

Building bridges between science, history and archaeology with ZEISS microscopes

Francesco BIANCARDI, ZEISS

How can microscopy open us doors to deeply understand the history behind a sample?

How to manage precious and unique artifacts preserving those intact?

Using stereo, light and fluorescence microscopy is the first step to approach a sample and could give us important insights regarding structures and material used in the past allowing us to date and to understand the origin of the sample. Electron Scanning Microscope enables us to have a deeper knowledge of an artifact and allows us to combine as well analytical techniques such as EDX/WDX (Energy/ Wavelength Dispersive X-ray Spectroscopy), Cathodoluminesce, SIMS (secondary ion mass spectrometry). X-ray Microscopy permits studying of the volume of a sample without compromising it, as a non destructive test.

The correlation of all this data, coming from different techniques, is the key to deeply understand the history of a specimen and to let it tell his story to us.