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ARTISANAL IRONWORKS OF THE CENTRAL CHERNOZEM
REGION IN THE 17TH CENTURY

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Abstract

This research touches upon history of establishment and development of artisanal ironworks during the Time of Troubles and Riot Age. It is well-known that during this period Russia saw such important events as formation of a common Russian market, appearance of first workhouses based upon separation of labor and manual labor, further formalization of serfdom. All these events took place in the territory of the Central Chernozem Region as well, influencing small-scale production in the region as a whole. The authors emphasize that in the 17th century, during the time of political, social and economic instability in Russia, Central Chernozem Region rose as a center of artisanal metallurgy. Active development of crafts and increased demand for iron items due to agricultural ramp-up that needed more quality iron tools determined formation of regional specifics. The paper uses archival sources to reflect the following features: presence of necessary feed in the form of rich iron ore, limestone, charcoal; increased demand; formation of individual centers of artisanal metallurgy in the regions with a degree of specialization; creation of a foundation for industrial metallurgy in the agrarian region; introduction of a family contract in arrangement of co-operative craft societies; specifics in blacksmith's training. Artisanal production allowed for development of the raw material resources; formation of qualified personnel among the low-scale producers; improvement in technical and production level of metallurgy due to expansion of small artisanal workshops.

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1. Introduction

In the Time of Troubles, in the Central Chernozem Region, just like throughout Russia, political, social and economic life of the region was destabilized. Objective caused related to anomalous weather and famine determined not only deficit of foodstuffs, but also increased social tensions.

Partial political, economic and social stabilization happened only in the end of the Time of Troubles, when foreign forces were driven out of the Russian territory. Economy and politics normalized then. An important role in this process was played by small producers that were involved in crafts during the period free of field works. They obtained small additional income that was routed to family provision and paying taxes. All the craftsmen in the Central Chernozem Region were subject to mandatory taxation. In addition to direct and indirect taxes, they were also required to participate in state works free of charge, which of course was very lucrative for the state.

2. Problem Statement

However, despite practical significance of craftsmen in normalizing the economy in the 17th century, an uneven studiedness of this topic in historical literature shall be noted. There are local studies that analyze exclusively particular aspects. However, there is still no complex generalizing study that establishes features in development of crafts.

3. Research Questions

History of development of artisanal ironworks in the Central Chernozem Region in the 17th century, revealing their features and significance.

Uneven studiedness of the history of the ironworks in the historical literature, as the process of development in artisanal ironworks of the 17th century was studied by researchers only in passing.

This study is based on documents in the State Archive of the Voronezh oblast (Rusarchives, 2019). The documents include czar's decrees, extracts from the same and from census books, schedules and materials on riverboat trade on Don, census lists, etc.

4. Purpose of the Study

The purpose of the study is to cover the stated gap while accounting for the relevance of the topic.

5. Research Methods

Methodological foundation of the work is based upon the principles of historicism and scientific objectivity. Their employment allowed seeing the process of development of the artisanal ironworks in its dynamics and in interactions with various branches of industry, reconstructing a complex picture of distribution of the craft activity of blacksmiths and blast furnace operators in the 17th century, while avoiding single-sidedness in assessment of their development.

6. Findings

Historiographic summary of research into artisanal ironworks shows that the first mentions of the craft may be found in the works on statistical description of various governorates, legislative framework for development of the Russian industrial metallurgy, as well as the works covering the formative period of the Russian entrepreneurship. Various developmental stages of artisanal metallurgy in the Central Chernozem Region were analyzed by Nedosekin (1960).

Area studies partially cover the gap in the historiography. Researchers, while involved into studies of formation and development of industrial metallurgy in the region, also analyzed some aspects in development of the regional artisanal metalworks (Avgustin, 2011; Weinberg, 1886).

Modern researchers determined the scale of development of the local crafts in the post-reform period, directions and dynamics of seasonal works. They also revealed the role that crafts played in formation of the regional industrial production (Grigorova, 2017; Dushkova, 2019).

