SHERABAD OASIS

Tracing Historical Landscape in Southern Uzbekistan

Editors
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Karolinum

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1) Sardoba, vaulted structure protecting a water basin with a porch in a middle of Sherabad steppe as photographed in 1896 by L. Barscewski, from the archive of Igor Strojecki.
2) Terracotta head imported from Khotan, found at Baba Tepa, drawing by P. Kazakova.

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Contents

Abbreviations

AIT	Archäologie in Iran und Turan
AMIT	Archäologische Mitteilungen aus Iran und Turan
AO	Arkheologicheskie otkrytiya
BAI	Bulletin of Asia Institute
CAKE	Central Asia in Kushan Period, proceedings of the international conference of the history, archaeology and culture of Central Asia in the Kushan Period, Dushanbe 27th September – 6th October 1968, Moskva, 1975.
IMKU	Arkheologicheskiye issledovaniya v Uzbekistane
KSIA	Kratkie soobshcheniya Instituta Arkheologii
MDAFA	Mémoires de la Délégation Archéologique Francaise en Afghanistan
MTE	Materialy tokharistanskoy ekspeditsii. Arkheologicheskie issledovaniya Kampyrtepa
PIFK	Problemy istorii, filologii, kul'tury
ONU	Obshchestvennyye nauky v Uzbekistane
RA	Rossiyskaya arkheologiya
SA	Sovetskaya arkheologiya
SH	Studia Hercynia
SRAA	Silk Road Art and Archaeology
TKhAEE	Trudy khorezmskoy arkheologichesko-ethnpgraphicheskoy ekspeditsii
USA	Uspekhy sredneaziatskoy arkheologii

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Introduction

Ladislav Stančo

An oasis, a peculiar word with a seemingly clear meaning: "an area in a desert where there is water and plants" or broadly perceived as a general idea: "a pleasant place that is surrounded by something unpleasant".[1] The very first idea that usually comes to our mind hearing that word is a palm-tree island lost in the middle of sand dunes of a great desert of northern Africa or Inner Asia being approached by a slowly moving camel caravan. A well in the centre and men smoking a water pipe are an inevitable component of this rather romantic picture.

For us, however, oasis simply means a more or less well-defined area of land with limited water sources allowing for agricultural activities almost exclusively based on local water management, more precisely on artificial irrigation. It implies firstly that the oasis does not have firm and stable delimitations; its extent is bound to the ability of the human population – and its leadership – to build, and not least to maintain, the irrigation systems, to keep the water canals clean and working. Thus, the extent could vary considerably in individual historical periods as the techniques of water management improves or diminish. Secondly, it means that the water source has not necessarily to be found inside the oasis territory, it could be brought from elsewhere by means of sophisticated water canals. The specific environment in Central Asia with mixed zones of semi-deserts, deserts, steppe, dry piedmonts and high bare mountains, offers here and there fertile soil frequently lacking sufficient precipitation, which would enable agricultural production.

Our research area is such an example of a micro-region with changing boundaries depending on human activities. It is situated in the lowland steppe area of the southern Surkhandarya province of Uzbekistan (see map on p. 12). The landscape here is far from being anhydrous. The main problem seems to be that the waters of the local river – Sherabad Darya are difficult to exploit for the irrigation of the surrounding plains.

The Czech-Uzbek archaeological mission started cooperation in 2002 already, excavating for five years an important site of Jandavlattepa,[2] a tell-type walled multicultural settlement situated near the town of Sherabad in southern Uzbekistan. A new joint project was started in the same region in 2008, with the aim of the research focused on a detailed examination of the settlement pattern based on the mapping of all archaeological sites in the given area. The main reasons for this decision were particularly the need for putting the history of the settlement in the particular research area into the context of the dynamics of the whole region, including sorting and completing already known data and their further processing, but also an increasingly urgent need for a complete mapping of archaeological sites for the sake of heritage preservation and protection. A rapid increase of population in recent decades, expanding irrigation systems,[3] mending areas of cultivated fields and a related growth of villages (they are several times larger than even fifty years ago) in the area, brought a serious threat to a significant number of these monuments. Heritage protection unfortunately did not manage to keep pace with the drastic change of the economic system, and many sites have been irreversibly – and without documentation – destroyed. Since the archaeological research and mapping of the piedmont steppe and mountains of the north-west part of Sherabad District is by no means complete, we limited ourselves in this first volume to the publication of the data concerning the lowlands of the Sherabad District or the so-called Sherabad Oasis.[4]

