

V. V. Zapariy ^{a)}, V. D. Kamynin ^{a)}, Ch. Guanshan ^{b)}

^{a)} Institute of Humanities and Arts, Ural Federal University named after the First President of Russia B. N. Yeltsin

^{b)} Northeast Asian Studies Academy, Jilin University, China

THE TWENTIETH-CENTURY URALS ECONOMY IN HISTORICAL PERSPECTIVE¹

The article discusses major works on economic history published by Urals scholars over the past few decades and outlines the main stages of their research development. The analysis of these works leads to the theoretical conclusion that there has been a recent upsurge in the scholarly interest in economic history. This trend is related to the multimethodological approach gaining popularity among these scholars and the two disciplines, economics and history, drawing closer together. There is a popular belief that history can prove useful to any economist as a storage of economic facts tested by life itself and as a collection of various economic experiments. History, however, is also very important as a source of economic ideas. Thus, there is a process of genuine 'cross-disciplinary communication', which manifests itself in economists and historians' exchanging theories developed within the framework of their disciplines. In its modern stage, the economic history of the Urals focuses on the problems which were not previously covered by historical studies for a number of objective reasons: some sources were classified and unavailable due to security control; and some topics were considered inappropriate to raise in studies of national history. Historians have now turned to such questions as the creation and development of industry-specific territorial production complexes, which used to be predominantly studied by economists. Nowadays, economic history discovers new topics for research, expands its database of sources, applies diverse methodology, and uses conceptual approaches and methods developed both by Russian and foreign economists.

Keywords: economic history, region, Urals, methodology, economists, historians, paradigm, methodological approaches, interdisciplinarity, scientific knowledge

Introduction

Modern historical studies have developed in marked contrast to the classical research paradigm. The biggest influence on post-classical studies is exercised by 'cross-disciplinary communication'; in other words, interdisciplinarity: the collaboration of scholars representing different fields of knowledge along with the application of interdisciplinary research methods.

In its modern stage, economic history is studied by both historians and economists, who seek to make their research mutually beneficial. In the 1990s, both parties studying economic history were not satisfied with the state of matters in the 'cross-disciplinary communication' perspective. Moreover, they often expressed their concern about the growing 'crisis of dissociation', which was understood primarily as a mutual lack of interest in the other party's research work. Economists and historians seeking further cooperation made a serious effort to cope with this problem. The American economist Deirdre N. McCloskey urged her colleagues not to ignore the historical experience when studying modernity. She pointed out that history can provide economists with the information, which will enable them to verify their theories. History can be of use as a treasury of economic facts tested by scepticism; as a collection of experiments in all aspects of economics; as an endless source of economic ideas and so on. [2] Historians, in their turn, called for wider use of the achievements gained by both foreign and Russian economists.

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Methodological Approaches in the Interpretations of Economic History Proposed by Historians and Economists

For a long time, economists and historians have been applying different 'models' to studying economic history, which discouraged any cooperation between historians and economists [3].

Historians in the Urals became interested in studying economic history in the 1970s and 1980s. There have been three stages in the development of these studies. From our point of view, the main criterion which allows us to distinguish these stages is the radical change of the methodological foundations in economic history. The actual development of economic history started in the 'perestroika' years when the economy of the Urals was studied from the perspective of Marxist-Leninist methodology. In the first half of the 1990s, historians began to master new methodological approaches to economic history borrowed from the works of foreign economists. At the turn of the twenty-first century, the epistemological situation in history was characterized by an increase in polymethodologism and by the broadening range of issues embraced by economic history.

The process of studying the twentieth-century Urals economy had several areas of intersection between historians and economists. There is also evidence illustrating the influence of economic studies on the work of Urals historians. Economists played a key role in the organization of the first academic centre for studying Urals history: in the autumn of 1978, the first centre for studying history (beginning in 1980, it was called the 'Department') opened at the Institute of Economics of the USSR Academy of Sciences. The head of this department was Professor A.V. Bakunin, a Doctor of Historical Sciences. He began adapting the work of his department to the goals pursued by this academic institution and encouraged his staff to write a comprehensive work on the history of the Urals economy [4].

