

EXHIBIT 23

**J.D. Spangler, Site Condition and Vandalism Assessment of Archaeological Sites, Lower and Middle Arch Canyon, San Juan County, Utah, 10 November 2006
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**Site Condition and Vandalism Assessment
of Archaeological Sites,
Lower and Middle Arch Canyon,
San Juan County, Utah**

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Introduction

For more than a century, the impressive cultural resources of the Cedar Mesa region of southeastern Utah have been of keen interest to professional researchers, amateur enthusiasts and predatory individuals who have sought to acquire valuable Pre-Columbian artifacts. Indeed, the looting of artifacts in this region has a long tradition rooted in the early museum expeditions of the late nineteenth century and early twentieth century (Blackburn and Williamson 1997; Phillips 1993). It is widely acknowledged by public land managers and the public at large that vandalism of archaeological sites in southeastern Utah has been a persistent problem dating back many generations, and that it continues to the present, albeit more covertly than in the past when “digging” ancient sites was considered to be a socially acceptable practice.

Arch Canyon, located on the northern periphery of Cedar Mesa, has two qualities that, in tandem, are particularly rare to this region: (1) A perennial water source that appears to have been the focus of intense prehistoric occupations by Ancestral Puebloan farmers, resulting in spectacular architectural remains along the canyon bottom and at various higher cliff levels, and (2) a route through the bottom of the drainage that provides easy vehicular access to many of these archaeological sites. The abundance of visually impressive archaeological sites combined with vehicular access has precipitated greater levels of public visitation than is evident elsewhere in the region, and this in turn appears to have resulted in much greater levels of adverse impacts to cultural resources, including wanton vandalism, illegal collecting of artifacts and inadvertent damage by visitors unaware of proper site etiquette.

It is also apparent that current U.S. Bureau of Land Management (BLM) enforcement of federal statutes and regulations to protect cultural resources is inadequate. Cultural resources in Arch Canyon area will continue to deteriorate without an aggressive management plan that includes public outreach, limitations on vehicular access, site stabilization and better management of pedestrian traffic on and around significant sites. Current BLM management strategies are predicated on previous research that was clearly inadequate, and little effort has been expended to determine the nature, density and distribution of sites throughout the canyon. The degradation of significant sites clearly eligible for the National Register of Historic Places remains a serious problem that warrants aggressive management.

In April 2006, the Colorado Plateau Archaeological Alliance (CPAA) revisited nine previously recorded sites in the lower and middle Arch Canyon corridor to assess current site condition, including an examination of surface evidence of intentional vandalism, graffiti, ORV damage, illegal collecting, improper modern camping, site modification, littering and any other recreation impacts evident on the site surface. Archaeological sites were also analyzed based on their visibility, accessibility and potential for adverse effects. During the course of identifying nine previously identified sites, five additional sites were documented. All 14 sites, located on lands administered by the BLM (11 sites) or the Utah School and Institutional Trust Lands Administration (3 sites), were recorded to IMACS standards and with a level of detail to assist land managers monitoring the cumulative effects of public visitation in the future. This effort

involved only site documentation, and no surveys of any kind were conducted at that time and no artifacts were collected.

In October 2006, CPAA returned to Arch Canyon to revisit selected sites to determine whether additional adverse impacts have occurred since the April documentation. Due to adverse weather conditions that made vehicular access impossible, CPAA instead chose to conduct an intuitive survey of a section of the canyon between []. An additional nine new sites were documented on both sides of the canyon in this spatially restricted area, and previously undocumented features were identified at 42Sa5216 and 42Sa5217. No artifacts were collected, but in some cases artifacts susceptible to surface collecting were cached out of view. The location of lower and middle Arch Canyon sites examined by CPAA is indicated in Figure 1.