[1] These two definitions are given by Merriem-Webster dictionary, see http://www.merriam-webster.com/dictionary/oasis.

[2] Most recently see esp. Abdullaev – Stančo eds. 2011; preliminary excavation reports are available online at http://arcis.ff.cuni.cz/.

[3] This is for example the expansion of the area of cultivated land into the previously unused steppe.

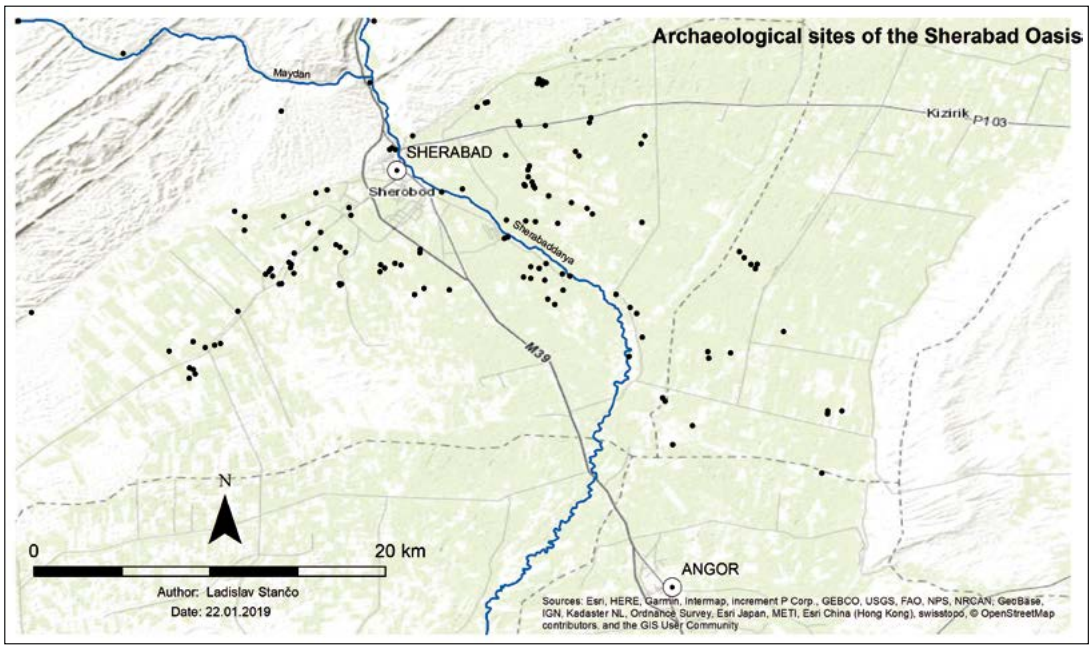
[4] The original definition of research area should reflect very clearly defined territorial boundaries, which was in the past nicknamed by researchers as Sherabad Oasis (see Masson 1974, 5–6; Pidaev 1978, 16–17; Rtveladze 1973), a region around Shearabad with fertile-soil plains that has been in the historical periods irrigated and cultivated and which for a long time (probably since the Achaemenid period to Late Antiquity) has its centre at the site of Jandavlattepa, which was centrally located even in

Our research has been henceforth directed towards the collecting of both spatial and chronological data and also to mapping of the preservation and current state of archaeological sites and historic buildings as such. Although in Uzbekistan there exists legislation on monuments protection, its observance is, in practice, almost never enforced. Recently, however, the government has declared efforts to change this state of affairs, which includes the education of local authorities (*hakimiyat*) and the police (*militsija*) and the creation of a new inventory of sites across the country.

