Cosmic Culture: “We were the first everywhere – except on the moon”

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Alexander Glushko, an historian of military affairs and space travel, notes that “we were the first everywhere – except on the moon.” Contemporary observers and people working in professions related to space travel in the former USSR and associated countries have emphasised the importance of space travel for the identity of the Soviet Union and its citizens. The first man-made satellite to go into space orbiting the earth, the beeping sphere called Sputnik, the first human in space, one Yuri Gagarin; the first space walk by Alexei Leonov – all of these were magnificent triumphs for the USSR, as it then was, in the midst of the Cold War. Until 1957 the West was absolutely convinced that the USA was superior to the USSR in every field. The Sputnik shock led to comprehensive reforms in the West in technology, armaments and education, and to a race in space and to the moon. The USSR was surprised by such a violent reaction from the West, and gave significantly higher priority to space travel and to the rocket technology associated with it. The rivalry between the systems had gained a further, increasingly vital field of conflict. The first space vehicle built by man that landed on the moon was the Soviet space probe Lunik 2 in 1959. In 1966, Luna 9 was the first spacecraft to make a soft landing on the moon. But the first humans on the moon, on 21 July 1969, were the Americans Neil Armstrong and Buzz Aldrin, as part of the Apollo 11 mission. The planned Soviet moon landing with humans was not ultimately carried out.

Space travel found a place in everyday Soviet life, produced heroes of the Soviet Union and later of the Russian Federation, and was and remains a factor for creating identity across national borders, and today still plays a greater role than is usually thought. We spoke to people in professions associated with space travel about its importance in the USSR and discussed with them whether, in their opinion, a reinterpretation took place after the dissolution of the Soviet Union and whether there was a change in the value attached to it.

How did the exploration of space from the late 1950s find its way into daily life and everyday culture in the USSR and its associated countries? At the centre of this was the utopia of a better society through progress, which was manifested most clearly in space travel and space research. This dream reinforced the myth of the cosmos and its heroic stories. This everyday culture included the popularisation of knowledge about space, the incorporation of the cosmos into daily life in the form of everyday items, the fine arts, culture, literature and architecture, and the internationalism that was shared by all in the utopia of socialism and was gradually put into practice in space programmes.

Cosmic Utopia

Humankind’s dream of setting off into space derives in the Eastern hemisphere from Konstantin Tsioikovsky, the founder of modern cosmonautics. He dreamed and wrote about journeys to other planets and distant stars, devoted himself to rocket research, and developed ideas and models for multi-stage rockets, as well as entire airships made only from metal. Sketches and models of these are on display today in, among other places, the State Museum of the History of Cosmonautics in Kaluga in Russia, which opened in 1967 and is named after him. Siddiqi (2008 a, b) emphasises that enthusiasm for the cosmos in the early Bolshevik period sprang from two sources: on the one hand technological utopianism (urban, modern, materialistic and a discourse of fantasy), and on the other hand the mystic, occult tradition of the cult of the cosmos (archaic, pastoral, spiritual, philosophical). Enthusiasm for space in the 1920s made a decisive contribution to the forging of a national community in the USSR.

Tsioikovsky had saint-like status in the Soviet Union. He was the perfect figure, who combined the two currents of thought and published many inspirational works on the philosophy of space travel and on rocket technology. Many monuments were erected to him, including one in the park of the Cosmonaut Museum in Moscow. Educational and research institutions were named after him, and his former residence in Kaluga is a museum today. Under the German Democratic Republic, the 6th Polytechnic High School in the Berlin district of Marzahn bore his name, but was renamed in 1990. The Gagarin of the GDR, Sigmund Jahn, also experienced the end of the communist regime as a break in the social status of cosmonauts.