Seminal Works on the Economic History of the Urals

'The History of the Urals Economy', published in the late 1980s, became the first comprehensive work devoted to the Urals economy in the period from 1917 to 1985. The authors emphasized that 'this book is the first attempt to reconstruct the history of the Soviet economy, drawing on the case of the largest economic region in the country'. The remarkable fact is that at that time there were no other works containing an integrated analysis of the economic development of a large region: not only in the Urals, but in the whole country.

Another interesting feature of this work is that it was a result of real collaboration between historians and economists. The editor-in-chief of 'The History of the Urals Economy' was M. A. Sergeev, an economist and a corresponding member of the USSR Academy of Sciences. The assistant editor was the historian A. V. Bakunin. The contributors to the first volume, which was devoted to the development of the Urals economy from 1917 to 1945; were historians, the last chapters of the second volume, though, devoted to 1946–1985, were written in active collaboration with economists. This work is a perfect illustration of the fact that economists and historians have different objects of study when conducting research in economic history: historians are more interested in the historical experience of a developing economy at various stages, while economists focus on the present state of economic development.

The range of problems discussed in 'The History of the Ural Economy' was fundamentally different from that of other historical and economic studies. Along with the industry-specific and chronological approaches, the authors of this work pushed to the foreground the question of how the systemic problems of Soviet economic development were solved at the regional level. The authors emphasized the fact that the Ural region was one of the 'country's economic regions which were able to meet these targets'. These included the nationalization of industry and transport; the creation of 'Uralo-Kuzbass', which was one of the first national economic complexes; bolstering a powerful military arsenal; and encouraging post-war industrial development in the form of industrial hubs and territorial production complexes [5].

Another distinguishing feature of 'The History of the Ural Economy' was that, although it was published at the end of the Soviet epoch, at the end of 'perestroika', this book was based on the Marxist interpretation of Soviet economic development. Therefore, its authors approved of the results of Urals economic development pointing out some drawbacks caused by the difficulties of socialist construction. They expressed confidence, though, that 'the plans of economic intensification in the region, developed within the framework of the national reformation program, the use of the new production relations

based on the diversity of ownership forms, will enable the Urals to move to a new development level' [6].

A. V. Bakunin also realized new approaches to studying the Soviet-period Urals economy in his work devoted to the features of the Ural industrial region [7].

Paradigm Shift in Economic History

The main centre for modern studies of the economic history of the Urals is the History and Archaeology Institute, Urals Branch of the Russian Academy of Sciences. It was created on 1 February 1988 and, according to its Director V. V. Alexeev, one of the main goals they had to meet was finding the human resources. He said that 'the first staff members came from the History Department of the Institute of Economics, Urals Branch of the Russian Academy of Sciences. These included some experienced scholars such as A. V. Bakunin, D. V. Gavrilov, and some young promising researchers such as V. E. Lebedev, and V. P. Motrevich' [8]. This was a case of knowledge continuity of the two Ural academic institutions, which manifested itself not only in the workforce's capacity, but also in the problems explored in their research work and in the approaches they chose. V. V. Alexeev explained this 'paradox' by saying that the Institute had accepted the obligations 'which it had inherited from the History Department of the Institute of Economics: that is, in preparing the multi-volume edition on the history of the Urals, the history of the classes' [8]. In 1988–1990, A. V. Bakunin was the Deputy Director of the History and Archaeology Institute and, as the editor-in-chief, he was directly responsible for the publication of the multi-volume work on the Urals history.

In 1990 the second volume of 'The History of the Urals in the Period of Capitalism' was put into print. This part of the book analyzed the shifts in the regional economy in the period of 1861 to 1917. This work can, therefore, be discussed together with 'The History of the Urals Economy', since it described the regional economic history of the early twentieth century within the research framework developed by the History Department of the Institute of Economics and within the same methodological approach.