The project was conducted within the framework of collaboration between Charles University and Termez State University.[5] The cooperation with the Archaeological Institute of the Academy of Sciences of Uzbekistan in Samarkand was established to coordinate work within the region.

Preliminary background research of the relevant previous scientific literature had indicated clearly that one of the major difficulties of the survey will be inadequate way of description of the locations of the already known archaeological sites. Frequently, it was based on the mere statement that the settlement is situated – for instance – "on the territory of the kolkhoz named after V. I. Lenin, 15 km southeast of Sherabad." It was clear from the publications that there is substantial amount of insufficient spatial data or errors in the determination in cardinal points, and also confusions in present names, locations, etc. Therefore, it was decided in the early stages of the project to detect newly all topographically and morphologically distinct anomalies of the Sherabad plain, enter them into the GIS-based map, to verify their anthropogenic origin, names, and to obtain other necessary information (see further subheading 2.1 about the applied methods). Only then we have compared the data with previously published information, including comparison of chronological indicators (i.e., published information versus datable material collected during our team's survey). All maps, photographs and drawings are by the authors of the chapters unless otherwise stated.

To sum up, this book aims to contribute to the knowledge of the history of settlement in the southern part of Central Asia through a detailed analysis of the development of a specific, clearly defined area: Sherabad Oasis. How have we succeeded in fulfilment of this intention, let the kind reader assess after reading of this work.



Map of archaeological sites of the Sherabad Oasis.

geographic terms. Circumstances eventually forced us to reconsider that definition and expand the area of interest into the piedmont and mountain belt in the north and north-west part of the Sherabad District so as to correspond with the current administrative boundaries of the Sherabad District. The main reason for this shift was the initiative of the Government of Uzbekistan, encouraging the compilation of the archaeological map of the entire state, which was logically based on the territorial-administrative division. In doing so, we realized that our data for the lowlands are almost complete, while the information for the piedmonts are fragmented even after several years of survey, and thus we have decided to return to the original extent of the research area, at least for the first volume.

[5] In this project participated following archaeologists: L. Stančo (2008–2011), A. Danielisová (2009, 2010), Sh. Shaydullaev (2008–2010), T. Annaev (2010, 2011), and students of archaeology: A. Shaydullaev (2008–2011), M. Odler (2009), P. Belaňová (2009), P. Tušlová (2010, 2011), T. Machačíková (Včelicová; 2010, 2011), V. Doležálková (2010, 2011), V. Čisťakova (2010) and A. Dorňáková (Minaříková; 2011). The main part of the ceramic assemblage processing was entrusted to M. Kobierská.

1. Research area

Ladislav Stančo

1.1 Natural conditions

1.1.1 Geography and geomorphology

The Surkhandarya province forms the southernmost region of present-day Uzbekistan and as a whole is clearly defined by natural conditions. It is bordered on the three sides by high mountain ranges: by Babatag in the east, Hissar and Baysun in the north, and Kugitang in the west. The southern border on the other hand is formed by the course of the great Amu Darya. The main river in the western half of the Surkhan Darya province is Sherabad Darya, the real north-south axis of the Sherabad District. Its lower reaches, starting form Sherabad itself, bear, however, the name of Kara Su (Black water) and under this name almost disappears being distributed into uncountable water channels and cotton fields. This heavy exploitation prevents the waters of the Sherabad Darya from reaching the Amu Darya.[6]

