

Faculdade de Ciências e Tecnologia – Universidade Nova de Lisboa  
Campus Tecnológico e Nuclear – Instituto Superior Técnico

## Ceramics in Art and Archaeology

VICARTE (Vidro e Cerâmica para as Artes)



## Solange Muralha

- PhD in Chemistry, 2005 (FCUL-UL)
- Post-doctoral researcher at University College of London (2005) and FCT-UNL since 2006
- Executive commission of VICARTE
- Scientific committee of the archeo-materials group, International Conference of the European Ceramic Society (Limoges, 2013)

## Objectives

- Consolidate a laboratory where (glazed) ceramic materials are studied within a context of archaeometry, conservation science and art.
- A material that has been privileged is the glazed tile - **azulejo** - such an important artistic expression in Portuguese cultural heritage.
- Approved FCT project PTDC/CPC-EAT/4719/2012: **Medieval Tiles in Portugal – a provenance study**
- Partnerships with artists to develop materials for ceramic art – search for innovative chromatic effects

## Methodology

- The approach is to apply physical and chemical sciences to the study of glazed ceramics, and answering questions such as the raw materials involved, the production technology, conservation issues, and also developing new applications for art.
- The emphasis will be on non/micro-destructive analytical techniques (for cultural heritage material) that will characterize the glazed ceramic.
- Focus on Raman microscopy applied to study of glazes and glass. Future introduction of laser-induced breakdown spectroscopy (LIBS) in Portugal for the analysis of the cultural heritage.

## Expected Results

- Contribute to ceramic studies within a framework of archaeometry, conservation science and art.
- The consolidation of this research line on ceramics in art and archaeology, this important part of the national cultural heritage will be praised and divulged to a wider audience, by means of workshops, seminars and general publications.
- Education element is very important – lectures, advisor for master thesis and a PhD thesis, student projects.



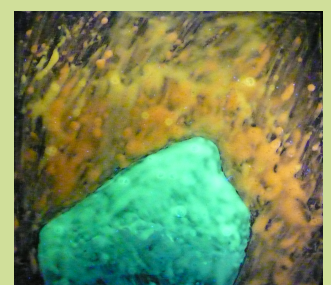
Hispano-Moresque tile from Mosteiro de Santa Clara-a-Velha



Hispano-Moresque panel in Sintra National Palace



Example of a crystalline glaze



Glass piece "pequenos organismos que brilham na escuridão, Teresa Almeida, 2010