Archaeological Heritage of Steppe Zone as Tourism Development Resource (Case of Orenburg Region)

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Abstract. Recently, it has become obvious that local recreational resources should be utilized. This is connected to the spread of coronavirus which led to the development of local and regional tourism as the only available opportunity to fulfill the recreational needs of people. Tourism companies are forced to search for new types and forms of recreation. Archaeological tourism is one of the types that have been growing in popularity in recent times. In Orenburg oblast, a model steppe region and a birthplace of many ethnicities, both nomadic and settled, archaeologists found over a thousand objects of material archaeological heritage. The archaeological tourism in the region, however, is not widely spread due to, among other things, the insufficient promotion and inefficient positioning of attractions promising for this kind of tourism.

This article deals with the identification and classification of archaeological tourism resources in the steppe zone that led to the mapping of the most promising tourist attractions and the compilation of recommendations on the development of archaeological tourism in the region. The archaeological sites that are the most attractive for archaeological tourism include the Karagaly mines and the Alandskoye settlement site that belongs to the archaeological group of settlements known as the Country of Towns.

One of the recommendations concerning the development strategy for archaeological tourism suggested by the authors is to take into account the desires of the potential tourists from the neighboring Republic of Kazakhstan.

1. Introduction

Tourism is one of the largest industries in the world, and it is undergoing a tough period these days. Due to the dramatic decrease and, in some cases, the discontinuation of the tourist flow from abroad, international tourism suffered from a deep crisis in the first half of 2020. The spread of coronavirus led...
to the development of local and regional tourism as the only available option to fulfill the recreational needs of people.

Under these circumstances, tourism companies have to search for new types and forms of recreation in their regions to fulfill the recreational demands of more sophisticated tourists.

Archaeological tourism is one of the types that have been growing in popularity in recent times. Volunteers and tourists can participate in archaeological expeditions all over the world. The most popular regions for tourists include Greece, Egypt, Israel, Lebanon, India, Mongolia, and the countries of South America. Recently, archaeological tourism has been reviving in Russia as well. In Russia, excavations are carried out in Altai, Tyva, the Solovetskie Islands, the Urals, Crimea, Krasnodar territory, and other regions, i.e., in many places.

Steppes are the birthplace of many nations, both nomadic and settled, and thus there are many archaeological sites. In Orenburg oblast, a model steppe region, archaeologists found over two thousand objects of material archaeological heritage. The archaeological tourism in the region, however, is not widely spread due to, among other things, the insufficient promotion and positioning of attractions promising for this kind of tourism. The abundance of archaeological sites and the insufficient development of archaeological tourism in the region led the authors of this article to analyze the archaeological heritage of Orenburg oblast and identify the prospects of development of this tourism type there.

There are many interpretations of archaeological tourism. Many authors categorize this kind of tourism as cultural (historical) tourism [14]; others claim it is academic tourism, and a number of authors see this type of tourism as an alternative form of cultural tourism [1]. Archaeological tourism is usually understood as trips to participate in archaeological events (usually involving professional archaeologists and historians) [13].

The majority of archaeological tourism definitions describe excavations as the key element of tourist activity. However, as some researchers rightfully claim [17], this approach does not fully reflect the tourist capacities and the historical significance of archaeological sites that lost their materiality. In fact, archaeological tourism stipulates for the use of two interconnected resources as attractions: material and non-material archaeological heritage. Archaeological heritage stands for a component of historical and cultural legacy that includes both material objects existing today and the objects lost at various stages of the historical development of human society. Apart from material objects, this notion includes the aggregate academic knowledge received through both desktop and field studies.

While suggesting to rethink the structure of archaeological tourism, some authors [16, 17] claim that the tourist value of both material and non-material archaeological heritage increases when tourist managers use a creative approach. In the regions where material archaeological heritage was lost, the key development factor for archaeological tourism is the creative imagination and initiative of tourist destination actors. Tourist legendization and the augmented reality method [3] become especially important in this case as they help preserve the unique character of the place despite the loss of objects. The problems of presenting “the truth” and “myths” to tourists in organizing archaeological tours were described in D. Robb's article [15].

