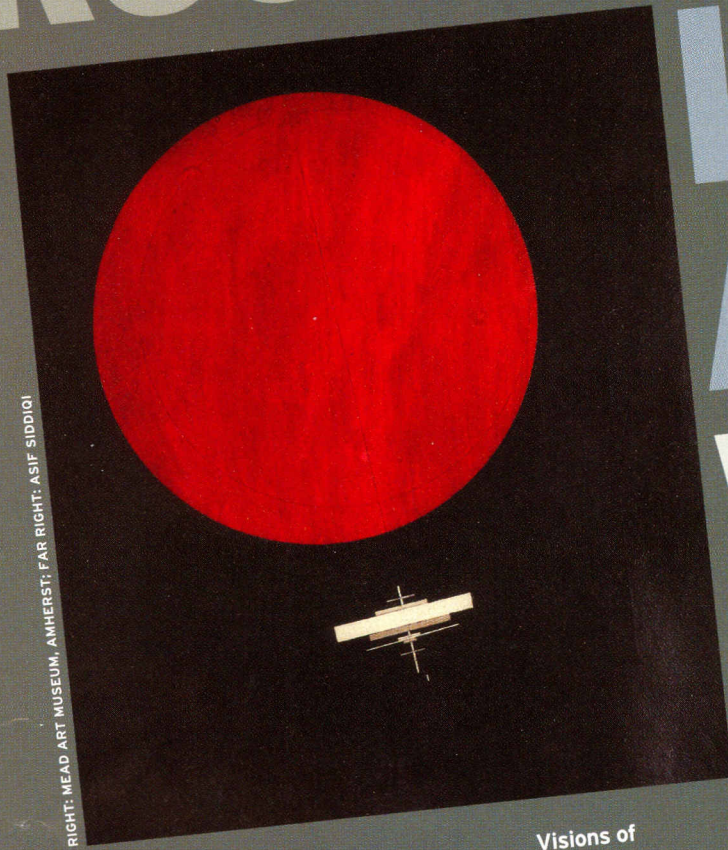


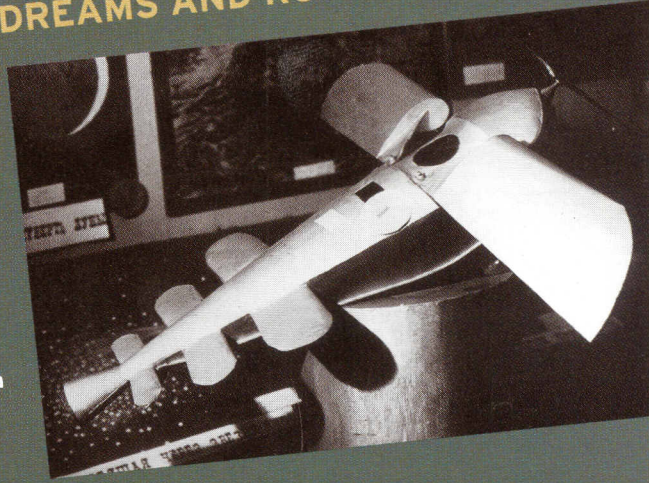
# RUSSIA'S LONG LOVE AFFAIR WITH SPACE



RIGHT: MEAD ART MUSEUM, AMHERST, FAR RIGHT: ASIF SIDDIQI

Visions of spaceflight, like Friedrich Tsander's rocketplane (right), inspired 1920s Soviet film, fiction, and art. Above: Ilya Chasnik's painting "Cosmos."

IT STARTED WITH UTOPIAN DREAMS AND ROCKETEERS.



**ON A RICKETY COMMUTER TRAIN HEADING OUT OF WINTRY MOSCOW,** Sergei Samburov was explaining why his country's fascination with space has been so deep and enduring. The great-grandson of Konstantin Tsiolkovsky, the "father" of Russian cosmonautics, Samburov (pronounced sam-BUR-off) is the president of the Tsiolkovsky Fund in Moscow, a group that educates young Russians about Tsiolkovsky's contributions by re-publishing his works, holding seminars, and sponsoring competitions in schools. He had invited me to the city of Kaluga, where Tsiolkovsky lived in the last years of his life, to show me some of the great man's papers and books. A short, gregarious man in his mid-50s, Samburov spoke with conviction about the future of Russian space travel. "Space is part of the Russian soul!" he exclaimed, as a snow-capped landscape passed by the train window. "This is why thousands of average Russians contributed money to save the Mir space station when it was ready to fall from orbit."