The editor-in-chief of this work, D. V. Gavrilov, followed the Marxist methodology, stating that the leading trend in the socio-economic development of the region in the post-reform period was the development of capitalism. Therefore, the authors focused their efforts mainly on describing the main stages and rates of the 'capitalist evolution of industry and agriculture' and on providing a clearer picture of 'the imminent socio-economic conditions for the future socialist revolution' [9].

Interestingly enough, when analyzing the peculiarities of the Urals' economic development, which complied with the Leninist formula of the Urals having its own 'original' structure of a mining industry, the work drew two mutually exclusive conclusions about the meaning of this formula. D. V. Gavrilov believed that the Leninist interpretation of the 'original' structure of the Urals mining industry did not deny the dominant character of the whole Ural economy at the imperialist stage of capitalism [10]. In another part of 'The History of the Urals in the Period of Capitalism', this Leninist interpretation was explained by the fact that 'the Urals, especially its main sector of the economy, the mining industry, preserved multiple remnants of serfdom. Their elimination was the primary target of the Revolution (the February Revolution of 1917: authors' note). However, the mining bourgeoisie were unwilling to surrender their exclusive rights and privileges without a struggle' [11].

Given that these words belonged to V. V. Adamov (1914–1984), who by the date of the book's publication had passed away, there is no logical explanation for the presence of these two mutually exclusive conclusions in such a reputable academic work. The Soviet research traditions did not tolerate any contradictions in such large-scale studies. What aggravates this paradox even more is that V. V. Adamov, the head of the Urals branch and the leader of the 'new movement' in Soviet historical thought of the 1970s, was persecuted and lost the right to do research work for his interpretation of the Leninist idea about the 'original' structure of the Ural mining industry. Moreover, D. V. Gavrilov was, and still remains, one of his main critics.

Thus, by the early 1990s, Urals historians in close collaboration with Urals economists, laid sound foundations for studying the twentieth-century Urals economy. The factual evidence they accumulated, and the issues they proposed for research, are of vital importance for modern economic history.

According to leading modern economists, 'in the first half of the 1990s, Russian historical and economic studies experienced a sort of sudden discontinuity. Many economists (if not majority) studying historical facts abandoned these topics and turned their attention to something more up-to-date' [12]. We disagree with the opinion of those scholars who believe that 'the processes observed

in Russian historical studies in the first half of the 1990s did not contribute to the intensification of the research of the Urals' industrial development'. [13] On the contrary, it was historians who started exploring this area, which was temporarily abandoned by economists.

In this period, the scholars of the History and Archaeology Institute played a very prominent role in studying the twentieth-century economic history of the Urals. The work of A.V. Bakunin and A.E. Bedel is of particular interest since it discusses how the Ural industrial complex evolved in the 1920s and 1930s. They drew from the vast factual material which comprised the background which was completely new for the post-Soviet Russian researchers. These authors were the first to try to reveal the connection between the administrative management of the region, its economic mechanism, and the economic potential of the Urals. The analysis of this work shows how important it is for historians to inquire into the historical experience gained from various epochs of economic development and to use it when discussing the economic realities of modern Russia. According to A.V. Bakunin and A.E. Bedel, the 'historical experience of the formation, development and usage of economic potential of large regions', including the Ural industrial complex, will allow Russia to find 'effective ways of transitioning to the democratic constitutional state and market economy' [14].

This statement did not sound far-fetched because these authors were the first in Ural historiography who applied, instead of the Marxist approach, the civilizational technological theory, 'according to which technology, in its broad sense, plays the key role in the development of human civilization' [14]. This theory was used for analyzing the formation and functioning of the Urals industrial complex in the 1920s and 1930s.

