guljamov (1974, 118-122) have speculated that the Dargom had been built in the 1st century AD, before Novadon and "Obi Mashkhad". Today, as a result of systematic reconnaissance along the canal has been reached the formulation of the hypothesis that the Dargom has been created to intensify the exploitation of the territory (Mantellini 2003) by the first farming communities that used in the beginning only the waters of piedmont *sai* (canal). Marconi, Mantellini, *et alii* (2009) date back the canal to the Early Middle Age and assume that its morphology may be reconstructed in relation to the labor investments required to realize such a great hydraulic work. Dargom, thus, was not an imposition by a central power authority but the result of the common effort carried out by cities and villages around Samarkand in order to supply more water for the agricultural development of the region. Dargom originates from the Zeravshan, East of Samarcanda, flows to South of the city to re-join the same Zeravshan, West, in the line called Kara darya, for a general length of 100 kms. In its initial trait the Dargom distributes in three distinguished courses: *Starj* (old) Dargom, of undetermined epoch; *Jangj* (new) Dargom, built among 1926-1930; or Dargom *Obvodnoj* ("that it revolves"), dating back to the beginning of the 60s. The geomorphologic and hydrologic complexity of the Middle Zeravshan valley made it necessary, since the most ancient times, an intense work of reclaiming the whole territory in order to increase the cultivable surfaces and to consolidate the sharp water network, also in virtue of a very low rain precipitations regime (around 320 mms per year). The greater part of these interventions occurred in the 20s century during the Soviet time, particularly in the 20s-30s and 60s-70s decades: the first period belongs to the time of the construction of the 1st May Dam, realised through the use of the new technical engine and the exploitation of a large amount of manpower. The strong erosion practiced by the channel on the surrounding territory is

Ptolemy in his *Geografikà* as the main water restocking of *Μαρακάνδα*. In the list of the rivers present in the different sources, the Greek, the Latin, the Middle-Persian, the Arabic and the Turk, the Dargom is recorded as well⁸.

The Italian-Uzbek activity of UsB was aimed at protecting and valorising the archaeological-environmental heritage of the area on one hand, and to analyse, in details, the ancient settlement scheme, from the early phases up to now (Figs. 2, 3, 4) on the other.

Unfortunately the continuous agricultural interventions of last decades⁹, and especially those of the Soviet period (in the 20s - 30s and 60s - 70s of last century), have seriously damaged both the state of conservation of the archaeological areas and, in some cases, even the existence of a large amount of them. It has been decided, thus, to proceed since 1989 through systematic surveys over the territories and to study the historical maps (above all the Soviet of the 50s) and the satellite images. To every recognised site an electronic card has been realized and associated aimed at documenting all the essential information for a complete understanding of the archaeological features¹⁰.

a clear sign of an unstable water regime and only the construction of the dam has allowed a best exploitation of the water and the conversion of unsuitable grounds to cultivable. In the second period the areas neighbouring to the Dargom have been, instead, reclaimed. The field study of land and water in arid and semi-arid environments, with special reference to post-Soviet Central Asia and to Uzbekistan, focuses on the irrigated and dry areas in the Middle Zeravshan Valley. The two areas reflect the territorial characteristics of Central Asia as a whole, which is marked by huge arid lands alternated with river agricultural oases (Zinzani 2011). Cf. also Abdullaev (*infra*, 63-66).

⁸ In Ptolemy (*Geography*) and on his map the left inflow of Amudarya (Oxus), called *Dargoman* (*Dargamanis flumen*), originated in the Hindukush (*Paropamisus*) mountains (VI, Table VII of Asia) (Ruscelli, Traduzione a cura di, 1561, 301-302) is mentioned. In the medieval sources the canal is named as *Dirgam*, running near Hulma in Tocharistan (al-Tabari, ser. II, 1590) (1988-2007) (Ibn Khordadbeh 1889, 33; 66), identified with the Aksarai river (Kunduz-darya) (Lazard, Grenet, de Lamberterie 1984, 202). In antiquity it may have been also called Dargoman (Gumbah 1975, 72). During the Early Middle Age amongst the Türks of Fergana the name *Dargman* (al-Tabari, ser. III, 1562, 1595) (1988-2007) or Tardjuman (Ibn al-Fakih, 1967, 19) was rather popular.

⁹ The creation of artificial balconies and great canalization works were aimed at increasing the cultivable surface and consolidating the sharp water network, because of the low annual regime of the rains, around 320 mms.

¹⁰ Every electronic card is referred to the activities effected in the previous years, to the materials collected in the surface, to the topographical information and the state of conservation of every single described element.

The joint field activities, financially supported by UNO, put the bases for a new archaeological project, which, starting from the topographic data collected by an earlier project of UsB¹¹, was basically aimed at investigating a possible archaeological horizon of the Achaemenid period (6th - 4th century BC) in the Samarkand area.

The investigations in the region since the last decades have allowed one to identify numerous sites related to the Sogdian period (4th - 7th century AD) representing, for number and dimensions, the majority of the archaeological evidences in the area. Poorly documented, up to now are the proto-historic period, the Bronze and the early Iron Age as well, whilst there are well visible the Mesolithic and Neolithic sites (Rondelli *et alii* 2003).

The premises of the new project are mostly related to the rather great methodological and field work difficulties always encountered by scholars to precisely define archaeological horizons, especially in such an area, i.e. in the north-eastern periphery of the Achaemenid Empire. In this perspective at least, four different aspects and levels of interpretative criteria, as is already known, should be basically considered:

1. the dynastic, identifiable only by inscriptions, numismatics and seals;
2. the ethnic, possibly detectable both in the physical-anthropological (although less analyzed and investigated only in the presence of very rare funeral remains) 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 (architecture), economic investment (fields, regional walls, water supply etc);
4. the chronological, detectable in the differing stratigraphic (when present) horizons connected to the time of the political dynastic dominion in the area.