When reflecting upon the specifics of archaeological tourism, many authors [5, 8, 11–13] express their concern due to the identified adverse consequences of intensive tourist activity in the regions with many archaeological sites. These consequences include the destruction of valuable artifacts, unauthorized access to the sites without specialist guidance, discontent among locals, etc.

One of the key features of archaeological tourism, according to several authors (e.g. [19]), is that artifacts and sites are not always visible against the landscape. They can be hidden from tourist eyes by ground, water, etc. Other features of this type of tourism, mentioned by some authors [19], include vulnerability and the possibility of multiple interpretations. These features generate the strong emotional attractiveness of the sites for tourists.

The growth of the cities and the complex development of territories in Orenburg oblast may lead to adverse impacts on the region's archaeological legacy because there are no clearly formulated preservation plans in place that would efficiently integrate archaeological sites into territory planning. The goal of this study is to classify the archaeological tourism resources in the steppe zone, map the most
promising tourist attractions, and compile recommendations on the development of archaeological tourism in the region.

2. Materials and methods
The key methods of research are historical, geographical, and cartographical. The authors studied the official list of archaeological legacy objects in Orenburg oblast approved by the regional government. This list is regularly updated (once in several years): some objects are excluded from the list, some are added upon the decision of the specialized commission. Currently, the list comprises over 2,000 legacy objects of regional and federal significance. This diversity signifies that the authors selected the right region for the research. The authors picked out federal significance objects from various historical periods as they are a priori more attractive for holidaymakers. Besides, the authors have been carrying out field research in the steppes, Orenburg region, and the selected federal-level architectural legacy objects for several years in order to study the archaeological resources and their involvement in the tourism industry, as well as to evaluate the development prospects for recreation. Moreover, the authors interviewed volunteers helping at archaeological excavations in the region, which also influenced the selection of recreation objects. Following the field studies, the authors identified the most attractive objects for the development of archaeological tourism and marked them on the sketch map. When preparing the sketch map, the authors used the method of geoinformation technologies. The sketch map developed by the authors can be used by interested parties when organizing archaeological tourism.

3. Discussion
The development of archaeological tourism abroad is characterized by steady growth. Of all the types of archaeological tourism, volunteers and tourists are especially interested in archaeological diving tours (Italy) [3], visiting archaeological sites (Lebanon) [7], visiting archaeological festivals at such sites (Poland), studying at archaeological schools (Russia), military and patriotic tourism (WWII excavations), participating in excavations (Israel, Egypt). During the excavations in Israel, a tourist found a hoard of Byzantine-era golden coins, which was the largest throughout the history of excavations in the area.

In some countries, there are organizations that coordinate and promote this type of tourism. For instance, Spain set up the Arqueotur institutional network to promote and develop archaeological tourism at the regional level (coordinated by the University of Barcelona). There are also clubs of archaeological tourism enthusiasts. For example, the American Institute of Archaeology (AIA) together with the Adventure Travel Trade Association (ATTA) offers virtual tourism opportunities (reality show style), namely, interactive excavations in real-time. Archaeologists regularly publish news, answer questions, and describe the process of excavation.

The archaeological tourism in Russia began in 2000 when it was officially allowed inviting volunteers to participate in excavations at their own expense. This is due to the rapid increase in the number of historical studies during this period. In Russia, about 1,500 archaeological expeditions arranged every year. Apart from researchers and student trainees, volunteers are among the most common participants of excavations. For example, the Institute of Archaeology n.a. A. Kh. Khalikov of the Tatarstan Academy of Sciences arranges the annual (since 2014) international archaeological school for young people at Bolgar State Historical and Architectural Museum-Reserve that helps promote and develop this type of tourism.