The proper research area is situated in the present day Sherabad District of the Surkhandarya province, but some parts exceed the district border into the Kyzyrik District[7] and elsewhere. The Sherabad District is the third largest among 14 districts of Surkhandarya province, reaching officially 2730 sq. km (source: *O'zbekiston milliy ensiklopediyasi*). The north-south axis measures 60 km, the west-east one 64 km. The western border of the district matches with the national Uzbekistan – Turkmenistan border, while the southern part of the district is separated by the Zang Canal from a narrow strip of land on the right bank of the Amu Darya that forms the present-day Muzrabad District (former Gagarin D.). The eastern district border runs along the other huge canal called Bol'shoy Zaur that collects waste waters from the fields of the left-bank Sherabad Darya and becomes its tributary. The flat lowlands to the east of it as far as Haudag hills, which actually belong to the historic Sherabad Oasis form the above mentioned present-day Kizirik District. The northern border with Baysun District lies partly in the steppe, partly follows the road leading from the Sherabad river valley to the village of Khatak at the foot of the main Kugitang range.

Fig. 1.1 Kugitang mountains, view from the east, photo by A. Augustinová.

[6] The river reaches the maximum flow rate in May (20.6 m^3/s), in August on the other hand it drops to 4 m^3/s (Stride 2005, vol. I, 235). Fluctuations in water flow of the river, or water shortages in the summer months, are compensated by the water of the Sukhan Dayra that is brought by a channel built in 1970s and called the Big Sherabad Canal. Even this source seems not to have a steady flow and the water level in the channel varies widely.

[7] In 2010, the two small districts bordering Sherabad in the east: Bandykhan and Kyzyrik have been merged into a new administrative unit.

The main centre of both the oasis and the modern district is the town of Sherabad located at the place where the river leaves the mountain valleys and flows into the lowlands. In recent years, the town has grown rapidly, since adjoining villages have gradually been joining it. Despite the substantial area covered by the town, our knowledge of the historic settlement here is rather sketchy. We noticeably lack archaeological supervision of earthworks at the numerous new constructions. Most information is thus provided only by the marginally situated site of Kafirkala, a former stronghold of the local Sherabad Beg, where we can, however, prove much earlier phases of settlements as well.

In terms of natural conditions, we can divide the Sherabad District into two very different areas: lowlands in the south and south-east of the region with an elevation of about 340 to 400 m.a.s.l., which are intensively artificially irrigated, and the north and north-western parts, consisting of arid and semi-arid piedmont steppes (ca. 400–1200 m.a.s.l.) with considerably steep mountain ranges, including the main ridge of Kugitang Tau reaching an altitude of 3000 m.a.s.l., which forms the border with Turkmenistan (**Fig. 1.1**). Between the Sherabad plains and the piedmont steppe, there is another series of steep, although basically not that high, mountain ranges, stretching from the southwest to the northeast. Just a few of these ridges exceeds an altitude of 1000 m.a.s.l.; in the south-western part there are three such ridges: Khojambesh (1134 m.a.s.l.), Pyshtykara (1011 m.a.s.l.) and Karachagyl (1116 m.a.s.l.), and to the north of the plains lies only Takasakyrt (1058 m.a.s.l.) (**Fig. 1.2**). All these form impenetrable natural barriers due to their steepness. The only relatively passable ways are the natural deep valleys of mountain streams. The plains around Sherabad are separated from the river valley of the Surkhan Darya lying to the east by a low, but very dry ridge of Haudag (max. 554 m.a.s.l.), which runs north to south, while south of Sherabad, the plain of the irrigated and agriculturally exploited lands extends down to the Amu Darya.

The choice of a route for long-distance travels in the lowland areas seems to be radically different from that of the trails in the mountains and piedmont steppes. The landscape here – especially in non-irrigated areas – was freely and easily penetrable, and the primary criterion evidently remained in the distance: the way should have been as short as possible, a direct route between points of interest was ideal. Overland communication with the southern part of Bactria / Tokharistan could therefore have several branches, leading from the area of Sherabad to a few ferries crossing the Amu Darya. The main stations of this kind were undoubtedly located at Old Termez and Kampyrtepa. On the contrary, the main communication link with the regions north of Sherabad (mainly Sogdiana) was clearly determined by the Sherabad Darya river valley that runs up to the cultural border between the two areas, which had been called Iron Gate. Its guard- and perhaps also customs function is attested in written sources.

