Conference Report:

# Understanding Techno-Utopias Across the East-West Divide: Creators, Enablers, and Audiences

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Organized by: Olha Martynyuk / F. Benjamin Schenk, University of Basel

Report by: Iryna Adamska (Taras Shevchenko National University of Kyiv) / Saskia Heyn (University of Basel) / Olha Martynyuk (University of Basel)

This conference kicked off the joint Ukrainian-Swiss research project "Testing the Soviet Utopia: The Social History of Technologies in Ukraine, 1922-1991", supported by the Swiss National Science Foundation (SNSF).[1] Organizers F. BENJAMIN SCHENK and OLHA MARTYNYUK (Basel, Switzerland) began by laying out the project's overarching idea: to decentralize the understanding of Soviet technologies through critical research into their use in Soviet Ukrainian daily life. Although the research project itself focuses on Soviet Ukraine, the conference also included case studies from Romania, Poland, Lithuania and Central Asia, all of which explored the links between technology, culture, political objectives and socialist modernization. The conference aimed to bring together specialists in the history of technology in socialist Europe and discuss current debates in this field, identify gaps in contemporary research and explore new methodological approaches.

The keynote presentation, created by KLAUS GESTWA (Tübingen, Germany) and presented by BORIS BELGE (Basel, Switzerland), focused on hydroengineering on the river Dnipro during the 20th century. The many dams and canals constructed in Central Ukraine enabled the country's technological progress, infrastructural connections between its different parts, and international export. However, unintended ecological consequences and damage caused during military operations undermined the techno-utopian aspiration of the 20th century to tame nature and establish lasting social control. Analyzing the roles of local Ukrainian, central Soviet and international stakeholders, Gestwa pointed out that Ukraine should not be seen as a mere bystander but rather an active co-creator and enabler of Soviet modernity. Such "(self-)colonization" calls for further study of Ukraine's place in global technological history.

LUMINITA GATEJEL (Regensburg, Germany) followed with a presentation on land reclamations and water management along the Romanian part of the Danube at the end of the 19th and in the first half

[1] This conference report was produced in close collaboration with the organising team. Olha Martynyuk, research associate at the University of Basel, is co-organiser of the conference. She also participated as a speaker, as did Iryna Adamska from Taras Shevchenko National University of Kyiv. Saskia Heyn supported the organization of the conference as a student assistant.

of the 20th century. She noted that plans to control the river were designed not only to improve its navigability for transport, but to drain the floodplains and integrate the resulting landscapes into the national economy. The Danube floodplain thus became the key to rural development programs combining state-building measures, social engineering and scientific management of resources. The landowners on the river shores were active participants in the process of land reclamation and desired to profit from it. Gatejel stressed that the modernization schemes explored by engineers, agronomists, and biologists were limited by complex socio-political and environmental realities at the local level, rendering some standardization practices futile.

Exploring the case of short-lived Ukrainian motorcycle production in the early 1930s, Olha Martynyuk argued in her talk that the early Ukrainian SSR enjoyed autonomy not only in cultural processes, but also in technological development. Based on technical drawings for Harley-Davidson motorcycles, the 'KhMZ-1' motorcycle was, per its creators, the first Soviet motorcycle suitable for mass production. The Kharkiv team organized motor rallies to Moscow to lobby for further project funding. The many rally participants, including drivers, technicians, organizing team, party supervisors and spectators engaged in a dialogue regarding suitable motorcycles for the 'roadless' Soviet terrain and the future war against capitalism. Questions after the presentation focused on reasons for closure of the motorcycle factory in the mid-1930s, gendered aspects of road rallies, military aspects of vehicle production, as well as the USSR's slower rate of motorization compared to Germany and the USA.

IRYNA ADAMSKA (Kyiv, Ukraine) analyzed the creation of the Soviet healthcare system in the 1920s, a process that met with significant roadblocks including a negative public view of the medical field. She observed that, given shortages of facilities, materials, and personnel, a publicly accessible healthcare system in the 1920s was a purely utopian concept. The lack of resources was exacerbated by a negative popular perception of government initiatives. To overcome this, the Bolsheviks tried to improve the functioning of the healthcare sector by providing it with some of the most necessary resources, as well as promoting the Soviet healthcare system to the population in journals, lectures and other public events. Demonstrating new treatment methods and technologies was a way of changing people's minds and forming a positive attitude towards the Soviet system.

Drawing on the unpublished memoirs of Kyiv-born professor Rudolf Plank, ANNA ONUFRIIENKO (Karlsruhe, Germany) explored the evolution of refrigeration technologies through collaboration between Soviet and foreign engineers. She pointed out its ties to collectivization and industrialization, noting that the confiscation of livestock, dairy, and meat products necessitated new preservation technologies. Plank, two-time president of the Karlsruhe Institute of Technology and one of the most prominent German scientists in the field of refrigeration technology, visited the Ukrainian SSR and in 1932 observed that the local population appeared undernourished. Onufriienko drew links between refrigeration technology – itself a beneficial means to prevent food spoilage during long-distance transportation – and the Holodomor of 1932-1933. Refrigeration allowed the development of the logistics of food supplies and changed the final consumer, and in the USSR, it enabled redistribution of food away from Ukrainian peasants to urban centers and export markets.

