Exhibiting nature, modernising agriculture: ecology and technology at the All-Russian Agricultural Exhibition, 1923

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Abstract. This paper examines the history of the First All-Russian Agricultural and Handicraft Industrial Exhibition, which took place in Moscow during August-September of 1923. The study aims to reconstruct the environmental and agronomic contexts of the expositions presented at the Exhibition. The objectives of the study included analysing the contents, forms and slogans of these expositions, as well as identifying the ambitions of the Bolshevik leaders to publicly demonstrate the achievements of agrarian science and the results of cataloguing the natural environment and resources in the USSR. It is shown that the primary goal of the Exhibition was to convince the domestic public, especially peasants, in the advantages of the science-based “Sovietisation” of the countryside, along with modernisation of the backward Russian agriculture. The paper argues that the Exhibition became a tool for promoting various natural resources and biodiversity of the different regions of the USSR. No less important was the presentation of agronomy and agricultural technologies as practical tools for modernising agriculture.

1. Introduction
This article is a part of an interdisciplinary research project which deals with the interaction between science, technology and art at the First All-Russian Agricultural and Handicraft Industrial Exhibition (further – Exhibition). Alluded to the ideas of the Revolutionary renovation of Russia, the Exhibition was inspired by the Bolshevik leaders to promote and implement the scientific and technological modernisation into agriculture. Besides, vast and diverse natural environment and resources of the different regions of the country were on display. The primary focus of this article is analysing the Exhibition in terms of boundaries and intersections of environmental and technocratic contexts of its expositions. In particular, the problem under the question is exhibiting of natural diversity as an independent scientific and humanitarian value, on the one hand, and as a resource and means of modernisation of agriculture, on the other hand. The other goal is tracing the possibilities of art to reflect these complex interactions.

2. Materials and methods
This paper is based first and foremost on the documents of the Chief Committee of the Exhibition from the Russian State Archive of the Economy (RGAE). Therefore, the materials of this collection, most of that are cited for the first time, constitute the source plot of the article. Further, as the critical approach towards the study of the ecological and technological contexts of the Exhibition lays in the interdisciplinary realm, a number of methods of historical and socio-cultural research were used in this
study, including not only the classic problem-historical approach, but also the methods of art history, sociology, historiography, and cultural anthropology.

3. Context and tasks of the Exhibition

The organisation of the Exhibition began in the spring of 1922, during an awkward moment of the country: the civil war had just ended; people were struggling with the ravages of the famine of 1921–22; the peasantry was in turmoil, still remembering _prodrazvyorstka_ (the surplus appropriation system) [1]. Nevertheless, the Soviet leadership sought to demonstrate publicly “revolutionary achievements and plans” in the main branch of the economy of then Russia – agriculture, at the same time getting ready to present the results of scientific cataloguing of natural environment and resources. This kind of united exhibitions hadn’t been previously held: traditionally, expositions were supposed to be divided according to the topic (agricultural, industrial, environmental, ethnographic, etc.). The project of the Exhibition, which passed two rounds of selection (open and closed) belonged to A.V. Shchusev; I.V. Zholtovsky became the chief architect; V.K. Oltarzhevsky was responsible for the construction as a deputy chief architect. The Exhibition occupied a vast territory of more than 100 hectares (the zone on both sides of the Crimean Bridge which is the present-day Gorky Park and Museon, and the Neskuchny Garden); 225 buildings were erected, 150 pavilions operated. All this was done in a record short time – just ten months! The Exhibition was opened on the 19th of August with a fiery speech from Klara Tsetkin as well as speeches from members of the All-Union Central Executive Committee, the Council of People's Commissars. Vladimir Lenin visited the Exhibition during his last visit to Moscow, on October, 19. More than 200 scientific institutions became exhibitors: institutes of the Academy of Sciences, the Moscow Timiryazev Agricultural Academy, experimental stations of People's Commissariat of Agriculture (Narkomzem), the State Institute of Experimental Agronomy, the All-Ukrainian Scientific Committee, the Anikovsky Biological Station, the Main Botanical Garden, etc. [2]. The Exhibition is known primarily as the triumph of the Russian architectural and artistic avant-garde [3]. Several examples of the co-creativity of people of science and the best Moscow artists in the embodiment of the ideas and concepts will be considered in the following section.

