



Ph.D. Course in Geosciences – University of Padova

Eight seminars on

Practical examples on heritage stones research

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May 17-20, 2021

 Day	Title of Seminar
h. 9.30-10.30 May 17	Granite as Traditional Building Stone and the Influence of Capillary Absorption on Durability.
h. 10.30-11.30 May 17	Granite Scaling Evaluated by Measuring the Ultrasonic Pulse Velocity (Vp): an Example from the Plaza Mayor de Madrid, Spain.
h. 9.30-10.30 May 18	Aging Tests on Granites.
h. 10.30-11.30 May 18	Leucogranite from the Penaboa Quarry (A Coruña, Spain) and the Mason Marks in Romanesque Churches of Portugal: Determination of Accessible Pores, Bulk Density and Hydric Properties.
h. 9.30-10.30 May 19	Contribution of Petrographic Microscopy to the Sepulchral Complex of Fernán Pérez de Andrade in the Church of San Francisco, Betanzos, A Coruña (Spain). Sao Tiago de Folhadela Church: Deterioration by Oxidation of Pyrite in Granite Churches of North Portugal.
h. 10.30-11.30 May 19	Micro-roughness to Determine the Different Types of Decay in the Stones of Paseo del Prado Fountains, Madrid, Spain.
h. 9.30-10.30 May 20	Influence of Porosity (Determined by MIP) in the Durability of the Gypsum of Risco de las Cuevas of Perales de Tajuña, Madrid, Spain.
h. 10.30-11.30 May 20	Stone Preservation in Archaeological Sites: Examples from Guarrazar (Toledo, Spain), Touças (Sabrosa, Portugal), and Dolmen Alto do Cotorino (Portugal).

Events will take place both in room 1B (Dept. Geosciences, Univ. Padova) and online using the following credentials:

<https://unipd.zoom.us/j/84265413688?pwd=enNMRmFiT3V0aINpckQ1SHBxQ24xQT09>

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David M. Freire-Lista is affiliated with the Geosciences Center (CGeo) of Coimbra University and works at the Geology Department of Trás-os-Montes de Alto Douro University (UTAD) in Portugal. He has a long experience in the study of dimension and ornamental stones used in historical monuments, the identification of the original quarries, the analysis of stone deterioration processes, and applications to architectural and artistic heritage conservation.

His research activity has focused on the analysis of the properties of building materials, their comparison with materials from historical quarries, and on different aspects connected to architectural/archaeological heritage conservation and restoration. He is specialised in the characterisation of building stones and in understanding the decay of stone-built cultural heritage.

The philosophy of Dr. Freire-Lista is that heritage stones have the fragile advantage of being unique and unrepeatable. They are not only a legacy from the past, but they are also a promise for the future. They constitute a resource of great social and economic potential that attracts cultural tourism, and they are key to understanding the history of a region. Any intervention should consider the historical and heritage nature of the original building stones to ensure its proper conservation for future generations.