GENNADII KAZAKEVYCH (Kyiv, Ukraine) analyzed the postwar transfer of German industrial facilities and expertise from the Soviet occupied Germany to the Ukrainian SSR. Kazakevych's case study centered on the production of 'Kiev' cameras at Arsenal Factory in Ukraine's capital. This production was made possible through the reinstallation of equipment from Carl Zeiss factories and deploying German engineers to educate local employees. Shrouded in secrecy, the Arsenal Factory of the late 1940s was a miniature Stalinist society, with poor working and living conditions, indoctrination and Russification, criminal liability for absenteeism and surveillance of the German employees. Studying the production and use of the 'Kiev' cameras during the following decades, Kazakevych concluded that this technological transfer did not stimulate further innovation and product development. The ensuing discussion included the question of knowledge transfer versus piracy and the use of penal labor in production.

ILLIA LEVCHENKO (Kyiv, Ukraine) explored the ideological rebranding of Ukrainian territories that became part of the Soviet Union after World War II, paying particular attention to Galicia, Bukovyna, Lviv, and Transcarpathia, previously objects of colonial politics within different states. In Soviet narratives, traditional local folklore was blended with visions of control and progress, which simultaneously modernized and mythologized Western Ukraine. Using the examples of the Vorokhta railway viaduct and Pip Ivan Observatory, which both lost their original functions after 1945, Levchenko introduced the concept of imperial ruins as carriers of memory about interrupted European modernity. The ensuing discussion centered around criteria for describing political regimes as colonial: if one considers the Habsburg and interwar Polish rule colonial, why not use the same term for the postwar Ukrainian Soviet regime?

Using press publications as her main source base, MARTA STUDENNA-SKRUKWA (Poznań, Poland) illustrated the implementation of the 'Automotive City' concept in Kyiv during the 1960s and 1970s. The architectural trend at the time was to construct wide streets, lined with multi-story buildings that kept pedestrians and vehicles separate and left little room for public transport. Studenna-Skrukwa examined this transfer of Western urban motorization models, which prioritized cars over public transportation, to the Soviet context. She highlighted the Soviet argument that universal motorization was possible without replicating Western social problems, as well as ideological claims that cars would harmonize with public transport. She concluded that the contradictions inherent to the concept led to empty, depopulated streets. Issues discussed included the press coverage of the 'Automotive City' plan, as well as the lack of parking spaces in the cities.

ROSTYSLAV KONTA (Kyiv, Ukraine) presented Soviet and contemporary historiographic approaches to music in Soviet Ukraine, with particular attention to banned and unofficial music. Konta noted that Soviet-era analyses avoided acknowledging music as an independent cultural force, treating it instead as a tool of communist education and promoting internationalist solidarity. Contemporary reassessments take a more nuanced view of music's social role, exploring it as part of complex sound systems. The author suggests that studying informal music practices in the Soviet Ukraine is possible with help of the 'thick description' method, based on oral interviews. This method allows scholars to research sound environments with attention to materiality, emotions, and silence.

EGLĖ RINDZEVIČIŪTĖ (London, United Kingdom) examined the development of computerization in Soviet Lithuania between the 1950s and 1990s. She highlighted the reconstruction of telecommunications after World War II and the establishment of new scientific institutions in Lithuania. Rindzevičiūtė showed how local experts combined Soviet central planning with regional strategies of 'Lithuanization,' for which the Vilnius Factory of Calculating Machines and the Rūta computer were key elements. Although Rindzevičiūtė paid close attention to East-West connections, she stressed that computerization in Lithuania was not merely a product of Soviet planning or Western technological transfer, but a politically charged process shaped by expert communities fostering strong local and national agency.

BOHDAN SHUMYLOVYCH (Lviv, Ukraine) explored the application of cybernetic principles to urban governance in socialist cities, and the historical significance of cybernetics in state-society interactions. Using Lviv as a case study, he analyzed how data collection and predictive planning were used to enhance efficiency, social order and ideology, drawing parallels between socialist experiments (such as traffic surveillance) and contemporary debates on smart cities and algorithmic governance. Shumylovych also linked cybernetics to materiality by examining the role of television, radio, and feedback systems in controlling urban life. A discussion about the post-WWII internal colonization of the Western Ukrainian SSR followed the presentation.

SARAH EVISON (Basel, Switzerland) investigated Soviet climate-engineering utopias during Khrushchev's thaw period, using Petr Borisov's failed Bering Strait dam project as a case study. She remarked that such projects were rooted in fears of a new ice age and an understanding of global warming as something to be desired. In the 1970s, the utopian vision of "oranges in Siberia" faded following Borisov's death and the emergence of new scientific models that predicted global warming, thus making efforts at artificial warming obsolete. Evison concluded by contrasting Soviet climate optimism with growing technological skepticism in the West during the 1970s. The utopias of climate manipulation thus embodied both the ambitions and the limits of Soviet technological mastery. A need to differentiate academic and popular discourses of science in the Soviet Union was articulated during the discussion.