1.1.2 Waters

The waters of the Sherabad Darya / Karasu are salty from the upper course of the stream, which has always represented a limiting factor for long-term irrigation systems and even for settlement sustainability. Among the main tributaries of the Sherabad

Fig. 1.2 Cotton fields with the mountain ridge of Takasakyrt in the background, photo by L. Stančo

Fig. 1.3 Wide riverbed of the Karasu River in the neighbourhood of sites no. 002 and 003, photo by L. Stančo.

Darya belong mostly the seasonal mountain streams the Loylagan Say, the Jidabulaq Say and the Maydan Say. All of them are right bank tributaries. The river bed of Sherabad Darya itself is cut deeply into piedmont steppe areas, and even into the Sherabad alluvial plains after leaving the mountain ranges (**Fig. 1.3**). Here, it would be very difficult to irrigate the surrounding – considerably higher lying – fields. It was therefore necessary to divert some of the water from the river upstream in places, where the difference in the altitude between the canal and the surrounding terrain was more favourable. Among the smaller streams that flow out of the southwest foothills of the Kugitang Tau directly to the Amu Darya, belong the Talkhab and the Muzrabad.

Fig. 1.4 Shearabad Canal to west of the town, photo by A. Danielisová.

The extent of the arable lands differs nowadays from the extent of agriculturally used lands in historic periods, since the modern irrigation systems are more sophisticated and bring water from the valley of the Surkhan Darya by two channels – the Zang Canal and the Sherabad Canal. As is clearly seen from the CORONA satellite imagery, large parts of the Sherabad plains were not irrigated even in the quite recent past. One can speak rather of a Sherabad steppe. The main source of water for agriculture in the lowlands is nowadays, as said above, a huge backbone canal bringing fresh water from the adjacent river valley of the Surkhan Darya, more precisely from Kumkurgan dam on that river. The main channel, built in 1971, runs through the Sherabad District from northeast to southwest just by the edge of the mountains, and crosses the Sherabad Darya in the town of Sherabad itself (**Fig. 1.4**). This modern construction has changed dramatically the possibility of irrigating the entire lowland steppe and affects the spatial distribution of today's villages. The scope of the original irrigated areas in Antiquity and the Middle Ages is therefore one of the main issues on which the project sought an answer. Old maps of the region – as well as Google Earth – show in the southern part of the Sherabad Oasis close to the site no. 22 (Taushkantepa) an important geographic feature that no longer exists: it is Kul' Maygyr lake which was rather salty swamp with some shallow water area.

1.1.3 Climatic conditions

The climatic conditions[8] of this area are very specific: the whole region is well protected from northern winds by mountain range and opened to the flow of warm winds from the southern Afghan deserts, which results in very high average temperatures in the summer and relatively mild winters. The average temperature here reaches 17–18 degrees Celsius, while in the summer the temperature can reach up to 50 degrees Celsius. The southern part of the Sherabad District is also affected by the strong wind that brings heavy dust from deserts in the north of Afghanistan, and is therefore locally called "Afghan". It is most strongly felt in the town of Termez and its surroundings that are not protected by natural barriers. Precipitation occur mainly in winter and early spring. The summer season from May to September is dry, with no rain. Rainfall amounts in the annual aggregate of 154 mm (Stride 2004, vol. I, 234), with precipitation increasing in the direction from southwest to northeast (Pidaev 1978, 15).

A typical soil cover is represented by luvisoil and salinated takir soil.[9] Aside from irrigated fields, on which mostly cotton is grown these days (**Fig. 1.5**), there is a typical spring vegetation cover consisting of low grass and herbs, and thorny bushes. In the summer, the vegetation largely disappears, and the landscape looks very dry. Only in the high mountains, there appears sparse coniferous forest zone. The lowlands of the region belong to the Badkhiz-Karabil semi-desert ecosystem (PA1306), while the piedmont steppes are part of the Alai-Western Tian Shan Steppe (PA0801).[10]

Fig. 1.5 Sherabad oasis nowadays – hand harvesting of cotton still predominates in this area, photo by A. Danielisová.

