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A Colourful Journey through the World of Synthetic Dyes

Around 1850 textiles were mainly dyed with natural dyes. Their use changed in the second half of the 19th century, due to the introduction of synthetic organic colourants. Before that time semi-synthetics, like Prussian blue, indigo carmine, picric acid, phtalocyanine and murexide, were already used for textile dyeing.

This presentation will concentrate on the most important synthetic organic dye classes and dyes discovered, such as the azo-dyes (ABC dyes, Orangés and Ponceaus), tri-aryl methanes, hydroxy-phthaleins, and synthetic alizarin and indigo. Their history is studied using primary historical sources, included the international patent literature. Further the chemical constitution and properties, like colour fading and bleeding, will be discussed.

In addition, the identification of these dyes on different sorts of textile objects, like samplers, folding screens, tapestries, dresses, umbrellas, parasols, bonnets, billiard cloths, curtains and hangings in interiors of houses and trains, will be presented including the historical context of the objects.

Zvezdana Dode

Colour in the Costume of the Nomads of the Mongolian Empire: Unison and Dissonance of Sources

State ceremonies replicated the structure of Mongol society. All participants of kurultais and general imperial holidays were to be dressed in costume, prescribed by the ritual. The colour of clothes defined for each event was a distinctive feature of the Mongolian ceremonial costume. Travellers who at various times visited the headquarters of the Mongol khans described this peculiarity of Mongolian court etiquette. In miniatures, representatives of the Mongolian elite in the scenes of ceremonial celebrations of holidays and funeral processions are also depicted in clothes of different colours. In textile finds from funerary monuments, in some cases dyes are preserved, on the basis of which it is possible to get an idea of the colours of the funeral clothes of medieval nomads.

The colour of clothing associated with the meaning of the ritual must have been constant, however, the data of archaeological, written and graphic sources are not always in accordance, as they tend to convey partial information through different media. The solution to the question of the colour symbolism of the Mongol imperial costume depends on the correct synthesis of the available information and its adequate interpretation.

Maria João Ferreira, Ana Claro

The Impact of Dye Analysis in Chinese Textiles Production History

Previous work has documented the presence of more than 200 textiles in Portuguese collections, principally embroideries. These objects are currently grouped under the heading "Sino-Portuguese", but it has become clear that not all of them were necessarily produced in China. Some objects appear to have been made by migrant Chinese craftsmen working elsewhere in the Indian Ocean, such as the west coast of India, while others seem to be Portuguese copies of Chinese objects. These observations raise important questions about cultural contacts and influences, which cannot be resolved exclusively on the basis of historical or art historical analysis, and the scientific analysis of colours provides a complementary tool.

In this presentation we will discuss how dye analysis can contribute to current art historical debates concerning questions of provenance, chronology, and trade, in order to understand the nature of cross-cultural influences in textiles production.

Yuko Fukatsu

Prussian Blue Applied in the Japanese Costume from Late Edo Period Japan (1800-1867)

The campaign coat called 'jinbaori' is a unique costume for samurai warriors in Japan. In order to make a high quality jinbaori, imported textiles such as European woollen fabrics and printed fabrics, and Chinese brocades and damasks were used. In this paper, imported textiles used for selected Jinbaori from Edo Period (1603-1867) will be technically examined with the result of dye analysis (HPLC), which is a key to examine the history of textile importation between Japan and Holland.

Anne Hedeager Krag

Colour Analyses on Byzantine and Oriental Silks from Denmark

Dyestuff analyses were recently requested on silks from a Royal reliquary shrine of King Canute the Saint, murdered in 1086 and canonized in 1100, today in the Cathedral of Odense. One of the silks is a yellow pillow with a motif of blue birds and crosses, and the pattern has been compared to a group of Sassanid Persian silks, that go back to the 700s-900s. Dyestuff analyses, in particular a red dyestuff, sappanwood/brazilwood (*Caesalpinia sappan*), and a yellow dye, which has been determined to be Persian Berries (*Ramnus* family) are interesting, as both the colours are known from the Silk Road. Another relic capsule with silk is from Sigersted Church near Ringsted. Colour analyses show that the Sigersted silk contained red colour, a combination of sappanwood/brazilwood and madder. This colour has also been identified on the Hungarian Coronation Mantle, called the Mantle of King Stephen, which was made of silk samite.

Concha Herrero Carretero

L'énigmatique tapisserie El Bosco de la collection royale espagnole. Étonnantes polychromies infernales et paradisiaques

Patrimoine National conserve un groupe de superbes tapisseries liées aux fantastiques créations de Jheronimus van Aken ou Jérôme Bosch (1450-1516). Il s'agit de la tenture connue sous le nom de « Disparates » de Bosch ou Caprices de Brueghel, les seuls exemplaires qui subsistent aujourd'hui après la disparition de la série princes de François Ier pendant la Révolution française.

Bosch, créateur de formes fantastiques et d'êtres infernaux, fut bientôt mis en évidence par différents humanistes. Sa tapisserie est l'une des tentures les plus célèbres, unique dans sa conception inspirée du travail de l'artiste, et la seule conservée aujourd'hui. Récemment, sa provenance de la collection du cardinal Granvelle (1517-1586) a été confirmée ainsi que le rôle qu'elle joua dans le cérémonial des Habsbourg.

La communication présente une première analyse chromatographique des trames, reflétant la variété des gammes et des colorants utilisés pour reconstituer d'étonnantes polychromies infernales et paradisiaques.