Germany, the USA and the USSR pressed ahead with the development of rocket technology more or less in parallel, guided by military interests, of course, during the Second World War. At the end of the war, all of the Allies sent their experts to Germany to find out the state of development of the V2, to recruit German experts and to acquire technical documentation, production facilities and missile parts. The greatest coup by far was secured early by the USA, before 31 May 1945: “The best of the war bounty – the chief engineers from the German missile team along with the surviving V2s – was acquired by Operation Paperclip” (Kojevinikov 2011, p. 20). The materials were carried away and taken to the White Sands test site in hundreds of rail trucks and
only a few months later, on 14 March 1946, the first V2 was launched in the USA (Hoffmann 1998). Having taken possession of less material, the Soviet armed forces mainly relied on their own engineers, who first of all studied the missile technology and documents that remained in Germany, and moved to a secret research centre in Kaliningrad in 1946 (see Kojevikov 2011, p. 20). As early as 1950 the development programmes were mainly carried out by Soviet experts, and the German scientists were withdrawn from the rocket projects (for a detailed account, see Hoffmann 1998).

Publications on the subject distinguish two phases in the development of the space programme and changing ideological and social contexts in the USSR: the Stalin era (1928–1953) and the Khrushchev period (1953–1964) (Andrews 2013). The conquest of the cosmos was connected for the community of socialist states with belief in the superiority of socialism and the establishment of a new, better society. It seemed that scientific and technical progress in the field of space travel turned utopias into reality. A great deal of success in unmanned exploration of the moon and Venus was already achieved in the 1960s. As the programmes were kept secret, many details of them did not, however, become known until the late 1980s and after the dissolution of the USSR.

Under the rule of General Secretary Nikita Khrushchev, a mood of renewal and political thaw prevailed, giving fresh impulses to social and cultural life. In these years, space flight was not only a propaganda tool of technological progress in the Soviet party-run state; it also served a cult of technology and achievement for the purpose of reinforcing national pride, and constituted a means of positioning the Soviet Union as a superpower during the Cold War through the superiority of Soviet space technology. This period can therefore be regarded as the golden era of space travel and its popularisation, which had been transformed into a forward-looking ideological project for the whole nation.

Project engineers of the time reported that everything was developed and produced through a division of work in design offices scattered across the entire country and that they had “no knowledge of the whole”. The results of partial tasks in the branches were brought together in the four or five central development and design offices into which the Soviet rocket programme was divided. The central Design Office for Experimental Mechanical Engineering, which was formed from the legendary OKB-1, Experimental Design Office 1, is the largest aerospace technology company in the Russian Federation today, since 2007 owned by Roscosmos, the Russian space agency. Many former cosmonauts work in these organisations. At least in Russia, people with professions related to space travel find still employment, while institutions and networks ensure continuity. This applies to a lesser extent or not at all for institutions in the peripheral Commonwealth of Independent States. Continuity exists here in astrophysics institutes, but at a low financial level typical of scientific work.

The development engineers at the centre enjoyed enormous freedom and many privileges in the USSR. They were revered, alongside the cosmonauts, as heroes of the Soviet Union. Their busts stand in parks and museums next to those of the cosmonauts. The myth of the cosmos in the USSR was associated with its principal persons: cosmonauts and developers. They were glorified, and every Soviet citizen knew them. The cosmonauts Alexander Laveikin and Sergey Ryazansky stressed that they chose their calling for idealistic reasons. They emphasised the variety, the self-fulfilment in technology and their own contribution to a greater cause, and that being a cosmonaut had even become a normal profession with a contract of employment and a relatively good salary. Nevertheless, today there are far fewer candidates for the selection process at Roscosmos than there were in the past and fewer than in Europe at the European space agency ESA. The long period of training, hardships and uncertainty about whether they will take off at all clearly deter many applicants. The status of graduate professions in the entire post-socialist region did not spare cosmonauts, astrophysicists and other professions connected with space travel. The cosmonaut Mikhail Kornienko noted “that as time passes, interest is greatly reduced. [...] But this does not mean that the work of these people should in any way be judged differently. Space flights are still just as unique as they used to be. And first of all you have to get to the point of making such a flight. It took me thirteen years to get there myself – thirteen years of nothing but testing work.”

