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**SPACE AS SOVIET HERITAGE AND A NATIONAL PROJECT**  
**FOR KAZAKHSTAN**

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**Abstract**

Kazakhstan gained independence in 1991, when the Baikonur cosmodrome was declared the property of the republic and the first Kazakh cosmonaut flew into space. On the one hand, space infrastructure is Soviet heritage, moreover, the Baikonur cosmodrome is leased from Russia until 2050; on the other hand, it is a symbolic resource of nation-building, a marker of modernity for Kazakhstan. To show how Kazakhstan is rethinking this "Soviet heritage", the article focuses on the national policy in space research, shows how traditions and national identity are manifested in these processes. The national context is important for the formation of a global image of a young state with a global brand – Baikonur. However, there is also some social dissatisfaction due to environmental and cultural problems caused by the Baikonur cosmodrome. The ambiguity of this Soviet "space heritage" gives rise to various discourses, including the postcolonial ones. Based on the study of "places of memory" in the cultural landscape of Kazakhstan, it was shown how the representation of space is embedded in the general narrative of national modernization, what opportunities Kazakhstan has for the development of astrotourism and tourism associated with visits to the cosmodrome, museums, observatories, special places of memory, where astronauts fell, and abandoned space objects. Baikonur is of interest as a global place of memory from which the first man flew into the space.

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## 1. Introduction

Space is always associated with modernity and new actors in space exploration, including peripheral ones, opens up new research options. In the global social context of space, Kazakhstan began to acquire significance after the collapse of the Soviet Union, when the world's first and largest cosmodrome, Baikonur, associated with the first manned space flight, became the property of this country. This began to be viewed as a historic opportunity for the young state. The first President of the country Nazarbayev pointed out the symbolism of the historical coincidence of circumstances in 1991, namely, the declaration of the property of the cosmodrome, the flight of the first Kazakh into space and the Declaration of Independence of Kazakhstan (Nazarbayev, 2006). The country began to realize geopolitical interests in space and develop this "Soviet heritage".

The Soviet experience of modernization of space technologies has been involved in the narrative of nation-building, and this indicates the pragmatic state techno-policy of Kazakhstan. Space programs are used to create an image of a global, technologically advanced nation-state. From this perspective, the Kazakh situation was not considered. Using the concept of symbolic capital of mnemonics, Bekus showed the role of memory in enhancing the international position and prestige of Kazakhstan, and the peculiarity is that memories of the Soviet past became a platform for relations between the states through common metanarratives (Bekus, 2021). In this context, space can be viewed as a common memory of the past, a global place of memory and, accordingly, a symbolic resource for the country.

On the other hand, such a project was not unambiguously accepted in society. In particular, the Anti-Heptyl group was critical of space launches, which harm nature, society in Kazakhstan, and political discourses, including the anti-Soviet and anti-government ones. The use of symbols and attributes referring to the ethnic traditions and values speaks of the identity actualization.

In general, "space" as a heritage, as a symbolic capital of the country allows the development of space tourism, astrotourism, visits to various "places of memory" (Nora et al., 1999).

## 2. Problem Statement

Given the presence of the space infrastructure, domestic cosmonauts, scientific institutions, various places of memory, alternative discourses about space, this field requires studies through different social optics.

## 3. Research Questions

Using the local materials, the article explores how space is represented in a cultural landscape, how global and national contexts are combined in it.

- How does the Soviet space legacy become part of nation-building, a national narrative?
- How are identities, traditions and a desire to be a modern global state combined?

#### **4. Purpose of the Study**

Using the Kazakh field, the article aims to show the peculiarities of development of the country as an independent state, using the technical space potential of the Soviet past as part of the project of its own modernization and national identity.

#### **5. Research Methods**

The article uses the results of field studies carried out in different regions of Kazakhstan. The methods of observation, visual analysis, analysis of government documents were used. An attempt to comprehend the local context in the optics of postcoloniality was made (Abashin, 2015; Gorman, 2005; Kudaibergenova, 2016).

#### **6. Findings**

"The history of Kazakhstan's independence began with the history of Kazakhstan's cosmonautics". This discourse by Nazarbayev reflects the ambitious intentions of the new independent state in relation to outer space (Nazarbayev, 2006). The statement of the first President on the new status of Baikonur and the country's desire to participate in space research was met with controversy. The difficult negotiations with Russia began. During his first visit to Baikonur as president, Nazarbayev said that the Kazakh cosmonaut should fly into space, although the Union Space Agency did not like this idea; the issue was nevertheless positively resolved. Kazakhstan is starting to create legal and institutional conditions for the development of space activities. The key international documents that ensured the maintenance and further development of the Baikonur cosmodrome were bilateral agreements between the Republic of Kazakhstan and the Russian Federation. The Agreement between the countries on the procedure for using the Baikonur cosmodrome stipulates that the cosmodrome facilities are the property of Kazakhstan.