Analyzing the existing factual evidence, A.V. Bakunin and A.E. Bedel came to the conclusion that by the end of the 1930s, 'a large industrial centre was being formed in the Urals. This laid the foundation for the territorial and production complex, involving the whole diversity of the regional primary material resources'. These authors did not deny the weaknesses of the Ural industrial complex, particularly its disproportionality, which they explained by the influence of the command and administrative management system, by the application of the industry-specific approach to regional development; and by the rigid centralized distribution of resources [14].

Development of the Urals industrial complex before and during the Second World War was also discussed by A.A. Antufyev. This historian was the first to conduct a complete historical and economic study of the Ural economic development in the wartime period and researched the inner processes which determined the structural shifts in the industry. He also touched upon the problem of production efficiency. The perspective of the Soviet totalitarianism theory chosen by this author allowed him to argue with those Soviet researchers who claimed that in these years the country had managed to create 'a well-coordinated wartime economy' [15]. According to A.A. Antufyev, the industrial boom in the wartime years did not result from using the objective laws and advantages of the socialist economy but, instead, stemmed from the 'greatest commitment and self-sacrifice of homefront workers, their patience and modesty, their increased efficiency, initiative and inspiration, which seems amazing taking into consideration that they were living under the cult of personality and rigorous administrative control' [15].

A.A. Antufyev wrote about the military enterprises built in the region in the pre-war years and of the whole branches of military industry created during the war. He analysed the crucial impact which the military industry exercised on all branches of the Urals industry in the wartime years. Using a substantial amount of factual evidence, A.A. Antufyev was the first to prove the opinion of a famous Soviet economist N.A. Voznesensky that 'in the wartime years, Urals turned into the most powerful industrial region of the country', which 'provided almost 40 % of all the military production in the wartime economy' [16]. (It should be noted that N.A. Voznesensky was involved in organizing the military industry in the USSR in the Great Patriotic War). A.A. Antufyev wrote the following: 'There was no other weapons and ammunition apart from those manufactured in the Urals economic region'. One of this author's major achievements is the fact that he was the first in the Urals historiography tradition to raise a question about the military industrial complex which was created in the region in the wartime years [15].

A.A. Antufyev believed that the economy which evolved during the war determined the development of the post-war Soviet economy. He wrote: 'Post-war application of cost-ineffective economic mechanisms inherited from wartime; the rigid centralized management system; and the

disproportional industrial structure: all these led to an irrational consumption and depletion of resources and the imminent danger of environmental disaster'. [15]

An analysis of the publications devoted to the twentieth-century Urals economic history, which were published in the first half of the 1990s shows that methodology plays a crucial role in historical studies when they turn to analysing economic phenomena. Within several years after abandoning the Marxist paradigm, Urals historians used a whole range of new approaches and concepts, mainly borrowed from foreign studies. In this way, they managed to test the civilizational-technological theory and the concept of Soviet totalitarianism.

Transfer from a Mono-Methodology to Multi-Methodological Approaches

'Research models' applied by historians and economists started drawing closer together at the turn of the millennium. Apart from everything else, this trend manifested itself in historians' mastering the methods of economics. The main peculiarity of modern studies is that they are conducted from the perspectives of different methodological approaches. The 'methodological revolution' of the early 1990s pushed the limits when scholars became interested in studying Urals history applying different methodological concepts, including the ones which were less popular with Russian historical science. In this context, B.V. Lichman's calls for methodological pluralism and a multiconceptual approach to history seemed particularly appropriate and up-to-date.

It was at this stage that real interdisciplinarity took place, manifesting itself in historians and economists 'exchanging' theories and using them for their own scholarly purposes. From our point of view, the most popular with Urals scholars were various theories of modernization and the theory of a 'mobilizational' society. A significant contribution to the development of the heuristic potential of the modernization theory, and the opportunities of its application in the studies of regional economies, was made by the historian V.V. Alexeev. Among his followers, there are many Urals historians and economists who now collaborate in order to develop a sufficient theoretical foundation to research the regional economy.

