

DIAGNOSTICS

Diagnostic investigations are based on physical and chemical-physical methodologies by means of which it is possible to extract information regarding the chemical composition and physical characteristics of artistic artefacts. These investigations are usually subdivided into non-invasive analyses and destructive or micro-destructive analyses which necessitate the taking of samples or micro-samples from the work being analysed.

The application of diagnostic investigations is usually aimed at a study of the construction and/or execution technique involved in the work, which provide information on the original materials used, their state of conservation, and the causes of any alteration, as well as on possible materials introduced subsequently into the artefact during restoration or consolidation operations. Furthermore, diagnostic investigations can make it possible to identify forgeries on the basis of the presence of material and/or realisation techniques that are incompatible with the period, the artist and/or the geographic area of attribution.

Investigations can also be subdivided into extensive (or distributional) analyses if they provide information on an extensive portion of the artefact, and accurate analyses when they make it possible to obtain data from areas circumscribed by the work.

The numerous activities carried out by members within AIAr involve various fields of interest/application, From what emerged from recent conferences, studies have been mainly directed at setting up diagnostic and non-destructive analytical techniques, characterising and analysing stone materials and, more in general, the fabrication, ceramics/glass/vitreous pastes/metals, in addition to making thorough investigations of problems connected with the dating of findings and the application of computer-related techniques to the field of conservation and enjoyment of the cultural heritage.

MONITORING

The materials making up the cultural heritage are subject to alteration over time, which is due to the interaction between the artefact and physical (light, temperature, relative humidity, etc.), chemical (atmospheric oxygen, various pollutants), and biological (bacteria, fungi, insects, etc.) factors. Both monitoring of the artefact over time, so as to put curators or conservators on the alert as soon as risk situations surface, and also monitoring of the environment in which the artefact is located (inside or outdoors),

in order to maintain the environmental conditions within the recommended safety limits, are therefore extremely important. The objective of the research is to set up monitoring methodologies that not only do not damage the artefact, leaving it unchanged for subsequent controls, but also are respectful of the museum setting or the environmental context in which the appropriate instrumentation must operate.

CONSERVATION

Diagnostics and monitoring, which are essential moments for correct conservation, are based on scientific criteria. Since the Association includes members with multiple cultural origins, it gives particular importance not only to the integration of activities and competences regarding diagnostics, monitoring and conservation, but also to an approach to problems that take into consideration both the results of scientific analyses and the historic context in which the various artefacts were created and have existed/lived.