# DIGITAL AND ANALYTICAL METHODS: A PIPELINE APPROACH

METHODOLOGY AND RESEARCH AGENDA

The organization and methodological approach of the Andreas Pittas Art Characterization Laboratories (APAC Labs) are based on the premise that the effective use of science and technology both enables and enhances fundamental research questions in art history, archaeology and more broadly cultural heritage. APAC Labs are thus established to offer a comprehensive research pipeline that can support the productive dialogue between previously separated disciplines and fields of expertise. This pipeline, integrating art history and archaeology with heritage sciences and digital technologies, will help unlock key research inquiries through the development of shared methodologies and approaches.

The research agenda of APAC Labs is based on three fundamental pillars: (a) – conduct art history, archaeology and heritage research with high relevance to the region's culture and society; (b) – develop research methods, theories and workflows within a cross-disciplinary framework; (c) – perform diagnostic and characterization methods based primarily on non-invasive and non-destructive analytical approaches.

The laboratories' investigation pipeline is based on a broad and multi-scale diagnostics approach, integrating inorganic / organic chemico-physical methods with reflectography, multi-spectral imaging, and surface 2D imaging/3D geometric characterization. These provide information on the conservation state, materiality, manufacturing techniques and diachronic interventions of the analyzed object, and serve as a basis for consequent specific research inquiries. Acquired data are archived in a knowledge repository for further reuse in science and innovation initiatives.
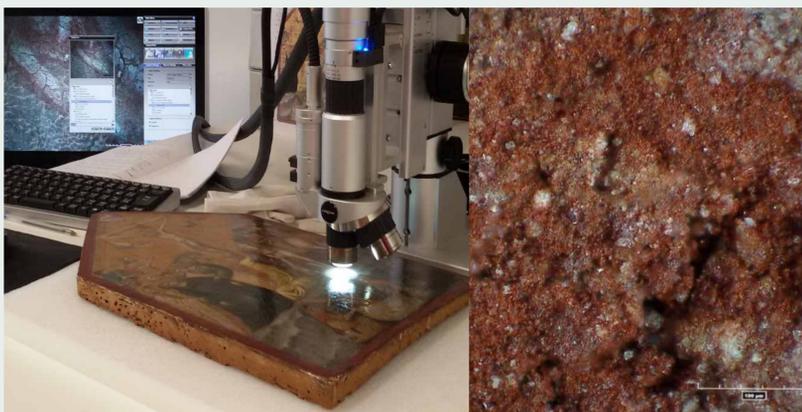
ART HISTORY AND ARCHAEOLOGY ·
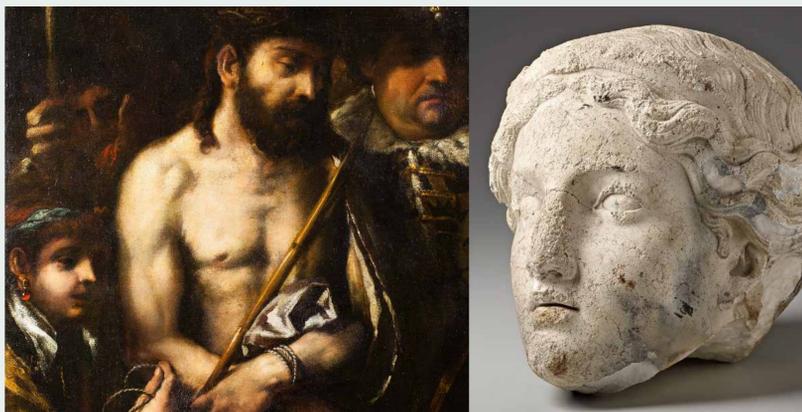
2D/3D DOCUMENTATION AND MULTI-SPECTRAL IMAGING

PHYSICO-CHEMICAL ANALYSES

SCIENTIFIC VISUALIZATION AND DATA MANAGEMENT