This is the published version of a paper published in Baltic Worlds.

Citation for the original published paper (version of record):

Tillberg, M. (2010)
Made in the USSR: Design of electronic/electrical systems in the Soviet Union from
Khruschev's thaw to Gorbachev's perestroika
Baltic Worlds, 3(2): 34-40

Access to the published version may require subscription.

N.B. When citing this work, cite the original published paper.

Permanent link to this version:
http://urn.kb.se/resolve?urn=urn:nbn:se:sh:diva-17882
DESIGN OF ELECTRONIC/ELECTRICAL SYSTEMS IN THE SOVIET UNION FROM KHRUSHCHEV’S THAW TO GORBACHEV’S PERESTROIKA

MADE IN THE USSR

FOUR ESSAYS ON RUSSIA
MADE IN THE USSR
BY MARGARETA TILLBERG

10/1981

ЭЛЕКТРОМЕРА

АБВГДЕЖЗИК ЛМНОПРСТУ ФХЦЩЬ ЫЪЭЮЯ :?"
The display of home furnishings at the American National Exhibition in Moscow in 1959 shocked people in the Soviet Union and resulted in the so-called kitchen revolution. But the context in which the cultural elite was given a space to live for the first time in the USSR was not a typical consumer event; there was no mass market for modern design. The Soviet authorities were well aware of the phenomenon of shperebrot and its potential to revolutionize the consumer market. They were keen to benefit from this new rising trend. In their eyes, it was a new way to modernize and improve the living conditions of the Soviet people. The display of home furnishings was a significant step towards the modernization of the living conditions of the Soviet people. It was a part of the broader cultural and social transformation that took place in the USSR during the Khrushchev era.

The display of home furnishings was also a way to showcase the achievements of the Soviet Union in the field of science and technology. The exhibition was a result of a concerted effort to promote the idea of the “simplified, isolated artifacts.” It was a way to demonstrate the superiority of Soviet design over Western design. The exhibition was a part of the broader cultural and social transformation that took place in the USSR during the Khrushchev era.

The exhibition was not just a showcase of modern design, but it was also a way to promote the idea of the “simplified, isolated artifacts.” It was a way to demonstrate the superiority of Soviet design over Western design. The exhibition was a result of a concerted effort to promote the idea of the “simplified, isolated artifacts.” It was a way to demonstrate the superiority of Soviet design over Western design. The exhibition was a part of the broader cultural and social transformation that took place in the USSR during the Khrushchev era.
Due to the post-World War II economic crisis, various models of how to make Soviet production become more effective were developed. Cybernetics offered expectations that the material world would be restructured and promised new ways of achieving social goals, and, within economics, it was a method of optimizing the functioning of the system. The rise of the designer as a new profession that would introduce innovativeness and change into the essentially static production of the socialist production system without giving way to the evils of the capitalist market, the use of cybernetics to rationalize and reorganize production on an economic basis, and the design efforts projected by VNITE were to give life to real products. Fitting into the channels of information being formed, the goods produced were to be marketed and sold through ElektroMera. With standardized electronic components compatible with ElektroMera, the smallest of states would produce computer systems, in combination with a unified branch system for electronics and measurement tools, would unite different factories and companies and unify the entire Soviet Bloc, East Bloc, and, for instance, with its standards that were compatible to West Germany, form an especially interesting case.

One of these models, “industrial cybernetics”, sometimes called “social cybernetics”, for example as introduced by Stafford Beer for the steel industry in England, information was derived from mathematical and computer modeling and computer network was put forward as a better alternative. In one of these models, “industrial cybernetics”, sometimes called “social cybernetics”, for example as introduced by Stafford Beer for the steel industry in England, information was derived from mathematical and computer modeling and computer network was put forward as a better alternative.

Conflict in the real-world working conditions along the conveyor belt and the radio-listening in the kitchen.

The early 1970s saw not only the launching of ElektroMera on an experimental level, but also that of an entire wide computer network for the collection and processing of information for the planning and management of the national economy. As a replacement for the existing, disorderly overlapping of informational computer centers would assemble and re-distribute information from all fields of the national economy, from the top of the state planning system, Gosplan, down to the material technical base. The computer network was to rationalize and reorganize production on an economic basis, and the design efforts projected by VNITE were to give life to real products. Fitting into the channels of information being formed, the goods produced were to be marketed and sold through ElektroMera. With standardized electronic components compatible with ElektroMera, the smallest of states would produce computer systems, in combination with a unified branch system for electronics and measurement tools, would unite different factories and companies and unify the entire Soviet Bloc, East Bloc, and, for instance, with its standards that were compatible to West Germany, form an especially interesting case.