It is symbolic that 1991 was the year of the 30th anniversary of Yuri Gagarin's space flight and Kazakhstan held the international festival and various festive events in Leninsk. A few months later, on October 2, the international Soviet-Austrian crew started from Baikonur. Kazakh Toktar Aubakirov was a member of the crew. Since that year, the history of Kazakhstani cosmonautics has begun. Two more Kazakhs will fly into space – Talgat Musabaev and Aydin Aimbetov.

However, Kazakhstan was not able to maintain the cosmodrome and the city; the next step was the Agreement on the basic principles and conditions for the use of the Baikonur cosmodrome (March 28, 1994), which determines conditions for the transfer of the cosmodrome to Russia for 10 years. The rental price was \$115 million annually. In 2004, the Agreement on the Development of Cooperation on the Effective Use of the Baikonur Complex (January 9, 2004) determined the obligations of the parties to create the Baiterek rocket and space complex and extended the lease term for the Baikonur cosmodrome until 2050.

In the global context, many semi-peripheral countries play a role in the development of space due to the advantages of their location, such as proximity to the equator, sparsely populated areas, and clarity of the horizon.

Moltz (2012) argues that Asia is becoming the new epicenter of space activities and indicates their tendency to focus on national solutions. It is not only about using space for national advantages in technology, prestige, security. It also concerns the development of military capabilities and the lack of significant cooperation between them. It also touches upon such problems as the role of space activities in culture, the history of countries, regional identity. Kazakhstan has no humanitarian studies on space.

The first state program for the development of space activities was approved in 2005. It outlined specific goals, in particular the creation and launch of the national satellite "KazSat", but the project failed, and there was a need to create the National Space Agency "Kazkosmos". According to Musabayev, "for 7 and a half years, Kazakhstan has traveled a path equal to several decades for other states" (Sydykbaev, 2016). The important document regulating the development of space programs was the Law "On Space Activities", adopted in 2012. The long-term goals for the development of space activities in Kazakhstan have been included in the Strategy "Kazakhstan-2050". In the strategic documents and programs, attention is paid to the modernization of Baikonur. Kazakhstan focuses on a system of communication satellites, remote sensing of the earth, which makes it possible to solve economic problems. The infrastructure of space activities is maintained by the following organizations: Infrakos (1996), Karysh-Ecology Research Center (2001), Republican Center for Space Communication (2003), Kazakhstan Gharysh Sapary (2005), National Center for Space Research and Technology (2008).

Baikonur as a global brand can be used for the development of tourism. New forms of alternative tourism represent a dynamic trend in the tourism industry. The so-called astrotourism is considered an important factor supporting the development of local tourism, especially with regard to observations of unique astronomical phenomena (Filatyev et al., 2009; Jiwaji, 2016; Ruggles & Cotte, 2017). Martina Pásková, Nicol Budinská, and Josef Zelenka have thoroughly analyzed this phenomenon, including space tourism and ground-based astrotourism in astrotourism; the latter is associated with both flights in the stratosphere and observations of spacecraft launches at cosmodromes (Pásková et al., 2021). It is the attractiveness of the Universe and objects within it that is the central component of astrotourism. Their review also presents Baikonur, which has a museum and offers a platform for observing missile launches. Having the legendary "Gagarin start", which can be considered as a cultural heritage and symbolic capital, Kazakhstan is developing an international project to create a free economic zone "Baikonur". The main directions are to create an international space port "Baikonur", to develop international tourism, and to create a center for space tourism. In addition, on the territory of the zone it is necessary to create an assembly and test the complex for space technology (Iskakov, 2019). Thus, Kazakhstan intends to enter the club of world space powers that have a modern space infrastructure.

With regard to the development of astrotourism, there are many attractive places in Kazakhstan. Field studies in different regions of Kazakhstan have shown that space is represented by mosaics, busts, monuments, memorials, memorial signs in places where the cosmonauts fell, the ruins of former test facilities, paintings in museums and galleries, streets, hotels, sanatoriums where cosmonauts rested, expositions in almost every regional museum and cosmonautics halls, as well as comic rubbish used in the daily practices of residents. The research group compiled registers of places of memory associated with space, which will be used to build new routes for tourists. An important area is the territories adjacent to Baikonur, which are the zones of landing of cosmonauts. The village Baikonur, located in

Karaganda region, and the Baikonur cosmodrome in Kyzylorda region, differ in the degree of recognition. Baikonur has preserved traces of early space infrastructure. The official space history of the area began with the decision to conduct large-scale tests to create a missile defense system. There are ruins from the previous objects. These objects were designated as IP-5, IP-7T and the history of astronautics is associated with them. Mike Gruntman presented previously unpublished historical documents and intelligence photographs of the United States (Gruntman, 2019). Soviet officials provided the geographic coordinates of the launch site 300 km away from the trajectory of the spacecraft launched. The author writes that this Cold War hoax was unnecessary as the American U-2 aircraft photographed the site in early August 1957. Gruntman presented the first photograph of Leninsk, present-day Baikonur. This residential area, Zone 10, was named Zarya, renamed into the village Leninsky and then into Baikonur. The missile range had only mysterious mailbox numbers. All incoming messages were sent to Tashkent-90 or Kzyl-Orda-50. In the 1950s, the entire area was called a test site or Tyuretam, and the Soviet media popularized the name of the Baikonur cosmodrome after 1961. The name of Tyuretam will remain in the memory of the space age pioneers (Gruntman, 2019).