The overall goal set for the organisers was to promote the Leninist plan of cooperation and the “linkup between the urban and the peasantry”. People entering the Exhibition were met by a massive pyramid of planted flowers, on the one side of which there was a portrait of Lenin. On the other side his long saying was placed, “Our goal is to restore the linkup, to prove to the peasant that we begin with the thing that he understands; that we can help him; that the communists are helping the ravaged little peasant at the moment of this hardship.” [2, op. 1, d. 129b, p. 6] The target of the Exhibition was also the global audience: foreign institutions were invited to participate as exhibitors, thus confirming the innovative intentions of the Soviets.

Consequently, the Exhibition had several tasks. One of them was to convince the public, first and foremost peasants, of the advantage of the scientific and technical modernisation of agriculture, by demonstrating new machines, technologies and agricultural science data. Meanwhile, it was modernising the very carrier of agrarian practices – the peasant. So, the Exhibition contained agitation and propaganda aim. Another task was to demonstrate the “natural wealth of the country” by combining a wide range of geographic, geological, botanical, zoological, ethnographic and anthropological materials. Besides, the global audience was in focus as well: more than 600 foreign firms, companies and organisations, both state and private, were invited to participate as exhibitors and potential investors.

It should be noted that the Exhibition was held during the New Economic Policy (NEP) period with its elements of capitalist economic management. Besides, during the setting up of the Exhibition, the republics in the USSR were united, so the geography and themes of the expositions were significantly expanded. Therefore, in addition to thematic pavilions, the republic’s pavilions appeared at the Exhibition: Azerbaijan, Ukraine, Belarus’, Armenia, Kirgizia (Kirrepublic, as it was named at the time), Turkestan, etc. [4].
4. Environmental issues at the Exhibition: expositions of the Scientific and Educational Department

According to the organisers’ idea, the Exhibition was supposed to be opened by the introductory exposition of the Scientific and Educational Department, containing a vivid overview of the natural resources and biodiversity of various regions of the USSR. It was distributed over several pavilions; the leading one was the so-called Main House.

In the Main House, the central section of the Department – “Nature of Russia” – was located. Its objective was “to show the environment in which agriculture develops, as well as the natural resources and the forces which it relies on” [5, p. 10]. Visitors were greeted with all sorts of maps, charts, graphs, etc. Most of these exhibits were prepared for the Exhibition. Thus, a new geological map was presented (scale: 60 verst, about 60 km (39, 77 miles), a soil map (size: 100 verst (66, 29 miles), maps of groundwater and artesian waters, minerals of European Russia which had agricultural importance. Different maps of climatic regions, diagrams and graphs reflecting the distribution of various elements in the marine area were shown in the subsections “Climate” and “Sea”. The attention was drawn to the soil profile along the meridian through European Russia in the subsection “Soils” in addition to the corresponding cartograms. The sections “Vegetation” and “Animal World” presented the relevant botanical-geographical and zoogeographical maps and profiles. To explain the graphic exhibits, short essays were prepared in two variants: complete scientific version (5–15 p.) and a popular one (1–1.5 p.) [2, op. 1, d. 3, p. 4].

The large and almost independent section “Population” contained a lot of various historical and ethnological exhibits (“a tribal map of the USSR”, map of the ancient settlement of the Russian Plain, etc.). These were followed by the characteristics of the population of the main climatic zones using models, slides, photographic and film materials. A title painting (oil on canvas) was presented for each zone, giving an artistic concept of the ethnological appearance of an area [2, op. 1, d. 129b, p. 29]. Living ethnographic exhibits, like a parade of the peoples of the USSR, were also presented. Not only dwellings and utensils of small nationalities of the USSR were collected for the Exhibition, but also so-called “exhibitors-residents” were invited (most often peasants); the Central Exhibition Committee and local committees provided the transportation of their houses with their families, pets, belongings, and also sponsored their stay at the exhibition [2, op. 1, d. 13, p. 8]. The underlying theme of a special “Forest” pavilion with the most precious exhibits also adjoined to the section “Nature of Russia”. The pediment of this pavilion was painted by A.A. Ekster [3, p. 76].

