## P. Krokosz SALT PRODUCTION IN THE RUSSIAN EMPIRE. ORGANIZATION, EXCAVATION TECHNIQUES, TRADE

## Summary

The article presents the issues related to the Russian salt excavation and processing from the sixteenth to the eighteenth centuries. Within these three centuries arose several strong salt production centers scattered in different parts of Russia. In the north, the important role was played by saltworks held by the Solovetsky monastery, supplying all the Pomor Coast (lands extending at the White Sea) with salt and production facilities operating in Sol'vychegodsk. In the region of central Russia, the most important one was located near Staraya Russa near Novgorod, which is one of the oldest centers of salt production in the Ruthenian lands and Sol' Galitskaya with its shallow brine sources. In the mid-sixteenth century through the Stroganov family evaporated salt production developed in the basin of the Kama River, and the "salt company" created by one of its members—Grigoriy Stroganov – at the beginning of the eighteenth century supplied up to 60% of this product to the internal market. In the 1580s the exploitation of salt lakes near Astrakhan increased and the salt obtained there was used for salting fish delivered to many Russian cities. In the first half of the eighteenth century the tax authorities acceded to obtain salt from the Caspian waters of Lake Alton, which soon—due to the significantly lower production costs—was able to partly drive the salt coming from old salt production centers out of the market. Almost simultaneously with cheap Alton salt a small amount of salt mined in Sol'ilieck (the Orenburg Province) appeared in the sale.

The salt delivered to the Russian recipient until the turn of the eighteenth and the nineteenth centuries was acquired from three main sources: the sea, the salt lakes and underground sources of brine (later rock salt began to be operated on a larger scale). The salt evaporation technique, which developed in the fifteenth and the sixteenth centuries, survived almost unchanged until the end of the nineteenth century. In all Russian salt production centers one type of a saltery building operated and it could sometimes differ only by size (saltworks of the Stroganov family were usually larger). Also one form of chren was used—a large rectangular vessel to evaporate salt which was suspended over the furnace positioned in the middle of the saltery (in the White Sea salteries chrens were round). The course of evaporation was supervised by a "saltery master", together with a group of apprentices. No less important role was played by the specialist knowledgeable in brine well digging technique ("pipe master"), through which the brine got straight to the saltery.

Evaporated salt produced in various parts of Russia was getting both to the local market and was transported to distant parts of the country. Issues related to its sale and forwarding usually rested with its producer. Small producers sold their goods directly on the spot to traders who came to them or on the nearby markets and fairs. Greater industrialists organized salt transport themselves from their salt production centers to

big cities where they had their own shops and stalls. The transport was through the network of roads and a much more developed river communication system (in the time of navigability of the rivers salt was transported by ships, and when the rivers were icy by sleigh). In order to reduce transport costs and provide greater security to people and goods ships loaded with salt moved on rivers in groups called "salt caravans".

Salt production and trade in Russia from the sixteenth to the eighteenth centuries were profitable activities, although there were cases of bankruptcies of many manufacturers because they made bad investments. In 1705, Tsar Peter I, anxious to increase the income of the country introduced a monopoly on the salt trade. According to the decision of the ruler, the producers were required to provide the tax authorities with the product at a set price, and the authorities introduced it themselves to the market already with a reasonable profit. Despite later attempts to withdraw from such a policy or introduce other fiscal solutions, the state monopoly on salt sale survived in Russia until the nineteenth century.