

SUMMARY

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*Measuring Livonia*

It was not until the 17th century unification of the Baltic Sea provinces with Sweden when expansive measuring and charting of the region commenced. The process soon took on an unprecedented scale due to the Great Reduction, which required the nobles to return a quarter of all crown lands granted to them. In 1680, King Charles XI of Sweden decided to expand the Reduction to the overseas provinces of Livonia, Estonia, and Saaremaa, but as geometric maps about those provinces did not exist, the work of the reduction committees was combined with the extensive charting of those regions. The surveying and cadastering of land was intended to give an overview of the condition and resources of the estates recaptured to the Crown, as well as organise the system of accounting for the taxable ploughland that had remained in the possession of the nobility.

Of all Swedish provinces, the surveying was most systematically and extensively carried out in Livonia. About 40 surveyors from various parts of the country were put at the disposal of the local reduction committee; an additional 30 non-commissioned officers from the Riga garrison were assigned to help the surveyors. In 1681, Arnold Emmerling, a former surveyor of Ingria and the fief of Kexholm was named the head of surveying (i.e., inspector). After Emmerling's death in 1684, Olof Lundgren was appointed as new inspector, and surveying continued even during the Great Northern War. Lundgren's successor since 1708 was Samuel Griese, a surveyor of German descent, whose duty it was in the autumn of 1709 to evacuate all papers from Riga to Stockholm away from the war.

There are two clearly distinct periods of surveying in Livonia. The first period (1681–1684/1687) was remarkable, as it involved simultaneously about 40 surveyors who had been hurriedly trained for this purpose. As such, it was a unique venture in the history of Swedish surveying. During the second period (1688–1710) the work was much smaller in scale, as only the recovered manors were surveyed; furthermore, less manpower was used and the surveying was carried out rather deliberately all over Sweden.

The experience gained from surveying and charting was used to get an overview of Estonia and Saaremaa. The surveying of Estonia took place during the second period of surveys. From 1687 to 1710, the inspector of surveyors in Estonia was Johan Holmberg, who had up to four surveyors at his disposal. Near the end of the Swedish reign, surveying was also carried out in the islands of Saaremaa, Muhumaa and Hiiumaa.

As a result, a large and generally homogenous set of maps was produced from 1681 to 1710. More than 3300 maps were produced for Livonia (of those, about 2200 covered the Estonian part of the Governorate) and

more than 500 for Estonia; however, some of the maps have been lost over time. The Estonian Historical Archives in Tartu preserves maps depicting the present Estonia, including sketch maps as well as cleaned-up maps drawn on the basis of the former. As with maps of Livonia, manor maps of Estonia were drawn in scale of 1:10400 (later 1:8250), maps of Saaremaa in scale of 1:5200. All survey maps from the 17th century have been digitalised and are available on the Estonian Historical Archives homepage through the “Saaga” environment.

The surveying of the Baltic Sea region was part of the works carried out all over the Swedish empire and its provinces; this was remarkable in whole Europe due to its extent. The systematic surveying yielded manor maps and the so-called ‘one-fifth maps’ that for the first time gave an almost complete cartographic representation of the area of present-day Estonia.