

# HISTORY, INTENTIONS, AIMS

***Giovanni Carbonara***

Emeritus Professor, Sapienza University of Rome

A high-quality Journal that tackles the themes of art, history and science together, and enhances the results of their close and fruitful relationship, is today more relevant than ever. This is especially true in a country like Italy where, unlike in the Anglo-Saxon world, this type of publication is not very widespread. Hence the importance of the Journal, especially in the principle it has adopted since its origin, in 2001, characterized by an openness to readers of various backgrounds, scholars, operators and young students, as well as to an essentially interdisciplinary approach and, finally, to themes, collaboration, cultural realities and different countries.

It is not easy to open up to the numerous disciplinary issues relating to cultural and environmental heritage, understood in its broadest and most comprehensive sense, not just geographic. The international character of the Journal has thus intensified, so much so that it is now a prevailing feature.

Its interests are not only directed toward the past, to be studied and preserved as a living testimony, but also toward the present, with proposals for concrete solutions concerning various conservation problems, and to the future, with regard to the young generation, who must be guided and motivated in their education and training, leading them to think about the principles of protection and their application through the discussion of meaningful experiences. All in a perspective aimed at recovering and enhancing the relationship between the development of science, technologies and humanistic heritage, and always attentive, on an international scale, to the dialogue between people and institutions.

For a concrete reference to the interests and the open, but not generic, character of the Journal, it is enough to scroll through some of the titles of the contributions published in issue N. 20 (2020, 333 pp.), preceded by a meaningful editorial co-authored by Salvatore Lorusso, conservation scientist and Mauro Mantovani, philosopher.

The Journal addresses issues concerning both tangible and intangible cultural heritage which, though touching on various topics, all converge to show that without historical-critical understanding, a scientific approach and theoretical mediation (i.e. reflection on the guiding principles and methods of conservation, because of the 'values' at stake, starting from those of memory, testimonials, material culture and due respect for the signs of time) there is no real restoration or conscious conservation.

They range from an interdisciplinary study on the Last Supper (1507-09) of the Abbey of Tongerlo, in Belgium, and its attribution to the Milanese workshop of Leonardo da Vinci, to another on the conservation and re-organization of the collection of excavated bone finds from the Lombard period housed in the "Giuseppe Sergi" Museum of Anthropology in Rome, since 1901; from critical considerations on the restoration, conducted in Egypt, of a series of sculpted representations of the pharaoh, Ramesses II, deformed by a bad interpretation of their geometry, to questions, always linked to the theme of relief, of the application of HBIM in China, in the case of an ancient village; from the techniques of conservation of beech wood in artefacts exposed to outdoor en-

vironmental agents, to the characteristics of medieval mortars in the southern European area. There is no shortage of articles, for example, on the attitude of tourists to historical heritage and on their high willingness to pay a reasonable amount in order to visit a site of interest; this is based on a survey conducted in the city of Lahore, Pakistan. It even includes a paper on traditional Jordanian music and the influence of Covid 19 on the environment, the relationship with food, and culture. But, looking through the issues of these two decades, a great many other stimuli and answers can be found. Everything is presented in Italian and English in descriptive summaries, with the decisive and now prevalent contribution of international authors and with ample sensitivity and openness also towards emerging countries, such as Asia, Africa and Latin America.

In conclusion, it is also to be noted how the Journal's historical-scientific and historical-technical interest has had recurrent anticipations in its past, attention to the ancient and its conservation, from the very beginning. In terms of prevention, if one thinks of how anti-seismic providence, as Pliny the Elder narrates, was applied in the construction of the temple of Artemis in Ephesus (6th century BC) by laying, under the foundation and the stylobate, a bed of clay, mixed with coal and ash, to dampen the effects of the horizontal thrusts induced by earthquakes; or of knowledge and dating, with the role played by Cardinal Niccolò Stenone during the seventeenth century, in defining a stratigraphic science which was born to answer questions about the real history of the Earth and therefore about the time of the Creation in relation to what can be gleaned from the Bible as well as other questions of a strictly geological nature. This science was then transferred to a different field, for example to verify whether it was actually Pompeii, from the time of the first excavations in the eighteenth century, to a few decades ago, to delineate modern archaeological excavation methods using stratigraphy. Astronomy is another example and was used between the seventeenth and eighteenth centuries, to try to date the prehistoric complex of Stonehenge, near Salisbury in England, based on the calculation of the variation of the earth's magnetic pole.

The Journal's commitment is evident in its tenacious work, many precocious and unpredictable anticipations, its drive for a sought-after interdisciplinary collaboration and lastly, also in the importance given to more modest finds, as if to foreshadow modern interest in the aspects of everyday socio-economic life and the expressions of simple 'material culture'. There is interest in stones, ranging from the techniques used to work and craft them, to embryonic methods of petrographic physico-chemical analysis, using microscopes, as well as themes also addressing prehistory, that is to say to illiterate cultures, whose data could not be derived, as had been done until then, from written evidence.

Also noteworthy is the idea of using the pendulum as an anti-seismic function for towers and bell towers or to counteract the effects of the wind in the spire of Chichester Cathedral, studied by the English architect and mathematician Christopher Wren, but also applied, more or less in the same period, between the seventeenth and eighteenth centuries, in Italy. Or the case of straightening the overhanging facade of the northern transept of Beverley Abbey, with props and jacks, carried out by the English architect Nicholas Hawksmoor, always in the same period.

To confirm the fruitfulness of the relationship between Art and Science (Lorusso however affirms, "Art is Science") a recent study conducted by the Department of Chemical and Geological Sciences of the University of Modena and Reggio Emilia, specifically by Professor Stefano Lugli, has put some order in the dilemma of dating the vaults, of fifteenth-century origin (1404- 1454), in the medieval Cathedral of Modena, which were extensively modified following numerous earthquakes. From the analysis

of the mortars, lime-based, then gypsum-based, at first, it was possible to recognize a certain multiplicity of interventions, but in the end, by integrating other analyses based on Carbon 14, studying the pollen incorporated in them and on the bricks (new or reused Roman bricks), five different types of mortars were identified lime-based for the phases of the 15th, 16th and 17th centuries, gypsum-based for the 18th and 19th centuries, used in the first building, in the reconstruction of entire vaults and to repair them. It was thus possible to obtain the outline of a complex seismic event, the damage and subsequent repairs, which would otherwise have gone unnoticed, providing new material for historical reflection but also helping to understand the seismic weaknesses and consequent prospects for strengthening the Cathedral.

The beginnings of this fruitful interaction between historical questions and scientific answers, conducted on the materials constituting ancient works, can be found at the beginning of the Renaissance, between the late fourteenth and early decades of the fifteenth century, when, as in the singular case of the attempt to verify the authenticity of the Holy House of Loreto, it was no longer only the written text that was questioned (indirect evidence) but the physical reality of the object in question as well (direct evidence), by comparing, through repeated missions to the Holy Land, the construction stones in Nazareth and those in the area around Ancona.

Our Journal is based today on this noble tradition which, together with archeology, has contributed to enormously expanding the possibility of obtaining new historical 'documents'.