A considerable contribution to this methodological updating of historical studies was made by economists. In the second half of the 1990s, when Russian scholars were actively engaged in mastering the new models of economic history, they came across the theory of mobilizational society proposed by the economist A. G. Fonotov. He pointed out the following modes of social development: evolutionary; innovative; and mobilizational. He concluded that the mobilizational mode of development could be considered either as a way out of a stagnant state or as a tool to accelerate evolutionary processes; that is, when 'incentives for self-development and self-improvement of humankind and its living conditions evolved exclusively as a reaction to external disturbances'. According to Fonotov, the mobilizational mode of development is used only when the fast reaction of the system is required due to the conditions threatening to its very existence' [20].

Urals historians are now enthusiastic about using this theory in economic history [21]. The Centre of Economic History, Modern History Department of Chelyabinsk State University was established in December 2008 and undertook the goal of studying the laws of development and mechanisms characteristic of the mobilizational economy of Russia in the twentieth century. The Centre's staff held a number of academic conferences devoted to the Soviet mobilizational economy.

Many modern scholars now use the potential of the concept of Soviet totalitarianism and the renewed historical and materialistic approach when studying the twentieth-century Urals economy.

Modern Stage of Economic History Research

In its modern stage, the economic history of the Urals focuses on the problems which were not previously covered by historical studies, for these objective reasons: some documents were classified; and some topics were considered inappropriate to raise in studies of national history. Historians have now turned to such questions as the creation and development of industry-specific territorial production complexes, which used to be predominantly studied by economists.

It took enormous effort to explore the newly-available sources about the development and implementation of the Uralo-Kuzbass program in the context of the modernization of the Russian economy in the first half of the twentieth century. By joining forces, Urals and Siberian economists and historians published works devoted to this first Soviet interregional economic mega-project, and to its long-term consequences for the regional and national economies [22].

After the new opportunities for using the sources opened up, a lot of scholars published research works on the military industrial complex in the region. Urals historians' interest in the problem was enhanced by the works of the economist N.S. Simonov. He was the first in Russian historiography to provide an in-depth analysis of the economic aspect of the military industrial complex, its structure and its thirty years of history [23].

This problem is covered in a number of other works written by Ural historians: from the perspective of Soviet totalitarianism theory, this topic was researched by A.V. Bakunin [24]; while A.V. Speransky discussed it from the standpoint of modernization theory [25]. The main milestones in the history of Urals military production were examined in a number of comprehensive works [26, 27]. Urals historians are exploring this problem drawing from the early twentieth-century materials of the First World War [28]; the inter-war period [29]; the Second World War [30, 31]; and the post-war period [32]. Only in recent decades has it become possible for scholars to study the process by which the Urals became the country's rocket-missile shield [33, 34].

N.S. Simonov's work has had a different impact on Urals historians: it was perhaps A.V. Bakunin who it affected the most. These two authors share not only the same conceptual foundations in their research (they adhere to the same theory of Soviet totalitarianism), but also the same framework for categories and concepts, and factual evidence. A.V. Bakunin followed N.S. Simonov's observations, based on studying materials from the whole of the USSR, and applied them to the regional processes of formation of the military-industrial complex.

Other Urals historians benefited from the definition of the military industrial complex given by N.S. Simonov, who himself put a special emphasis on its military and economic components. This author interpreted the concept of the military-industrial complex as a 'body of constantly interacting and mutually dependent types of industrial production, which were separated from their 'parent' industries due to their specific application properties but which, nonetheless, did not lose all their organic production and economic connections to their 'parent' industries' [23]. In her analysis of military production in the Urals, L.V. Shuvarina introduced the term 'defence military complex', which, as she puts it, 'is not as broad as the 'military-industrial complex' and refers primarily...to the regions' [32].

