

# A b s t r a c t s

## Co-operation despite Confrontation Science and Technology in the Cold War

Boris Belge, Klaus Gestwa  
Weather War and Climate Change  
Meteorology in the Cold War

In the Cold War, meteorology was a substitute battlefield of the superpowers. Scientists and soldiers dreamt of changing contrary climate conditions and using the forces of nature to conduct war. At the same time, given the global nature of their field of research, meteorologists communicated and cooperated with one another despite the Iron Curtain. The international structures created at the time have considerably contributed to the rise of meteorology as the “megascience” of climate change.

Slava Gerovitch  
Ruling the World  
Cybernetics in the Cold War

The history of cybernetics is the history of a misunderstanding in the Cold War. Because the United States was fascinated by cybernetics in the 1950s, the Soviet Union rejected the subject. When Soviet scientists extolled the new possibilities for management, the CIA sensed danger. In the United States, cybernetics were now rejected rhetorically, but in reality developed further in narrowly defined research projects. In the Soviet Union, the opposite happened: Cybernetic visions of society flowed into official doctrine, but concrete technical projects failed due to the hierarchical apparatus of power.

Jens Niederhut  
Infinite Community?  
The Scientific Community in the Cold War

In the Cold War, there were numerous entry and exit restrictions for scientists in the East and the West. International scientific associations reacted with sanctions, for this contradicted their idea of an autonomous scientific community. This idea arose in essence as a reaction to the Communist states' understanding of science as something to be instrumentalised and the ideological differences of the Cold War.

Igor J. Polianski

### A Dream of Becoming Something Different

#### Lysenkoism and the Political Semantics of Heredity

The Cold War did not spare biology. The Soviet Union claimed Western genetics was a continuation of National Socialist eugenics. For the West, the teachings on the inheritability of acquired features and on the breeding of a New Man – what became known as Lysenkoism – were also considered a totalitarian, Communist counterpart to National Socialist racial selection. This obstructed the view as to why Lysenkoism was accepted in the German Democratic Republic. It has to be placed in the context of the historical antithesis of emancipationist leftwing and conservative, ethno-national biologisms. Both had the rug pulled out from under them with the discovery of DNA. In the GDR, however, it took until the 1970s before genetics lost its surplus value as an ideological object of fascination.

Simon Donig

### Role Model and Class Enemy

#### The United States and East German Computer Sciences in the 1960s

The Sovietisation and Americanisation of Socialist states were considered opposites. When the German Democratic Republic introduced a technical “auto-Americanization” in the 1960s, the Soviet Union did not reject it. Moscow even promoted it within the framework of a large-scale, trans-national technical project, the ESER (standardized system of electronic computers). Taking over Western technology was to contribute to “passing” the west without having to “catch up” to it first. At the same time, it was feared both within the party and state that Western ideas could also seep into the GDR by means of technology transfer. Therefore, wherever the rule of the Socialist Unity Party seemed endangered, controls were quickly increased.

Frank Dittmann

### Technology versus Conflict

#### How Data Networks Penetrated the Iron Curtain

In 1977, computer scientists from East and West established a data connection through the Iron Curtain for the first time. At the IIASA in Laxenburg near Vienna, they worked together on the development of computer networks that transcended boundaries. Improved means of communications were to stimulate international research and create a research network that embraced much more than the scientists located at the institute. In addition, there was the idea that societies could be better managed with the help of data networks. These planning utopias belong to the past, but the vision of computer networks has become reality with the Internet.

Klaus Gestwa  
“Columbus of the Cosmos”

The Cult of Yuri Gagarin

Gagarin gave Communism a smiling face. As a member of the jet-set during the Soviets' global charm offensive, he was enormously successful. In the wake of de-Stalinisation, the cult of the cosmonaut served to help institutionalised heroism and the cultural cosmos of the Soviet Man fit the new prevailing circumstances. To this day, official history policy in Moscow uses the cult of the cosmonaut to hold Russian society together.

Andreas Nievergelt  
Chess Composition in the Cold War  
Contact Zone between East and West

Unlike the game of chess, chess composition remained unpoliticised on both sides of the Iron Curtain during the Cold War. Even the competition in the development of computer technology did not change this. In basic research, chess was an important field of experimentation for artificial intelligence. The chess composition scene integrated new technology into its work and promoted exchange, because it shared these goals. Even such a specific scene as chess composition was affected and shaped by technical change despite the Iron Curtain.

Luminita Gatejel  
Socialist Volkswagen  
Trabant, Lada, and Dacia in the Cold War

The automobilisation of Socialist countries serves as a lesson in the East-West conflict. It reflects the competition for a more efficient social order. It also shows how the Socialist states tried to follow the capitalist model of consumption in order to maintain their legitimacy. Because the mass production of automobiles in Romania and the Soviet Union was made possible only by the acquisition of Western licences, the automobilisation of the East is also an example of cooperation despite the Iron Curtain.

Stefan Rohdewald  
Faster, Higher, Farther  
Biomechanics between West and East

Biomechanics arose in the former Soviet Union as the adaptation of Western concepts for the rationalisation of labour. Under Stalinism, it was suppressed; in the 1960s, it became a field of science. At the same time, kinesiology in the United States experienced an upswing. Western scientists absorbed the results of their Soviet colleagues. Together, they advanced the research. Biomechanics influenced training methods in competitive sports, which became a theatre of the competition in sport technology.



