Science and Technology for Archaeological Research Center
WP 6 – Coordination of Content

SORIN HERMON
research coordinator
Science and Technology for Archaeological Research Center
STARC
Kick-off meeting
Rome, 29/04/2011

Franco Niccolucci

Sorin Hermon

Denis Pitzalis

Valentina Vassallo
Other colleagues

- Regine Stein
- Phillips, Universitaet Marburg (PUM)
  - provide support to the mapping activities in the frame of the ingestion process.

Marzia Piccininno
Ministero per i Beni e le Attività Culturali – ICCU – coordinate activities in WP6 from ICCU
Towards innovative research paradigms in Cultural Heritage – arts and sciences in the 21st century

2D and 3D Scientific Visualization

- **2D image analysis**
  - Features extraction and Pattern recognition
  - Clustering and Classification

- **3D documentation**
  - Archaeological Excavations
  - Historic Buildings
  - Survey and Landscape

- **3-4D analysis and interpretation**
  - Integrated research platforms
  - Integration of “time” constraint
  - Monitoring degrade of archaeological landscape and monuments

- **Perception and tele-presence**
  - 3D stereoscopy
  - Museum communication
  - Scientific research
  - Social inclusion
New approaches to knowledge management

DATA - INFORMATION - KNOWLEDGE

- Digital Libraries
  - Semantic data-bases in hybrid environments
    - Data harmonization
    - Data harvesting
  - National and International integration
  - Knowledge extraction – digital tools of interaction
    - Digital annotations
    - Semantic clustering
  - Reference collections
    - Mapping
    - Visual analysis
  - Personalized Knowledge Representation
    - 3D Semantic repositories
    - User-based content publication
Doctoral Programme in Digital Cultural Heritage (DCH)

DCH01 – New technologies for documenting CH
DCH02 – CH knowledge representation and transfer in the Digital Era.
DCH03 – Advanced theory and methods in DCH

DCH04 – Adding the n\textsuperscript{th} dimension in CH research.
DCH05 – Developing and designing digital tools of tomorrow.
DCH06 – Research management: funds raising, team working and scientific writing
National
Department of Antiquities (field-work, conservation, curatorship)
Cyprus University (archaeology research)
Byzantine Museum (virtual reconstructions, digital libraries)
Leventis Foundation (digital libraries)
Rita and Costas Severis Foundation (Musealization)

EU and Affiliates
CNRS-C2RMF / Louvre Museum (Material Sciences, Digitization)
Free University Brussels (Archaeological Documentation)
Italian National Council of Research (Digital Libraries)
Lund University (Digital Cognitive Technologies and tele-presence)
Israel Museum (Digital approaches to museum communication)
Tel Aviv University (Hyperspectral imaging)

US
Penn State University – image processing and search engines
EXTERNALY FUNDED PROJECTS

RPF (national)
- POLICHROMY - analysis of color structures on ancient icons
- STARLAB - physical infrastructure for a mobile lab on digital archaeology and archaeometry

EU – (IST, eCulture, Infrastructure, etc.)
- 3DCOFORM – 3D for Cultural Heritage
- ATHENA – Digital Libraries of museum collections for Europeana
- Europeana Local – Digital Libraries of CH institutions for Europeana
- STACHEM – Support Action for building infrastructures
- CARARE – Digital Libraries of 3D models of CH architecture
- V-MUST – Virtual Cultural Heritage Museums Network
- Linked Heritage - Digital Libraries of museum collections for Europeana

US – National Science Foundation EAGER program
- CYDAR - digital library of ancient texts and classification of ancient icons based on image processing in collaboration with Penn State University

Leventis Foundation
- AC DC – Ancient Cypriot Digital Corpus

Dorot Foundation
- Shrine of the Book – the Dead Sea Scrolls digital library
Role in Linked Heritage

- WP6 “Coordination of Content” (Co) Leader (with ICCU) – 12 p/m
- WP1 “Management” – 2 p/m
- WP7 “Dissemination and training” – 1 p/m
- Activity period: months 1-30
- Content Provider:
  - Digital photos x1000+ Private collection of historic photos from Cyprus english jpeg CIDOC- CRM creative commons
Thank you

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