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Documenting the Past: Extending the CIDOC CRM family to Archaeology (CRMarcheo), Historic Buildings (CRMba) and Historic Places (CRMspace)

Franco Niccolucci & **Achille Felicetti**

VAST-LAB, PIN, Università degli Studi di Firenze, Italy

VAST - LAB

VAST-LAB and Cultural Heritage

- Development of technologies, tools and standard for the management of Cultural Heritage information
- Integration and interoperability of legacy archives using semantic tools and techniques (ontologies, semantic tools, linguistic resources)
- **ARIADNE Project** (http://www.ariadne-infrastructure.eu)
  - Creation of an integrated ecosystem of archaeological information to guarantee interoperability among data coming from different archives
  - **ARIADNE Portal**: to discover and access 2 million archaeological records from 15 countries in 24 languages using advanced interfaces http://portal.ariadne-infrastructure.eu
- **PARTHENOS Project** (http://www.parthenos-project.eu)
  - Cluster of research infrastructures to interconnect and harmonise information coming from different (but interrelated) disciplines
  - Humanities, Cultural Heritage, History, Archaeology

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VAST-LAB and the CIDOC CRM

- CIDOC CRM: identification of real world items by real world names
- Observation and classification of real world items
- Part-decomposition and structural properties of Conceptual and Physical Objects, Periods, Actors, Places and Times
- Participation of persistent items in temporal entities.
  - **Creates a notion of history: "world-lines" meeting in space-time.**
- Location of periods in space-time and physical objects in space
- Influence of objects on activities and products and vice-versa
- Reference of information objects to any real-world item

CRMarchaeo: Supporting Excavation Process

- Semantic encoding, exchange, interoperability and access of existing archaeological documentation
- Starting from standards and models already in use by national and international cultural heritage institutions
- **Excavation Events** and **involved actors** (people, institutions)
- **Nature** and **shape** of existing stratifications and surfaces
- Analysis of the **human remains or artifacts** found within the strata
- Stratigraphic **genesis** and **modifications, natural phenomena** or **human intervention** that led to their creation
- **Chronological** order in which stratification was formed
- Maintained by **VAST-LAB**, **PIN**
- More information: http://www.cidoc-crm.org/crmarchaeo/

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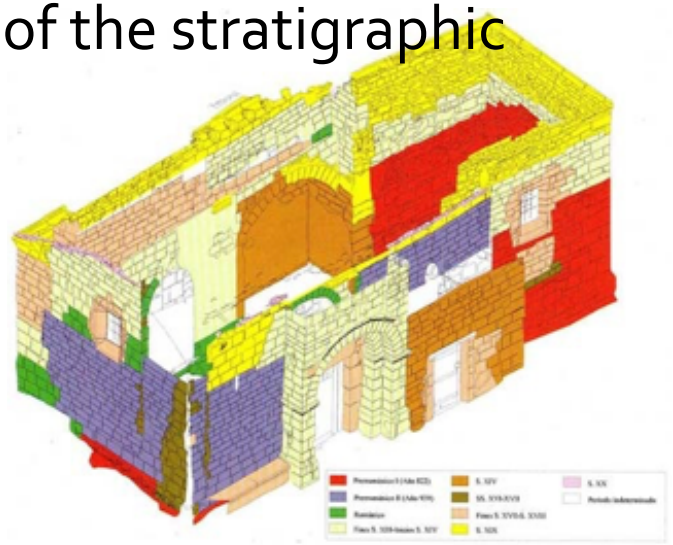
CRMba: Built Archaeology Documentation

- Recognize the functions of a building and its evolution over the years
- Focuses on the mereological and mereo-topological relations between the constituent parts and the whole structure
- Introduces the concepts of "empty spaces" and "space functions" defined by form
- Makes explicit the relations between building components functional spaces, topological relations and construction phases through time and space
- Support the dating process through the identification of the stratigraphic relationship between various stratigraphic units
- Maintained by **VAST-LAB, PIN**
- More information: http://www.cidoc-crm.org/crmba



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"CRMspace": Identify Historic Places

- Investigation of historical names and their relations with geographic places
- How to deal with unknown or imaginary places?
  - Tomb of Alexander the Great
  - Eldorado, Atlantis, Entrance to Hell …
- **Pleiades:** diachronic representation of place names over time
  - http://pleiades.stoa.org
  - Modern place names resolution starting from ancient ones
  - Byzantium, Constantinople, Istanbul
- Different identities of the same place
  - Athens: polis of ancient Greece; capital of modern Republic of Greece

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E-RIHS
EUROPEAN RESEARCH INFRASTRUCTURE FOR HERITAGE SCIENCE

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PARTHENOS
Pooling Activities, Resources and Tools for Heritage E-research Networking, Optimization and Synergies

Thank you ...

- Franco Niccolucci & Achille Felicetti
- *VAST-LAB, PIN, Università degli Studi di Firenze, Italy*

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