Unveiling the Medicean Collection of "Carved Stones"

Fabrizi L.*1-2, Moggi Cecchi V.2, Bronconi C.1, Fantoni L.2 & Benvenuti M.1-2-3

¹ Dipartimento di Scienze della Terra, Università di Firenze. ² Museo di Storia Naturale, Università di Firenze. ³ Istituto di Geoscienze e Georisorse, CNR, Firenze.

Corresponding author e-mail: <u>lucilla.fabrizi@unifi.it</u>

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One the most important mission of museums is the study of the collections, in accordance with UNESCO 2015 Recommendation for Museums and Collections. The dissemination of the held results can be an instrument to maintain interest in the collections and to allow a more in-depth knowledge of them to an increasingly wide audience (Barone et al., 2016; Pratesi et. al., 2021).

The project aimed to study from both a scientific and historical point of view *the Medicean Collection of* "Pietre Lavorate" (Carved Stones) develops in this context, with the goal to amplify, and eventually correct, the mineralogical information about the most ancient gems present in the collection. The results involve geology, history of science and scientific dissemination.

The collection is part of the Mineralogy and Lithology collection of the University Museums' System of the University of Florence and counts of about 700 samples: minerals, gems and fine pieces of carved stones. Among them, some artefacts belonged to the personal collection of Lorenzo il Magnifico himself (1449-1492) (Fantoni & Poggi, 2012). The Collection owns a great value concerning the history, the mineralogical variety of the specimens, the preciousness of the workmanship, and represents a journey to the dawn of scientific collecting in the XV cent. AD.

The study focuses on 53 specimens reported in the first official museum Catalogue (1793), which should belong to the pristine most ancient core of the Medicean Collection.

As first step, the mineralogical and any other information written in the several handwritten catalogues (between the XVIII and XX centuries, since the most recent of the 1943/47) are compared. Then, the mineralogical identification of specimens is performed with stereoscopic microscope and μ -Raman spectroscopy. The analyses confirm the presence of emerald, coloured quartz, topaz, and opal, reject the presence of some species reported in the catalogue (i.e., aquamarine, zircon and spinel) and identify the presence of cordierite and garnet. Concluding, the results confirm many inventory information, but reject others, finding interesting corrections on labels (*cangiamenti di etichetta*) occurred with time and raise new open questions as to, for instance, the provenance of peculiar specimens, e.g., the emeralds.

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