Project Completion Report Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: Testing Rock Shelter at 5GN0001, Gunnison County, Colorado.

Project Code (such as UMT-72 and/or the "J" number): USURM-73 & J1379090114

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

Funding Agency: National Park Service

Partner University: Utah State University

NPS Agreement Technical Representative (with complete contact information):

Forest Frost Curecanti National Recreation Area 102 Elk Creek Road Gunnison, CO 81230 Phone: 970-245-5433

Principal Investigators (with complete contact information):

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Start Date of Project: 30 September 2009

End Date of Project: 10 December 2011

Funding Amount: \$5000

Project Summary, including descriptions of products, work accomplished and/or major results. If the information is restricted (e.g. location of endangered species or cultural resources), indicate the title and location of the final report. Also add web sites where project-related information may be found.

During a Geology field school by USU in 2008, an inspection of several rock outcrops found evidence of human occupation in rock shelters including one shelter that exhibited rock art. The art consisted of several panels of lines and forms incised into the sandstone outcrop. Only one other of prehistoric rock art had been recorded in the park, and it is now inundated by Blue Mesa Reservoir.

Under this agreement USU conducted limited excavations in an attempt to determine answers to basic questions such as age and season of occupation, subsistence strategies; and presence of intact subsurface deposits. The field crew excavated three 0.5 X 1 meter and one 0.5 X 0.5 meter units between July 12 and July 16, 2010.

The excavations uncovered four intact subsurface hearth features and recovered flora and fauna remains including several charcoal samples. Debitage, Fire Cracked Rock, and a small number of groundstone artifacts were also recovered.

The radiometric dates derived from the charcoal samples suggest multiple occupations of the rock shelter. Three samples returned Conventional Radiocarbon Dates of 1330 ± 30 BP (Beta-293434), 1520 ± 30 BP (Beta-293435), and 3000 ± 40 BP (Beta-293436).

Flotation samples from the hearth features recovered seeds from Achnatherum hymeniodes (Indian Rice Grass), Amaranthus sp. (Pigweed), Chenopodium sp. (Goosefoot/Lambs Quarter), *Physalis sp.* (Ground Cherry), and Rosa woodsii (Wood's Rose). All of these species could have been used as food sources. The combined seed setting periods for these species suggests an occupation of the rock shelter during the late summer to autumn. Wood samples recovered were identified as White Pine Group, possibly *Pinus flexilis* (Limber Pine) -- a species not common in the area today.

Number of students participating in this project: undergraduates, graduate students, degrees conferred. One graduate student, one undergraduate student.

Lessons Learned from this project. This project demonstrates the large amount of information that can be learned from a small excavation with a limited budget. Most of the budget went to travel and outside testing. Analysis of materials was accomplished by allowing the students to utilize the material as the foundation for analysis classes such as "Lithic Analysis" and "Faunal Analysis".