

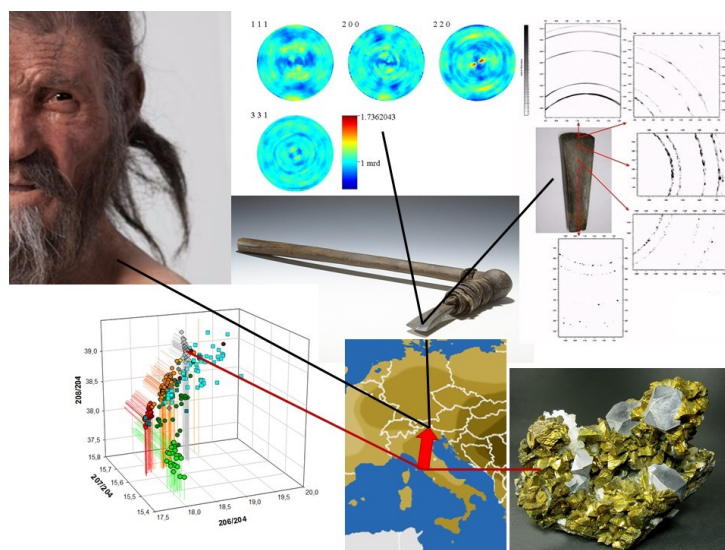
## Crystallography and cultural heritage - On beauty, science and passion

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Crystallography has many traditional and intuitive links with cultural heritage. The most scholar one is the description and analysis of symmetry in art and architecture [1-2]. The most natural is the fascination that crystals induce on human mind, as light- and color-capturing gems [3]. However virtually all artistic forms and all products derived from human activity are made of materials. The fundamental contribution that crystallography provides to our knowledge of matter is being rapidly transferred into our ability to better interpret archaeological evidence of past human activities (Fig. 1), and to manage and preserve artworks for future generations. The science of cultural heritage materials is profiting greatly of the state-of-the-art crystallographic methods and techniques, and in turns poses new and unexpected challenges to future crystallographers.



**Figure 1.** Crystallographic information is important in many aspects of cultural heritage investigations, including archaeological interpretation, art history, authentication, and conservation.

[1] MacGillavry, C.H. (1965) Symmetry aspects of M.C. Escher's periodic drawings. Utrecht: Oosthoek

[2] Makovicky, E. (2016). Symmetry: through the eyes of old masters. Berlin/Boston: Walter de Gruyter GmbH & Co KG.

[3] Garcia-Ruiz, J.M. (2018). 2001: The Crystal Monolith. *Substantia*, **2**, 19-25.

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