¹¹ The project operating in the area and entitled *Archaeological Map of the Middle Zeravshan Valley*, started in 1999 and it is still in progress (Širinov and Tosi 2001; Mantellini 2003; Tosi, Rondelli, Menghi, Mantellini 2002; Rondelli, Mantellini, Bonora, and Franceschini 2002; Mantellini and Rondelli in press; Tosi 2007; Mantellini 2009; Marconi, Mantellini, Picotti, Gabbianelli, and Tosi 2009). The middle valley of the Zeravshan is an integral part of its vast river system: with a length of 741 km, the river flows from East to West at a latitude between 39° and 40°N, wetting lands which can be classified as semi-arid in the upper and middle course, and arid in the lower. The physical-territorial aspects that distinguish today the Middle Valley of the Zeravshan, are the result of hydraulic interventions targeted and intense anthropic transformations that have affected the area concerned over the centuries.

All these grounds and topics, already emphasized for a different area (Genito 1998, 157, fig. 1) must of course be correlated to the concrete archaeological evidence collected within the field activities in the area. The territory of 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 concrete distribution of the eventual related remains and not only on the evidence of any “Achaemenid” cultural single element, however, very difficult to be found, identified and defined.

Such considerations impose, however, as already told methodological interpretative criteria that can shortly be summarized in a priority demand to know both the places and the chronology of the objects, architectonic remains and numismatic or sphragistiks items.

In particular the activities of the joint working group of IAASU and UNO since May 2008 has continued working up to now in an area West of Samarkand and are aimed at singling out the cultural horizons related to the periods of the earliest occupation and at representing differing stages in order to plan future more extensive excavations elsewhere in the area.

Historical-Archaeological Background

Any archaeological perspective related to the Achaemenid period in Sogdiana should be preliminarily inserted into the given very scarce, though rather complicated, historical framework of the ancient sources dealing with the region and the related peoples.

Sogdiana was in late times populated by a people speaking and writing in an eastern Iranian language: the Sogdian¹². According to the Greek and

¹² Fortunate expeditions in the beginning of last century led by Grünvedel (1906), Stein (1921; 1928), von Lecoq (1922; 1928) and others have led to the discovery of several Buddhist, Manichaean and Christian texts written in a language that has been recognized as that of the Sogdians. The merit of this recognition goes to the Iranist Andreas; after him, the interpretation of the texts and knowledge of the Sogdian have had great impetus in the work of Gauthiot (1912), Gauthiot, Pelliot, Benveniste (1920-28), Gauthiot, Benveniste (1914-1929), Pelliot (1916), Müller (1904; 1926), Müller and Lentz (1913-1934), Reichelt (1925; 1928-1931), Henning (1939; 1948), and others. The scientific debate on the history and the language of the Sogdians is becoming more and more ample. Thanks to the more recent contributions of Oranskij (1963) Sims Williams (1989; 1993) and many others the issue has continuously been reset in a linguistic perspective putting in evidence the numerous relationships with the manichean and christian scripts. The Iranian people of

Sogdiana in the early centuries were pushed into Turkestan, settling in the North-West and actively participating to the spread of Buddhism and Manichaeism in Central Asia and China. The remains of an epigraphic monument discovered in northern Mongolia at Karabalgasun, the ancient capital of the Uighurs, have preserved an inscription in three languages, ancient Uighur, Chinese and Sogdian, which talks about the introduction of Manichaeism within the people of the Uighurs (Hansen 1930; 1940; Yoshida 2010). A very important discovery of new documents of a historical nature was made by a Soviet team of scientists in 1933 in the region of Zahmatabad in Tadžikistan and near Čairabad village, 120 km East of Samarkand. Along with various objects of material culture more than 80 manuscripts on paper, wood and leather, one in Arabic, three in Chinese and the other in Sogdian language, have been found containing, letters and business documents of the Sogdian lords in the first quarter of the 8th century AD. Of all the documents, the Sogdian language emerges as an eastern Iranian dialect, so by coming to confirm the report handed down to us by Strabo that the Sogdians, Bactrians and the Alans were *ὁμόγλωττοι παρὰ μικρὸν* (XV, 2) (Jones, ed., 1924). The discovery in 1920 of the so-called “Sogdian Ancient Letters”, dated to 313 AD, by Sir A. Stein near a guard tower located about 90 km away, West of Dunhuang, has provided a wealth of information on the extent and organization of businesses conducted by the Sogdian merchants (Sims-Williams 2001; Grenet, Sims-Williams and de la Vaissière 2001). These are a group of eight (five of which complete, only three fragmentary) written in Sogdian language; the letters bear the name of the sender and the recipient with its address, in which there are personal information of merchants, news on the contemporary political situation, the prices of trade and milestones travel. The letters were found together in a bag by the postman, and for four of them it is possible to rebuild the city of departure and the destination: the first and third were written by the same person, in Dunhuang probably destined to the city of Loulan; the second letter was written in Gansu and sent to Samarkand; the fifth, finally, was sent from the city of Wuwei. The best preserved text is that of the second letter, especially important for providing the details in relation to the political situation in China, alluding to rumours that the emperor had had to abandon his capital, Luoyang, to fight against a people called in Sogdian language *xwn* (Huns) and the ethnic component of trading colonies in the territory of China, among which the Chinese (in Sogdian *cyn*), Sogdians (*swγ'ykt*) and Indians (*yntkwrt*) are mentioned. The letters belonged to members of the colonies of Sogdian merchants of western China and are dated to the first decade of the fourth century A.D. These texts reveal some details of the trade organization and the role played by the same merchants: one knows, indeed, that the value of the goods was calculated in relation to the silver staters in use in Central Asia to Western Europe or to the copper Chinese coins, which, furthermore, provided the model for the local coinage. There are also references to some of the traded goods, such as gold, musk, pepper, camphor, woven hemp and flax and wheat; Other references relate to the presence of a community of Sogdians installed in the cities of Dunhuang, Jiuquan, Guzang and Luojiang. The other important group of Sogdian letters have been discovered in 1932/1933 by Soviet archaeologists on Mount Mug in Tadžikistan (Livšic 1962). The information collected from those letters are useful to reconstruct the monetary economy of Sogdiana at the dawning of the Arab invasion (beginning of the 8th century AD). The large archive of documents was found after a pastor had accidentally seen the first letter in a wicker basket. Since then, these documents are famous all over the world and are one of the most important evidence of the Sogdian language: there

Roman authors, the region was located between the territories comprised by two rivers, the Oxus (Amudarya) and Iaxartes (Syr darya)¹³, and the southern border was running along the Zeravshan mountain range. It is not clear, however, whether the Sogdians populated all the lands which Greek and Roman authors attribute to the region. It is possible that the sources referred only to the early administrative boundaries of the Achaemenid Empire, without taking in consideration the real distribution of the villages, towns, regional walls etc. and the population in the area. Sogdiana would indicate, thus, the region, including the Zeravshan and Kashkadarya river basins, whose archaeological remains are generally dated no earlier than the 1st millennium BC, when the people of the Sogdians seem to emerge at the historical level¹⁴.