The exposition of the Scientific and Educational Department pursued the primary aim of demonstrating natural and human resources as a material base and means of modernising agriculture. However, equally important was the presentation of natural diversity as an independent asset. It comes as no surprise that the “environmental protection” unit was prepared with the participation of a wide range of specialists from central and regional academic institutions (institutes of the Academy of Sciences, among them Astrophysical, the Main Botanical Garden, nature preserves and others). The environmental theme of the local level was also presented at the expositions of many experimental stations (more than 110) [5, p. 19–24].

As an example, the author will take the botany section (Muratov Base) of the Shatilov Agricultural Experiment Station, which was headed by a geobotanist, a student of S.G. Navashin, V.N. Durnovo [6]. The Base prepared the data for the exposition of plant diversity (a booklet, later a comprehensive volume of 600 pages) of the Oryol province which the station belonged to. The materials on nature reserve Galichya Gora, located on the Eastern slope of the Central Russian Upland, bordering the Oka-Don Lowland, in the North-Don Relic Botanical Region, were also collected for the Exhibition. The Galichya Gora project was successfully conducted by V. Khitrovo. He managed to resolve the issue of the protected-area status of this natural monument. The reserve combined unique botanical and geographical characteristics of relic historical landscape and flora, not typical for Central Russia. Nowadays the reserve is registered in the Guinness World Records as the smallest in the world. The expositions of the Muratov Base were located in different places, often separately from other sections of the Shatilov Station. Thus, publications about the Base took place among other editions of the Shatilov Station in its
display case in the Pavilion of Experimental Stations. The exhibits on meadow typology, weed vegetation, clover polymorphism (plant and soil samples, photographic materials, maps, etc.) were demonstrated in the Land Reclamation Pavilion in the display cases of the Oryol, Bryansk and Ryazan provinces, the Bryansk forestry and the Orel seed control station. The works on clover received the Exhibition Medal; the department received an award from the local authorities: in the spirit of the time, they were given a horse for travelling [7].

5. Technological context of the Exhibition: agronomy and machinery
The Shatilov Station was undoubtedly invited to the Exhibition not only to demonstrate the results of the Muratov Base. There were numerous varieties of oats, rye, clover, and other crops among the achievements of the experimental station. Also, the activities of the Shatilov Gossekmkul'tura (the State Seeds Cultivation, or the State Management of Grain Culture), a specialised scientific and practical institution that carried out mass reproduction of elite varietal seeds, were presented. Visual exhibits (sheaves of breeding varieties, the model of a factory for cleaning high-grade grains, etc.) and numerous charts, diagrams, scientific publications and popular science booklets were demonstrated by the Shatilov station at the Exhibition. For example, a booklet “Shatilov Gossekmkul’tura”, which was beautifully designed in the avant-garde style, explained the advantages of the system of mass reproduction of high-quality grain, which included the peasantry cooperation as one of the steps [6].

The demonstration of technocratic and environmental expositions in the windows of the Shatilov station reflected the non-confrontational, concurrent development of these trends in the activity of large experimental stations that characterises the mid-1920s. These trends wholly corresponded to the situation in the field of environmental management: still peaceful division of the departmental responsibility of the Narkomzem (experimental stations) and the People's Commissariat of Education, or the Narkompros (its Committee for Nature Protection and a subdivision of the Nature Conservancy). Furthermore, the conflict between the Narkomzem and the Narkompros on the reassignment of reserves would occur only in a year and would be lost by the Narkomzem. Thus, the Exhibition slogans reflecting these polar trends are also significant: “Exterminated nature monuments cannot be resurrected!” (Department of Nature Conservation) [2, op. 1. D. 34b, p. 35]; “The knowledge of nature makes it possible to subordinate its forces!” (Narkomzem) [2, op. 1. D. 34b, p. 30].