In the Russian Federation under Vladimir Putin as state president, new life was breathed into the myth that you can do anything if you really want. “Putin only has to give the order [...] and we can achieve anything,” a government adviser on the consequences of innovations said about the attitude to technology of contemporary Moscow elites. The “we can do it” cult for strengthening national pride is back again.

The myth of the cosmos is undoubtedly also based on the fact that in the eastern hemisphere more emphasis was placed on the history of persons, in contrast to the history of technology in the West. According to Gestwa (2009) there existed parallels between the astronaut cults in the Soviet Union and USA, which were the subject of mutual observation and mutual influence. It is no coincidence that, after the break-up of the USSR, the historical institutes of NASA and the Air Force were the first to examine the background to the epistemic culture of space travel, in large-scale studies over many years and employing considerable financial resources (e.g. Andrews 2013; Siddiqi 2008a, b). In East and West, initially only fighter pilots were trained as astronauts, and they were therefore presented in similar ways. On both sides they were torch-bearers of their civilisation.

**Cosmic Knowledge**

In the pioneering age of space travel, the theme of the cosmos penetrated the societies of socialist states more and more, as became evident in culture, the fine arts, cinema and literature. During the Cold War and its increasingly acute technological rivalry, the Soviet educational system paid greater attention to natural sciences and technical matters. Experts and politicians, according to Gestwa (2009), were at odds over the question of the extent to which reform projects in
the United States should follow the polytechnic school and university education practised in the USSR in order to adapt better to scientific and technical progress. Special schools of mathematics and schools related to space travel were established across the Soviet Union in the late 1950s, in peripheral regions as well as the centre. Knowledge of space travel and the presence of the cosmos in everyday culture were established, to wide effect. To be a cosmonaut was a coveted profession, as a teacher at the Chelomey School in Baikonur, Kazakhstan, confirmed:

“At first we all dreamed of becoming a pilot, and above all a cosmonaut, of course! [...] In those days we didn’t want to be a judge or accountant, but to get on in technical things. That is why [...] all of my classmates became technicians [...].”

This school was founded on 17 December 1990, i.e. during the USSR years. The school director, Dmitry Shatalov, explained that education focussed on scientific and technical subjects: physics, mathematics, chemistry, biology and space. Space travel technology was taught by making models of rockets. The head of the school added that it is:

“almost the only one in the country where the department of rocket-building has such importance. [...] We not only make the models that you see here. We also study the plans, the technical drawings, the geometry. That means we do all of this practically. [...] Even though it is only a basic education. Nevertheless, they are models of rockets and aircraft. [...] We hold international competitions and take part in them. [...] Perhaps some kind of interest in this will remain in the children’s hearts. And when they get to institutions of higher education, many of them already have skills that other children, who come from other cities, do not yet have.”

He reported, as evidence of its networking, that the school is also a member of the International Astronautical Federation (IAF) and the International Organisation of Young Astronauts. Since 1990 more than 2,000 pupils have graduated from this prestigious school; 95 to 98 per cent of them have matriculated at technical educational institutions in Russia and Kazakhstan, and approximately 80 per cent of them have entered professions connected to space travel. The renowned Bauman University in Moscow cooperates with the school, and the best in each year receive a scholarship. Here, the post-Soviet educational sector is working without interruption. Many domestic and foreign delegations visit the school, which contributes in this way to the popularisation of space travel.

In Almaty there is an astrophysics club for students that set up a cosmos project for children, Technarium, in 2019, offering robotics and rocket and satellite construction at the University for Energy and Telecommunications. Here, too, the aim is to introduce children and young people to technology as early as possible. “Does your child want to become a cosmonaut? - Then come to us!”, says an advertising slogan directed at parents. In Russia, extra-curricular education for children and young people is promoted by the state in a nationwide network of 89 technology parks. The Kvantorium in Kaluga is equipped with high-tech tools and modern devices. Under the supervision of qualified engineers, a CubeSat, a mini-satellite made on a 3D printer, is being constructed.