**BY ASIF SIDDIQI**

Each year during the annual Tsiolkovsky conference in Kaluga, a mid-size industrial city 100 miles south of Moscow, Russian space enthusiasts and historians analyze the interest in space that gripped the Soviet citizenry in the years after the 1917



revolution. Still years away from the horrors of the Stalinist era, the 1920s were a brief period of hope for many Soviets. For them, one bright future lay in the concept of space travel depicted in dozens of books and hundreds of articles in popular journals, in the paintings of major artists, in the fiction of famous writers, in exhibitions of rocket and spaceship models, and even in the burgeoning Soviet film industry. The fad had a distinctly ramshackle feel to it, with the zany and the serious competing for the same column space in newspapers. Some enthusiasts volunteered to fly rockets to the moon, while others put their faith in the possibility of space travel as a kind of salvation from problems on Earth. The first great generation of Soviet space designers, including Sergei Korolev and Valentin Glushko, came of age during the 1920s.

Space historians typically name three pioneers as the founding fathers of astronautics: Tsiolkovsky, the American Robert Goddard, and the German (although Romanian-born) Hermann Oberth.

**A 3-D panorama of a fictional planet graced the entrance to a 1927 Moscow exhibit on space travel, the world's first.**



ASIF SIDDIQI

All three achieved enormous fame in the Soviet Union. It was Oberth who was credited with launching the Soviet space fad in 1923, when news of his classic *By Rocket Into Planetary Space* reached Moscow. One newspaper editor, dazzled by Oberth's ideas, asked in a headline "Is Utopia Really Possible?" Tsiolkovsky, who was living in obscurity in Kaluga at the time, found the attention to Oberth insulting. His countrymen, he complained in writings that convey his annoyance, were eulogizing a foreigner (and a German to boot!) over his own contributions, which at the time were largely unknown. The following April, Tsiolkovsky re-published his much older works on space travel in

**Kaluga's cosmonautics museum opened in 1967, six years after Yuri Gagarin, the first man in space, laid its cornerstone.**

order to remind his fellow Soviets that his work had beat Oberth's by 20 years. The re-printing of Tsiolkovsky's papers in 1924 coincided with a number of space-related events, including the sensational news from the United States that Goddard was about to launch a rocket to hit the moon.

Goddard actually had speculated about such a mission in 1919, and by the time news of his ideas reached the Soviet Union, the public mistakenly believed such a launch was imminent. Many Soviet citi-



RON MILLER



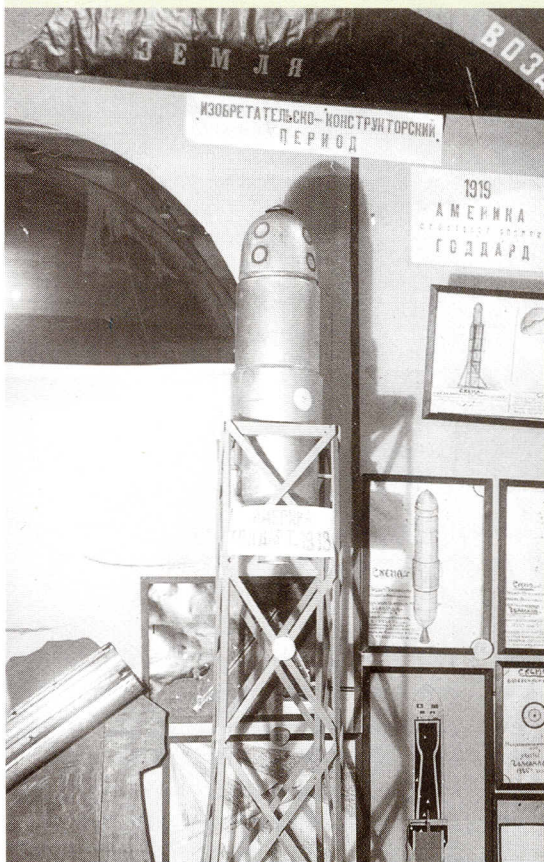
zens were convinced that Goddard was planning his moon shot for the summer of 1924. One of the most famous popular science writers in Russia, Yakov Perelman, wrote a hugely influential piece on Goddard in a Moscow evening newspaper, *The Late News*, arguing that “future historians will remember 1924 as the date for one of the greatest stages in the development of technology,” and that “July 4 of the present year has been named as the date for sending [Goddard’s] first projectile to the Moon.” Perelman added that “victory is ensured and there is no more doubt that the day is near when the Columbes and Magellans of starry lands will pull away from Earth’s sphere into the open universe.”