Based on evidence observed at these sites, it can be concluded that (1) Most but not all sites identified are located on cliff ledges or in sheltered areas above the floodplain and are not directly accessible to wheeled vehicles. (2) Off-road vehicle (ORV) trails may be damaging potential middens at the bottom of slopes and floodplain areas that were likely the focus of prehistoric agricultural activities. (3) Most sites visible from the existing route have suffered significant vandalism, site degradation and illegal surface collecting from canyon visitors, although there is no way to determine when these activities occurred or who initiated them. (4) Sites not visible from the route exhibit less evidence of adverse impacts from visitation, although these sites are being visited. (5) There is an extremely high potential for unidentified sites along the main route that would be accessible to ORV activities, and direct impacts to these sites in the future should be considered inevitable in the absence of more aggressive management strategies. And (6) BLM efforts to minimize damage to archaeological sites and potential subsurface deposits are inadequate given the current level of motor vehicle use in the canyon. It is also possible that the high level of ORV use, much of it facilitated by spur trails from the main route, has accelerated adverse effects to cultural resources in the canyon. It is probable that individuals with a disregard of rules and regulations regarding proper ORV use will similarly disregard laws protecting cultural resources.

Previous Research

Despite a wealth of research conducted in the Cedar Mesa region generally, the Arch Canyon corridor has not been subjected to quantitative or qualitative scientific inquiry. The earliest research conducted in the canyon appears to be the 1958 San Juan Triangle intuitive survey conducted by the University of Utah during the course of the Glen Canyon Archeological Project. A handful of sites were recorded near the mouth of Arch Canyon, as was Lewis Lodge (42Sa256), located near the canyon rim, which was later excavated. However, the report of investigations (Weller 1959) makes only passing references to sites at the mouth of Arch Canyon, offering brief descriptions of 42Sa277 and 42Sa278. However, other sites recorded by university crews (e.g., 42Sa256 and 42Sa260) were not included in their tabulations or site descriptions, and no report of those findings was located.

environmental changes through time, and to explain why agricultural lifeways were abandoned after thriving for many centuries. It is highly probable that subsurface deposits in this locality will also yield new insights into prehistoric groups who occupied the canyon prior to the Pueblo II-Pueblo III florescence, and later hunter-gatherers who superseded them.

General Recommendations

Given that all of the sites discussed in this report should be considered eligible for the National Register, federal land management strategies should reflect the agency's commitment to preserve cultural resources of significance to all Americans and to protect inherent values of spatial context and aesthetics in a manner that does not "diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association" (36 CFR 800.5.1). These efforts should include more comprehensive efforts to document the cultural resources that could be impacted; more aggressive planning efforts to avoid, minimize and mitigate adverse effects to historic properties; and a more detailed analysis of direct and indirect impacts. Although the BLM is currently revising its Resource Management Plan, it is imperative the agency take interim steps to protect the outstanding cultural resources of Arch Canyon and to prevent further adverse impacts to these resources. To this end, CPAA offers the following recommendations:

- 1) Given the potential for significant numbers of undisturbed archaeological sites of National Register significance in the Arch Canyon drainage, the BLM should restrict vehicular access in Arch Canyon to administrative, law enforcement and research purposes only as an appropriate strategy to protect the long-term integrity of sites in all areas above 42Sa5271 at the mouth of the canyon. All trails, especially those into sensitive areas with potential cultural deposits, should be closed and the closures enforced. The archaeological values evident on the slopes below architectural sites and along the edges of the floodplain – all areas accessible to mechanized vehicles – remain poorly understood and have not been adequately documented. There remains a high potential that at least one major site with National Register eligibility could be directly impacted by off-road activities in the future []. It is anticipated that additional sites will be located along the existing ORV route and could be directly impacted by vehicular activities.

As demonstrated by vandalism research in Range Creek Canyon in eastern Utah (Spangler, Arnold and Boomgarden 2006), there is a direct relationship between unrestricted vehicular access and site vandalism. Areas inside the Range Creek controlled access points had significantly less evidence of adverse impacts caused by illegal or inappropriate human activities, whereas cultural sites located outside controlled access points have been seriously damaged and in some cases destroyed. These data suggest that individuals engaged in illegal activities use mechanized vehicles to arrive at their targeted sites, and that illegal activities typically occur within 200 meters of an existing road.