At the present stage of studying the twentieth-century Ural economy, historians are fully capable of exploring the features of the government's economic policy in the region [35, 36, 37]. These issues used to be exclusively the prerogative of economists. Compared to economists, historians are more interested in the historical experience provided by the economic policy realized in the region, during the various stages of its development.

Conclusion

At the turn of the millennium, the Urals economic history studies show that historians are intensifying their efforts to study the twentieth-century Urals' economy. Modern economic history is characterized by new research challenges, an expansion of the source base, the application of diverse methodology, and the use of conceptual approaches and methods developed by Russian and foreign economists. The twentieth-century economy of the Urals has never been studied utilising such close collaboration between specialists in history and economics. It may be concluded that in the last decade and a half, the 'dissociation crisis' between historians and economists has been successfully overcome.

References

1. Sapogovskaya, L. V. (2006). Promyshlennaya politika kak issledovatel'skaya problema v kontekste «krizisa razobshchyonnosti» istorikov i ekonomistov [Industrial policy as a research issue in the context of "dissociation crisis" of historians and economists]. *Promyshlennaya politika v strategii Rossijskikh modernizatsiy XVIII–XXI vv. [Industrial policy in the strategy of the Russian modernizations of the XVIII–XXI centuries]*. Yekaterinburg: IiiA UrO RAN [Institute of History and Archaeology, Ural Branch of Russian Academy of Sciences], 45–46.
2. MakKloksi, D. N. (1993). Polezno li proshloye dlya ekonomicheskoy istorii [Whether the past for economic history is useful]. *THESIS. Zima*, 1, 1.
3. Zapariy, V. V. & Kamynin, V. D. (2012). Ekonomicheskaya istoriya na Urale [Economic history in Ural]. *Vestnik Uralskogo instituta ekonomiki, upravleniya i prava [Bulletin of the Ural Institute of Economics, Management and Law]*, 4(21), 64–71.
4. *Istoriya narodnogo khozyaystva Urala. V 2 ch. [History of Ural national economy. In 2 vol.]*. (1988, 1990). Sverdlovsk: Izd-vo Ural. gos. un-ta [Ural State University Publ.]. Vol.1 (1917–1945); Vol.2 (1946–1985).
5. Bakunin, A. V. (1991). *Ural kak edinyy promyshlennno-ekonomicheskyy rayon [Urals as united industrial economic region]*. Sverdlovsk: UrO RAN [UB RAS].
6. Alekseyev, V. V. (1998). *Stanovlenie akademicheskoy istoricheskoy nauki na Urale [Development of the academic historical science in Ural]. Institut istorii i arkhologii. Pervoye desyatiletie [Institute of History and Archaeology. First decade]*. Yekaterinburg.
7. *Istoriya Urala v period kapitalizma [History of Ural in the period of capitalism]*. (1990). Moscow: Nauka.