Such hyperbole called to action many young Soviet university students. Some at the prestigious Zhukovsky Engineering Academy in Moscow, for example, established a “Society for the Study of Interplanetary Communications” in the spring of 1924. The group, probably the world’s first organized community for

studying space travel, served as a key conduit for updates about Goddard’s moon rocket. Many Russians anxiously awaited news about the purported July 4 moon launch—and were disappointed when news filtered through that the launch had been “postponed” to August. Summer turned to fall, and there was still no news, yet interest in Goddard soared. Responding to widespread fascination with the moon rocket, the society organized a number of public talks in Moscow, inviting prominent Soviet astronomers and technical experts to discuss the feasibility of Goddard’s project. Students hung artful posters announcing the lectures at Moscow street corners. At one event, advertised as “The Truth About... Professor Goddard’s Moon Projectile of August 4, 1924,” so many people showed up outside the conference hall that Moscow police on horseback had to be called to restore order when the crowd was refused entry. Popular demand was so great that the talks were repeated a few days later.

Tsiolkovsky helped create a space enthusiast network by publishing people’s names and addresses in the back pages of some of his publications from the 1920s. In this way, the space-obsessed could contact one another. Many Russians wrote to Goddard to find out more about his moon rocket. In its collection of Goddard papers, Clark University in Worcester, Massachusetts, has a telegram from one Soviet citizen that simply states: “Is it true you send 4 July racket [sic] to Moon.” Sometimes Goddard wrote back. During my recent visit to Moscow, archivists at the Russian Academy of Sciences showed me several letters from Goddard that no Westerner had seen since they were mailed more than 80 years ago. The Society for the Study of Interplanetary Communications received a note from Goddard in 1924 congratulating members on their group’s formation and indicating that he would be ready to cooperate with them. He also mailed them copies of his publications, but was careful to send only information that was already in the public domain. These brief contacts were the

The 1927 exhibit had a model of what some thought Robert Goddard’s rocket would look like. Right: A Gagarin stamp.



16.

CLARK UNIVERSITY  
WORCESTER, MASSACHUSETTS

DEPARTMENT OF PHYSICS

August 16, 1924

Mr. Leitnigen, Secretary  
Society for Studying Interplanetary Communication  
Moscow Russia

Dear Sir:

I am glad to know that a society for studying interplanetary communication has been established in Russia, and I shall be glad to cooperate in this work, insofar as it is possible.

There has, however, been no printed material regarding the research work in progress, or the trial flight.

Thanking you for your interest, I am

Very truly yours,  
*R. H. Goddard*  
Director Physical Laboratories

B80.90

CLASS OF SERVICE	SYMBOL	CLASS OF SERVICE	SYMBOL
TELEGRAM	—	TELEGRAM	—
DAY LETTER	DL	DAY LETTER	DL
NIGHT MESSAGE	NM	NIGHT MESSAGE	NM
NIGHT LETTER	NL	NIGHT LETTER	NL

**WESTERN UNION**  
**TELEGRAM**

Received at 19 Mechanic Street, Worcester, Mass. ALWAYS BA256 DABLE

LENINGRAD 26 28/624P

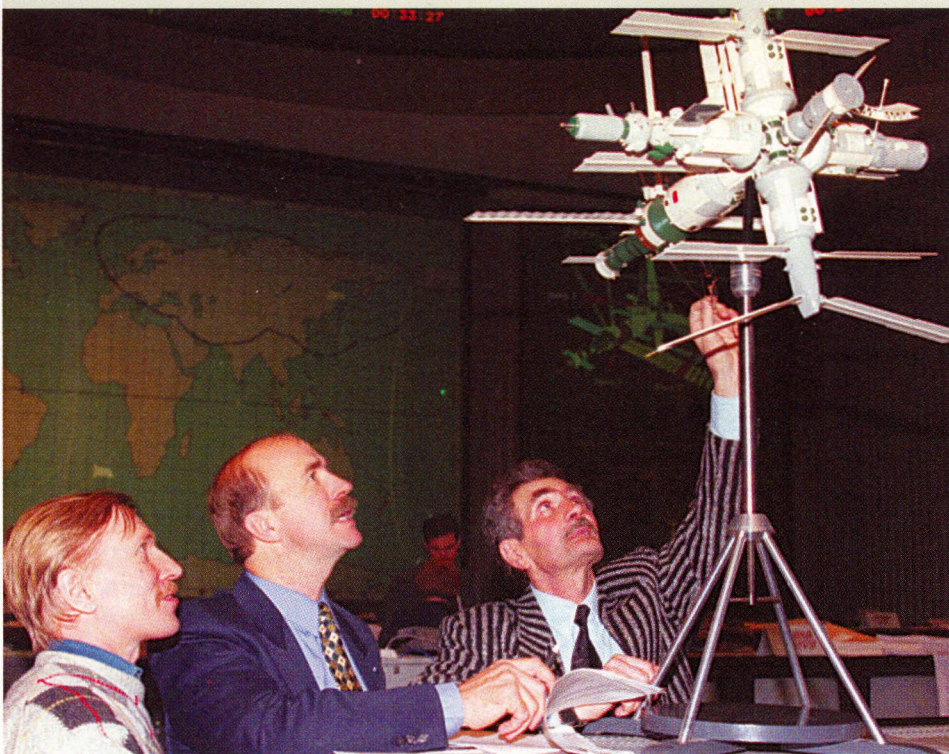
PROFESSOR GODDARD CLARK  
COLLEGE WORCESTERMASS

