

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: LiDAR Scanning of the Pedro Trujillo Homestead for Resource Protection and Education at Great Sand Dunes

Discipline: Cultural
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: University of Colorado at Denver
Effective Dates: 5/1/2012 - 2/28/2013
Funding Amount: \$5,875

Investigators and Agency Representative:

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Project Abstract: Great Sand Dunes National Park and Preserve is a treasure of visual, geological and biological surprises - a high mountain valley holding the highest dunes in North America and flanked by some of the highest peaks in the Rocky Mountains; unique wind-powered geologic systems; insects physically adapted to life in the sand and found nowhere else; alpine lakes and tundra; disappearing creeks; and inter-dunal wetlands. Great Sand Dunes park boundaries also include significant historical and cultural resources that contribute to the San Luis Valley settlement story. Over the years, the park has developed interpretive signage for a few accessible structures and invested in landscape inventory studies or restoration projects to enhance the settlers' stories and ensure proper management of these structures.

One site of significance, the Trujillo Homesteads, located on land owned by The Nature Conservancy and within the authorized boundary of Great Sand Dunes National Park and Preserve, recently received National Historic Landmark designation on January 3, 2012. The Trujillo Homesteads exceptionally represent the expansion of Hispano-American settlement in the part of the American Southwest newly-acquired by the United States in the 1848 Treaty of Guadalupe-Hidalgo. Teofilo and Andrelitta Trujillo built one of the largest and wealthiest Hispano ranch operations in the San Luis Valley. Their son, Pedro Trujillo, adapted to the increasing dominance of Anglos in the area by raising only cattle, building a two-story log house on his own homestead, and speaking English. The homesteads represent Hispano settlement and the preservation of traditional Hispano culture on the frontier, as well as the impact of cultural exchange with Native Americans. In December 2011, the Advisory Board of the National Park System voted to recommend National Historic Landmark designation for the Trujillo Homesteads. On January 3, 2012, the Secretary of the Interior Ken Salazar officially designated the Homestead a National Historic Landmark.

Archeological evidence at Teofilo's homestead is all that remains but the site has been intensely studied and documented to complete the National Historic Landmark nomination. Pedro's homestead including his 2-story log house and contributing structures were also documented and researched to complete the nomination. The 2-story log house at Pedro's site has been restored but many of the contributing structures remain in situ and have not been restored to original conditions. The park has received RM-CESU funds to collect data at the Trujillo homestead site with the use of Terrestrial LiDAR scanning equipment and the creation of a virtual imagery tool of the site to be housed on the park's website. This information is crucial to interpret a publicly inaccessible site of significant value to the collective history of Latinos in the San Luis Valley. These data will help protect and preserve these resources for future generations, and will assist students in historic preservation by making these materials available on a public web site.

Outcomes with Completion Dates:

- A. Field work completed: Summer 2012
- B. Post Processing of Digital Documentation: Fall 2012
- C. Draft of Deliverables submitted: Fall 2012
- D. Final Draft of Digital Documents Submitted: Fall 2012

Keywords: National Park Service, Intermountain Region - Heritage Partnerships Program, University of Colorado at Denver, Great Sand Dunes National Park and Preserve, Pedro Trujillo Homestead, LiDAR Scanning, resource protection, interpretation