Patrimonialp, Science of Heritage: perspectives on cultural artworks


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Science of heritage: perspectives on cultural artworks

Development of an integrated and interdisciplinary heritage science

CHALLENGES
Patrimalp aims to:
- Develop an interdisciplinary scientific community at the heart of Univ. Grenoble Alpes
- Create innovative heritage research methods
- Initiate an interdisciplinary academic course on heritage
- Support heritage and culture policies
Carrying out these goals will strongly contribute to the attractiveness and international outreach of Univ. Grenoble Alpes.

A cross-disciplinary project
history of art
archaeology
material sciences
geosciences
restauration and conservation
computing sciences
geography

Case studies
Antic Theater of Lyon
Epigraphical stone of Vaison-la-Romaine
Saint-Michel de Connexe Priory
Costumes and Jewellerys in the Alps
Brocades transposed
Neolithic rock art sites (Rocher du Château, Trou de la Féclaz)

WP1 - Raw matter resources and contextualisation

PURPOSES:
- Identification of raw materials used in the processing of artefacts
- Socio-ecosystemic contextualization of raw material strategies and rock art production

Scientific and technological challenges

Time and space
The innovative approach developed by Patrimalp consortium is based on carefully selected case studies carried out in the West Alpine region and Rhône corridor, from the Neolithic period to the pre-industrial period.

WP2 - Materials, manufacturing process and alteration

PURPOSES: INTRINSIC ANALYSIS
- Identification and characterization of constituting matters of artefacts
- Understanding their manufacturing and alteration

WP3: History, life and trajectories of artefacts

PURPOSES: EXTRINSIC ANALYSIS
- Artefact story in native cultural context
- Understanding the artefact as artistic and cultural technical clue
- Spatial and temporal following tracks

Scientific bottlenecks

- Reconstitute the different “states” of the artefact
- Develop an ultimate integrated physico-chemical analysis of artefacts
- Understanding artefact materials through a selective analysis method
- Dealing with, organising and sustaining heterogeneous multidisciplinary data
- Write the history of artefacts
- Production of a common story of the artefact across the time in its environmental and cultural context

WP4 - Modelling and interconnected visualisation of cultural heritage

PURPOSES:
- Modelling knowledge and reasoning about heritage artefacts, their components and context
- Geovisualisation
- Restitution and Rendering

VISUALISATIONS
Textures, spatial, chronological, upgradable, interactive, 2D, 3D, augmented reality...

1. Identification of artefacts and their specificities
2. Interoperability between concept and vocabularies
3. Identification of process and transformation

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