Urban development in the area began sometime in the early 1st millennium BC, i.e., in the early Iron Age, when a new culture emerged in Samarkand and Kashkadarya areas. Some characteristic features of this culture look like more archaic than those of the southern Bactrian-Margian cultural complex or even than those of the more ancient culture of Sarazm in Tadžikistan in eastern Sogdiana¹⁵. The documented use of semi-huts as normal dwellings seem to replace that of rooms and houses made of mud bricks; the use of the plain pottery, sometimes decorated with simple painting, replaces that of the wheel-made pottery found in the sedentary settlements. The emergence of the Iranian

are seventy four Sogdian documents, one is written in Arabic, one in ancient Turk and others are in Chinese; currently preserved at the Oriental Institute of the Academy of Sciences in St. Petersburg.

¹³ The region of Chorasmia, which occupied the Amudarya delta, was not part of Sogdiana *strictu sensu*, and later, beginning, at least, in the first and second centuries AD, constituted a rather smaller territory.

¹⁴ The most ancient archaeological finds on the territory of Sogdiana date back to the Middle Palaeolithic period. There are a few Upper Palaeolithic settlements (in Samarkand, for example) as well; at the same time, nothing from the Neolithic period has yet been found.

¹⁵ Sarazm, located between Samarkand and Pandžikent, is an Eneolithic site dated to the 4th and 3rd millennium BC. Besenval and Isakov (1989, 5-20) studied this monument consisting of several settlements that occupy hundreds of hectares. Sarazm pottery combines characteristics of north-eastern Iran (Tepe Hissar), southern Turkmenistan (Geoksjur in the inland Tedžen delta), southern Afghanistan (Mundigak), Horesm (Kel'teminar), and even southern Siberia (Afanas'evo) (Lyonnet 1996). Besenval attributes such a "multiculturalism" of Sarazm to the re-settlement of people coming from different lands to this area, attracted there by the mineral resources of the upper reaches of the Zeravshan river. The Bronze Age is not well studied. The Andronovo steppe culture penetrates the Zeravshan basin somewhat later, in the first half of the 2nd millennium BC, as evidenced in the Muminabad tomb in the Samarkand region and the Dashti Kozy tomb to East of Pandžikent.

speaking tribes in the 1st millennium BC, including the people of the *Sugh* region¹⁶, has been often put in relation originally to the arrival of the nomadic culture and the later followers, starting since Andronovo¹⁷. In this case, indeed, one must suppose that these tribes populating the steppe during the late Bronze Age, arriving or reaching the historical Sogdiana, began to lose their ancient ceramic tradition in favour of new technological frameworks. In the beginning of the 1st millennium BC, nomadic pastoralism developed in the steppes in the original area of the Andronovo culture, and also there replaced the early herding agricultural type of economy. Most likely, it was the invasion of the nomads that reduced the achievements of the southern Bactrian-Margian complex, although it did not eliminate completely the old traditions. Some invaders settled on the deserted and fertile lands and took up agriculture. Mountain people, always in need of additional land, participated in this process as well. Pottery has always been a typical product among them, right down to modern times.

¹⁶ There is no clear cultural or ethnic relationships between the inhabitants of the *Sugh* in Tadžikistan and the early medieval Sogdians; the only possible link is related *strictu sensu* to the language in use up today, the Yaghnōbī (Basello, Guizzo, Ognibene, a cura di, 2008).

¹⁷ The Andronovo culture is a collection of similar local Bronze Age cultures that flourished *circa* 1800-1400 BCE in western Siberia and the western steppes. It is probably better determined as an archaeological complex or archaeological horizon, whose name derives from the village of Andronovo, where in 1914, several graves were discovered, with skeletons in crouched positions, buried with richly decorated pottery. Two sub-cultures have been since distinguished there, during which the culture expands towards South and East: Alakul' (1800-1400 BCE) and Fedorovo (1700-1300 BCE). The older Sintašta Culture (2100-1800), formerly included within the Andronovo culture, is now considered separately, but regarded as its predecessor, and accepted as part of a wider Andronovo horizon. The geographical extent of the culture is vast and difficult to exactly delineate. On its western fringes, it overlaps with the approximately contemporaneous, but distinct, Srubna culture in the Volga-Ural inter-fluvial. To East, it reaches the Minusinsk depression, with some sites as far West as the southern Ural mountains overlapping with the area of the earlier Afana'sevo culture. Additional sites are scattered as far South as the Kopeth Dagh (Turkmenistan), the Pamir (Tadžikistan) and the T'jan Šan (Kyrgyzstan). The northern boundary vaguely corresponds to the beginning of the taiga. In the Volga basin, interaction with the Srubna culture was the most intense and prolonged aspect, and Federovo style pottery is found as far West as Volgograd. Towards the middle of the 2nd millennium, Andronovo cultures begins to move intensively eastwards. Burials were made in stone cists or stone enclosures with buried timber chambers. In other respects, the economy was pastoral, based on cattle, horses, sheep, and goats. Most scholars associate the Andronovo horizon with the early Indo-Iranian languages, though it may have overlapped the early Ural-speaking area at its northern fringe.

Unfortunately Iron age in Central Asia, is very little known, including the Achaemenid period, of which it should have constituted the final result. The quantity of the sites and archaeological rests attributable to the Iron and Achaemenid age is still very small, and there are not available always reliable chronological elements for a secure dating. Nevertheless the documentation is everything anything else other than negligible, even if this does not mean that it can fully draw elements for a general synthesis. They stay open still a lot of matters and different interpretative hypotheses.

