

Abstract

Title: Art Diagnostics: the Low-Cost Revolution

The preservation of cultural heritage is a critical civic responsibility especially in Italy where the vast cultural heritage is widespread from the renowned mega-cities of Rome, Florence, and Venice to almost every village. This rich distribution of cultural property demands local civic engagement simply because governmental institutions alone cannot effectively manage the sheer mass numbers of artistic and archaeologic heritage sites. The role to be played by local communities at once becomes obvious. Communities must be helped to realize that their wellness and their economic future depend also on preserving and subsidizing their cultural heritage. In Italy, as well as in other European countries, there have been significant cuts to public funding for art conservation. Consequently it is today even more urgent that local communities provide adequate financing to appropriately conserve and maintain their cultural heritage.

Cultural Heritage Science (CHS) is a scientific discipline that examines works of art and archaeology by means of technical and scientific methodologies. Information derived from these studies is used to understand not only when these artifacts were made, who made them, and how they were made but, more importantly, how they are to be preserved, what conservation treatment represents the best option and why.

Cultural Heritage Science can raise community awareness and can promote suitable conservation. The scientific examination of art and archaeology stimulates a community's appreciation for its cultural heritage by elucidating its extraordinary and unique historical value.

Unfortunately, scientific examination and documentation of art is notoriously expensive. The most important and recognizable works of art from prestigious museums are often subjected to extensive scientific studies, unfeasible for the vast majority of cultural heritage objects existing in local communities simply because they lack comparable financial resources. Typically larger museums have budgets sufficient for scientific departments equipped with cutting-edge technologies. In contrast, small to medium sized cultural institutions have relatively limited access to the same science and technology.

We present the "Cultural Heritage Science Open Source" (CHSOS) initiative which was launched in 2012 to bridge this technological divide, to develop and disseminate affordable and sustainable methodologies for art examination that can reach a much larger audience of cultural institutions. CHSOS develops and proposes each year a new low-cost solution: Technical Photography (infrared and ultraviolet methods) (2012), Infrared Reflectography (2013), Reflectance Spectroscopy (2014), and Multispectral Imaging (2015). This year CHSOS is working on a low-cost and mobile X-Radiography system. CHSOS disseminates these methods through its popular blog, publications, and training programs.

Antonino Cosentino - Dr. Antonino Cosentino founded CHSOS to disseminate innovative and sustainable scientific methods for Art examination. Before directing CHSOS he was teaching "Scientific Methods for Art Examination" in Italy and USA, and he was studying works of art for European and American institutions such as the Metropolitan Museum of Art and the University of California San Diego.