## **Anatoly Kitov: Monologue with Soviet Sachems** Towards the Social History of Soviet Science

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Life and work of outstanding Soviet scientist Anatoly Ivanovich Kitov (1920–2005) is now attracting the attention not only both Russian and foreign historians of science [1–3] but writers and filmmakers as well. It is not surprising because his biography is full of grand ideas and plans, pioneering publications and dramatic episodes. These are cruel battles of the World War II, struggle for the recognition of cybernetics in the USSR, very first monographs on computers and programming in this country etc.

For long three decades he was struggling for the introducing to the socialist planned economy precise mathematical methods and models based on computer information gathering and processing that could have provided the leadership of the country by operative and objective information.

Special attention draws the project of nationwide computer network developed by Kitov in 1959 and its dramatic history. This history began in January 1959 when the deputy director of Computing Centre no. 1 of Ministry of Defense Colonel Anatoly Kitov sent a letter to the First Secretary of the Communist Party Central Committee Nikita Khrushchev. Kitov suggested to change radically the methods of Soviet Union economy management. He proThe voice of him that crieth in the wilderness. *Isaiah,* 40:3.

posed to transit «from the manual and personal forms of management to the automated systems based on application of computers». This letter became some kind of catalyst for adopting some concrete decisions aimed for the development and application of computer technology in the USSR. However, the main proposal about the establishment of the nationwide economy management automated system on the basis of the Unified State Network of Computer Centers (EGSVTs) was not supported by the leadership of the USSR.

In the autumn of the same year Kitov made a second attempt to «reach out» the Soviet top leadership and sent a second letter to Khrushchev [4]. It contained a strong criticism of a number of leaders and especially the leadership of the Ministry of Defense for being slow in the developing and introducing computers in practice. The letter contained also the detailed description of Kitov's project «Measures to overcome the weakness in the development, production and introduction of computers in the Armed Forces and national economy». Now this project is known among the specialists as the "Red Book" project.

This plan was rejected, the author was expelled from the Communist Party (at that time it meant virtually a civil death...) and dismissed from his post. Soon he was fired from the army. Nevertheless, his ideas and proposals had a serious effect and influence on the projects of EGSVTs adopted in 1964 and National Economic Management Automation System (OGAS) adopted in 1980 [5]. In fact, Kitov's suggestions served as a base for these two systems. These projects were developed by a number of scientific institutions under the guidance of Academician Victor Glushkov. Little is known that Kitov was the close friend of Glushkov and attracted his attention to this theme. Many Gluskov's ideas were formed during the dialogue of these two scientists. Kitov himself tried many times to deliver his vision of the problem of state economy management to Leonid Brezhnev but his proposals were again ignored by the Soviet leadership.

At the beginning of "Perestroika" Kitov once more tried to attract the attention of the new Soviet leadership to the OGAS project. In October 1985, when he was the Head of the Department of computer technology in Moscow Plekhanov Institute of National Economy, Kitov wrote a letter to the General Secretary Mikhail Gorbachev [6]. In this message he actually summed up the almost thirty years efforts of application of computer technology and automated management systems in the USSR. The author of the letter expressed his concern about the fate of the project. He pointed out that in the 1960-70s the development of separate automated systems went on spontaneously in various factories, industrial branches and departments. Only some of algorithms and programs for informational, economical and mathematical problems were introduced in practice. Those developments were scattered, there was no effective coordination between the ministries. Of course, such

approach did not give the desired effect. This, in turn, led to dissatisfaction and disappointment both at the highest and middle management levels. The reply Kitov received by telephone from the Communist Party Central Committee was discouraging: "Party has other more important tasks!"

However, elderly scientist still has not piled weapons. In 1987 he offered the program article to ideological journal "Communist". But this paper was also rejected. Three years later the same journal refused in publishing of another Kitov's paper "Problem of cardinal improvement of national economy management in political economy of socialism". Not able to represent his ideas in central press Kitov tried to express them on public. The last known Kitov's attempt to express openly his views was undertaken at the conference in city Penza in October 1989. He was a chairman of this conference and its final conclusion document extremely strong criticized the condition of Soviet economy and predicted its imminent crash if appropriate measures would not been adopted. These measures included also those dealt with introducing of mathematical methods and informational systems.

So, the *dialogue* between Anatoly Kitov and Soviet leadership did not take place – remained only *monologue*. After the disintegration of the USSR this dialogue could not be suggested to anybody. Scientist's warnings about the imminent collapse of unviable Soviet economy had come true.

In this article ideas and proposals of Anatoly Kitov about the development of nationwide and local industrial management systems are presented and analyzed in economic and political context.

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