Among the data already so few abundant, and those that allow us to define and circumscribe some materials of local morphology, those related to the shapes of the ceramic production, must be certainly mentioned even if, as already said, often a precisely definable period in relationship to that of the dynasty is missing: chronology always is rather fluid and the phases of transition are very vanished. To sum up, it can be said that, amongst the ceramic forms the carinated / cylinder - conic cup and the jar with flattened rim, do not constitute enough evidence to define an archaeological consistence of a political unit and this type of difficulty can be found similarly in the greatest part of the material culture. It alone, in fact, is not connotable of ethnic values, neither so much less of dynastic character and for the typologies of particular objects that can be related to "imperial" characteristics, it is obvious that only those coming from the dynastic capitals are able to be indicative of a true imperial presence. Since the objects travel in the space and in the time, it would be necessary to know how much reliable is the archaeological context which the objects come from and if the related archaeological layer can be indeed datable to the 5th and the 4th century BC.

One is able, naturally, to consider the whole central-Asian material of the Achaemenid epoch, or of Iron II and III age, and what can be or defined as "Achaemenid/Dynastic" or "Political/Imperial" (Genito quoted, fig. 1), and that has been recovered inside or out the frontiers, mainly in the steppe areas, even if it is datable to a period back to the end of the empire. One is able to deal with defining better what one may intend for an "Archaeology of the Achaemenid Empire", as aspect of particular merit in the field of Central Asian archaeology (Genito 1996). Such considerations impose, however, precautions that can shortly be synthesized in the priority demand in order to know the places and the dates of the manufacture of the "Achaemenid" objects.

It would certainly need to make a distinction among that type of artificial more properly "Achaemenid" and those, that, somehow, prolong, often deforming and transforming the technical, decorative and stylistic

Achaemenid tradition. Reasonably it always needs to consider the dates of manufacture and the stratigraphical contexts, considering reliable also those dated back until toward the half of the 3rd century, more rarely those later which do not go in every case, over the conquest of the Yuezhi and the beginning of the Kušan period¹⁸.

Going back to Sogdiana, in the 8th and 7th centuries BC, the scanty settlements with semi-huts were clearly replaced by large cities, among them

¹⁸ The most important modern general works dealing with all this set of aspects are: Frumkin (1970), Masson and Sarianidi (1972), Košelenko (1985), Francfort (1988), Vogel-sang (1992). Other contributions constitute very detailed study regional in character (Tolstov 1948a; 1948b; 1953; Rtveladze 1981; Sagdullaev 1987a; Gardin 1998; Gubaev, Koshelenko, and Tosi 1998; Lyonnet 1997; Sulejmanov 2000). In any case it is very difficult to recognize an Achaemenid period in the large amount of data documented by those scientific contributions. The Achaemenid period is fully included in the Iron age and, therefore, around 1500 years constitute a single temporal time span, beginning from the final Bronze Age up to the Hellenistic epoch, and, sometimes, even later in the 3rd - 4th century AD (Košelenko 1985). This generic approach has tried to put in evidence, the type-functional structures of the occupational phases of the territory, including the Achaemenid, Greek and Kušan period. Obviously this may be explained both for the enormousness of the related geographical area, distributed over different political territorial entities, as Afghanistan, Turkmenistan, Uzbekistan, Tadžikistan, a part of Kazakhstan, and also for the character of the much diversified, unequally published and often little accessible archaeological documentation. To characterize the traces of the two centuries of the political Achaemenid dominion would have required a more refined stratigraphical archaeological documentation. It can be considered that an Iranian/Achaemenid material culture could or not in a peripheral regions be analogous to that of the other provinces. Main difficulties exist in establishing typologies of the reliable chronologies that also could have a sense for the history of both the political and the cultural events. In any case, at the level of the study and the analysis of the ceramic production it is difficult to characterize the arrival or any ethnic presence of the Iranians. In the eastern Bactria there are approximately 60-70 sites, to which 40 sites of the catalogue of Ball must be added (1982, 374). For Afghan central Asia to the 46 sites (Lyonnet 1997, fig. 26, 365), it is worthwhile to add a certain number of other sites of the other provinces of central Asia, an additional about 10 recovered in the piedmont band of the Kopeth Dagh or in Chorasmia, and about 70 in the Murghab. One may arrive, so, to a total of 250 sites around. This respect can be considered, nevertheless, already old when it will be published only a precise regional archaeological paper including a number of small sites and layers datable among the Yaz II/III and Yaz III horizons (Stride 2001). Besides, these sites are not useful if they are not provided with characters chronologically founded. In fact, of these almost 250 sites, if the territory is analysed in terms of irrigable zones or oasis, only about 30 will historically be really suitable for a comment of the traces of the Achaemenid period in central Asia. For a very good synthesis of the Iron Age and Achaemenid issues in Central Asia cf. also Francfort (2005)

Kok Tepe (100 hectares c.) and Afrāsīāb (220 hectares c.). The studies, although preliminary, of these sites have demonstrated that the process of erecting city walls and shrines included large-scale works. According to some reasonable hypothesis, irrigation canals in Sogdiana, the length of which was more than 100 km, were probably built at about the same time as the cities. With some changes, these canals survived until the present time. Three important factors facilitated this socio-economic transformation:

1. rapid population growth on fertile land;
2. military organization of a newly established state ruled by those who not long before were nomads;
3. and the advanced cultural traditions of the Bactrian-Margian complex, which to some degree still survived.

A new stage in the cultural development in Sogdiana began in the 7th and the 6th centuries BC. Some pottery characteristics, found in Bactriana, Margiana, northern Parthia, and, somewhat later, in Chorasmia as well (for example, cylinder cone-shaped wheel-made pottery and large, rectangular, unbaked bricks), did not spread beyond the territories in the north-eastern Sogdiana. It has been argued that these lands were included in the same state in the 7th and the 6th centuries. However, it is not clear yet what was this state's major political and administrative centre. Even before this period, a new large urban centre, the remnants of which are now called Erkurgan, emerged in southern Sogdiana. In 1950, Terenožkin developed relative and absolute systems of chronology for the Sogdian pottery and other specimens that were dated between the 6th century BC and the end of the 8th century AD.

