3D Digital Documentation Summit

Submitted by:

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Speaker Bios

Ekaterini 'Kat' Vlahos is an Associate Professor of Architecture in the College of Architecture and Planning at the University of Colorado Denver, and the Director of the Center of Preservation Research (CoPR). She co-developed the Masters of Science in Historic Preservation in the College of Architecture and Planning, and teaches design studios and seminars focused on the documentation, analysis and design of historic cultural landscapes.

Professor Vlahos has lectured extensively on her research focusing on the use of high-technology documentation methods, interpretation and preservation of vernacular working landscapes in the American West. Her investigations focus on understanding changing cultural landscapes that weave together the human experience, cultural traditions, and sustainable approaches to building.

Mike Nulty is CoPR's Technical Coordinator. Michael manages the Center's state-of-the-art digital technology, including interactive website construction, SketchUp 3-D site maps, virtual tours, and other similar tools. His private sector work has involved historic and adaptive reuse projects. Michael's research interests lie in examining how the applications of digital technology can enhance our understanding, appreciation, and investigation of historic cultural landscapes.

Best Practices for Digital Documentation

Through the HABS/HAER/HALS programs the Secretary of the Interior has established Standards and Guidelines for Documentation and acceptability for inclusion in the Heritage Documentation Programs collections in the Library of Congress. As quoted, "they require that the documentation captures the significance of the site or structure; is accurate and verifiable; has archival stability; and is clear and concise". As high-tech documentations methods such as LiDAR Digital Scanning, Photogrammetry and Digital Photography are increasingly being used to document a wide range of cultural resources from small artifacts to large cultural landscapes, we need to raise the question: What are the *Best Practices* used for Digital Documentation in the areas of Project Planning Assessment, Data Gathering, Data Processing and Management, Representation, and Data Archiving?

The session will present an evaluation of Best Practices for Digital Documentation being developed by the University of Colorado Denver – Center of Preservation Research and the National Park Service. Information has been gathered and analyzed from sources including an extensive academic literature search, project standards and guidelines from public and private sector organizations, and the existing HABS/HAER/HALS Standards and Guidelines. The intent is to provide information on:

1) **Project Planning Assessment** including: developing project goals and deliverables desired; data management planning; and technology assessment,

2) **Site Assessment** including: data capture planning, assessing the scale of the site; structure or object; conditions; accessibility; context; environmental conditions

3) **Technology Assessment** including: cost, time, accuracy requirements and available resources,

4) **Data Gathering** including: acquisition techniques; emerging technologies; accuracy; completeness; resolution and time,

5) **Data Management** including: processing of digital data; application; representation; accessibility, and short term archiving,

6) **Data Archiving**, both short term and long term, including storage of the digital data; migration of data, metadata; backup requirements; file formats; and accessibility.

We will also address the challenges of long term archiving of digital data and the resources required to respond to ever-changing technologies in hardware and software. The raw data becomes a valuable artifact that will need to preserved for the future.