IS IT TRUE YOU SEND 4 JULY RACKET TO MOON  
PRESIDENT RUSSIAN SOCIETY WORLDS KNOWLEDGE NICOLAI MOROSOV. TORGOVAJA  
25 LENINGRAD RUSSIA.

PL332  
THIS TELEGRAM  
BY  
MAY 28 1924

Goddard lauded the formation of a Soviet space society (above). Left: a Russian telegraphed Goddard about his moon rocket.





Sergei Samburov (left), admiring a model of the Mir space station with Energia's Oleg Tsygankov (center) and cosmonaut Alexander Polishchuk, works to keep his great-grandfather's legacy alive.

and architecture, Soviet artists produced works that reflected their belief that cosmic travel was an inevitable part of their future. Science fiction was a growing genre in the Soviet Union, and space travel was a major theme. Novels such as Alexei Tolstoy's *Aelita: Sunset of Mars* and Alexander Bogdanov's *Red Star* were immensely popular among space enthusiasts because the stories were grounded in plausible scientific and technical ideas. The movie version of *Aelita*, released with great fanfare in late 1924 under the direction of famed Soviet filmmaker Yakov Protazanov, successfully blended science with art. Probably the most famous space movie of the Soviet era, the film was about a proletariat revolution that takes place on Mars under the watchful gaze of *Aelita*, the planet's queen. The movie established a new standard for Soviet cinema, if not in quality, then certainly in popularity and hype. Weeks of intense advertising campaigns preceded its release, with airplanes dropping

first exchanges between Americans and Russians in the history of space exploration.

Goddard also wrote to the Association of Inventors, a ragtag group of students, workers, and at least one former mental asylum patient, who staged the world's first public exhibition on rocketry and space travel—a forerunner of today's space museums. The members referred to themselves as “citizens of the universe” or “cosmopolitans” who labored for the cause that human destiny lay in the cosmos rather than on Earth. Their exhibition, held in 1927 in Moscow, centered on Tsiolkovsky, whom the organizers held up as a prophet for a new era of space travel and an inventor who was “superior even to [Thomas] Edison.”

The organizers established a narrative of space history that has endured for decades. Visitors to the exhibition would start their tour with depictions of the fantasies of such writers as Jules Verne and H.G. Wells, and end with displays of finely made rocket and spaceship models inspired by the ideas of Tsiolkovsky, Goddard, Oberth, and other space pioneers, including Frenchman Robert Esnault-Pelterie, German Max Valier, and Russian Friedrich Tsander. Open to the public for two months, the exhibition had an elaborately designed entrance with a human-scale display of an imagined planetary landscape placed behind a large pane of

glass. Part of the display, somewhat incorrectly called “Lunar Panorama,” showed a hypothetical planet with orange soil and blue vegetation crisscrossed by straight canals. A giant silver rocket descended from the starry sky while a voyager in a spacesuit (made of plywood) stood at the edge of a crater.

The show was a hit with the Russian public. In two months, nearly 12,000 people, including schoolchildren, workers, service employees, artists, scientists, and policemen, bought tickets, and some recorded their impressions in a guest book. One artist from a state cinematographic studio wrote that “it would be desirable that our inventors achieve the first landing on the moon.” One of the more captivated visitors was S.G. Vortkin, a reporter for the workers' news daily *Working Moscow*, who wrote: “I am going to accompany you on the first flight. I am quite serious about this. Please do not refuse my request.”