Broadly based communication of knowledge through schools and extra-curricular education and enthusiasm for technical matters were the basis for innovations in the aerospace technology of the USSR. The Russian Federation, but also the Republic of Kazakhstan, are taking this up once again.

Cosmic Everyday Culture

The cultural identity of contemporary societies is generally linked to nostalgia, regarded as cultural intimacy. Idealisation of the past is not specific to post-socialism in this respect (cf. Boym 2001a, b). As remembered by a witness to the beginning space travel in the USSR:

“Every flight was shown on television. These were events that we all [...] followed in the news. You could say that Yuri Gagarin was not absent from the screen [...] for a moment, and it was discussed all the time in every conversation. Of course we were all proud: the first cosmonaut was from Russia, or rather from the USSR. [...] Every flight was an event!”

Space flights were events of which everyone was aware. This also applies to the lives of cosmonauts.

“[We also talked about] the private life of Valentina Tereshkova, [...] about her marrying the cosmonaut Nikolaev, how they became a space couple.”

The participation of women in space research contributed to the equality of the sexes in education (especially in the fields of science and technology) and in working life (Sylvester 2011). In public discourse, the cosmonauts embodied Soviet ideals. A contemporary remarked that

“[There was [...] a political aspect, that Gagarin was a worker and peasant, and did not come from an intelligentsia family.]”

The Soviet leadership made efforts to communicate its successes to all age groups. The cosmonaut Korienko noted that “... at that time it was not really necessary, this popularisation. [...] I think it is more necessary today. And we are working on it. Every cosmonaut, in fact. [...] We often visit schools, institutes and workplaces, and people are very interested in the subject. [...] Recently I was at the air force cadet corps in Ufa, where the children looked at me with wide eyes.”

There is a tradition of passing on the relevant knowledge to young people and arousing their enthusiasm for space travel and space research. For the Soviet period, a contemporary remarked that there was “general euphoria. It affected everybody. Young and old were proud of the achievements. [...] Space research characterised the state of development of the country.”

Yuri Gagarin was celebrated as a hero. Cosmonauts and astronauts, who had viewed the whole world, an indivisible primary experience, were made into heroes and protagonists of modernity who could be presented in the media. There were cosmonauts for decorating New Year trees, on tea-glass holders, on matchboxes and cigarette cartons. There were also chocolate, postcards and souvenirs with space symbolism, and rockets as toys. Cosmonauts on mural reliefs lauded space travel as others praised communism or the proletariat.
On posters, space travel was used as a political symbol. A contemporary witness recalls that as a child he only ever wanted to eat with his space spoon, because it was bigger. Many of these objects, once distributed in huge numbers, have practically disappeared today, or are found only in antique shops or at flea markets in rudimentary form. One contemporary remembers toys of this kind:

“And the Lunochod on the moon was shown too, of course, a device almost like a car [...]. I think there were even toys of this kind. In any event, it was interpreted in various illustrations, in children’s magazines and of course for grown-ups too.”

Space entered everyday life. Even presents for birthdays or company anniversaries could be related to space, and thus became “a suitable gift”. She continues: “Space was present in our lives, no question of that. Back then, at least. I can’t say that this is the case today.”

The popularisation of space travel thus took place partly through everyday items: a shaver was given the name Sputnik. Jupiter vacuum cleaners were on sale. Samovars and vases with a cosmos design could be bought. Symbolic elements decisively shaped the public face of the most ambitious and largest Soviet project, which took effect in many fields of the daily life of Soviet citizens.

The advent of modern times was also revealed in fine arts, literature and film, and was expressed in utopian or dystopian architectural designs. Countless public buildings and monuments took advantage of cosmic iconography, keeping alive memories of the past (Meuser 2014). A veteran of Baikonur commented:

“Perhaps you have noticed that there are many reliefs on the cosmodrome. They are all engineers – Chelomey, Koroliov. There is a Koroliov Square, with monuments and rockets. All of this is the popularisation of space.”