Some milestones in development of crafts in the historical context are given in the works of foreign scholars – L. Valrasa, D. Becattini. While analyzing the topic of cooperation, they also analyzed activities of the government that stimulated the development of small commodity production as a whole (Becattini, 1990, 2007; Walras, 1988). Toops (1993) analyzed the role of crafts in development of tourism as exemplified by China, proving evolution of crafts under the influence of tourism. Carrozzino (2011) admits that crafts form an important part of cultural heritage that requires careful preservation of traditions for future generations. Rogerson (1986) studied the questions of historical evolution of rural artisanal producers in developing nations.

It is a common knowledge, that crafts have been developed in Russia from the ancient times. Everywhere, Eastern Slavs were involved into various crafts, primarily for meeting the needs of their own families in the simplest consumer goods.

With the development of social division of labor, a production by order appeared, so, craft as an occupation was born. Approximately from the 9th century, artisanal production started to form, where the prevailing direction was producing goods for sale in fairs and markets.

The period of its formation lasted up to the 17th century, depending on the type of craft and geography of its development. For example, in the territory of the Central Chernozem Region, artisanal ironworks were known from times immemorial. Initially, they were copper works, then bronze works. During the Kievan Rus period, regional metalworks underwent active and fast development. Archeology supports this fact with multiple findings of slag along the shores of the Voronezh river, witnessing to systematic and prolonged iron smelting starting back in 9th–13th centuries.

Starting from the 13th century, as a result of Mongol-Tatar invasion, there is a stagnation or decline in artisanal metalworks in the region. Mongols put local craftsmen into severe conditions, trying to control the dangerous trade of smiths who were able to produce weapons. A negative result of this was vanishing of whole artisanal trades, including those in metal mining and metallurgy.

Revival of artisanal metallurgy took place in 16th century, when towns were founded for protection of the Moscow state from Crimean Tatars. Active pace of manufacturing determined formation of the Central Chernozem Region as an independent center of artisanal metalworks in the 17th century. According to archival documents, from these years on the schedule of exported goods, in addition to fur

skins and salt, includes iron tools [SAVO. F. II-182. Inv. 4 File 64. Sheets 10-11, 14-15, 20, 38-40, 50-55).

Meanwhile, development of iron production crafts in the Central Chernozem region had certain specifics due to the agrarian specialization of the region. Here, even in conditions of concentration of production and a shift to industrial development, sectors of economy related to production and processing of agricultural resources had precedence. Development of branches of heavy industry (including metal working) was peculiar and differed from common Russian trends.

As the first regional feature, one shall note peculiarities of raw materials: iron ore deposits, limestone and charcoal.

In the territory of the region, the resource portfolio mainly consisted of large and small deposits of bog ore and limonitic iron. Some massive sources of iron ore, such as Lipetsk-Studenetsk orefield in the basin of the Voronezh river that covers Lipetsk, Elets and Zadonsk uyezds (districts) were developed by craftsmen for the needs of state metalworks. Separate deposits were noted also in the territory of modern Voronezh oblast – in Usmansky and Borshchevsky districts. Another mining location was Ramonsky district.

The second feature specific for development of the ironworks in the Central Chernozem Region was formation of independent centers of artisanal metalworking due to presence of industrial raw materials in the region and increased demand for iron goods as a result of prosperous agriculture that required more and more high-quality iron tools.

According to sources, the oldest region of blacksmithing and iron smelting development was the Yelets uyezd. Here, crafts co-existed with industrial metallurgy. Local craftsmen worked both for the free market and for state orders. According to documents from the Voronezh Government Office archival fund, there were four specialists operating in Yelets in the 1620s; three of them were blacksmiths and one was boilermaker (SAVO F. I-182. List 2 File 139. Sheets. 4-6, 8; 4; 13, sheet.1-2 backside). By 1640s, the number of blacksmiths in the township increased. The upward trend continued until mid-18th century. By that time, there were already 210 specialists living in Kuznechnaya Sloboda (Blacksmith settlement) along the shores of Yelnitsa and Sosna rivers. The settlement was arranged to concentrate all the ironworking craftsmen in a single location.

Another large center of artisanal metalworking in the Central Chernozem Region in the 17th century was the Roman uyezd, to the south of Yelets. The landlord there, Ivan Nikitich Romanov, being interested in economic upturn of the locality, supported development of metalworks, charcoal production and mining. Craftsmen were both local specialists and transferred outsiders, primarily from Yelets. This is supported by archival documents from Voronezh Treasury Chamber, where transferred specialists were recorded under the surname of Yeletsky, which they were given after being transferred from Yelets (SAVO. F. I-18. List 1. File 30. L. (101).