Using the example of the Fedchenko Glacier station in Tajikistan, established in the 1930s, KATJA DOOSE (Lyon, France) explored Soviet ideas of mastery over nature. Her analysis of Soviet high-altitude research stations, based on archival materials and oral testimonies, revealed the intersections between the scientific, political and symbolic dimensions of glaciological work in Central Asia. She paid particular attention to the expansion of research efforts in 1957, the 'International Geophysical Year,' when a smaller research station was constructed at 5,000 meters. Doose demonstrated that the Fedchenko station, the highest meteorological station in the world at the time, combined pragmatic environmental study with symbolic scientific mastery.

The conference included a screening and discussion of the documentary films 'Atomopolis' (2020), 'Assembling Utopia' (2016) and 'Lviv Intervision' (2018). 'Atomopolis' is an audiovisual study of the uto-

pian landscape of Ukrainian atomic towns – communities built around nuclear power plants that embodied ideological and scientific aspirations – using film and photographic material from six atomic towns between 1970-1986. 'Lviv Intervision' focuses on the first decades of the mass distribution of Ukrainian television and the establishment of the first television equipment factory in Lviv in 1957. During the discussion, moderated by OLEKSII KUCHANSKYI (Basel, Switzerland), co-director Anna Onufriienko explained that creating films by re-editing footage was a means to reinterpret Soviet visual media. Her documentary films invite viewers to reflect not only on Soviet propaganda, but also on its narration, imagery and sound. Cultural historian Bohdan Shumylovych noted that the perception of Soviet utopia is tainted by the looming 1986 Chornobyl catastrophe, prompting the audience to anticipate a dramatic crash of the atomic city.

Summarizing the conference, F. Benjamin Schenk (Basel, Switzerland) noted that the various technological and social developments under 20th century socialist regimes were at the core of the conference presentations. Thematic overlaps included agency as many presenters focused on the interplay of technology and center-periphery relationships or socialist colonial projects. Another focal point was the range of actors involved in technological projects, such as engineers and local politicians. Participants also considered issues of technological development in relation to other aspects of society, such as aspirations for economic improvement, links to production or agriculture, and the fostering of political and ideological stability. The focus on politics included ties between the military and technological progress, as well as the integration of territory through improving infrastructure. Finally, many of the projects presented took comparative approaches regarding the particularities of Soviet policies, the dissemination of knowledge and technological developments, both at the regional or national level and between East and West.

Iryna Adamska, Saskia Heyn, Olha Martynyuk

## Conference overview:

Welcome and introduction – Benjamin Schenk, Olha Martynyuk

Impulse Presentation – Klaus Gestwa: The Conquest of the Dnipro and the Technological (Self-)Colonisation of Ukraine

### Panel 1: Taming Landscapes and Engineering Futures

Luminita Gatejel: Separating Water from Dry Land: Riverbank Engineering and Rural Development in Romania, 1910s to 1960s

Olha Martynyuk: Socialism on Test-Drive: Kharkiv-Moscow Road Rallies in 1930-1931 as Technological Lobbyism

### Film Screening: «Atomopolis. Assembling Utopia» & «Lviv Intervision»

Presentation and discussion by film co-director Anna Onufriienko and cultural historian Bohdan Shumylovych. Moderation: Oleksii Kuchanskyi

### Panel 2: Public Health, Food Preservation and their Human Dimensions

Iryna Adamska: "Beat the Doctor!": Stumbling Blocks of the Soviet Public Health System in Ukraine in the 1920s

Anna Onufriienko: Two Trips of German Professor Rudolf Plank to the USSR during the First Stalinist Five-Year Plan: The Development of Refrigeration Technologies in the Context of the 1932 – 1933 Holodomor in Ukraine

### Panel 3: Post-War Social Engineering and Technological Imagery

Gennadii Kazakevych: German Technology for the Soviet Utopia: The Arsenal Factory as a Case Study, 1947 – Late 1950s

Illia Levchenko: "Polish Switzerland", "Ukrainian Piedmont", or Soviet Pastorale? The Imagery of West Ukraine After WWII

### Panel 4: Technological Imports and Intercultural Dialogue Across the Iron Curtain

Marta Studenna-Skrukwa: "We Will Avoid the Mistakes of the West" – The Automotive City as Techno-Utopia in Soviet Kyiv: Vision and Implementation

Rostyslav Konta: Music of the Free World in an Unfree Country: Reassessing Acoustic Environment in Ukrainian SSR

### Panel 5. Digital Governance and Local Cultures in the Soviet West

Eglė Rindzevičiūtė: De-centering the History of the Soviet Internet: Nation-building and the Infrastructural Politics of Digitality in Lithuania

Bohdan Shumylovych: Cybernetics, Power, and the Socialist City: Managing Urban Life in the Age of Control

### Panel 6. Scientific Achievements and Failures in the Soviet East

Sarah Evison: Soviet Climate-Engineering Utopias of the Thaw Period

Katja Doose: Utopian Science at High Altitudes: The Fedchenko Glacier Research Stations in Soviet Central Asia

**Final Discussion** with concluding remarks by F. Benjamin Schenk

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