

**Project Summary**  
**Rocky Mountains Cooperative Ecosystem Studies Unit**

**Project Title: Heritage Partnerships Program 3D Digital Documentation**

**Discipline: Cultural**

**Type of Project: Technical Assistance**

**Funding Agency: National Park Service**

**Other Partners/Cooperators: University of Colorado at Denver**

**Effective Dates: 8/15//2012 - 12/31/2015**

**Funding Amount: \$54,700 [FY15: \$4,700; FY12: \$50,000]**

**Investigators and Agency Representative:**

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**Project Abstract:** In recent years, the NPS Intermountain Region, Heritage Partnerships Program (HPP) has worked with partners, including CyARK and the University of Colorado Denver, to record and preserve nationally significant sites through collecting, archiving, and providing access to digital data created through laser scanning, digital modeling and other state-of-the-art technologies. The goal of this effort was to develop a long-term digital documentation program whereby parks and partner organizations could digitally record cultural resources. To date, the survey work has involved the use of 3D laser scanning and high resolution digital photography to create a multitude of digital products, including CAD drawings, High Dynamic Range photographs, and 3D Point Clouds. This digital documentation is used to create a variety of interpretive and interactive programs including 3D virtual tours, 3D models, K-12 educational games, and traditional Historic American Buildings Survey (HABS) ink-on-Mylar drawings. NPS also has worked with its partner CyARK to create a standardized and interactive website, hosted by CyARK, which includes an introductory video, 3D point clouds and 3D models using Google Earth, an interpretive history, as well as an archival collection of multi-media and historic drawings and photographs

Through this project, NPS will partner with the University of Colorado Denver to create 3D digital documentation of a nationally significant site within the NPS Intermountain Region, which will be selected with input by NPS and UCD. The purpose of the project is to build upon the knowledge learned through the earlier digital documentation projects and to further explore, identify and refine the appropriate digital documentation technologies for specific resource types, e.g. archeological resources, simple structures, multi-plane complexes. NPS and the cooperator also will collaborate on the appropriate use of such digital documentation technologies to create a range of projects including 3-D images, photogrammetry and ortho-rectified color photographic images. Among the goals of this effort is to create a set of standards in deliverables, procedures and processes that can be applied and improved on for future work. This project will also assist the Service-wide effort to create a set of standards for digital documentation submissions to the Library of Congress.

This effort is best accomplished through a combination of digital documentation training to be provided to NPS by UCD, on-site fieldwork to collect digital documentation, and the collaborative creation of a range of documentation deliverables that offer opportunities to test the above-noted standards and practices

**Outcomes with Completion Dates:** Final Report (including Recommendations for Digital Documentation Standards) winter 2015

**Keywords:** National Park Service, Intermountain Region - Heritage Partnerships Program, University of Colorado at Denver, preservation, digital data, cultural resources