[8] This part of Uzbekistan belongs to group BSk (meaning Arid – Steppe – Cold, where MAT<18) after the Köppen-Geiger climate classification (Peel et al. 2007).

[9] After "Pochvennaya karta Uzbekskoy SSR" made in 1960 (1:1,500,000), available online at URL http://gpsvsem.ru. This map distinguishes in the Sherabad plain between three soil types: 10 – irrigated takir soil (salinated clay), 18 – solonchaks on the alluvial or proluvial sediments, 23 – light solonchak luvisoil, and in a small area in the southwest of the region also 4 – grey-brown soil; see also Stride 2005, vol. I, 235–236, who follows the map of Sh. Ergashev.

[10] Description of this ecosystem in detail is accessible here: http://www.worldwildlife.org/science/wildfinder/profiles//pa1306.html; In the map part of the application this type seems to cover almost entire Surkhan Darya province. In the text part, however, the eastern border of the given ecosystem seems to be marked by the Kugitang Mountains.

1.2 Previous research

Archaeological mapping and analysing settlement patterns is far from being a new phenomenon in the archaeology of the Soviet and post-Soviet Central Asia. On the contrary, we should say that former Soviet scholarship put an emphasis on this branch of archaeological research and studied it systematically, and the data gained by our predecessors are of great value for the current work. A weak point of all previous mapping projects was the spatial component: in publications, coordinates are missing, maps are inaccurate or absent, descriptions of the locations are often confusing or completely wrong, the use of the local place names varies, etc. If we omit mentions of the individual sites in Surkhandarya province including the Sherabad District by older travellers, Tsarist military officers and local antiquarians, then the first relevant source of a more general description of landscapes and archaeological sites seems to be the work of Parfyonov, primarily devoted to the Stone Age / Lithics, and providing data from the thirties and forties of the 20th century (Parfyonov, s.d.).[11] In the 1950s and 1960s many scholars started to pay attention to the Surkhandarya province, but mostly to other subregions, predominantly to the area around Termez and the upper reaches of the Surkhan Darya, eventually reaching sites around Angor.[12] At the beginning of the 1970s a new wave of interest arose and there were initiated not only new excavation projects, but also survey activities leading to the compilation of the first inventories and maps of all known archaeological sites. A leading figure in this regard has become E. V. Rtveladze of the Institute of Art History in Tashkent, whose publications have introduced a site coding system that is still in use today (Rtveladze – Khakimov 1973; Rtveladze 1974; Rtveladze 1976). Rtveladze walked the landscape of Surkhan Darya Province – including the region of Sherabad – in a systematic way, and identified a number of archaeological sites and monuments, which were dated by him and his colleagues on the basis of surface material, additionally by material from trial trenches. At the same time Sh. Pidaev (1974; 1978) also contributed to the detection and identification of the sites. The main attention was paid then to the monuments dated back to the Antique period, more precisely, mainly to Kushan sites. In the 1980s, there were attempts to map the sites of Early Medieval (Annaev 1988)[13] and generally Medieval sites (Arshavskaya et al. 1982; see also Rtveladze 1990, esp. 26–27, **Fig. 7**). At the same time, there were also excavated and studied in detail some of the major sites of the Bronze Age: Jarkutan and Bustan (Askarov 1977, 1980a, 1980b; Askarov – Abdullaev 1978, 1983), and Early Iron Age: Talashkan I (Rtveladze – Pidaev 1993; Shaydullaev 2000; Shaydullaev 2002). Survey activities in the piedmonts of Kugitang touched also the northern periphery of the Sherabad District (Bobokhadzhayev et al. 1990). After the collapse of the Soviet Union, these activities were temporarily reduced. Newly organized international expeditions started to organize mainly systematic excavation projects of the large or otherwise important sites. They have paid just little attention to a surface survey and mapping, focusing only on the neighbourhood of the given site.[14] The first scholar to concentrate on the archaeological geography of the Surkhan Darya province in a systematic way was quite recently Sebastian Stride, a member of the French mission "MAFOuz B". He has been collecting data during the second half of the nineties and his monumental dissertation covers the whole province including the Sherabad District (Stride 2004). Despite unquestionable benefits of this work, which necessarily became a fundamental reference overview, many questions and problems remained unresolved. The methodologically controversial approach of the author will be discussed below.