In 1980, the futuristic Gagarin Monument was unveiled on Lenin Prospect. In Tashkent in Uzbekistan the Kosmonavtlar metro station was opened in 1984. It is a personal monument to Soviet space travel and its heroes. The station is like a hall of fame. In other cities, too, not least Moscow, metro stations interpret the theme of the cosmos.

New towns such as Koroliov, Swiosdny Gorodok (Star City) near Moscow and not least Baikonur arose with space travel. Along with other strategically important places, they were closed cities or territories, surrounded by myths. They were special cases with a special aura, and stood for progress and modernity (Meuser 2014). The normal Soviet citizen was not admitted, and these places were known to be better supplied than others. A contemporary noted that “Things like that seemed simply out of our reach for us. They lived in Star City, everything separated off, and they had their own life there.”

In addition to the central development sites and aerospace training centres in Moscow and Leningrad, now St Petersburg, institutes of astrophysics with a network of observatories were set up far away in Central Asia and in the Caucasus. In 1955, the first officers came to the Kazakh steppe to Tjuratam on the Moscow–Tashkent railway to establish a cosmodrome there. Baikonur veterans remarked that this was only ten years after the Great Patriotic War. The first of them settled in the village of Boldinka: “Not as quickly as we would have liked, but all the same we settled. There were dusty sandstorms. And bad water. And poor supplies. [...] First we lived in dugouts, then in huts. Yes, in one-storey huts. One room was 10 to 15 square metres. And it accommodated fifteen officers. In two-storey bunks.” A veteran living in Kaluga remembers arriving six years later, and that there was “already a fine town with well-built houses. For 1961 that was not bad [...] Just imagine, in only ten years they had built a town. And carried out launches alongside this.”

2 June 1955 is regarded as the birthday of the cosmodrome in Kazakhstan. For this reason, all Baikonur veterans meet every year on the first Sunday in June in Moscow. “First of all there is always an official part, and after that everyone meets. [...] They come from every corner of Russia. Even the ones who live beyond Lake Baikal make the journey. Some come from nearby foreign countries [...] and even from Israel.”

Looking back, another Baikonur veteran says that “from today’s point of view a miracle took place there in such a short time. A town was built, launches took place, the railway was built there. People worked wonderfully well.” Another underlines this: “We, who worked and did testing in Baikonur, were the founders of the history of space travel. And we are the bearers and guardians of this history. So when people talk about passing on experience, about contact between the generations, the experience that we have is very important [...]. It should be handed on to young people.” In view of this, the association of veterans from Baikonur in Kaluga helps to maintain a local school museum.

Today Baikonur lies in the middle of the Kazakh steppe, about 800 km from the Russian border. Nevertheless, the Russian rouble is in use as currency. The Soviet Union has lasted well, and today’s enclave of Baikonur is a closed town surrounded by a concrete wall, with admission controlled by time-limited permits. A teacher at the Chelomey School in Baikonur, Kazakhstan confirmed this:

“We need an entry permit ourselves. For the town. And for the car. And when my wife drives with me, she needs her own entry permit. That is our situation. [...] And if you go to school here, the pupil’s school pass is valid as an entry permit [...].”

Soviet citizens unanimously describe the 1990s as years of economic decline, when funding for space flights was scarce or non-existent. A resident described this period and later developments for Baikonur, where trends across the Soviet Union were felt more strongly: “When the Soviet Union fell apart in the 1990s, it was dreadful. It was a completely abandoned town. A great number of people moved away, and there were empty houses everywhere. But a lot of money is now being invested in the town. If you drove through, you will have seen it: the roads have been done. [...] Our town is clean [...]. Although times are difficult. In spite of that, I think that the town is developing well.”
In Baikonur continuity was ensured in 1994 by the signing of a lease agreement between the Russian Federation and the Republic of Kazakhstan about the enclave and the space launching station, allowing Russia to use the base until 2050 for 115 million dollars per year. Sometime after 2050, but perhaps earlier, space flights are to start from the new eastern Siberian cosmodrome at Vostochny. Every year, former and current cosmonauts still meet in Baikonur, the cosmonaut Laveikin reports. They always hold a tennis tournament and together sing songs of the cosmos that one of them composed.

