

JACKSON LAKE ARCHEOLOGICAL PROJECT
A SUMMARY

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Introduction

The 1987 field season of the Jackson Lake Archeological Project was part of an ongoing project sponsored by the Bureau of Reclamation in conjunction with the repair of the Jackson Lake dam. The field seasons of 1984 and 1985 were spent inventorying the area exposed by the drawdown of the reservoir. This constituted the area around the lake between the elevations of 6772 feet and 6745 feet above sea level (Connor 1985, 1986). The field season of 1986 was spent testing sites which appeared promising (Connor 1987).

In 1987, major excavations were undertaken at sites 48TE509 and 48TE1067. This was a very dry year and the reservoir dropped to the pre-reservoir lake levels. Additional inventory in this area recorded 40 new sites. In total, the Jackson Lake Archeological Project has inventoried about 8550 acres and recorded 109 archeological sites that were flooded by the reservoir.

During 1987, a co-operative agreement between the Service and the University of Wyoming allowed a team from the Department of Anthropology to complete backhoe excavations in conjunction with the Jackson Lake Archeological Project.

The Jackson Lake Archeological Project is guided by six broad research themes (NPS 1987, 1988). These consist of (1) the effect of inundation on archeological resources, (2) refinement of the paleoenvironmental sequence, (3) culture history and culture chronology, (4) definition of the aboriginal settlement and/or transhumance pattern, (5) definition of subsistence patterns, and (6) the extent of trade.

The Effect of Inundation on Archeological Resources

The dam at Jackson Lake was built in 1906. Wave action at the shoreline and during changes in reservoir levels has damaged archeological sites under the reservoir. In many areas, deflation has occurred. Elsewhere, the soil was stripped, leaving the glacial deposits exposed. In both these areas, we find artifact concentrations. Heavier than the soil, the lithic artifacts remain as a lag deposit. In some areas, this resulted in a virtual pavement of artifacts and fired rock.

At many sites, lag deposits of fired rock mark the locations of hearth features. This lag deposit may actually help protect the remainder of the hearth, because below them, we often find the bottoms of the feature intact. Examination of faunal and floral remains protected by being deep within partially eroded features has provided much information.

More heartening, there are also areas where, either due to the action of the Snake River, or the reservoir, sites are buried. This had been suspected since before the drawdown and, since 1984, NPS has worked with Dr. Ken Pierce of the U.S. Geological Survey, to pinpoint areas most likely to have buried material. In 1987, a backhoe team from the University of Wyoming, led by Dr. George Frison, worked with Dr. Pierce to locate areas with buried material.

Refinement of the Paleoenvironmental Sequence

Pierce (1987) suggests the Jackson Lake basin was deglaciated by 15,000 years ago. Jackson Lake has diminished in size from its inception in late-glacial times to present. The main changes are where the Snake River delta and the Pilgrim Creek alluviation have built out into the lake. During deglaciation about 15,000 (?) years ago, the head of Jackson Lake may have been as far north as Flagg Ranch, roughly 12 miles north of the historically known lakeshore (Pierce 1987: 105).

This is important information for potential site distribution. Materials from the Paleoindian periods would not occur on the part of the Snake River delta and the Pilgrim Creek delta younger than 8000 years old. In fact, the oldest temporally diagnostic artifact yet found is a Clovis point found on the 6745' beach ridge at the Lawrence Site. At sites where this material has been dated, it dates about 11,000 years ago. Younger Paleoindian material (Cody, Angostora) is also found on the same beach.

Information on the progradation of the Snake River delta and the age of delta landforms is also being compiled under the direction of Pierce. Further information on paleoenvironments is being compiled by Linda Scott Cummings of PaleoResearch Laboratories through analyses of pollen and macrofloral remains associated with hearth features which will help determine local floral assemblages.

Culture History

People have utilized Jackson Lake for at least 11,000 years. From 11,000 to about 7,000 years B.P. the prehistoric remains consist of temporally diagnostic projectile points. No living floors or hearths have been found, so our knowledge of these people is extremely limited.