The space fad infused the arts. From literature and movies to painting, poetry,



A post-Sputnik poster declares the Soviet Union “the motherland of cosmonautics.”

thousands of promotional fliers over major Russian cities. Tickets for the early shows sold out, and the size of the crowd on opening night in Moscow prevented even Protazanov from attending. The movie, which featured fantastic modern sets, romantic intrigue, and provocatively dressed women, made a deep impression on many young people. Forty-five years later, Soviet rocket designer Vladimir Chelomei, who was 10 when the movie came out, named his proposed mission to

Mars “*Aelita*.”

One of the most important Soviet avant garde art movements of the period, Suprematism, also reflected a deep interest in space. Although it originally emerged as a variant of Cubism, Suprematism went much further in its experimentation, dis-



pensing with representations of conventional space and perspective. Such an approach led many Suprematists, including the movement's leader Kazimir Malevich, to eulogize first aviation and then the cosmos. In one artistic manifesto, Malevich proudly proclaimed that "between the Earth and the Moon, a new Suprematist satellite can be constructed .... Follow me, comrade aviators! Swim into the abyss." Many of Malevich's protégés were technological utopians, captivated by the potential power of science to emancipate society from its ills. Some artists even made the pilgrimage to Kaluga to visit with Tsiolkovsky, who was only too happy to share his ideas.

The Soviet space fad began to recede once Joseph Stalin tightened his grip on Soviet society. Some enthusiasts perished in the Stalinist purges of the 1930s. In 1939, the Soviet security services shot and killed Morris Leiteizen, who nearly two decades before had served as one of the leaders of the Society for the Study of Interplanetary Communications. Similarly, Mikhail Lapirov-Skoblo, one of the earliest promoters of spaceflight, ended up in the Gulag and died in confinement after World War II.

Most space activists, however, were brought down to Earth by the economic realities of the day as the Soviet government invested heavily in brute force industrialization and military rocket development. Space had no purpose in this vision. Many enthusiasts also lost interest once they realized that space travel was years, if not decades, away. Society chief Grigory Kramarov later recalled that the most common question from the audience after each lecture would be "How quickly would flight to the planets be accomplished?" When it became clear that there was no good answer, many members dropped out, leaving only a handful of the truly dedicated to pursue the cause. Like many utopians, society members were unable to sustain a vision beyond the short-term.

Yet, ultimately, the space fad left a powerful legacy. It convinced young Soviet citizens that spaceflight was not only possible but inevitable, and that conviction has been handed down generation by generation from the 1920s to today, a point that Samburov reminded me as our train pulled into Kaluga and we took a cramped

minivan to the cosmonautics museum named after his great-grandfather. While the rest of the world was shocked by the successes of Sputnik in 1957 and Yuri Gagarin in 1961, most Soviet citizens fully expected and anticipated that their country would be first in space. After all, they had started their space education long before Sputnik's launch. Even Korolev, the Soviet space program's chief designer, invoked Goddard's fabled moon rocket of the 1920s in his request in 1958 for government funds to send a probe to the moon. Korolev got his wish, and in September 1959 the Soviet Luna 2 probe hit the moon—one of the great firsts of the Space Age.

At Tsiolkovsky's former home, now preserved as a museum, Samburov lovingly showed me some of his great-grandfather's space materials, amassed over the four decades Tsiolkovsky lived in Kaluga, until his death in 1935 at age 78. Samburov,

born long after that, grew up in the house and recalls being thrilled as a little boy when Gagarin paid a visit to Samburov's family in the early 1960s. It had a lasting effect: Besides his work promoting his great-grandfather's legacy, Samburov works for RKK Energia, helping to train cosmonauts aboard the International Space Station in radio communications. "We take our space history very seriously," he said.

Later, Samburov showed me an array of Tsiolkovsky mem-

**Soviet astronautics pioneer Konstantin Tsiolkovsky's statue is part of a monument to spaceflight in a park in Kaluga, his hometown.**

orabilia: information pamphlets on the cosmos, mathematical monographs, drawings of objects in zero gravity, science journals depicting futuristic rockets, and letters from admirers. Looking at the materials felt strange, even surreal. In Western books and articles, one sees the usual iconic pictures of the early Soviet space program, in second- and third-generation reproductions. But as a historian of the Russian space program, I found it both thrilling and humbling to hold these documents—some nearly a century old—in my hands. Samburov invited me to sit at Tsiolkovsky's desk, in the same chair he used when he wrote his groundbreaking works on cosmonautics. Strewn on the desk were journals, pamphlets, and sketchings from a bygone era. Looking at these futuristic renditions of rockets and spaceships, it was easy to imagine how an old Russian schoolteacher might have let his imagination run free. ←



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