In Focus: Archeology in Park Management

Deep-time perspectives and understanding change on public lands

By Dawn Bringelson

THE NATIONAL PARK SERVICE was formed under the Organic Act in 1916 with a mandate to protect and conserve the special resources of the National Park System for public enjoyment, now and into the future. Cultural resources in this system are subject to multiple other laws, including the National Historic Preservation Act (1966, last amended in 2006), which requires the federal government to take inventory of its historical properties (all kinds) and to take into consideration impacts on those properties when planning all management-related undertakings. In response to these legislative mandates, the National Park Service has collected information on archeological resources (i.e., evidence of past human activities in the form of artifacts and features across park lands) for decades and applies knowledge derived from these data to the management of these and other park resources.

The Midwest Archeological Center (MWAC) in Lincoln, Nebraska, was formed from a Smithsonian River Basin Survey office in 1969 to assist the National Park Service with collection of archeological information. It serves as a center of expertise for the NPS Midwest Region and is a repository of artifact collections, archives, and digital data that have been collected over the past 44 years. With access to these and an increasing variety of new data as technology develops, the center integrates layers of old and new information to increase our understanding of the human past. The following set of articles highlights a series of current research projects at the center, illustrating this integration and its power to address human-environmental interaction over the last 10,000–12,000 years (i.e., Holocene epoch).

The Midwest Archeological Center has worked with Indiana Dunes National Lakeshore, as described in the first article, on dozens of archeological inventories, ranging from landscape- to house lot–scale projects across the park. Although most of these data were collected in previous decades, their synthesis with the use of modern geographic information systems (GIS) provides a means to evaluate how this sample represents the history of human occupation of the dunes area, as well as to address ways in which environmental factors influenced human behavior (and vice versa) throughout the Holocene.

Understanding the interaction of human activities with climate change is a research priority emphasized by the National Park Service in Secretarial Order 3289 (NPS 2010) and is the subject of our second article. Archeology makes particular contributions to this research by its ability to access the deep history of human-landscape interactions, tying in with (and adding to) paleoenvironmental data needed to better understand the long history of climate change. Case studies at Apostle Islands National Lakeshore (Wisconsin) and Ozark National Scenic Riverways (Missouri) illustrate ways in which archeological studies in national parks can advance efforts to better understand and ultimately respond to current climatic shifts.

Archeology also provides information regarding past use of the landscape by indigenous groups, and is especially important to those affected by colonial and industrial practices that resulted in sparse historical records and incomplete oral histories. Studies at Voyageurs National Park (Minnesota) and Knife River Indian Villages National Historic Site (North Dakota), the next articles in the series, demonstrate ways in which archeology integrates new and old technology to more fully document the history of human interaction and land use in these places, with great implications for natural resource management and indigenous stakeholder communities. Finally, work at Wind Cave National Park (South Dakota) exemplifies how a traditional archeological project can contribute to understanding the interaction of humans and other species over thousands of years.

Multiple data sets, collected over much of the last century, can be used in novel ways to address these and other topics of interest to resource managers and researchers. New field, archival, and digital projects, often conducted to fulfill requirements of the National Historic Preservation Act, are constantly providing additional data and analyses to refine research. At the same time, research contributes to collective knowledge of the deep history of humans' interaction with natural resources, climate change, and other pertinent questions. The relationship among archeological fieldwork, old and new research techniques, and developing useful information is critical to managers in addressing the mandates of the National Park Service and fulfilling its founding principles.

References cited

National Park Service (NPS). 2010. Climate Change Response Strategy. Climate Change Response Program, Fort Collins, Colorado, USA. Electronic document. Accessed 17 June 2013 from http://www.nature.nps.gov/climatechange/docs/NPS_CCRS.pdf.

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