Cultural change did not occur immediately after, Bactriana, Sogdiana, and Chorasmia were conquered by Cyrus the Great and became part of the Achaemenid Persian Empire in the second half of the 6th century BC. New elements in the material culture (in particular, open forms of pottery - cups and bowls, probably characteristic of the new technological change produced by the Iranian culture) spread only in the 4th century BC during the late Achaemenid and the early Hellenistic periods. During this period, semi-huts were built along with mud brick constructions. The Kurgancha settlement in southern Sogdiana (Kashkhadarya valley), which was excavated by Hasanov (1992) is characteristic of this trend, although its chronology (4th-3rd century) is not definitely determined (Lyonnet 1997, 105). Neither Iranian during the Achaemenid period nor Greek influences in the Hellenistic epoch had an immediate impact on the local traditional Sogdian culture. Greek

forms in the pottery, including “fish plates” and craters appeared in the 3rd century BC during the Seleucid’s rule, not right after Alexander the Great’s conquest of Sogdiana in 320 BC. Nomads conquered Sogdiana in the end of the 3rd century. Greeks may have returned to Sogdiana in the first half of the 2nd century, but by mid-century, the nomads took it over again. Ancient oriental elements prevail in the architecture of the Greek period. A typical example is the Afrāsīāb city wall, which was built from large mud bricks of an unknown type in Greece on which the names of the makers in Greek letters were written. Mud-brick constructions were typical of Sogdiana during the whole its history¹⁹

¹⁹ The French-Uzbek expedition excavated at Afrāsīāb a large storehouse for grain that belonged to the state or to a religious system of activities. This storehouse had been built in the time of the Greek rule and then was burnt, most likely during the nomadic conquest. Burial sites of the nomadic population of the near oases date from the 1st centuries BC to the 1st centuries AD. Artefacts produced by sedentary people, including wheel-made pottery were popular among pastoralists as well. During the period between the late 2nd and the 1st century BC and the 1st and the 2nd century AD, tall goblets became a widespread item, and iron arrowheads replaced those made of bronze. The urban culture of Samarkand, Erkurgan (Isammidinov, Suleymanov 1984), and other cities and settlements dating from this period are well explored. However, in contrast with the situation of Er-kurgan, the later period from the end of the 2nd to the 4th centuries has not very well studied for Samarkand. The houses of peasants, who lived in the mountains, were different from urban dwellings, resembling the houses of Tadžik Mountain in the 12th century. In the plain, and especially in the proximity to the cities, there were houses which more or less corresponded to urban norms. The architecture of the fortified residences was similar to that of the houses of wealthy citizens. In the Sogdian decorative arts at the audience hall at Afrāsīāb images of gods were realised under the Greek influence, to which both Iranian elements were added in the 5th century and Indian in the 6th century. Secular narrative painting was used to illustrate literature of different genres, such as epics, fairy-tales and fables that used local, Iranian, Indian, and Greek plots. Feasts and other celebrations, and equestrian hunts were favourite themes in this painting. Occasionally, artists utilized events of recent history. The mature Sogdian style of the 7th and the 8th centuries was dynamic, and featured a bright and harmonious palette. Among the mineral pigments ochre predominated, and Badakhshani ultramarine blue was used for the backgrounds. In the 8th century after several military actions the Arabs conquered Sogdiana, becoming, thus, one of the richest parts of the Caliphate. In the 2nd half of the 8th and 9th centuries, urban citizens adopted Islam. Simultaneously Iranian (Tadžik) language replaced Sogdian, although for a long time afterwards, inhabitants of rural areas continued to speak Sogdian. The Uzbek-French expedition discovered in Afrāsīāb two palaces of Arab vicegerents dated to 740 or 750 Karev (2000). Their architecture is not Sogdian. Under the Arabs, local principalities gradually lost autonomy, and noblemen and wealthy merchants abandoned small towns such as Pandžikent. However, it was a time of the rapid growth of large cities, such as Samarkand and Bukhara, which then became administrative centres. In the 9th cen-

The Project

The topographic activity of the joint Uzbek-Italian (UsB) expedition in the Pastdargom district of the Samarkand province had pointed out its attention, among others, to the following sites preliminarily dated to the late Iron Age till to early medieval time and possibly Achaemenid period:

1. Durmantepa, approximately 14km to North-West from Samarkand. In 1975 it was first studied by a Samarkand province group of the IAASU. The site is more than 25ha in size. The citadel 18m high is placed in its south-eastern part. According to the data of the excavation, the walls encircling the site were constructed of mud bricks $60 \times 40 \times 12$ cm wide and then strengthened with *paxa* blocks. Archaeologists identified two main periods: the first from the 3rd century BC to the 2nd-3rd centuries AD, and the second from the 4th to the 12th centuries. The results were compared with those from Kasr-al'k of the 8th-10th centuries and Isbisket of the 11th-12th centuries (Rostovcev, Ivanickij 1976, 540). However, the sizes of the bricks seem to be typical for the earlier periods (Inevatkina 1983, 76-82; Inevatkina 1995, 16-17) and the ceramics for a period dating the construction of the site to the Achaemenid or earlier period (Fig. 5);
2. Laylaktepa site, The field code of the site is Pdx-140 and the administrative code is Pas 600; its geographical coordinates are 42S284207.91mE, 4417063.73mN (UTM). It seems to be constituted by two parts, one more to North exactly of the river terrace. It is located on a terrace above flood-lands of the left bank of the Karadarya, has a general area circa 100 ha large. The citadel is located in the north-western part. The adjacent territory is divided into three parts. Every part has a fortified gate with walls and towers. Gates are fortified by towers. A large amount of ceramics was collected: unglazed, wheel made and molded. One exception is given by a glazed potsherd of a jar of the 10th century. Definitely, the site is a multi-layered one. The earliest pottery is dated to the Achaemenid period (Fig. 6);
3. Kojtepa (Kendyktepa), a citadel encircled by walls, inside strongly destroyed. They are cut through by modern activity of bulldozers. Walls, though not clearly identified in the already opened sections, were encircling the citadel, typical system for ancient sites and settlements.

ture, Sogdiana lost its ethnic and cultural distinctiveness, although many elements of Sogdian material culture are found in materials dating from the 9th to the 11th centuries too. This is why, starting with the 9th century, it is impossible to speak of a Sogdian culture over the territory of Sogdiana itself at the same time that it survived until the 11th century among the Sogdian immigrants who resettled in eastern Central Asia and China (de la Vassière 2002; 2005).