So far, presentations of design in Eastern Europe during the Cold War made additions of a more equalitarian and socialist, and a car to a cancun of design. ElektroMera, however, was not the “artifact” that my inquiry investigates. It is of an entirely different magnitude. In order to do this investigation, not only the designed artifact needs rediscovery, but also the borders of academic disciplines. The object of inquiry requires a wider context than that established by the mere notion of style, a typical art history approach, or by giving descriptions of design under specific conditions, processes, and structures, and done in traditional history of technology. These efforts are not sufficient to analyze design as the systemic organization in the service of enabling flexibility and change — including a focus on the comfort of the user without excluding aesthetic concerns. What I propose, therefore, is the alternative of a discursive design in a context of systems thinking and cybernetics and ergonomics — without excluding art, history, and aesthetics — to render visible characteristics that have so far not been considered.

For we are to make a meaningful connection between design and the productive processes that are shaping the world, I suggest that we must look toward the design of systems that could be optimized, redefined, so how the logo of a able are bent. Form implies finitely, and once set up, it cannot be adjusted to its environment. Therefore, as suggested by the architect of architecture Brandon Holway, “we must look at the designs of systems as well as the changing role
of the designer in the productive process as a whole, rather than simply the design of forms.31 In this article, ElektroMera was discussed in such a framework. Boiled down to its very basics, what these complex phenomena that connected design and cybernetics in the Soviet Union all had in common was standardization – or rather the problem of lacking implemented standardization, and although the ambitious design historian should investigate these phenomena from the hands-on oily bolts and screws to the abstraction of the entire artificial world, here we confined ourselves to a few aspects.32

Despite good intentions, ElektroMera was but one more failed large-scale project in Soviet Industry.33 It is not within my competence to explain as to why the efforts to make Soviet products of consumption more widely available were eroded by inconsistencies and corruption. Rather than their failure, my concern is that it was really for the well-being of the people, or only for military display or for making the non-glamorous subjects. Nevertheless, as my investigations on design history, for otherwise they would have been discarded as not actualized possibilities.34

The Soviet military dictatorship is known as a society with little concern for the well-being of its civilian subjects. Nevertheless, as my investigations on design from the 1960s to the 1980s show, wide-ranging efforts and considerable financial resources were spent on research to change this, at least within the limits of the projects and experiments. In the attempt to make concrete consumer goods, ElektroMera was a reality check, with the important aspect, as I see it, that it challenged the view of whether products should be made for military display or for making the non-glamorous every-day life more livable. Whether the state concern was really for the well-being of the people, or only about putting power on display, is a judgment beyond the scope of this article. ElektroMera was to have integrated Lenin’s grandiose plan for electrification, Stalin’s plan for automation, and Khurshevchev’s plan for the cybernetization of the whole country.

But the Soviet dream world was closer to catastrophe than to reality. The Berlin Wall fell and companies in the capitalist world such as Siemens and General Electrics could, once again, breathe freely. “Made in the USSR” was a dream which never came to be.  

**REFERENCES**

1. Mikhail Ladur, “Programma i sozdannia” [Program and creativity], in Dekorativnoe iskusstvo v SSR [Decorative arts in the USSR], 1961-10.
3. The “scientific-research institutes” that carried out applied research by 1968 numbered 2,388. Of these, about 400 concerned themselves with engineering, and about 1,000 served as independent construction bureaus. See Raymond Hutchings, Soviet Science, Technology, Design: Interaction and Convergence, Oxford 1976, pp. 28-29. Hutchings incorrectly calls the construction bureaus “design bureaus” which causes confusion insofar as their work did not include any ergonomic or aesthetic considerations whatsoever.
7. In the literature glavnii konstruktor, e.g. the chief engineer, is often translated as “designers” even though no consideration is given to the user of the machine.
11. At the most, around 2,000 people were hired directly by the institute, with up to about 8,000 more involved in one way or another, on a project basis, some part-time, see Dmitrii Azrikan, “Vniture, Dinosaur of Totalitarianism or Plato’s Academy of Design?”, Design Issues, vol. 15:3.
17. Hilberts, the design literature on Eastern Europe and the Soviet Union has avoided problematizing the definition of design. See for example the recent exhibition catalogue edited by David Crowley and Jane Pavitt, Cold War Modern: Design 1945-1979, London, 2008. On post-War World II Soviet and Russian design, see additionally writings by Constantin Boym, Alexander Lavrentiev, Yuri Nazarov, Susan B. Reid, et.al. 
22. N. S. Khrushchev, Razvitie ekonomiki SSR i partinskiy raskrovo o narodnym khoziainstvom: doklad na Pemiume TSK RPP 19 na maiabria 1962 goda [Economic development in the USSR and party leadership of the national economy: Speech at the November 15 Plenum of the Central Committee of the Communist Party of the Soviet Union], Moscow 1962, p. 33. Does the aesthetic value arise in its manufacture? Or only in the rejected eye of a beholder?