

Color sampling for digitized 3D models: technologies and issues.

Roberto Scopigno

Visual Computing Lab, CNR-ISTI, Pisa, Italy

Digital technologies are now mature for producing high quality digital replicas of Cultural Heritage (CH) artifacts. The research results produced in the last decade have shown an impressive evolution and consolidation of the technologies for acquiring high-quality geometry. On the other hand, the technologies for acquisition and processing of color (or surface reflection properties) are less consolidated. A specific issue concerns the availability of flexible and easily deployable approaches, able to support acquisition in real life conditions.

Some recent technologies for supporting acquisition, processing and encoding of color / surface reflection data will be presented, by focusing on the framework of the specific CH requirements. The talk will present some recent experiences where high-quality 3D models have been produced and used in CH research, restoration and conservation. Open issues in this domain will also be presented and discussed.