Ritualised meetings pay a major part in the life of people with professions related to space travel. 12 April became such a day – cosmonaut day, when people still come together across newly established state borders to commemorate Gagarin’s first manned space flight. For some of them, this day and the associated congratulations have, in their own words, a higher status than New Year greetings or personal birthday wishes.

After the disintegration of the USSR, attitudes to cosmonauts changed, however. Glushko noted that: “At home many people [had] photos [of cosmonauts] with an autograph. Everyone wanted to be on a photo with them. And everybody knew every single cosmonaut by name […] until the Soviet Union broke up, the ideology collapsed, and nothing mattered to anybody. […] They might remember one, two, or three at most. That’s a disgrace.”

In official and public discourse – especially in communicative remembrance – about post-Soviet Russia, the subject remains an essential component of its history. Beyond that, references to the achievements of the communist space programme are actively used by the Russian authorities to construct new political and cultural meanings that are closely connected to support for a new national vision in the country. This is expressed primarily in state-sponsored practices of remembrance such as the Gagarin year in 2011, anniversaries, etc. But the people too are appropriating the theme, and the heroes of yesterday are, for example, being hyped into mottos for parties, as at the Gagarin parties of the early 1990s in the Cosmos Pavilion at the VDNCh, the Exhibition of Achievements of the National Economy of the USSR in Moscow. As a result of the ideological vacuum, and the social and economic uncertainty of this period, newly published memoirs by authors from the space flight scene again and again repeated (and repeat) the Soviet narrative showing by achievements of the space programme in a positive and nostalgic light, and at the same time revealing a profound longing for the triumph of the Soviet cosmos (cf. Gerovitch 2015).

Today, the space industry of the past and its sites have become part of contemporary remembrance policy. Some sites have been privatised, made accessible for tourists and commercialised. Former exhibition halls and spaces in which previously unseen artefacts are displayed are open to a wide audience. To increase their attractiveness to domestic and overseas tourists, the places where space and its technology were once glorified are gradually being turned into landscapes of leisure such as the Cosmos Pavilion, reopened in 2018 with state-of-the-art museum education.

Official Moscow history policy still or once again uses the topos of the cosmonauts to give coherence to Russian society. For example, Valentina Tereshkova, a member of the DUMA and the first woman in space, was one of eight Russian bearers of the Olympic flag in 2014 at the opening of the Winter Olympics in Sochi. The children in the boat at the closing ceremony were called – this could almost have been guessed – Yuri and Valentina.

Cosmic Cosmopolitanism

The cosmos and civilian space travel shaped identity, but also had a cosmopolitan character. Openness to the world was claimed by the state, and was practised in professions related to space travel. From the very beginning, journeys into space were conceived as international. The Baikonur veterans in Kaluga reported for the years when the programme was established that “a genuine friendship among nations [prevailed] here [in Baikonur]. Though there were many nationalities – we all got along well together.”

The first woman cosmonaut, Tereshkova, wore a dove of peace on her chest in 1963 as a symbol of international friendship among peoples and was thus held up as a peacemaker (Glushko 2016).

The intercosmos programme of the USSR, to which a good deal of space is devoted in the cosmonaut museums in Baikonur and Moscow, served to integrate non-Soviet technology, and an association of this name was founded for the peaceful exploration of space shortly after the launch of the first Sputnik in 1957. For the first time, cosmonauts from other nations could take part in space flights. After the involvement of socialist states, similar programmes were agreed with other states (France, India, Syria, Afghanistan). In contrast to the corresponding programme of the United States, which long remained exclusive, this tradition of intercultural cooperation represents a strength of Soviet and Russian space travel and space research, as various epistemic cultures were involved, which had advantages.