8. Kuzminov, Ya. I. (1998). Vozvrashchenie k «Istokam». O teoreticheskom zapase soobshchestva rossiyskikh ekonomistov [Return to "Sources". On a theoretical stock of community of the Russian economists]. *Istoki [Sources]*. Moscow, 3.
9. Pankin, I. D. (2010). Izuchenie promyshlennoy politiki na Urale v 1917–1941 gg. V sovremennoy nauchnoy literature [Study of industrial policy in Ural in 1917–1941 in modern scientific literature]. *Vestnik Uralskogo instituta ekonomiki, upravleniya i prava [Bulletin of the Ural Institute of Economics, Management and Law]*, 4 (13), 62.
10. Bakunin, A. V. & Bedel, A. E. (1994). *Uralskiy promyshlennyy kompleks [Ural industrial complex]*. Yekaterinburg: IIA UrO RAN [Institute of History and Archaeology, UB RAS].
11. Antufyev, A. A. (1992). *Uralskaya promyshlennost nakanune i v gody Velikoy Otechestvennoy voyny [The Ural industry on the eve of and in days of the Great Patriotic War]*. Yekaterinburg: In-t istorii i arkhologii UrO RAN [Institute of History and Archaeology, UB RAS].
12. Voznesenskiy, N. A. (1948). *Voennaya ekonomika SSSR v period Otechestvennoy voyny [Military economy of the USSR in the period of Patriotic War]*. Moscow: OGIZ.
13. Lichman, B. V. (2000). *Mnogokontseptualnaya istoriya Rossii [Multiconceptual history of Russia]*. Yekaterinburg: Ural. gos. tekhn. un-t [Ural State Technical University].
14. Alekseyev, V. V., Aleksyeyeva, Ye. V., Denisevich, M. N. & Poberezhnikov, I. V. (1997). *Regionalnoye razvitie v kontekste modernizatsii [Regional development in the context of modernization]*. Yekaterinburg — Luven: IIA UrO RAN [Institute of History and Archaeology, UB RAS].
15. Animitsa, Ye. G., Tertyshnyy, A. T. & Kochkina, Ye. M. (1999). *Tsiklichnost modernizatsii rossiyskoy ekonomiki [Recurrence of the Russian economy modernization]*. Yekaterinburg: Izd-vo UrGEU [Ural State Economic University Publ.].
16. Fonotov, A. G. (1993). *Ot mobilizatsionnogo obshchestva k innovatsionnomu [From mobilization society to the innovative]*. Moscow: Nauka.
17. Kamynin, V. D. (2012). *Uralskie issledovateli o mobilizatsionnom tipe razvitiya promyshlennosti [The Ural researchers about mobilization type of industry development]*. Industrialnaya Rossiya. Vchera, segodnya, zavtra. Mat-ly Vserossiyskoy nauch. konf. (3 dekabrnya 2012 g. Yekaterinburg) [Industrial Russia. Yesterday, today, tomorrow. Proceedings of All-Russian Scientific Conference (December 3, 2012. Yekaterinburg)]. Yekaterinburg, 3-6.
18. Artyomova, Ye. T., Kornilova G. Ye. & Lamina, V. A. (Eds.). (2010). *Uralo-Kuzbass. Ot zamysla k realizatsii: sb. st. i dok. [From plan to realization: collection of articles and documents]*. Yekaterinburg: IIA UrO RAN [Institute of History and Archaeology, UB RAS].
19. Simonov, N. S. (1996). *Voенно-promyshlennyy kompleks SSSR v 1920–1950-e gg. Tempy ekonomicheskogo rosta, struktura, organizatsiya proizvodstva i upravleniya [USSR military industrial complex in the 1920–1950th. Rates of economic growth, structure, organization of production and management]*. Moscow: ROSSPEN Publ.
20. Bakunin, A. V. (1996). *Istoriya sovetского totalitarizma [History of the Soviet totalitarianism]*. Book 1 — Genesis, Book 2: Apogee.
21. Speranskiy, A. V. (2011). Voенно-promyshlennyy kompleks kak faktor modernizatsii dinamiki Rossii [Military industrial complex of Ural as a factor of modernization dynamics of Russia]. *Opyt rossiyskikh modernizatsiy XVIII–XX vv.: vzaimodeystvie makro- i mikroprotsessov [Experience of the Russian modernizations of the XVIII–XX centuries: interaction of macro- and microprocesses]*. Yekaterinburg.
22. *Voennaya istoriya Urala. Sobytiya i lyudi [Military history of Ural. Events and people]*. (2008). Yekaterinburg.