In the previous research the attention was paid not only to the detection of the new sites, but also to particular chronological as well as spatial analyses, and first of all to the typology of the settlements. In the 1960s and 1970s there was developed several typologies of the settlements of the Kushan period. Yurkevich divided Kushan settlements into two basic

[11] His book was never published, but it is available as a typescript in the archive of the Termez Archaeological Museum.

[12] For a brief overview of the research see Stančo 2005, 54–55; for more detail see Pidaev 1978, 6–14 or Masson 1985, 251–255.

[13] The work of Annaev is of value primarily for his analysis of pottery shapes.

[14] In the Sherabad District this goes especially for two projects in the vicinity of Pashkhurt, i.e., outside the oasis itself: a German-Uzbek expedition exploring initially under the leadership of D. Huff already mentioned the site of Jarkutan and later under the supervision of his former student K. Kaniuth another site of the Bronze Age called Tilla Bulak (see Kaniuth 2007; Kaniuth 2010; Kaniuth – Herles – Shejko 2009) and the Russian-Uzbek expedition working at the ancient site of Dabilkurgan see Solov'ev 2013. A different situation exists in other parts of ancient Bactria: the eastern margin of Bactria near Ai Khanum was mapped in the first half of the 70s by French archaeologists and their exemplary results were published gradually in three volumes (see Gentelle et al. 1989; Lyonnet 1997; Gardin 1998). The extent of the work of this expedition is hard to compare: during the years 1974–1978 an area of 1,700 sq. km was explored, 800 sites have been found and irrigation canals with a length of ca. 1,000 km were mapped.

groups: 1. towns and town-like settlements, 2. rural settlements. Both groups comprised subtypes based on the size, ground-plan shape, presence/absence of a citadel, character of the fortifications (Yurkevich 1965, 166–167), while Rtveladze divided the settlements into four types: 1. Big walled town-like settlements (with four sub-types), 2. Settlements with some characteristics of a town and others of a village, 3. Rural settlements (with 3 sub-types), and 4. Mountain settlements. The sub-types were specified according to the size, shape and fortification (Rtveladze 1974, 83–85). This typology was further adjusted by B. Staviskiy, whose typology consists of 1. Big towns (more than 100 ha), 2. Towns (15–80 ha), 3. Little towns (5–13 ha), 4. Big villages (1.5–4 ha), 5. Villages (less than 1 ha), and 6. Hamlets (less than 0.6 ha). He added as the 7th and 8th type to the latter group Oasis-type settlement and mountain settlement respectively (Staviskiy 1977, 43–44). In this typology, one is obviously at first glance surprised by the gaps in the reported ranges of sizes, which would ultimately result in the omission of certain settlements from typology. Staviskiy speaks generally of 25 sites of the Kushan period in Sherabad District, among them only two are situated beyond Sherabad plain itself, i.e., up in the piedmonts (Staviskiy 1977, 52–53). Sh. Pidaev had set an essential criterion for his simpler settlements division, which is exclusively their size; categories such as "city" or "village" he found not archaeological enough and thus established four types of settlements with surface up to 1 ha, 6 ha, 15 ha, and more than 15 ha respectively. For the Kushan period he finds in the "Sherabad Valley" 16 settlements of the first type, six of the second, one of the third and none of the fourth type (Pidaev 1978, 15–28, esp. 18–22). The difficulties of this approach, which one must necessarily encounter, are obvious: it is uncertainty of exact determining, but often of just a gross determining of the extent and, thus of the real size of the settlements. Only rarely we get by with simple measuring of the site area of the tell-type settlement. On the contrary, it often exceeds the extent of its core, sometimes even considerably.[15] Besides, it is also very difficult to define precisely the extent of the given settlement in a particular time period of their inhabitation.