The Russian Geographical Society regularly recruits volunteers from all over the world to participate in archaeological excavations and marine archaeology research in Khakassia (the study of Tun-nug burial mound, the Mysteries of Ancient Artists of Siberia), Tyva (the flooding area of Sayano Shushenskaya hydroelectric power station), Voronezh Oblast (Kostyonykovskaya paleolithic expedition), and Crimea (Crimean Atlantis – the ancient city of Akra), and the islands of the Bay of Finland (Hogland and Bolshoy Tyuters) [18].
The region under study, the steppes of Orenburg Oblast, has a colossal archaeological legacy. Outside the urban landscape, the region features a plethora of archaeological attractions. This legacy is the main resource for the development of archaeological tourism.

Archaeologists found over a thousand archaeological legacy objects in Orenburg Oblast [9] including settlements, ancient settlement sites, subsoil and mound burials, etc. In many districts of the oblast (Tashlinskiy, Sol Iletskiy, Pervomayskiy, Ilekskiy, Dombarovskiy, Akbulakskiy), there are over a hundred archaeological monuments.

To classify archaeological resources, a periodization was developed based on the evolution of main tools of trade and the methods of their manufacturing that considers the key features of historical development. According to this periodization, the history of humanity is divided into stone, bronze, and iron ages, each of which is further divided into specific periods and cultures.

The early traces of ancient people's habitation in the Orenburg region belong to the Upper Paleolithic Age, about 26-10 thousand years ago. Among the tourist attractions from the stone age are the Idelbayevskaya (near Mednogorsk), Staro-Tokskaya, and Ivanovskaya (Kranogvardyeisky district) campsites. Bones and complete skeletons of dinosaur ancestors were found in the vicinity of Rassypnoye (Ilekskiy district), which are now on display at the Paleontological Museum of the Russian Academy of Science (Moscow). In the headwaters of the Donguz river, a fragment of limestone slab with a relief deer image similar to the carving on the Lossel rock shelter (a paleolithic grotto near Marquay, France) [4].

The Aeneolithic objects (late V - early IV millennia BC) include the Novoorskiy burial ground (near Novoorsk), Ishkininskiy burial ground (near Gay), Ivanovskaya Dune burial ground (Krasnogvardyeisky district). During the excavations of the burial grounds, some weapon was found, e.g. horse head shaped warhammers.

The early Bronze Age began in late IV - early III millennia BC. Ancient mines (Chudshiye mines) are a special group of archaeological sites, and it includes, for instance, Yelenskiy (Yasnenskiy district), Ishkininskiy (Gaiskiy district), and Ushkatinskiy (Dombarovskiy district) copper mines. The Kargaly mines (Oktyabrskiy district) are of special value [6, 21], as they are acknowledged cultural heritage sites of the federal level.

The Kargaly mines are a major copper mining and smelting center in the form of a unique and gigantic ensemble of landscape monuments of historical, natural, and archaeological significance that occupies the area of 500 square kilometers and has no comparable counterparts in Eurasia. Impressive mining activities were carried out there since the Bronze Age (according to estimates, the total amount of copper smelted there in the Bronze Age is about 55-120 thousand tons). Currently, about two dozens ancient settlements from the II millennium BC (late Bronze Age) have been discovered in the Kargaly mines, along with four burial mound necropolises with graves from early and late Bronze Age and some separate burial mounds. The ancient fauna collection from Kargaly is hoarded in St. Petersburg Mining University, the Paleontological Institute of the Russian Academy of Sciences (Moscow), the British Museum in London, Berlin and Stuttgart museums in Germany [4].

The beginning of the Late Bronze Age (II millennium BC) was marked by mass migration and far-reaching military campaigns, which eventually led to the establishment of several towns and settlements fortified with walls, such as the Alandskoye settlement (Kvarkenskiy district, XVII-XVI centuries BC). The findings include the remains of warriors with weapons, items, and parts of war chariots, etc. The Indo-Iranian/Aryan Alandskoye settlement (XIX century BC) belongs within the archaeological group of settlements known as the Country of Towns. The most famous of these ancient towns is Arkaim (Chelyabinsk Oblast) [2], which is older than Egyptian Pyramids.