- 2) The BLM should implement a permit system that requires Arch Canyon visitors to identify themselves by name and address and/or limiting the number of visitors in the canyon on any given day. A similar permit system has been employed in other areas of southeastern Utah, and both strategies were recently employed in Range Creek Canyon where they have produced notable results. Visitors are less likely to engage in illegal or inappropriate behavior if their names are on an official register. And in Range Creek, the limited access has promoted a greater awareness among visitors as to the sensitive nature of cultural resources, and it has also afforded law enforcement an opportunity to disseminate appropriate information about site etiquette. It should be noted that the success of this effort in Range Creek Canyon is predicated on a consistent law enforcement presence in the canyon (Spangler, Arnold and Boomgarden 2006).
- 3) The BLM should clearly identify preferred pedestrian routes to archaeological sites that avoid potential midden areas and exposed artifacts. Several heavily visited sites have multiple foot trails, many in areas of potential sensitivity for cultural resources. Ceramic artifacts are visible on or near two of these foot trails, suggesting the potential for degradation of subsurface deposits is significant. Preferred pedestrian routes should include signage regarding surface collecting, restacking walls, concentrating artifacts into piles and climbing on or through architecture. Access to structures on narrow ledges should be prohibited inasmuch as access to these features poses serious safety risks and potential for structural degradation due to leaning against or pulling on walls for support.
- 4) A greater BLM presence in the canyon would promulgate a greater public awareness of the importance of site preservation. Given the agency's budgetary restrictions, the BLM should seek the assistance of commercial tour operators, site stewards and volunteer organizations with a vested interest in the long-term preservation of the canyon's resources. This should include training requirements for commercial tour operators and outfitters to ensure proper site etiquette, and written materials should be disseminated to all canyon visitors as a means to promulgate the importance of these resources to all Americans.
- 5) A consistent and clear message of site preservation and ethics must be implemented to promulgate proper protection of cultural resources for future generations. BLM efforts toward this end have been thwarted by the theft of signage, and although deplorable, it does not exonerate the agency of its responsibility to promote the preservation and protection of cultural sites. Appropriate educational and preservation messages should be disseminated at selected locations of high visitation, including but not limited to the trail heads at major sites (e.g., 42Sa260, 42Sa5215, 42Sa5216, 42Sa5218 and 42Sa5221). Currently, a checklist of intended activities filled out by visitors at the BLM kiosk at the mouth of the canyon includes a generic "collecting" category. This is confusing and could be construed by some to mean that surface

collecting of cultural materials is an appropriate activity. Appropriate activities should be clearly specified, and the “collecting” category deleted.

- 6) The BLM should initiate consistent site monitoring to better determine the nature of illegal collecting and the cumulative effects of site degradation. The apparent absence of a photographic database and detailed IMACS forms has inhibited detailed assessments in the past. A regular monitoring program could assist land managers in the development of strategies to quantify site degradation and to develop strategies to mitigate and repair damage to sites.
- 7) Previous efforts to document the spatial distribution of archaeological sites in Arch Canyon are clearly inadequate and the quality of this research does not reflect current scientific standards. During the course of relocating nine previously recorded sites, five additional sites were identified by CPAA in April 2006, and nine additional sites were identified in October 2006 in a concentrated area of the canyon. Additionally, at least three previously recorded sites had significant features that were not mentioned in the initial site forms. The identification of new sites and additional features was made with little effort, suggesting a more comprehensive effort (Class III) will identify significant numbers of additional sites within the canyon corridor. It is further anticipated that closer inspection of the floodplain and adjacent slopes will identify agricultural features, middens and special use locales that will provide a broader understanding of human adaptations in the region. BLM land management decisions should be predicated on a scientifically sound database, although such a database currently does not exist. The BLM cannot properly take into account potential adverse effects if it does not know what those resources are (see 36 CFR 800.4.1).
- 8) Four of the sites discussed above are located high above the canyon bottom or on inaccessible cliff ledges. This inaccessibility has likely contributed to the preservation of these sites. However, determined looters (and others) will view these sites as a challenge, as well as an opportunity to engage in inappropriate activities without detection by other visitors on the canyon bottom. A more comprehensive effort should be initiated to gain access to these sites [] to accurately document and photograph these features, and to establish a baseline for future monitoring activities. This effort should include complete documentation of all negative impacts resulting from site visitation and vandalism.

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