

Project Completion Report

Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: *Sacred Landscapes of Rocky Mountain National Park: Model Validation Surveys*

Project Code: UNC-10; J1242090042

Type of Project (Research, Technical Assistance or Education): Research

Funding Agency: National Park Service

Partner University: University of Northern Colorado

NPS Agreement Technical Representative: Judy Visty

Principal Investigator: Dr. Robert Brunswig

Start Date of Project: September 30, 2009

End Date of Project: December 27, 2011

Funding Amount: \$9,590

Project Summary

Since 2000, the University of Northern Colorado (UNC) has been conducting Native American spiritual sites and landscapes research in Rocky Mountain National Park (RMNP), known today as the Sacred Landscapes Project (Brunswig 2003; Brunswig, Diggs, and Montgomery 2009; Brunswig, McBeth, and Elinoff 2009). This report is the third in a series of RMNP Sacred Landscapes research publications resulting from archaeological field studies, Native American ethnographic consultations, ethnohistoric document analysis, and Geographic Information System (GIS) mapping and statistical-locational modeling of archaeological rock features, sites (complexes of features), and natural landscape topographic features identified as having Native American religious functions and/or significance. In the second report published in 2009, a series of evolving GIS predictive models explored the interrelationship of natural, cultural, and topographic variables associated with hypothetically deliberate (culturally-determined) landscape-scale location patterns associated with native-built or modified rock features suspected as being used in individual and group religious practices and with natural landscape features. These have been noted in Native American consultations as having spiritual significance in the past. In 2009, project researchers, using GIS landscape modeling techniques combined with ethnographic consultation, ethnohistoric evidence, and field data, found strong support for an earlier-posed hypothesis of a “topographically-defined physical and cognitively defined network of culturally-religiously significant natural landmarks and human-constructed or modified features and feature clusters (sites) in the park once culturally developed to fuse and facilitate the past interaction of Native American mundane (everyday social-economically defined) and spiritual worlds to assure cultural unity and psychological security (and survival) in the challenging physical landscapes of Rocky Mountain National Park and its surrounding region.” (Brunswig, Diggs, and Montgomery 2009: Executive Summary). One of the important outcomes of that modeling process, both supported by and based in archaeological field evidence of putatively sacred features and sites, was GIS viewshed analysis which predicted

the locations of potential new, but yet undiscovered, sacred features and/or sites, based on statistical (weight-of-evidence) correlation of a series of natural and cultural variables. This report describes results of a 2010 survey of two such predicted locations where sacred sites and/or features were most likely to occur. The survey was intended to test the model's site prediction validity or reification and, whether, through the soundness of the model or serendipity, sacred features fitting earlier established rock features types could be discovered in the predicted locations. Results of the survey are that the working GIS Sacred Landscapes model was supported and the new data points allowed researchers to refine and modify the model for future field testing.

Number of students participating in this project: 2 undergraduates