Stride, who was first engaged in the settlement pattern of Surkhandarya and its complex dynamics, divided the Sherabad Oasis into two parts: the right-bank and the left-bank area of the Sherabad Darya. According to him, the right-bank area covers 13,668 ha, of which about 10,000 ha were irrigated. To this part, he localizes two sites of the Bronze Age, four proto-historic sites, fourteen dated back to Antiquity, ten of the Early Middle Ages, nine pre-Mongol ones and six post-Mongol sites. On the left bank (16,189 ha / 12,000 ha irrigated), he lists 11 sites inhabited in Antiquity, 11 in the Early Middle Ages, one pre-Mongol and one post-Mongol settlement (Stride 2004, vol. I, 237–239). The following table summarizes the representation of individual sites and periods in the area of interest according to the knowledge prior to the start of our project. The distribution is based on Stride's division of the region.

Another product of the generally geographic approach to the analysis of settlement pattern was the definition of smaller cultural units based on access to natural water sources, eventually with regard to the expected (rarely clearly documented) artificial irrigation systems – called Oases. In accordance with the premise that every large accumulation of settlements linked to the (usually single) presumed source of drinking water is one separate unit, Masson distinguished within the area of Surkhandarya four basic units: 1. region Denau – Shurchi, 2. Jarkurgan area, 3. region of Angor, 4. region of Sherabad (Masson, 1974, 4–5). Staviskiy subsequently determined

Chronology – Period	Lowlands around Sherabad		Total
	Right bank	Left bank	
Bronze Age	2	0	2
Protohistory	4	0	4
Antiquity	14	11	25
Early Middle Ages	10	11	21
Pre-Mongol period/High Middle Ages	9	1	10
Post-Mongol period	6	1	7
General number of sites	**25**	**16**	**41**

[15] This applies particularly to the Middle Ages, but we have clear evidence that allows us to speak analogically of this phenomenon in Antiquity. Such evidence is given by complexes of monuments around Babatepa, Kulugshakhtepa, Jandavlattepa or Kattatepa, for instance. This issue will be discussed below in this book by P. Tušlová see Chapter 3.

six major irrigation regions: 1. Termez area, 2. Angor – Jarkurgan area, 3. Sherabad area, 4. Shurchi area, 5. Khalchayan area, and 6. Karatag area (Staviskiy 1977, 47–56). Pidaev then defined in the Surkhandarya five main oases: 1. Sherabad valley, 2. the upper reaches of the Surkhan Darya, 3. The lower reaches of the Surkhan Darya, 4. Zang area (belonging to the irrigation system of the Zang Canal), and 5. Right-bank area of the Amu Darya (Pidaev 1978, 16 and 18, tab. 1). The first four areas are *de facto* identical both in the Masson's and the Pidaev's division. For us and for the focus of this book it is essential that all researchers agree on the definition of a separate Sherabad Oasis, although Staviskiy functionally connects it with the valley of Surkhan (Staviskiy 1977, 47). It is noteworthy that in his more recent work on the subject E. V. Rtveladze (1990, 2–3) talks in general about "Surkhandarya Oasis" as of a unit. A summary of the longstanding debate about the proper identification of the Surkhandarya area with one of the larger cultural and political entities of the ancient and early Medieval period – to Bactria and Sogdiana – is clearly given by E. V. Rtveladze (1990, 4–6). The typology of the settlements of the Medieval period is so far missing, even though the available data would allow for at least basic classification.