





**Dr Bogdan Constantinescu**  
**National Institute for Nuclear Physics and**  
**Engineering “Horia Hulubei”– Bucharest, Romania**

National Representative in COST Actions dedicated on Cultural Heritage Studies – from IBA (Ion Beam Analysis) – non-destructive nuclear, atomic and molecular analyses (RAMAN, FT-IR, etc) to wood restoration and conservation (including buildings) and complex image analysis – virtual museum.




**COST Action G1 “Application of Ion Beam Analysis to Art or Archaeological Objects” - 1995-2000**

**COST Action G8 “Non-destructive analysis and testing of museum objects” - 2001-2005**

**COST Action IE0601 “Wood Science for Conservation of Cultural Heritage (WoodCultHer)” - 2006-2010**

**COST Action TD1201 “Colour and Space in Cultural Heritage (COSCH)” - 2011-2016**



This COST Action - COSCH is contributing to the enhanced understanding of material related to CH artefacts and helps its long-term preservation. The main objective of this COST Action is to promote research, development and application of optical measurement techniques – adapted to the needs of heritage documentation – based on an interdisciplinary cooperation, on a concerted European level and to offer a novel and reliable, independent and global knowledge base facilitating the use of today's and future optical measuring techniques to support the documentation of European heritage. This includes: (a) formation of a sustainable European network of researchers, solution providers, end-users and industrial partners in the field of optical measurement techniques for CH documentation, preservation and reconstruction; (b) The stimulation of interdisciplinary research projects on a national, bilateral and European level; (c) Identification and further development of knowledge centers within the partner network hosting educational services and research support; (d) The promotion of mobility among early-stage researchers.



### **Management Committee (MC)**

The Action is coordinated by the Management Committee (MC). Members are researchers who are nominated by the COST National Coordinator (CNC). The MC is responsible for strategic planning, supervision of ongoing work, dissemination activities, contacting external interested parties, setting up the work schedule and logistics for events and schools. The MC decides on and evaluate the specific activities of the WGs, STSMs, Workshops and Training Schools.

The MC Chair Frank Boochs is responsible for coordinating and implementing the Action. The MC Vice Chair Anna Bentkowska-Kafel assists in these activities as necessary, and substitutes for the Chair whenever required.

In collaboration with the SC (Steering Committee - consisting of the Action Chair and Vice Chair, the leaders of the five Working Groups and the STSM and Training School coordinator) it will be responsible for monitoring the achievement of the organizational and scientific milestones.



### Working Groups

The Action identifies 5 working packages, which will be undertaken by the Working Groups:

#### WG 1: Spectral object documentation

**Leader: Dr. Marcello Picollo (IT), vice-leader: Sérgio Nascimento (PT)**

1<sup>st</sup> WG task st1.1 Identification, characterization and testing of spectral imaging techniques in the visible and near IR field

2<sup>nd</sup> WG task st1.2 Identification, characterization and testing of imaging techniques beyond the visible and short wave radiation

#### WG 2: Spatial object documentation

**Leader: Prof. Robert Sitnik (PL), vice-leader: Miroslav Hain (SK)**

1<sup>st</sup> WG task st2.1 Identification of the main 3D scanning techniques suitable for use in CH objects

2<sup>nd</sup> WG task st2.2 Analysis and comparison of the different 3D scanning techniques



#### WG 3: Algorithms and procedures

**Leader: Prof. Alain Trémeau (FR), vice-leader: Dr. Orla Murphy (IE)**

1<sup>st</sup> WG task st3.1.Registration processes (acquisition, filtering and view integration)

2<sup>nd</sup> WG tasks t3.2 Integration of multi-sensor data

3<sup>rd</sup> WG task st3.3 Data access and formats

#### WG 4: Analysis and restoration of CH surfaces and objects

**Leader: Dr. Christian Degryny (CH), vice-leader: Eryk Bunsch (PL)**

1<sup>st</sup> WG task st4.1 Identification, structuring and implementation of typical cases

2<sup>nd</sup> WG task s4.2 Development of guidelines

#### WG 5: Visualisation of CH objects and its dissemination

**Leader: Dr. Selma Rizvić (BA), vice-leader: Dr. Despoina Tsiadaki (HE)**

1<sup>st</sup> WG task st5.1 Identification, planning, implementation and testing of typical applications of visualization within CH domains

2<sup>nd</sup> WG task st5.2 Further development of visualization techniques



**Positive aspects:**

- an European network – contacts between specialists from different countries;
- realization of a Romanian network in the field (main participants: National Institute for Nuclear Physics and Engineering “Horia Hulubei” (IFIN-HH), National History Museum of Romania (MNIR), Institute of Archaeology “Vasile Parvan”);
- help to have access to perform experiments at big European facilities (e.g. accelerators) in the frame of EU programs (e.g. EU-ARTECH, CHARISMA, IPERION);
- common proposals for EU projects – now for HORIZON 2020;
- young people trained (STSMs) in the best European centres in the field.

**Negative aspects:**

- brain-drain: many young people leave Romania for PhD and Post-Doc studies using the information obtained during COST actions (e.g. STSMs)

**Romanian perspectives:**

- necessity of investments (human resources and facilities) related to a successful participation in COST Actions;
- decreasing professional quality of young students – the best high-school graduates are leaving for foreign universities in Britain, France, etc

