Colour In Medieval Illuminated Manuscripts: Between Beauty and Meaning

In this project, funded by FCT-MCTES, we explore the issues related with the symbolic and social meaning of colour in medieval Portuguese illuminations, produced during the twelfth and first quarter of the thirteenth century in Alcobaça, Lorvão and St Cruz monasteries. Colour use and production in Portuguese medieval illuminations was a consequence of the technology available as well as of cultural and artistic options; by defining the specificities of its use and production we contribute to fingerprint the influences of the three different cultures that coexisted in Portugal at that time, Arab, Jewish and Christian.

We approach this subject from an art history and molecular sciences point of view, aiming to characterize the monastery scriptoria and their evolution during the twelfth and first quarter of the thirteen centuries. We started by quantifying the dominant colours and its combinations, in national manuscript collections; namely, in the manuscript collections of Alcobaça, Arouca, Lorvão and St. Cruz. We will afterwards proceed to the comparison with other international collections. Quantification is performed by computer image analysis of colour areas. As degradation processes affect our perception of colour, examination at the molecular level is essential in order to avoid misinterpretations of the colour meaning and distribution. The binding media, the invisible component of a paint colour, may also have a fundamental influence on colour perception as they play a key role in the colour changes over time. Particular attention is devoted to their complete characterization by using non-conventional techniques recently applied in the field of cultural heritage, such as ELISA- antigen-antibody assay.

We also explore new ways of sharing our results with the general public, with the main focus on children, contributing to divulge the ancient art of illuminations through the exploration of modern computer interaction technologies. We intend to achieve an engaging, intuitive and easy to use interactive system, where physical objects similar to the ones used in real life, when making the illuminations, will be used. This installation will simulate the illuminations’ creation process in the medieval period, addressing several aspects from the materials’ origin and production methods to the painting process. It will also show users the historical and social context of that epoch and reveal the meanings of the used colours and images depicted. This interactive installation can be easily deployed at cultural sites, enriching an exhibition, or at institutions where the books are preserved.

Finally, a book, describing the main findings and breakthroughs of our research is being prepared.

The tasks and objectives proposed within this project will promote innovation that will contribute to a better access and conservation of medieval illuminations.
The team is constituted by 19 members, including five PhD students and five research fellows. The art history research is coordinated by Adelaide Miranda, the molecular characterization by Maria João Melo, the image analysis by João Lopes, and the multimedia interfaces by Nuno Correia. Consultant Mark Clarke contributes with his expertise to the overall project as well as Augusto Aires do Nascimento. Fruitful partnerships are maintained with the BNP, for the Alcobaça nucleus), BPMP, for the Santa Cruz collection and DGARQ-ANTT, for the Lorvão manuscripts).

Maria João Melo
DCR e Requimte, FCT-UNL