The early Iron Age sites include Sorochinskiy burial ground (Sorochinskiy district), Arkhangelovskiy burial ground and sanctuary (Dombarovskiy district), Gumarovskiy burial mounds and a stela (Kuvandyk district). At this time, a special type of site emerges, the mound-altars which are considered to be Sarmatian fire sanctuaries. The largest of the mound-altars (wall height 2.5 m, diameter over 70 m) is the Shkunovskoye sanctuary and burial ground (Akbulakskiy district) [4].
The most famous early Iron Age site is Philippi mounds (Ilekskyi district) where many golden ornaments, weapons, and cult objects were found. Despite numerous robberies, the remaining objects are valuable and diverse. They include a golden sword unmatched in sophistication and worth [20]. The study of Philippi mounds is one of the most significant archaeological discoveries of the XX century.

Numerous burial mounds, large and ancient earthwork or stonework hills, are dispersed all over the Orenburg steppes are of high interest for both researchers and tourists [10]. For instance, out of 50 mounds in the Chyornyi Yar area (Sol-Iletskyi district), 14 were excavated in different years (1956, 1984-87), yielding items dating back to the period from the Bronze Age to the Medieval times. Pyatimary mounds 1 and II (Sol-Iletskyi district) belong to the Bronze and Iron Age; 9 of the mounds are the Iron Age burials of the Sarmatian nobility [4].

**Figure 1.** Excavations of the Philippi mounds (photo taken by K. Azhgulov, a volunteer).

**Figure 2.** A school trip to the Kargaly mines (authors’ photo).

Other archaeological sites attracting tourists and researchers from Russia and other countries, Kazakhstan in particular, include Korsak Bas, Kashkan Tau (Akbulakskyi district), Vysokaya Mogila, Bolshoy Dedurovskiy Mar (Pervomayskyi district), Prokhorovka (Sharlykskiy district), and Ivanovskoye (Krasnogvardeyskyi and Aleksandrovskiy districts). The famous Medieval and Modern Age sites include Petropavlovskiy mound and the stone image (Novosergiyevskiy district), a mausoleum near Sverdlova (Totskiy district), the Sakmarskoye settlement (Sakmarskiy district), a burial ground and a stela near Buranchi (Belyayevskiy district).
One of the drawbacks of archaeological tourism is the risk of damaging the artifacts due to the uncontrolled flow of tourists. However, the most serious damage to the archaeological tourism sites is done by tomb raiders. Searching for ornaments, they do significant damage to the objects of federal significance in Orenburg Oblast. Nonetheless, the advantages of tourism development in the areas with the most interesting archaeological sites cannot be dismissed. The flow of tourists brings significant revenue and facilitates the social and economic development of the territory.

4. Results
The diversity and the number of archaeological tourism sites in Orenburg Oblast facilitate the academic archaeological tourism in the form of field camp-based expeditions (participation in excavations and prospecting) or familiarization trips to excavation sites for any kinds of tourists (the authors see the weekend tours as the most promising).

The Kargaly mines, a ground for various academic research activities, study practices, and business projects, should be considered as one of the best sites for the development of archaeological tourism. The historical and cultural significance and the natural attractions of the entire Kargaly mines area call for the creation of a landscape and history reserve, a memorial museum dedicated to the history of mining in the region.

This reserve will become a unique center for research, culture, education, and tourism.

The Alandskoye settlement, a part of the Country of Towns that is older than Egyptian pyramids, is also an attractive site for the development of archaeological tourism. As up to recent times this cultural layer was deemed lost, this archaeological site might claim the status of world heritage objects.

There unique and spectacular archaeological sites attract tourists and researchers from various regions and countries. Considering the development of international archaeological tourism in Orenburg Oblast, the focus must be placed on the neighboring Republic of Kazakhstan because of the developed border connections, good neighborly relations, and common historical destiny.

One should note that when organizing archaeological tourism, it is crucial to remember that archaeological sites are resources that can be depleted. They require care, and insufficient control will lead to their deterioration or even destruction and the subsequent loss of the associated social, historical, educational, and economic opportunities.
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