

Supervisor Expression of Interest MSCA-IF Marie Skłodowska Curie Action- Individual Fellowship 2020

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Research Group webpage	http://www.icac.cat/recerca/equips-de-recerca/arqueometria-i-produccions-artisticques-arpa
Research topic	Archaeometry & Roman Stones

Brief description of research project themes to be considered:

THEMES: Marble provenance; Ancient Quarries & Stoneworking; Use, trade & transport; Symbolism and ideology; Marble and colour (stone colour, pigments, imitation in paintings).

Marble provenance

Marbles and decorative stones (*Marmora*) were amongst the most relevant materials in the Roman world beyond due to their link to luxury, prestige, and eternity. Next to the great Classical Greek and eastern ones, the last decades have demonstrated that local marbles Roman Spain and southern Gallia were also highly exploited and used. Yet the chronology of its exploitation, extent of its use and their real value, both in economic and symbolic terms, is yet to be fully understood.

The two main objectives of this project lies on 1) to advance on the location of Spanish marbles used in the archaeological and ancient Roman art record through the implementation of a multimethod, state-of-the-art archaeometrical analysis aiming; and 2) to extract chronological and socio-economic data on the use of these materials through the combined analysis of the archaeometrical and archaeological evidences.

Ancient Quarries & Stoneworking

Quite a wide number of marble and other stone objects on the archaeological record of Roman Spain remain unmatched with the geological reference samples from ancient quarries currently available, both in our collection (ICAC-LEMLA) or on the published works on Classical marbles.

The location of the sources, through the archaometrical traits of the material and potential geological outcrops, the archaeological study of the traces of these exploitations as well as the extent of the distribution of these particular stones will be the core of the topic proposed. Moreover, a direct outcome of this project will be completion of the reference collections with new analytical data and the enhancement of our diagnostic capacity in future provenance analysis.

Marble and colour (stone colour, pigments)

White marbles are well-known but the profusely chromatic taste of the Roman world is also reflected on the wide range of coloured stones used. Among them, grey and veined/banded varieties marbles were abundantly used yet they have been overlooked even though they can be quite similar chromatically and/or aesthetically to some of the main imperial marbles. Moreover, there is ample evidence of both the white and coloured marbles being also painted.

A two-fold project is proposed through the specific intersection of colorimetry, archaeometry and archaeology. Its aim is to quantify the usually qualitative aspect that is colour and test its potential in helping discriminate between grey/banded marbles from different sources, and to develop a high-performance method to identify traces of pigments or paint on white marbles, through the application of photogrammetry and image analysis, to get a closer-to-reality glimpse of the image these artefacts would have originally had and the reasons behind the use of pigments on marble.