Interculturality was based on the Soviet Union as a multination state as well as the incorporation of external partners. The new sites and cities of space travel were also societal laboratories for Soviet ideology and international friendship. Identification with space travel applied equally to Russians, Kazakhs, Georgians, Uzbeks etc., as all interviewees confirmed. It was a part of Soviet culture. The cosmonaut Kornienko remarked: “Identification was with the Soviet Union! It was all Soviet Union. And every operation that was carried out was by the Soviet Union, independently of the republics. Each made its contribution to the Baikonur project. But because Baikonur was on the territory of Kazakhstan, Kazakhstan was the port, as it were. It was the space port of the Soviet Union. That is very important. A lot of Kazakhs worked there. But I repeat: the whole of the Soviet Union worked there cooperatively.”

A former development engineer in Tashkent confirms that the “collective […] always [consisted] of many nationalities. […] Starting with the kindergarten, at school, at the institute, there were many nationalities everyw-
International space travel, which for symbolic reasons of international friendship also led to cooperation with countries of the West, started with the Soyuz-Apollo programme, which according to interviewees was the first space cooperation between the United States and the Soviet Union. On 17 July 1975 an Apollo and a Soyuz space craft docked together while orbiting the earth so that astronauts could move from one craft to the other.

A museum curator said:

"Soyuz-Apollo was a great event back then! The way they docked. The Americans and our people. That was a huge event. Those spacecraft! You still have all these images in your head – that was very important."

The next stages were the Soviet space station Mir (1986–2001), which was built stepwise by cooperation over fifteen years, and the international space station ISS, which is permanently manned today in international cooperation. Cooperative projects continued with countries "that were definitely in mutual relationships of conflict", according to the curator.

After the end of the USSR in 1991, the programmes were carried on by Russia. The cosmonaut Kornienko commented on the present international cooperation. "The International Space Station project [...] is a huge experience in international cooperation! Positive cooperation, it should be noted. How you can and must work together for a common aim and [...] for the general good of humankind."

When asked a similar question by a journalist about the living legacy that we possess after twenty years of the ISS, the American astronaut Nick Hague answered before his launch on 9 October 2018 in Baikonur:

"For me it is a privilege to be on board the space station for the anniversary. All the time I have been in quarantine here in Baikonur, I have walked along the avenues that were planted in the past by cosmonauts. And I realised that the ISS is not just one more international project, but that it is an enormous opportunity to make the impossible possible. This project has already existed for a very long time, the whole of my life, starting with the Soyuz-Apollo programme, which was launched in 1975, the year that I was born. It is a programme with a great history."

A witness from that time remarked that "the station is now probably the only place where no sanctions were imposed. It is the only thing that has remained to us with the Americans, the only thing that we do together." These statements clearly show the importance of international civil space travel and its cosmopolitan culture.

Kazakhstan, Uzbekistan and Kyrgyzstan, as New Independent States, were partners in international space travel. In addition to this, at the behest of various protagonists in these countries, they developed their own efforts to fulfil the human dream of conquering space. Kazakhstan seamlessly continued the Soviet policy of identity, possessively displaying the launch rockets Soyuz, Proton, Zenit and Buran in a central position in front of the national space centre in its futuristic capital city Astana. In 2007, the republic founded Kacosmos its own space agency. A teacher of model rocket construction in Baikonur explained that "every country tries to develop its own space programme. Kazakhstan, too, is attempting this. But in integrated efforts with Russia [and] NASA. [...] Kazakhstan is endeavouring to develop Baiterek."

The Baiterek programme is a Russian–Kazakh cooperation for building and launching rockets. Kazakhstan is preparing the continued operation of Baikonur on its own. The country is proud that, after the ending of the space shuttle, the most important launch site for manned space flights of NASA, ESA and not least Roscosmos, is in Kazakh territory.

In Bishkek a women’s collective around Alina Anisimova and Aidana Aidarbekova is preparing for the launch of the first Kyrgyz CubeSat by 2020. This satellite, with a size of only 10 by 10 cm, is to transmit photos from space. Anisimova got her first personal computer at the age of six and dedicated all of her free time to it: taking it apart and putting it back together. At the polytechnic university she was an exotic figure, but as engineers, women were able to do research on equal terms with men. It seems that something that was taken for granted in the USSR has to be fought for once again.

