An Archaeometric Study of the 12th Century Ceramics at Hellum

Abstract

In 1983, a pottery kiln was discovered just outside of Hellum in central Jutland and was subsequently dated to the 12th century, making it the earliest archaeologically proven kiln from the middle-ages. Two other kilns were found in quick succession, Barmer and Kragelund, which lead to a publication on the medieval kilns found up to that point. While the publication did provide insight into the production of ceramics in Denmark, it did not consider the more technical aspects of pottery production, instead opting to focus on the chronological aspects.

Therefore, the main aim of my own research was to characterize the wares of Hellum using both visual and archaeometric methods in order to study the chaîne opératoire. The focus of the research was to answer several questions through a multistep archaeometric analysis. These questions included i.a. what characterized the Hellum ceramics, what choices were made during the processes leading up to the final product (i.e. forming methods and clay choices), and is it possible to determine any distribution from the study of the production site?

The study used a combination of visual, x-radiography, and thin-section examination to determine the entire chaîne opératoire. This allowed for a more in-depth study of the different production steps, as well as each step complimenting the next, visual examination being used to look for sign of production, x-ray being used to study these, and results from the x-ray being used for placing the thin-section. The results of the study showed that not only was the production more complicated than previously thought, consisting of molding and coiling, but also that the clay was not tempered, as had been previously been theorized. The results of this research will be used as the pilot case for a phd-project focusing on the production of Jutlandish Blackware.