

JACKSON LAKE ARCHAEOLOGICAL PROJECT

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The Jackson Lake Archaeological Project completed its 5th and final field season in late October, 1988. While the current drought caused many problems, the lowered water levels in Jackson Lake allowed more archaeological work to be accomplished than imagined at the inception of the project in 1984.

Funded by the Bureau of Reclamation, the work was completed by crews from the Midwest Archaeological Center of the National Park Service. During the project, 109 archaeological sites were recorded. This is the highest density of sites in any area in the Grand Teton-Yellowstone area and is presently reshaping the thinking of archaeologists about the importance of this area in prehistoric times.

The materials found range in time from Paleo-Indian materials (ca. 11,000 - 9,000 years before present) to a historic trapper/hunter cabin (ca. A.D. 1875-1910). Much of the prehistoric material is badly disturbed by wave action due to the reservoir. However, survey, testing, and excavation by the Park Service crews, study of the landforms by U.S. Geological Survey geologist Dr. Ken Pierce, and backhoe trenching by the University of Wyoming succeeded in defining a significant amount of information.

Objectives

The lowered reservoir levels which occurred during the repair of Jackson Lake Dam offered an opportunity to mitigate the damage to the archaeological resources impacted by the reservoir. The main impact of the reservoir on the archaeological resources is through wave action due to the raising and lowering of the lake level. Wave action deflates the soil on archaeological sites. This removes artifacts from their context and destroys non-portable artifacts, or features.

In order to focus data collection efforts, a research design and data recovery plan were developed (NPS 1987) and updated (NPS 1988). The research design outlined six themes important to understanding the prehistory of the area. These were (1) refinement of the paleoenvironmental sequence, (2) culture history and culture chronology, (3) definition of the aboriginal settlement and/or transhumance patterns, (4) definition of the subsistence patterns, (5) the extent of

trade, and (6) the effect of inundation on archaeological resources. All data recovered during the project are relevant to one or more of these themes.

Jackson Lake Project 1984-1987

The Jackson Lake Archaeological Project began its 1st field season in October, 1984, the 1st year that the lake was lowered for the repair of the dam. During 1984 and 1985, the archaeological resources on the lake were inventoried and 69 sites were recorded. Of these, 10 appeared to contain data relevant to the research objectives that were too extensive to collect during inventory. Further work on these sites was completed in 1986. Testing showed that two of these sites (48TE509 and 48TE1067) would need extensive work. This work was completed during the summer and early fall of 1987. During the fall of 1987 the combination of the drought and the lowered lake levels due to the dam repair caused the lake to drop to pre-reservoir levels. The newly exposed areas were inventoried and 40 additional sites were recorded. Based on the criteria outlined in the 1987 research design, seven sites were selected for testing. This preliminary testing was also completed during the 1987 field season.

Jackson Lake Project 1988

The schedule for the 1988 field season was completed based on the information found during the 1987 field season and testing.

In addition to the work mentioned below, U.S. Geological Survey geologist Dr. Ken Pierce continued his research of the landforms at the sites. He was aided by University of Wyoming crews, under the direction of Dr. George Frison, who completed numerous backhoe trenches to examine the geomorphology of site areas and to search for intact, buried material.

48TE509

The National Park Service crews completed two block excavations. The first was in an area where magnetometer work during 1987 had showed an anomaly that could be a buried feature. Testing uncovered a large core (ca. 18 inches long) that possibly accounts for the anomaly. No signs of a buried hearth were found.

The second block excavation was over a hearth uncovered in a backhoe trench in 1987. The purpose of the testing was to determine if there was an extant living surface associated with the feature. Radiocarbon samples taken by the University of Wyoming in 1987 showed the feature to date to 2250 +/- 130 B.P. (Beta-2250). The National Park Service excavations revealed that the hearth had been reused at least 2 and possibly 3 times. Southeast and south of the hearth a number of

items were found that suggest lithic reduction was occurring. This includes hammerstones, cores, and debitage. Waterscreening showed a great deal of microdebitage was present. The soil, however, showed evidence of mixing and the association of these items with each other is tenuous.

48TE1053

This site is on Donoho Island. It had been tested in previous years, however, there are a series of hearths at the site which are accessible only in very low water. These were targeted for testing in 1987, but the testing was not completed so that the sites on the Snake River delta could be examined. This testing was completed in 1988 and two hearths being examined. One exhibited extensive pre-reservoir damage, the second was deflated due to wave action. Enough organic material remained in the second hearth, however, to provide a radiocarbon date and material for pollen analysis. The contents will also be examined for macrofloral remains.