On 5 March 2018 Kloop Media, founded in 2007 and one of the biggest media agencies in the country, launched an education and anti-discrimination project in which young Kyrgyz women – school pupils, students, young professionals – are to conceive the first satellite in the country's history and eventually to send it, or rather have it sent, into space. According to Bektour Iskender, one of the two founders of the agency, the idea derives from a meeting with Alex MacDonald, a NASA emerging space programme executive:

"Alex travels around the world and encourages people to set up local space programmes. [He] proposed [...] establishing the Kyrgyz space programme. He said launching satellites was cheaper than ever."

A crowdfunding campaign was initiated to raise the necessary budget of 100–150,000 US dollars for making and launching the CubeSat. As soon as the project was adequately funded, trainers from Lithuania were invited who had successfully begun a project like this before. In this way there was an unexpected renaissance of intra-Soviet cooperation. In Soviet days, space technology was developed in Bishkek in a design office whose architectural programme in Kyrgyzstan. Its aim is to support girls. It is the only space flight programme in Kyrgyzstan. Its aim is to support girls. There is a MINT wave (author’s note: MINT is a term summarising educational subjects and professions from the fields of Mathematics, IT, Natural science and Technology) all over the world, and for our country it would be a good idea to motivate our girls and involve them more closely in science."

The project, she says, is contrary to the deterioration in the situation of women since independence, and is intended to draw attention to the current relationship between the sexes and to make a contribution to a change:
"We want to show that girls can achieve anything they want. That might sound obvious, but unfortunately there are still too many people who do not believe it."

This pioneering work was the impulse for her to watch Soviet cosmos films. For her it is just as cool to collaborate on the country’s first satellite programme as it was an honour back then for protagonists to start out into space.

In Uzbekistan all work in the field of space technology and in space-related science was suspended following independence, on the orders of President Islam Karimov, in view of changes in national priorities. A renewal did not set in until after his death. The new president of the country, Shavkat Mirziyoyev, ordered a state space programme to be drawn up, and an Uzbek satellite may soon become reality, in cooperation with Roscosmos. Space is a subject with a special status. In the states of the former Soviet Union, setting out into space has again come to stand for a renewal of society with great symbolic power. In Kazakhstan and Uzbekistan the state is again projecting social progress onto the cosmos. In Kyrgyzstan a young team is pressing ahead with space flight as an emancipatory goal. A campaign by a media agency is skilfully combining space travel and gender politics. Space has regained a mobilising function, and similar mechanisms of myth-making are operating.

The ideas and utopias connected to the exploration of space live on, and in a new way have a role today in fascination with the cosmos. This is an indication that Western cultural approaches that view the Soviet conquest of space primarily from the perspective of propaganda – which, of course, also took up the topos of cosmos – do not go far enough.

Social change, political turmoil and economic transformations are clearly reflected in the topic of the cosmos through continuities, leaps and breaks. The 1990s represented a caesura. There were practically no resources for space flights and research. Thus, a generation of people with space-related training was lost. The treatment of the subject in museums reveals a discontinuity, turning away from a history of persons to a history of technology, which is conveyed by various concepts in museum education.

The cosmos unquestionably has a geopolitical function. Cooperation, at the same time as rivalry and secrecy, continues to take place, despite sanctions relating to the annexation of the Crimea and the crisis in Ukraine. This indicates the trust that has been achieved and the significance of international cooperation on both sides.

Conclusion

In the former Soviet Union and its associated countries, the cosmos entered popular everyday culture. Space flights and space research were accorded a cultural significance in the USSR that went beyond the technical. In the culture of popular commemoration, cosmos-related subjects play an important part. Nostalgia in the sense of identification with the past has remained.

The international orientation of civil space flights and research has, all in all, been preserved, and the states of the former USSR and associated countries are thus contributing to a global cosmic cosmopolitanism.

Literature