However, the underlying message of the Exhibition was symbolised by numerous “mild” slogans about agrarian modernisation with the primacy of scientific knowledge in this process. For example, “Only a close union of labour and science will conquer vast areas of wild lands”; “If you know nature, its hardships are not so terrible” (Nature Section) [2, op. 1. D. 34b, p. 30]; “Do not cut down the forest for no reason, so as not to fight for the scraps” (Forest Department) [2, op. 1. D. 34b, p. 40]; “Knowledge is capital, without which agriculture cannot be improved” (Department of Experimental Stations) [2, op. 1. D. 34b, p. 34]; “No knowledge – no bread” (Department of Agricultural Assistance) [2, op. 1. D. 34b, p. 35]; “Observation of natural phenomena facilitates the work of a peasant” (Narkompros) [2, op. 1. D. 34b, p. 35]; “The Museum of the native land is a living book about the riches of the country” (Museum Department of the Narkompros) [2, op. 1. D. 34b, p. 35]; “Electricity is needed in the place, where a peasant uses agricultural machinery” (Department of Agricultural Electrification) [2, op. 1. D. 34b, p. 35]; “There is no life without water” (Department of Land Reclamation); “Our raw material is processed by foreigners – let’s learn to do it ourselves” (Processing Department) [2, op. 1. D. 34b, p. 40–41].

The expositions within the framework of what we call the “modernisation” trend were numerous and variable. For example, many agro-industrial syndicates that arose during the NEP period, such as the All-Russian Tobacco Syndicate, introduced innovative (for that time) automation of processing of raw materials and production of finished goods. By the way, the production line was presented at the Exhibition in the famous pavilion "Makhorka" of K.S. Melnikov.

In addition, as an example, I will tell you about irrigation projects meant to increment agricultural arable land. They were presented in the Pavilion of Turkistan by architect F.O. Schechtel (in addition to the Land Reclamation Pavilion). Thus, the project was performed (1920) as part of the unimplemented irrigation program of the Golodnaya (Hungry) Steppe Irtur under the supervision of Schechtel along
with the exposition “The Golodnaya Steppe”. It included dams, administrative, public, residential buildings containing signs of the architectural heritage of Central Asia. According to the architect’s plan, the project should have clearly shown that giant hydraulic structures and settlements are a phenomenon which is closely connected with the culture of the peoples inhabiting this land [8]. However, uncertainty with land ownership – land in several vital areas belonged to public associations – turned out to be an obstacle for a successful implementation.

As for the construct of a peasant, in the framework of the Exhibition we also see the harmony of the present and the future. Peasant’s “Present day” was portraited by the already mentioned “exhibitors-residents” with a transferred fragment of their habitat. As well as by numerous participants of ethnographic processions, demonstrations, festivals (labour, culture, arts and crafts, etc.) that took place in the “Old Village” exposition. “The Future” was represented by “New Village” exposition with modern electrified dwellings, public buildings, as well as agricultural technology, innovative materials and land cultivation. “New peasant” was positioned as a master of the machinery, electricity and the innovative methods of reclamation, selection, agrochemicals, etc. [10] “The Future” was illustrated by the avant-garde architecture of the pavilions, agitation posters, etc. Those forms should have been demonstrated by artists, sculptors and architects of the Russian avant-garde: A.V. Shchusev, A.A. Ekster, V.M. Mukhina, K.S. Melnikov and others. An influential art propaganda machine worked together with the writers such as D. Bedny, V.V Mayakovsky, M.A. Bulgakov and others.

6. Conclusion
The First All-Russian Agricultural and Handicraft Industrial Exhibition became a unique demonstration of the advancement of modernised technologies in agriculture while maintaining an expressed environmental trend. Combination of the scientific and technological expositions presented at the Exhibition provided future exhibitions, both central and local, with the valuation methodology. More than 1.5 million visitors saw the Exhibition in less than two months. Public interest was fueled by a combination of scientific and technological exhibits, on the one hand, and entertainments and public cultural events, on the other.

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