Walls were also encircled in ancient Samarkand and ancient Ustrushana settlements (Inevatkina 1995) (Fig. 7);

4. Pdx field code 92, administrative code, Pas 601, whose geographic coordinates are 42S 294630.62mE, 4408068.22mN (UTM) in the Guzalkent district, 40 km to the West from Samarkand on the left bank of the Zeravshan (Karadarya), is approximately 2 hectares. In the lower layers dwellings of semi - dugouts type with materials of Achaemenid period were found (Vafaev, Ivanitskij 1992, 40-42) (Fig. 8);
5. Nameless tepe 1 field code Pdx 092, administrative code Pas 602, geographic coordinates area 42S294424.91mE, 440915755.33mN (UTM), located in the area of Karasu village, on the right bank of the Urtayzsai, opposite to Kattatepe, is almost totally leveled. The numerous scattered ceramics date back to the Achaemenid period and to the Early Antiquity (Figs. 9, 9a);
6. Nameless tepe 2 field code Pdx 110, administrative code Pas 067, geographic coordinates 42S302932.77mE, 4391137.09mN (UTM), located in the area of Chandyr village, is stretched from South to North and consisted of a citadel placed in the southern part and territory placed from the North. The site is strongly destroyed and cut through by a road from South to North. The scattered material is dated back to the Achaemenid, Hellenistic periods and Middle Ages. (Figs. 10, 10a)²⁰;
7. Nameless tepe 3 field code Pdx 93, administrative code Pas 603, geographic coordinates 42S294556.81 mE, 4409134.20 m N (UTM), is a round hill with flat top. The surface is tilled. Most of the collected ceramics date back to 4th-3rd centuries BC. It is possible that the base of the site can be earlier (Fig. 11).

The preliminary activities of the joint working group of IAASU and UNO in May-June 2007 and 2008 were mainly effected in the western area of Samarkand, where, on the base of the topographical results at that time achieved, could be, presumably, found the most consistent remains of the Achaemenid (6th-4th BC), Graeko-Bactrian (250-140 BC) and Kušan (1st-4th AD) periods (Fig. 12). The trenches planned were aimed at singling out the cultural horizons related to the periods of the ancient Iranian occupation of the territory and have represented a starting point in order to plan future extensive excavations.

²⁰ Unfortunately in a former article (Genito, Gricina *et alii* 2009, 127), the numbers and the descriptions of the Nameless 1 and 2 were inverted.

The site chosen was Kojtepa²¹, a rather known and important settlement, constituted by a central 9 m high truncated-cone sh-tepa, encircled by an earthen wall and moats. According to the topographic results achieved by the UsB, the city walls, though not still clearly identified, because partially cut through by a modern agricultural activity of bulldozers, are similar to a well-known settlement pattern of a urban system for sites and cities in the ancient Samarkand and Ustrushana in front of the Karatyube range (Fig. 14)²² areas in the historical and Hellenistic period.

²¹ Kojtepa area is 175m long × 150m wide (26.250 mq. = 2.62ha) and the difference in the level from the top to the bottom located along the sections nos 1 and 2 opened in May 2008 is 9.94m. The absolute quote located in an unexcavated part between trench no 2 and trench no 1 (2009) is: 697.30 a.s.l. (Fig. 13). The geographic coordinates of the site are 42N300099.77 m E4386573.90 m N (UTM). The geo-referencing system is WG84 42N.

²² Ushrūsana known today as Istarawshan, or Sudujshana, or Ustrushana, Chao eastern region was culturally a medieval Iranian area. It extends South of the great bend, South of the Syr Darya and stretches roughly between Samarkand and Khodžand. Its capital was Banjikat. It is not clear according to the sources, the exact origin of the Persian name; the Hudud al-Alam (Minorsky hrsg., 1937), shows how the original term was Sorušna. To the rulers of Ushrūsana was given the title of “Afshin”, the most famous of which was undoubtedly the Abbasid general Afshin, whose name was Khedār or Khaydhar (Arabized in Haydar) b. Kavus (Arabized in Qāvūs). Our first information of the ruling family of Ushrūsana are from the Persian muslim historians like al-Tabari and Aḥmad ibn Yahyā al-Balādhurī (Hitti 1916-24) and Arabs as Ya’qubi (1973), as described in their works about the conquest by the Abbasid Caliphate of that area of Central Asia and the submission of their Islamic rulers to the power in Baghdad. During the time when the first invasion of the region took place, under the general Qutayba b. Muslim (712-14), the Ushrūsana was inhabited by people of Iran, governed by its own principles that they used the traditional title of king Akhshid or Afshin. The first Arab invasion, however, did not produce concrete results in placing the area under its control. However, during the reign of al-Mahdi (775-85) the Afshin of Ustrusana is remembered among the many Persian and Turkish rulers of Transoxiana and the steppes of Central Asia who made a formal act of submission to him. It was not until the reign of Harun al-Rashid in the 794-95 that al-Fadl b. Yahya al-Barmaki led an expedition to Transoxiana, where he received the act of submission of Akin, then in power there, something that had never happened before to other potentates. Additional shipments were nevertheless sent against Ushrūsana by al-Ma’mun when he was governor in Marv and even after he became caliph. Afshin Kavus, son of the Karākanid Afshin who had submitted to al-Fadl b. Yahya al-Barmaki, repudiated the alliance signed with the Arabs, and shortly after al-Ma’mun returned to Baghdad from Merv (817-18 or 819-20), a power struggle broke out and fierce tensions put against each other to interior of the ruling dynasty in Ushrūsana. The son of Kāvūs, Khaydar, known for its royal title of Afshin, became Abbasid general and fought against the khurramits rebels and their leader, Babak Khoramdin, in southern Caucasus and in north-western Persia (816-837).



