In the Year 2017 – A Soviet Fantasy of the Future

James R. Fleming
jfleming@colby.edu
Colby College

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"In the Year 2017," the filmstrip you are about to view, was created in the Soviet Union in 1960 by V. Strukova and V. Shevchenko, illustrated by L. Smekhov, and produced by the Diafilm Studio. It is presented here for the first time in its entirety, with complete English subtitles. My colleague Elena Elena Monastireva-Ansdell provided translations of several of the slides; she recalls viewing instructional and entertaining filmstrips in her youth. The illustrations and captions tell the story of a nation fully in control of its environment at the centennial of its Great Revolution. This did not happen. The Soviet Union collapsed in 1990 and the environment suffered greatly under Communism.

Several books, discussed in greater detail in *Fixing the Sky* (Columbia University Press, 2010), provide background for the film. In *Soviet Electric Power* (1956), Arkadii Borisovich Markin outlined the progress of electrification in the Soviet Union and provided a forecast to the year 2000, when, he supposed, electrical power output would be one hundred times greater than at present. Markin gave special emphasis to the future role of nuclear power, including using nuclear explosions for geoengineering purposes:

Gigantic atom explosions in the depths of the earth will give rise to volcanic activity. New islands and colossal dams will be built and new mountain chains will appear. Atom explosions will cut new canyons through mountain ranges and will speedily create canals, reservoirs, and sea, carry[ing] out huge excavation jobs. At the same time we are convinced that science will find a method of protection against the radiation of radioactive substances.

Markin predicted that Soviet power engineers using nuclear explosives for peaceful construction purposes would achieve "magnificent results" when inspired by the "omnipotence of human genius."

In 1957 Soviet academician Petr Mikhailovich Borisov, alluding to the centuries-old quest of the Russian people to overcome the northland cold, proposed building a dam across the Bering Strait to melt the Arctic sea ice. In his book *Can Man Change the Climate?* Borisov detailed his vision of a dam 50 miles long and almost 200 feet high with shipping locks and pumping stations. He proposed that the dam be built in 820-foot sections made of prefabricated freeze-resistance ferroconcrete that could be floated to the construction site and anchored to the sea bottom with pilings. He further suggested that the top of the dam be shaped so that ice floes would ride up over the dam and break off on the southern side. An alternative design included an intercontinental highway and railroad. According to Borisov, "What mankind needs is war against cold, rather than a 'cold war.'" To liquidate Arctic sea ice, Borisov wanted to pump cold seawater out of the Arctic Ocean, across the dam, and into the Bering Sea and the North Pacific. This displacement would allow the inflow of warmer water from the North Atlantic, eliminate fresh water in the surface layer in several years, and thus prevent the formation of ice in the Arctic Basin, creating warmer climate conditions:

In this day and age, with mankind's expanding powers of transforming the natural environment, the project we are advancing does not present any technical difficulties. The pumping of the warm Atlantic water across into the Pacific Ocean will take the Arctic Ocean out of its present state of a dead-end basin for the Atlantic water [and] drive the Arctic surface water out into the Pacific Ocean through the Bering Strait.

His goal was to remove a 200-foot layer of cold surface water, which would be replaced by warmer, saltier water that would not freeze. Inspired by Markin's popular book Soviet Electric Power, Borisov also assumed that huge amounts of electricity would soon be available to run the pumps, perhaps from hydroelectric generators or nuclear reactors. The dam was, of course, never built, but if it had been attempted, would the nations of the world have confronted the Russians?

In *Man Versus Climate* (1960), Nikolai Petrovich Rusin and Liya Abramovna Flit surveyed a large number of schemes for climatic tinkering. Invoking a Jules Verne–style fantasy, the book's cover is illustrated by the Earth surrounded by a Saturn-like ring of dust particles intended to illuminate the Arctic Circle, increase solar energy absorption, and ultimately melt the polar ice caps. Chapters in the book are dedicated to mega-engineering projects such as damming the Congo River to electrify Africa and irrigate the Sahara, diverting the Gulf Stream with a causeway off Newfoundland or harnessing it with turbines installed between Florida and Cuba. Soviet engineers dreamed of creating a massive new "Siberian Sea" east of the Ural Mountains by damming the Ob, Yenisei, and Angara rivers, for irrigation of crops and climate modulation. The authors argued that deeper scientific insight into the laws of nature would result in ever more "grandiose" plans for developing immense energy reserves, controlling the flow of rivers, and

subjugating permafrost, to name but a few of the advances that they expected. Science was not just about observing and understanding nature; it was about exploiting and controlling it as well. They cited the program of the Communist Party of the Soviet Union on this: "The progress of science and technology under the conditions of the Socialist system of economy is making it possible to most effectively utilize the wealth and forces of nature for the interests of the people, make available new forms of energy and create new materials, develop methods for the modification of climatic conditions and master space." The authors' ultimate goal was to convince the reader "that man can really be the master of this planet and that the future is in his hands."

And now the filmstrip:

In the Year 2017

In light of recent discussions of weather and climate control to alleviate drought, redirect hurricanes, and offset global warming, I invite viewers to send in their visions and fantasies of the year 2100. What can we say about the second half of the 21st Century? Which climate scenario will play out by its end?

-- James Rodger Fleming

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by V. Strukova and V. Shevchenko
Illustrated by L. Smekhov, produced by the Diafilm Studio, 1960