

Carta del Rischio del patrimonio culturale. Il polo regionale della Lombardia

Risk map for the cultural heritage in the Lombardy Region

ICR has been working with the Lombardy Regional Authority since 1998 to produce a risk map for the region's cultural heritage. Alongside the computer system developed by ICR, the Regional Authority has developed the technical instruments, the incentive system and the professional profiles required to make it possible to experiment with new ways of carrying out work on historical buildings, correlating sites within the territorial framework. The first part of the article deals with creating and testing the system, moving on to look at ways of using the risk map as a support for the decision-making process, preparing tables and data to go with requests for funding made to the Regional Authority for restoration and preservation work. Research was also carried out to determine the instruments required for drawing up preservation plans (both preventive and programmed) as set out in article 40 of the legislation dealing with restoration projects (known as the 'Merloni' law). In this context, the data provided by the risk map can be used as the starting point for work on preserving buildings. A significant aspect of the project is therefore the conceptual change from mere cataloguing to programmed preservation.

Un'applicazione di fotogrammetria digitale all'Oratorio dei Filippini in Roma: il *Miracolo di Santa Agnese* dell'Algardi

Application of digital photogrammetric techniques on Algardi's Miracle of Santa Agnese at the Oratorio dei Filippini in Rome

The article describes a stereo-photogrammetric survey conducted on a high-relief in stucco, by Alessandro Algardi (1598-1654). The aim was to put together the basic documentation for the monument in a reasonably short space of time. The survey made use of ICR equipment and full digital technology to illustrate the various phases. The problems that arose were mainly due to the complexity of the structure, although the potential advantages of digital stereo-photogrammetry were clear. Used as a data processing tool, this technique makes it possible to obtain not only the reconstruction of the surfaces, but also three-dimensional photographs of the object by means of adjusting the photograms taken. In overall terms, the aim of the whole process was to test the reliability of the methodology and the technology, applying them to a case that was 'extreme', due to the exceptional three-dimensional nature of the relief and the operational difficulties encountered on site.

Il restauro del reliquiario del Braccio di San Giovanni battista nella Co-Cattedrale di La Valletta

Restoring the Reliquary of the Arm of St. John the Baptist, in the Co-Cathedral of La Valletta

The large Reliquary of the Arm of St. John the Baptist was made by Ciro Ferri between 1686 and 1689. Restoration had become essential since the reliquary was in very poor condition. This monumental 'baroque machine' is made up of a wood and iron structure supporting a large number of elements in gilded bronze adorned by silver decorations. Dismantling the various parts made it possible to examine the construction technique. Several cleaning systems were studied, calibrating them in terms of the scientific tests that were conducted to determine the composition of the metal alloys and their state of preservation. Cleaning and preservation treatments were carried out in such a way as to ensure total reversibility of the process. Re-assembling the reliquary was made easier by following the original numbering of the various parts. Some of the missing decorative elements were reconstructed and almost all the fixing screws were replaced with new ones in silver, making sure they were visible by punching them in order to give a slightly different finish on the polished surface.

ABSTRACT

Una collezione di funghi nocivi ai materiali librari: la sua importanza e la gestione delle informazioni

A culture collection of fungi that deteriorates library materials: its importance and data management

In the field of cultural heritage conservation there is a lack of official culture collections specifically dedicated to biodeteriorating microorganisms. Moreover, the main culture collections in the world retain very few strains isolated from substrates of interest, and even fewer isolated directly from cultural heritage materials. By the scientific point of view this lack of organization has a serious impact on studies in the cultural heritage topics, and it is responsible for the scarce organic unity of the information available on the biology and physiology of microbial species causing damages to cultural heritage. A culture collection of filamentous fungi from library material has recently been set up at the Istituto Centrale per la Patologia del Libro, in Rome. The collection has numerous aims and it is equipped with a database. The object of this article is to lay stress on the importance of research on systematic and physiology of cultural heritage biodeteriorating microorganisms and to promote the collection in order to increase its use and contents.

Intonaci ad alto contenuto salino: efficacia del trattamento con idrato di bario

Plaster with high saline content: effectiveness of treatment with barium hydrate

Between April 2000 and December 2002, a series of tests was conducted on specially prepared plaster samples containing significant amounts of sodium sulphate and calcium sulphate. The aim was to study the effectiveness of treatment with barium hydrate in cases of high saline content. The checks were carried out mainly by means of scanning electron microscope with X-ray microanalysis, ion chromatography and colour measurements repeated as much as a year and a half after treatment. Particular attention was given to measuring the permeability of the plaster when exposed to water vapour and water in liquid form.