

**ESR8****Name:** Nicola Carboni**Your credentials:** BA Cultural Heritage - International MA Digital Library Learning**Start day:** 01/06/2014      **End day:** 31/05/2017**Involved in WP:** WP4, WP1**Hosting Institution:** CNRS**My Research Training Activity in ITN-DCH****A. Summary of the Career Development Plan:**

The aim of the research carried on by ESR8 is to create a semantic structure for heterogeneous data (e.g. 3D, documentary sources, iconography, spatial localisation, etc.) able to reveal the relationships between the different aspects of a heritage artefact, for example the relation between its morphology and its conceptual description belonging to a specific context (social, cultural, geographical, etc.). The knowledge model should include information from several domains, in order to fully represent the “environment” of an artefact. It should additionally be able to link together various entities and attributes. The final result should be a map of the relationships between a cultural object and its social and environmental aspects, (including the tangible and intangible dimensions).

**B. Core Research Training Activity:**

With the purpose of investigating the contextual information regarding an artefact, and how the environment shape its function within a community, the fellow started his research from the definition, analysis and documentation of the nature of the intangible heritage activities as well as the scope of the ICH List and the role of the work inscribed in such inventory. The investigation takes in account the role of the various entities in such activity, and how their interaction in a time and space originate not only the phenomenon, but also its material and conceptual significance for a certain group of actors.

Following the above analysis the fellow explored the various information structures, both from a top-down and bottom-up perspective, which were produced with the purpose of classifying the various aspect of the context of a heritage artefact. The top-down system identified are academic creation, and not really used by the community of practice, they provide several important information regarding the nature of the description of music, dance and folklore. A bottom-up analysis of the data helped instead the fellow clarify what level of granularity the memory institutions use for the data description, as well as the their working needs.

The fellow is currently working on the differentiation of data, information and knowledge, in order to better understand the influences and the connections in their data, identifying a semantic description of the various unity of analysis used for managing and developing the contextual knowledge, as well as their overall provenance in cultural heritage.



Following the above analysis the available data will need to be semantically organised, based on the found structure, as well as loaded in an information system able to provide a semantic description for the various unity of analysis used for managing and developing the contextual knowledge, as well as their overall provenance.

#### C. Secondments:

1. FORTH: for one month (from 12/01 to 06/02)

The secondment was arranged for giving the fellows an extensive and clear understanding of ontology engineering, using CIDOC-CRM and its extensions as main examples. The activities covered the philosophical, logical, and technical base for data modelling and ontology creation.

2. KAAK: for one month (from 12/02 to 06/03)

Main mission of the secondment was to understand how an institution manages and link together their data. Moreover an important part of the secondment was about the understanding of how different DAI projects, with diverse needs, work together, trying to define commons standards and frameworks. Goal of the secondment was also the mapping of the KAAK database in CIDOC-CRM, as exercise for better comprehend the ontological model at a data level.

#### D. Dissemination & Outreach:

The fellow:

- Attended at the Colloque International titled "*Civilisation(s): the Mediterranean and Beyond*", organised by the Musée des civilisations de l'Europe et de la Méditerranée (MuCEM) — 26/27/28 June 2014
- Participated to the 1<sup>st</sup> ITN-DCH Summer school organized by the Institute for Photogrammetry, of the University of Stuttgart — 20/24 October 2014
- Attended to Euromed 2014 together with the ITN-DCH consortium — 1/8 November 2014
- Presented a poster during the Séminaire "*Modèles et simulations pour l'Architecture et le Patrimoine*" organised by the MAP-CNRS, titled "Towards a framework for documenting tangible and intangible aspects of cultural heritage artefacts" — 19/21 January 2015
- Attended the CIDOC-CRM "32nd joined meeting of the CIDOC CRM SIG and ISO/TC46/SC4/WG9 and the 25th FRBR - CIDOC CRM Harmonization meeting" at the at the Oxford University e-Research Centre, UK — 09/12 February 2015
- Participated in the 2nd ITN-DCH Workshop titles "Handling Massive and Complex Datasets for Multimedia Information Fusion and High Resolution 2d/3d/4d Surveys" organised in Carnuntum, Austria — 23/27th March 2015.
- Attended the Journées d'étude et de formation titled "L'inventaire du patrimoine culturel immatériel : Jeux d'acteurs et questions de method" organized by the Maison méditerranéenne des sciences de l'homme – Aix-en-Provence — 16/17 April 2015

Additionally he contributed to the 3<sup>rd</sup> newsletter and is currently one of the fellows responsible for writing for the



4<sup>th</sup> Newsletter of the ITN-DCH consortium. Moreover he is helping in the dissemination activities on several social networks (Twitter, LinkedIn and Facebook).

E. **Added Value** to my Future Research Career:

The ITN-DCH allowed the fellow to discovered different ways of looking at cultural heritage as well as to cooperate with some of the most influential researcher in the field. The collaboration within such great group of people, coming from several different disciplines, helped him develop new type of analysis, giving him a chance to better examine his theories and achievement in a challenging but very responsive environment. Such framework of collaboration as well as the lessons learned are going to be invaluable in the career of ESR8, because they would provides him with the necessary experience, contact and values, to continue his research career both in a public institution or in a private company.