In the Romanov uyezd, in comparison with other centers of regional artisanal metallurgy, specialization of the production process is most evident. From the numbers of blacksmiths, armorers, wood burners, boilermakers, bell makers and others were produced (Accounts, 1990).

In addition to Yelets and Romanov uyezds, other centers of artisanal metallurgy included the town of Kozlov, located in the territory of the Kholer orefield, the city of Voronezh and Voronezh uyezd.

The third feature of development of ironworks in the Central Chernozem Region in the 17th century was related with a certain influence that the artisanal metallurgy had over creation of industrial manufacturing in the region. Primarily, it was expressed in preparing the conditions for building factories, both private and governmental, in the territory of the region. Active development of artisanal ironworks, primarily defined preparation of the raw material base, prepared highly qualified personnel from the numbers of small-scale producers, as well as improved technical and production level of metalworking due to expansion of small-scale artisanal workshops.

The role of artisanal metalworking in formation of industrial production may be traced through an example of the first large metalworking factory of the region, Borinsky Factory founded in 1692 – 1693.

Initially, the factory was build with accounts for specifics of the local economy. It was located near the town of Romanov (SAVO. F. I-14. List 1. File 17. Sheet 355) – one of the development centers in regional metallurgy. The enterprise operated on the raw materials that were for a long time developed by craftsmen of the Romanov uyezd. Besides, local ore miners sold treated ore firstly to the Borinsky Factory. The main cause was high purchasing prices for the raw materials. It is important to note that the personnel of the factory was largely formed by former craftsmen of the ironworks, inhabitants of Belokolodsky and Romanov uyezds.

Moreover, the factory saw generational shift in the personnel from craftsmen. This process is evident from the documents of the Voronezh Government Office, which reflect 10 revisions of the population; of 16 arrivals of workmen to the Borinsky Factory, only one iron smelter came from Alekseevsky uезд, while the other 15 all came from Romanovo uезд (SAVO F. I-18. List 1. File 22. Sheet 289).

The fourth feature of development of metallurgy in the Central Chernozem Region in 18th century was in family contract, which had regional peculiarities. Here, it served as a basis for various cooperative associations, and not just performance of production operations by members of the same family. In addition, principles of cooperation, such as mutual assistance and solidarity, collectivism, more often than not provided solution to raw material and sales issues, thus allowing operating without middlemen.

Presence of the family contract is supported by published materials, such as Cadastre of 1615, Cadastre of 1629, Census book of the Voronezh uyezd for the year 1646. According to these documents, throughout the first half of the 17th century, there is an upward trend in family contracts. For instance, in 1615 there was only one case recorded, in 1629 there were 6 cases where a workshop was operated by brothers or by a father and a son. In 1646, there were 7 such cases (Voronezh Administrat, 1861).

The fifth feature of development of metallurgy in the Central Chernozem Region in the 17th century lies in specifics of blacksmith's training. As a rule, knowledge and practice were obtained through a blacksmith shop of a relative. All the secrets of the production process were passed down from generation to generation among related people. Blacksmithing father aspired to teach his son or a nephew (in cases where there were no sons), etc.

The process itself was marked by presence of familial cooperative labor, according to which certain functions were assigned to each participants of the production process. Usually, the youngest member of the family worked as a hammerman. He ran various errands for the master and was involved

in creation of forms for iron goods. Thus, the training involved various stages of the metalworking process.

7. Conclusion

Thus, analysis of the history of formation and development of artisanal metallurgy in the 17th century allowed revealing a number of regional features of the small-scale production in the area of metalworking crafts: presence of necessary preconditions in the region in the form of rich deposits of iron ore, limestone, charcoal; formation of individual centers of the artisanal metalworking; influence of the artisanal metallurgy onto creation of large-scale industrial production in the region; use of family contracts in the production process; specifics of training in ironworks.

In return, these features are witnessing to an active development of artisanal metallurgic crafts during a problematic period in development of Russia. Despite lacking state's support for small-scale production, craftsmen expanded their production and became owners of industrial plants. Today, when large companies fail and there are certain problems in the area of modern entrepreneurship, such historical experience is of special significance.

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