Fig. 1 - The Zeravshan basin and Samarkand and Bukhara cities in Uzbekistan, after Google Earth



Fig. 2 - The Samarkand oasis on a Landsat 5 satellite image, after MAI, USB

In 841 Afshin, however, was arrested in Samarra on suspicion of plotting against the Caliphate and was subsequently hanged next to Babak. However, there are sufficient historical information for thinking that the rulers Afshin, in a legal condition of semi-autonomy, continued to rule the Ushrūsana after that the control of the region was lost by the Abbasids from the hands of Saffarids and, shortly after, the Samanids.

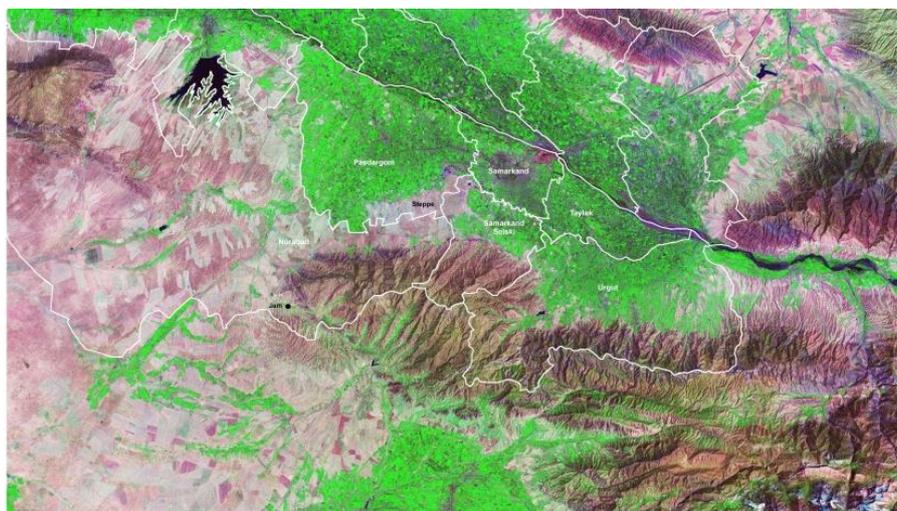


Fig. 3 - Administrative districts of interest to the Uzbek-Italian survey on a Landsat TM satellite image. The area referred to as 'steppe' is actually divided between the districts of Samarkand Sel'ski, Pastdargom, and Nurabad, after MAI, UsB

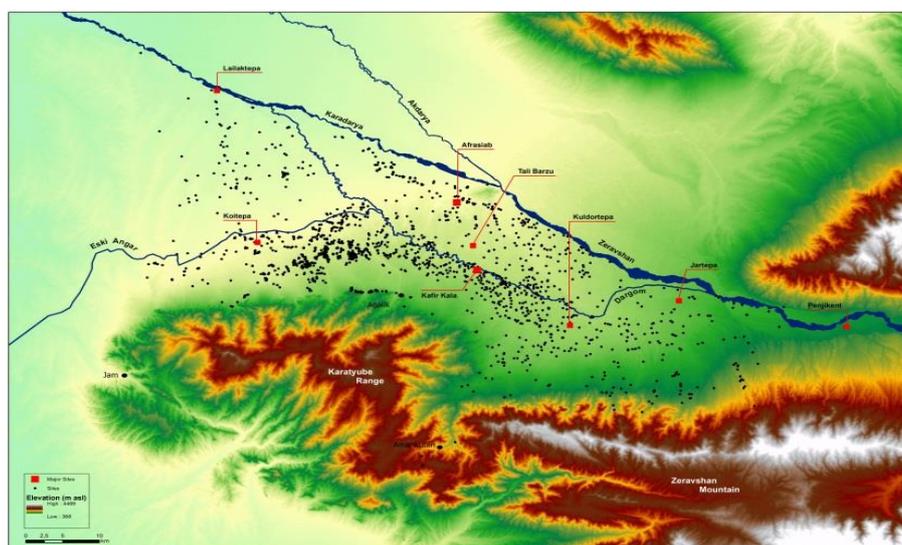


Fig. 4 - Archaeological map of the southern Samarkand oasis as for the Uzbek-Italian activities (Aster GDEM on the background), after MAI, UsB



Fig. 5 - Durmantepa, after MAI, UNO, by Bruno Genito 2007



Fig. 6a - Laylaktepa, (photo) after MAI, UNO, by Bruno Genito 2007, and drawing, after Soviet Map. 1:25.000

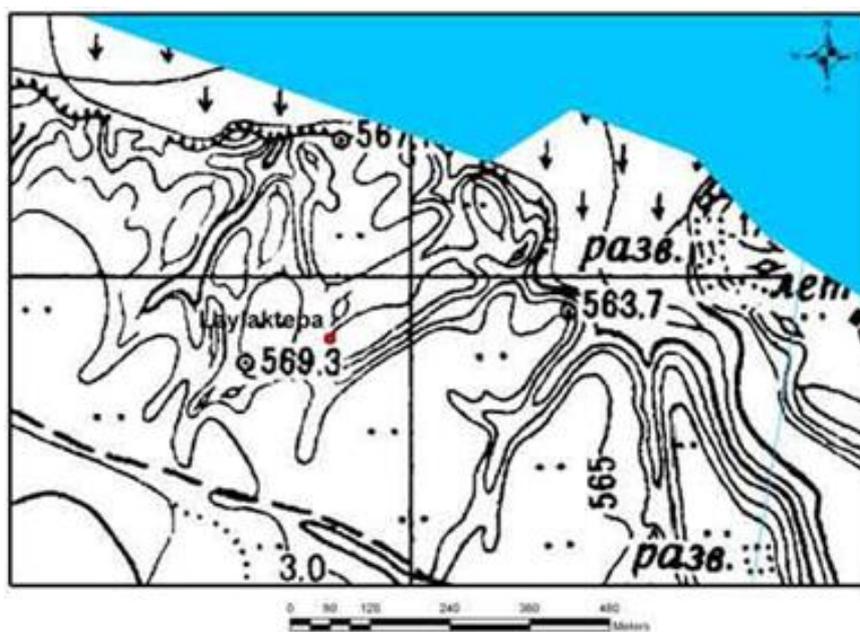


Fig. 6b - Laylaktepe, drawing, after Soviet Map. 1:25.000



Fig. 7 - Kojtepa and the neighboring area as seen from North, after MAI, UNO, by Bruno Genito 2007

