

Missale Nidrosiense, 1519

An archaeological approach



Missale Nidrosiense

- **Title** *Missale pro usu totius regni Noruegie ...*
- **Publication year** 1519
- **Place** Haffnie (Copenhagen)
- **Printer** Paul Reff (dead ca. 1533)
- 606 pages
- **Measurements (mm)** 351x258x73
- **Signature** D Pal 44

Research

Our research is based on three copies belonging to the National Library of Norway's collection, and implements visual and multispectral analysis of the paper properties, watermarks, printing techniques for text and illustrations, including red and black printing inks. We have examined the bookbinding structures and their execution, the finishing decoration on the leather cover, in addition to metal furniture. The bindings' attributes and physical features are described, and similarities and differences are registered. We have chosen an archaeological approach to provide evidence in order to establish possible dating and origin, and our aim is to supplement the insight to the books' biography.

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The biography of the book

In 1519, the art of letterpress printing was introduced to the Norwegian book-production.

The Archbishop Erik Valkendorf (ca. 1465 – 1522) of Nidaros (Trondheim) initiated the printing of two books, *Breviarium Nidrosiense* and *Missale Nidrosiense*, on the purpose of standardizing the liturgy for the entire country. He commissioned the printing abroad.

The Missale was the main book used during mass, it followed the church year

and the saints' year and it contains both songs, prayers and reading lyrics. It preserved older liturgical practices that had been obsolete or lost elsewhere in Europe.

The books are part of Norway's Documentary Heritage, and since 2012 listed among the Norwegian contributions to UNESCO's Memory of the World Programme. In 2019, the 500th anniversary for the first Norwegian printed books is celebrated throughout the country.



Bookbinding

European full leather bindings of gothic type. Oak boards with square corners and straight cut edges with a bevelled edge towards the spine. The textblocks are sewn on four double raised bands, sewing support slips are attached to the boards through drilled holes and tunnels. Handwritten parchment fragments are utilized as internal board stabilizers.



Metal furniture

Metal catch-plates with decorated elements in the form of engraved circles are still present on some of the boards.

The leather clasp straps are not preserved. Metal corner fittings are mainly for protection and without any decorations.



Decorations

The leather bindings are richly decorated with blind tooling. The bookbinder had access to four hand-held finishing tools, a roll with a continuous repeating gothic leaf pattern, a plaque with a double pointed arch, a stamp with rose motif (today known as the 'Trondheims-rosa') and a small stamp with a Madonna and child motif. The composition is differently designed in the three copies.



Analyses

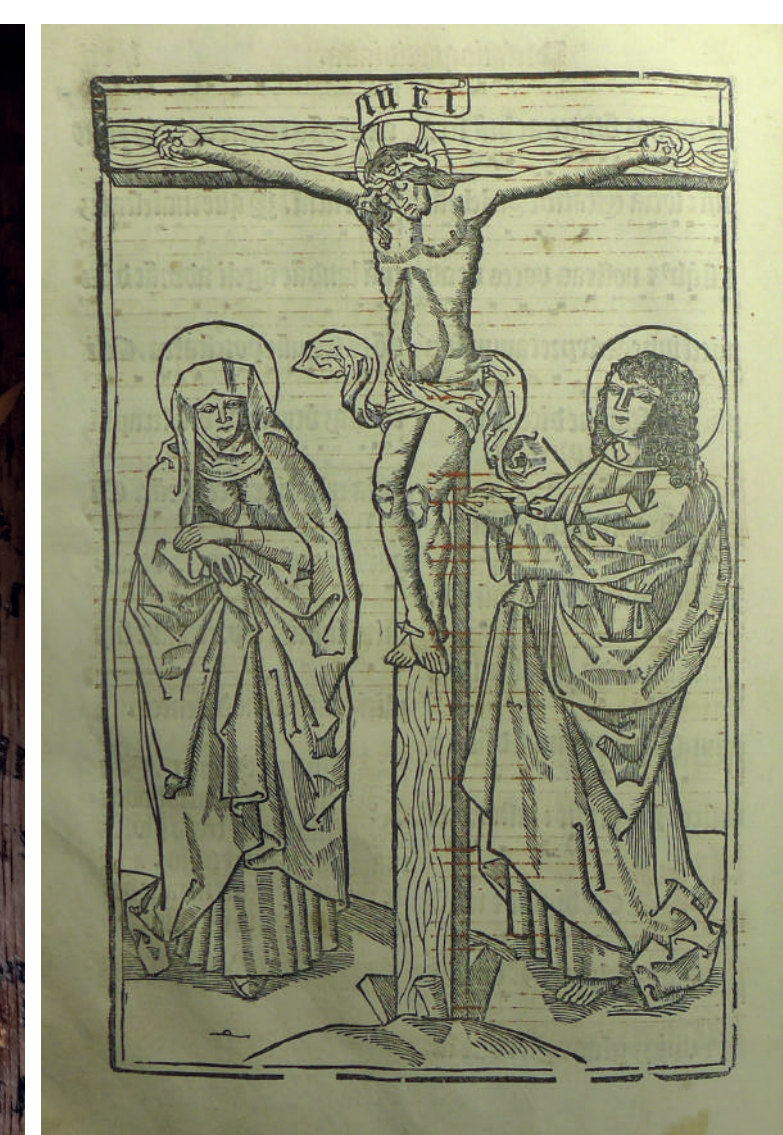
Pigments and metal components were analysed using a Bruker Tracer 5i portable XRF spectrometer (X-ray fluorescence spectroscopy).

High resolution computer tomography was used to facilitate entirely non-destructive dendrochronology.



Illustrations

Woodcut was employed to make the richly decorated initials, the coat of arms on title page and in the full-page plate with the crucifixion. The plate shows signs of wear due to the repeated use of the wood block in the printing of other illustrations (*Missale Hafniense*, Copenhagen 1510).



Papers

The paper consists of three different qualities, probably of French origin, confirmed by the small bunch of grapes present in many sheets. This is not strange considering that there were no paper-mills in Denmark until 1576.



Printing Technique

Missale is printed in red and black. This means that each page had to be printed twice. The fonts used are based on medieval Gothic handwriting, and are the greatest types of the time. Looking at the text, with both magnification and raking light, it is possible to see the printing sequence of colours, first red and then black.



Preliminary results

The book fittings are made from brass, as XRF analyses show. The chemical composition is approx. 80% copper, 19% zinc and 1% lead. (XRF analyses Hartmut Kutzke, Museum of Cultural History, University of Oslo)

The CT imagery has demonstrated that the boards are made from oak, probably converted into boards by means of saw. The dendrochronological dates are as expected (predating 1519); provenance results are still pending. (CT and dendrochronology Heidi D. Wilkinson, Norwegian Geotechnical Institute, Jan Bill, Museum of Cultural History, University of Oslo and Aoife M. Daly, The Saxo Institute, University of Copenhagen).