48TE1067

Dr. Pierce's study of this site suggested that the archaeological material was located on a series of beach ridges (Pierce et al. 1988). NPS crews hand dug a trench between the ridges to examine the question of the association of the ridges. Two buried features were found in the trench. Radiocarbon dates on the features will help to answer questions on the formation of the beaches.

48TE1090

This site consists of a series of bison bones interspersed with lithic material and fires rock. The site was located during 1986, but the majority of the site was inaccessible. During 1986, one feature was excavated, which yielded a date of 830 +/- 100 B.P. (Beta-19288). Small pieces of charred large mammal bone were found in this hearth.

During 1988, eight block excavations were carried out on this site. Bison bone was found throughout the area, including bone with cut marks. The bone from one bison excavation yielded a date of 770 +/- 80 (Beta-27977). Other bone includes beaver and weasel. Thirteen pottery sherds were found at this site, the only ceramics with exact provenience in Grand Teton National Park.

48TE1099

Testing in 1987 showed buried lithic and feature material at this site. It was selected for further work in 1988 due to the appearance of an intact living floor. Surface collections and three block excavations were carried out. Block excavation 1, at the south end of the site, was relatively shallow. Materials found included fired rock, flakes, and one large biface, probably a Late Archaic knife. Block excavation 2, in

the middle of the site, was sterile. Block excavation 3 was over a meter deep. Excavations revealed elk bone in a pre-reservoir, but non-cultural, context. Several fired rock concentrations were uncovered in this block as well as chipped stone.

48TE1101

This site, like 48TE1090, contained scattered bison bone, chipped stone, and fired rock. One block excavation was completed here, excavating bison bones. Another block was placed over a buried feature found in a backhoe trench. A hearth at the east end of the site was excavated to compare with hearths at other sites and provide a radiocarbon date. The University of Wyoming excavated a series of backhoe trenches to examine the landform formation and search for buried material.

48TE1102

This site, like 48TE1090 and 48TE1101, contained scattered bison bone, chipped stone, and fired rock. The University of Wyoming also completed a series of backhoe trenches at this site. Two block excavations were placed over concentrations of bison bone. Bone from one of these excavations yielded a date of 1380 +/- 80 (Beta-27976).

48TE1106

48TE1106 contains a large amount of surficial lithic material of extreme diversity. Because of this, surface collections were conducted over the site area during the 1988 field season.

48TE1107

This site contains the largest historic component of any site with which this project is concerned. Surface collections from 1987 suggested that the occupation dated ca. A.D. 1875 - 1910. There is little domestic ware. The assemblage is dominated by wine and beer bottle fragments, bullets, cartridges, and bone.

Excavations in 1988 uncovered a two room cabin, possibly constructed in the dog-trot style. A privy under one of the rooms contains material older than in the room above and suggests that the cabin was built in a minimum of two stages.

48TE1111

This site was tested in 1987 and included a partially buried hearth. Further testing was conducted in 1988 to excavate the remainder of the hearth and to determine if there was a living floor associated with the hearth. Excavations suggested that not only was there not a living floor associated with the hearth, but that the hearth itself had been extensively disturbed in pre-reservoir times by the Snake River.

48TE1114

This site is on the west side of the Snake River and appears to be an extension of the concentrations of bison bone, chipped stone, and fired rock found on the east side of the river. Testing in 1987 included the excavation of a hearth that contained large mammal bone, charred rodent bone, fish bone, and a polished bird bone bead. The hearth dated to 440 +/- 60 B.P. (Beta-24063). Testing in 1988 included block excavations over three additional features and over two concentrations of bison bone.

48TE1119-1120

These sites are between the confluence of the Snake River with Berry Creek and Harem Hill. This area is one of the oldest landforms in the study area. Much late Paleo-Indian material has been found in this location. Block excavations were placed over concentrations of charred bone, but extensive deflation may have destroyed much of the material. University of Wyoming backhoe trenches were placed near where buried material was found in 1987, however, no further material was encountered.

Summary

This season encountered the first extensive collection of bison bone in the history of the project. This strongly suggests that, at least during a portion of prehistory, bison constituted an important part of the diet. Further analysis of the bone could also provide important information on the seasons in which they were killed and, by inference, the seasons prehistoric peoples were living in Jackson Hole.

The ceramics located at 48TE1090 are also an important addition to project data. There are very few archaeological sites in the region which have produced ceramics and the study of their manufacture and technology is significant.

The project is funded for two additional years of analysis and report writing. The detailed analyses now proceeding will help to flesh out the bare bones of the archaeological work and to breath life into the interpretations of the archaeological data.

Literature Cited

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