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Textile colours of the Viking Age (TeCoVa)

Introduction

The *Textile Colours of the Viking Age* project 2024–2028, will examine how colours were used in clothing and cloth culture in general, and how colours were produced, perceived and understood within the social and cultural contexts of the Danish Late Iron and Viking Ages (600–1100 CE).

It has already been shown that the use of textile plant dyes began at the beginning of the Iron Age (circa 500 BCE) when dyeing technology was integrated into Scandinavian textile design. Traces of organic dyes, primarily of yellow and more rarely blue and red, are documented as the first appearance of plant-dyed textile colours (Vanden Berghe et al. 2009; Demant et al. 2021; Mannering et al. 2024) (fig. 1).

By the Late Iron and Viking Ages, on the other hand, textile colours were well-integrated into cloth culture, but basic and systematic knowledge about exact colour schemes and dyeing techniques is lacking. The current understanding of textile colours in this period is largely based on a few studies from the 1980s and 1990s, conducted at a time when the methodology was still being developed (Bender Jørgensen and Walton 1987; Walton 1990; 1991). These early and scattered research results, primarily taken from high-status contexts, have long been used to generalise about Scandinavian visual appearance in the Viking Age, suggesting, for instance, that Dubliners preferred purple, while people in England preferred red and Scandinavians favoured blue colours (Walton 1989). More recently, systematic dye analyses conducted within the *Fashioning the Viking Age* project (2018–2023) of all the textiles preserved from the two high-status contexts, the Bjerringhøj male grave and the Hvilehøj female grave in Denmark (Mannering 2018; Mannering and Rimstad 2023), have identified less frequent and

more exotic dye substances such as luteolin yellow, madder, kermes and Polish cochineal, indicating that other colours than blue played a significant part in local Scandinavian textile production and clothing design (Vanden Berghe et al. 2023) (fig. 2). Colours were being used by elites (and presumably others) in complex ways—why?

It is thus time to update the present understanding of Late Iron and Viking Age textile colours, including the use of natural wool hues. Wool pigmentation and the use of fibre colours in textiles is a method as old as weaving technology in Denmark and was continuously used in textile design from at least the onset of the Bronze Age, sometimes even combined with plant dyes (Frei et al. 2017). For instance, in the Early Iron Age, wool colours were used in combination with plant dyes as a different and possibly resource-saving technique that could easily change the visual perception of fibre colours (Mannering 2011; Vajanto 2015). Analyses of wool fibre quality have shown that



Fig. 1: Plant dyed yarns at Lands of Legends in Lejre, Denmark (Image: Charlotte Rimstad)



Scandinavian prehistoric sheep breeds most likely developed independently from other European breeds (Grömer et al. 2013; Rast-Eicher and Bender Jørgensen 2013; Skals and Mannering 2014; Bender Jørgensen and Rast-Eicher 2016; Larsson et al. 2024; Skals et al. 2024a). Although white wool seems to be preferred for many textiles in the Late Iron Age, because they are more receptive to plant dyes, wool colours nevertheless seem to gain an increased use in the Viking Age (Skals et al. 2024b). For this reason, wool quality and colours will also play an important role in the current project, and a necessary aspect to investigate to fully understand Late Iron Age and Viking Age colour schemes.

Textile colours from natural wool pigments or plants, however, never occur in isolation. Just like pigments in paints (Bregnhøi and Christensen 2017), bead colours and Old Norse colour terms in Icelandic texts dated after the Viking Age, are important sources that can be used to study the overall world of colours (Thedéen 2010; Crawford 2014; Biggam and Wolf 2022). Necklace beads and other metal jewellery provide ideal means for such an examination. During the Late Iron and Viking Ages, jewellery and beads were closely linked to clothing and in direct conversation with textile colours. But unlike textiles, beads are made from materials that often retain their original colours (fig. 3). In a more direct way, they preserve evidence for preferred colour combinations and changing preferences, providing a new basis for studying habits of harmony or contrast and their effects. Late Iron Age beads have been studied before (Høilund Nielsen 1997) while bead colours of later periods remain poorly understood (Callmer 1977) and have primarily been studied through single, local contexts (Hreiðarsdóttir 2005; Callmer 2006; Delvaux 2018; 2022). Beads and jewellery thus offer an important opportunity for interpreting the Late Iron Age and Viking Age colour palette, but just as in the case of textiles and fibre materials, new work must first be undertaken.

Project plan

The *Textile Colours of the Viking Age* project thus targets colour production, perception, conception, use, and change, and focuses on the following research questions:

- Which colours, organic and inorganic, were available in the Late Iron and Viking Ages? How

Fig. 2: Patterned and coloured silk samite found in the male grave from Bjerringhøj in Denmark dated to the Viking Age (Image: Roberto Fortuna)





Fig. 3: Some of the beads found in the female grave from Hvilkehøj in Denmark dated to the Viking Age (Image: Roberto Fortuna)

were they made and used?

- How did textile colours articulate gender, age, and status in material and textual sources?
- How did the visual appearance of textiles, beads and jewellery colours supplement each other?
- Do these new results change our perception of the visual appearance of Viking Age people?

In the project, textile samples are selected from a range of male and female graves belonging to the National Museum of Denmark, other Danish local museums and a selected range of Nordic museums with contemporary textile collections, which, first and foremost, are dated to the Late Iron and Viking Ages (600–1100 CE) (Bender Jørgensen 1986). From the same contexts, beads and metal jewellery will be studied.

The TeCoVa project is thus designed as the follow-up project that will include, finalise and frame the research already started and published in the *Fashioning the Viking Age* project (Mannering 2018; 2021), the *TRiVAL* project (Andersson Strand 2022) and the *Female Dress in the Late Viking Age* project (see project description by Rimstad in this issue). The TeCoVa project will also collaborate closely with the project *Imported fur in Viking Age Denmark and its importance as visual marker* (see project description by Ørsted Scharff Brandt in this issue).

The core work will take place at the National Museum of Denmark and include up-to-date textile and fibre analyses. Ulla Mannering and Charlotte Rimstad are in

charge of the textile and context analyses while textile conservator, Asta Berenth Schunck, will be in charge of the fibre analyses that supplement the dye analyses. Dye analyses will be conducted by Ina Vanden Berghe at the KIK-IRPA Laboratory in Brussels in Belgium. Studies of beads, jewellery and literary sources will be conducted by Matthew Delvaux from Barnard College in New York, assisted by Jonas Reventlow Petersen. The student assistant is Tilde Yding Abrahamsen. Collaborators from other museums will be included and will be welcomed in the project as work progresses.

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