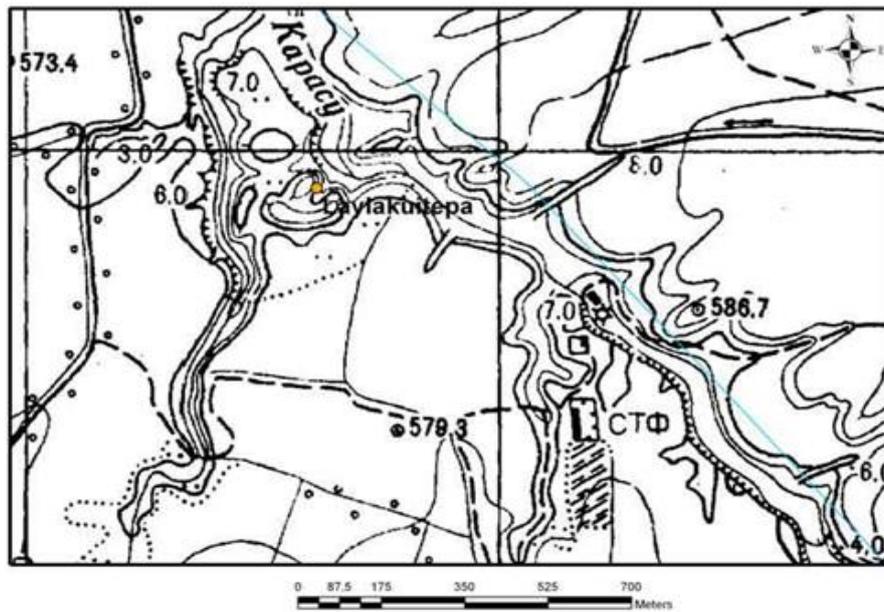


Fig. 8 - Pdx (field code) 92, Pas 601 (administrative code), after after Soviet Map. 1:25.000



Fig. 9a - Nameless, 1 Pdx (field note) 092, Pas (administrative code) 602, (Photo) after MAI, UNO, by Bruno Genito 2007

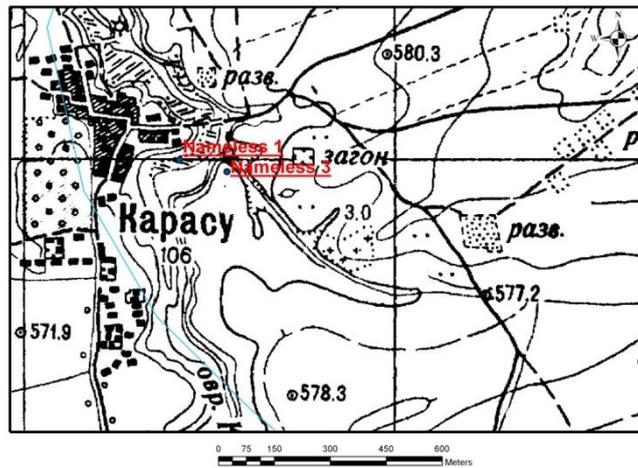


Fig. 9b - Nameless, 1, 3 Pdx 092 e 93, Drawing after Soviet Map. 1:25.000



Fig. 10a - Nameless tepe 2 (code PDX 110), after MAI, UNO, by Bruno Genito 2008



Fig. 10b - Nameless tepe 2 (code PDX 110), Drawing after Soviet Map. 1:25.000



Fig.11 - Nameless tepe 3 (code PDX 93), (Photo) after MAI, UNO, by Bruno Genito 2008

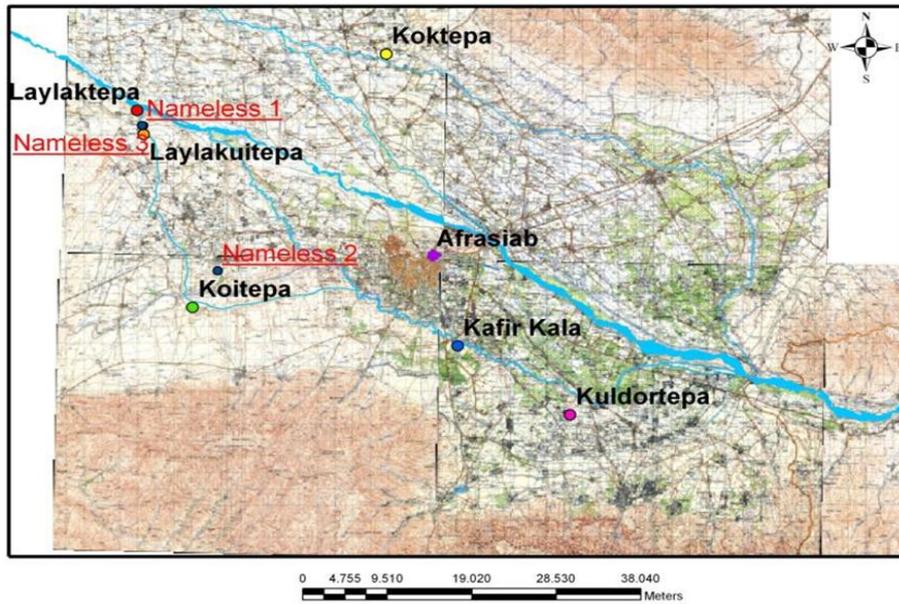


Fig. 12 - Main sites after the survey of MAI, UsB, on the Soviet Map: 1:100.000



Fig. 13 - Kojtepa, the central mound, after MAI, UNO, by Bruno Genito 2008



Fig. 14 - The Karatyube range as seen from South, from Kojtepa, after MAI, UNO, by Luciano Rendina