The Ulytau district is of particular interest as an early point of ground control and as a place with an abundance of archaeological artifacts, such as sites of the Stone Age, Bronze Age, zoomorphic plots, petroglyphs, mazars, which also gives rise to a certain mythology and sacralization of the place. There are tragic places, for example, a monument to the crew of the Soyuz-11 spacecraft in Shalginsky, Karaganda region. Initially, the memorial plaque was installed; then in 1974 a large monument in the form of a column depicting the faces of cosmonauts on three sides was installed. Unfortunately, the monument was destroyed, and in 2013 the memorial plaque with the words "Zheskazgan remembers" was built. By joint efforts of Kazakhstanis and Russians, a plate with portraits and names of heroes was erected. There is a tradition of planting trees after flights and awarding cosmonauts the title of "Honorary Citizen of the City." "Baikonur is both pride and a challenge", "an exam for state consistency" (Aselkan, 2019).

#### **National identity and modernization**

Images of the past are seen as part of the collective identity (Anderson, 1983; Nora et al., 1999; Hobsbawm & Ranger, 1983). Space turned out to be a Soviet legacy and part of this identity. With gaining independence, this contributed to the development of another space-related discourse associated with the colonial past, the need to abandon the cosmodrome and free Baikonur from the Russian presence. Abashin (2015) argued about the contradictory nature of social relations in the USSR in the context of postcolonialism and cultural hybridity. The connection between the development of space and colonial history is described by Gorman. From a colonial point of view, both interplanetary space and lands of "primitive" people are terra nullius, desert or moral vacuum (Gorman 2005). Gorman illustrates the complex and contradictory views of space with the example of three cultural landscapes: Peenemünde in Germany, which is considered to be the "cradle of space flight", the Woomera Rocket Range in South Australia, where the indigenous population was closely confronted with the space age, and the Tranquility Base, The moon of the Apollo 11 mission (Gorman, 2005). Peter Redfield, who explored the Kourou spaceport in French Guiana, has drawn attention to the rise of anti-colonial rallies (Redfield, 2002). Mitchell, considering the racial conflicts around the Brazilian space program, showed that problems can be viewed by different political forces through different frames (Mitchell, 2017).

Thus, the topic of colonial perception of space is raised. In the novel by Aitmatov "And the day lasts longer than a century" there is a plot when the protagonist of the novel cannot bury a friend in the ancestral cemetery located near the cosmodrome (Aitmatov, 2016). The plot with the ancestral cemetery is shown in the film "Baikonur" by Helmer. The Anti-Heptyl movement in 2013–2015 acquired political overtones. The explosion of the Russian Proton rockets, a series of similar accidents and launches at the spaceport, have raised environmental concerns among the government and society. In the Anti-Heptyl movement, along with the environmental agenda, there were political motives, anti-Soviet, anti-Russian, anti-government sentiments. They positioned themselves as a school of Kazakh democracy. The idea was articulated that Kazakh identity and culture should be outside the Soviet heritage. The protest actions were accompanied by art performances. The ethnic symbolism combined traditional costumes and images of wildlife and dead saigas.

The difference in space discourses does not contradict the idea of national identity. From the very beginning of nation-building, space was implemented in this process. National narratives are often accompanied by myth-making, a reference to ancient traditions. Kyzylorda region is the birthplace of the legendary personality Korkytat, who was looking for immortality and died on the banks of the Syr Darya river. This place was considered to be a sacred, "umbilical cord of the earth" and coincided with the place from where people go into space. The first Kazakhstani space complex is called "Baiterek", the name refers to the ancient Turkic mythology, and the Baiterek monument is a symbol of the young capital of Kazakhstan. The chevrons of cosmonauts with the image of a shanyrak, which is an important part of the Kazakh yurt, framed by wings or with the image of a rider against the background of outer space, are also indicative. In his memoirs, Nazarbayev writes how Musabayev wanted to fly as a crew commander, but according to the Russian law "On Space", he had to be a Russian citizen, and the president said him that he had to implement the country's space program (Nazarbayev, 2006). He took the flag into orbit, "Koran", a handful of Kazakh soil, he sang Abai's song in space for the festival. The problem of religious identity in space was studied by Cathleen Lewis. He provides examples of all Muslims who have been in space, including Kazakhstani, their experience and opinions about religious practices in orbit, taking into account such features as five times prayer readings, with a certain geographical orientation, fasting in Ramadan (Cathleen, 2013). Kazakh cosmonauts who grew up in the Soviet period, were allowed to take the Koran into space.

## **7. Conclusion**

Thus, space is a more complex environment where space powers are represented. The Kazakhstani situation is an example of how the young state has implemented nation-building into the project, by combining national identity, traditions and modernization. Space has become a symbolic capital for forming the image of a global developed state.

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