23. *Shchit i mech Otchizny. Oruzhie Urala s drevneyshikh vremyon do nashikh dney [Board and sword of Fatherland. The weapon of the Ural since the ancient times up to now]*. Yekaterinburg.
24. Gavrilov, D. V. (1995). Vliyanie geopoliticheskogo faktora na razvitie voennogo proizvodstva na Urale, XVIII v. — 1917 g. [Influence of a geopolitical factor on development of military production in Ural, XVIII century — 1917]. *Regionalnaya struktura Rossii v geopoliticheskoy i tsivilizatsionnoy dinamike [Regional structure of Russia in geopolitical and civilization dynamics]*. Yekaterinburg.
25. Kulikov, K. I. & Korosteleva, S. A. (2003). Modernizatsiya promyshlennosti Udmurtii s 1912 po 1941 gg. kak osnova sozdaniya voенно-promyshlennogo kompleksa [Modernization of the industry of Udmurtia from 1912 to 1941 as a basis of the military industrial complex development]. *Ural v voенnoy istorii Rossii. Traditsii i sovremennost [Ural in military history of Russia. Traditions and present]*. Yekaterinburg.
26. Tatarikin, A. I., Bersenev, V. L., Zapariy, V. V. & Gorst, A. P. (2010). Uralskaya promyshlennost v gody Velikoy Otechestvennoy voyny [The Ural industry in days of the Great Patriotic War]. *Geopolitika i bezopasnost [Geopolitics and security]*. St. Petersburg, 2.
27. Speranskiy, A. V. (2012). Formirovanie oboronno-industrialnogo kompleksa na Urale v nachalnyy period Velikoy Otechestvennoy voyny [Development of a defensive and industrial complex in Ural in an initial period of the Great Patriotic War]. *Izvestiya UrFU [Izvestiya of URFU]*. Gumanitarnyye nauki [Humanities], 2(102), (2. Humanities).
28. Shubarina, L. V. (2011). *Oboronno-promyshlennyy kompleks na Urale. Regionalnyy opyt razvitiya. 1945–1965 gg. [Defense industry complex in Ural. Regional experience of development. 1945–1965]*. Chelyabinsk.
29. Novosyolov, V. N. (1999). *Sozdanie atomnoy promyshlennosti na Urale [Creation of the nuclear industry in Ural]*. Chelyabinsk.
30. Kuznetsov, V. N. (2009). *Istoriya atomnogo proekta na Urale [History of the nuclear project in Ural]*. Yekaterinburg.
31. Alekseyev, V. V. & Sapogovskaya, L. V. (2000). *Istoricheskiy opyt promyshlennoy politiki v Rossii. Krat. nauch.-prakt. ocherk [Historical experience of industrial policy in Russia. Short theoretical and practical essay]*. Yekaterinburg.
32. Lichman, B. D. (2008). *Uralskaya industriya v ekonomicheskoy politike Sovetskogo gosudarstva vtoroy poloviny 50-kh — serediny 80-kh gg. [The Ural industry in economic policy of the Soviet State of the second half of the 50th — the middle of the 80th]*. Yekaterinburg.
33. Pankin, I. D. (2013). *Sovetskaya gosudarstvennaya promyshlennaya politika na Urale v 20–30-e gg. XX veka v otechestvennoy istoriografii [The Soviet state industrial policy in Ural in the 20–30th of the XX century in the national historiography]*. Chelyabinsk.

Information about the authors

Zapariy Vladimir Vasilievich (Ekaterinburg, Russia) — Doctor of Historical Sciences, Head of the Department of the History of Science and Technology, Institute of Humanities and Arts, Ural Federal University named after the First President of Russia B. N. Yeltsin (6, S. Kovalevsky St., 620002 Ekaterinburg, Russia; e-mail: vzzap@mail.ru)

Kamynin Vladimir Dmitrievich (Ekaterinburg, Russia) — Doctor of Historical Sciences, Professor of the Department of Theory and History of International Relations, Institute of Social and Political Studies, Ural Federal University named after the First President of Russia B. N. Yeltsin (4, Turgeneva St., 620083 Ekaterinburg, Russia; e-mail: kamynin@yandex.ru)

Guanshan Chzhan (Changchun, China) — Doctor of Historical Sciences, Professor, Northeast Asian Studies Academy, Jilin University, China (Changchun, Jilin University, Northeast Asian Studies Academy; e-mail: zgxjcc2002@aliyun.com)