A cluster of radiocarbon dates from hearths around Jackson Lake range from 3000-4800 yr. BP. This coincides with what Frison (1978) calls the

Middle Plains Archaic, which also brackets the period when the McKean complex appears most strongly in the Northwestern Plains. Middle Archaic projectile point styles (ca. 5000-3000 BP in the northwestern Plains chronology) are found further south and west on the Snake River delta than earlier style projectile points. The McKean presence appears strongly around Jackson Lake and there are number of points resembling Hanna, Duncan, and McKean lanceolate projectiles.

Another cluster in the Grand Teton radiocarbon dates between 2200 and 2400 yr. BP. This could mark a Late Archaic or Late Plains Archaic occupation. Late Archaic style projectile points found around Jackson Lake include Pelican Lake and Elko Eared styles.

The next cluster of radiocarbon dates appears to be between about 800 and 2000 yr BP. This would correspond to the Late Prehistoric period. The majority of the small, Late Prehistoric style projectile points have been found in the Snake River delta. Geomorphological studies suggest that much of the southern delta would only have been habitable during Late Archaic and Late Prehistoric times (Pierce and Good 1986, Pierce 1987). By the Late Prehistoric, almost all the landforms we see today had been deposited. Only the beach ridge closest to the lake appears to have been deposited more recently, as no artifacts occur on it. Late Prehistoric points are the most common styles found on the delta.

Settlement and Transhumance

Present data suggest an occupation from the spring to the fall, based on the seasonal availability of the resources that the prehistoric peoples utilized. There is no data to preclude a winter occupation, but neither is there data to substantiate one.

Prehistoric Subsistence

Previous work around Jackson Lake was completed by Dr. Gary Wright of the State University of New York. Wright presented a high altitude adaptation model which rests on the hypothesis that plants, particularly camas, were of paramount importance in the diet of the Jackson Hole prehistoric populations (Wright 1984; Reeve 1986). They suggested that the abundant fired rock features at the north end of the lake are roasting pits and roasting platforms where camas was roasted (Wright 1984; Reeve et al 1979).

Analysis of macrobotanical samples from 9 of these features have been completed (Scott 1987) and 18 further samples have been submitted for analysis. The completed analyses show that vegetal remains included in these features on a regular basis are: Chenopodium, Cyperaceae, Gramineae, Polygonum, and Rumex (Scott 1987). Thus, Scott's findings suggest plant collecting focused on seeds, rather than root crops. Several grains of camas pollen have been identified, but no remains of

camas roots have been found.

Fish also played a role in the diet, probably on a seasonal basis (Wright and Marceau 1977). Fish bones were found at one site tested during 1987, and binotched cobbles, similar to those used ethnographically as net weights for fishing, were found on the delta.

Meat was also a substantial portion of the prehistoric diet through all time periods, as suggested by the hundreds of projectile points found around the lakeshore. Implements associated at other sites with butchering, such as the Cody knife, have also been found at lakeshore sites (i.e. 48TE509).

Several hearths have been found which contain animal bone. The majority of these (at 48TE509, 48TE1067, and 48TE1091) contain very small fragments of charred bone from medium- or large-sized mammals. These are consistent with the ethnographically known process of bone grease manufacture. At 48TE1114, large pieces of charred mammal bone were found, more consistent with the roasting of large mammal remains. At 48TE1111, bison bone with cut marks was collected in association with prehistoric cultural material. Finally, at 48TE1099 and 48TE1114 charred rodent bone was included in the features excavated.

To date, the data suggest an extremely varied diet, at least for the later periods for which we have the most data. Seeds, fish, large mammals, and rodents all played a role in the prehistoric economy.

Trade

The inhabitants of Jackson Lake were participants in extensive prehistoric trade networks. Obsidian from Obsidian Cliffs in Yellowstone is found in archeological sites throughout eastern North America. We've done obsidian hydration dating and analysis of both diagnostic and non-diagnostic artifacts. To date, we have found five obsidian sources used around the lakeshore: Teton Pass to the south, Camas/Dry Creek in Idaho, Obsidian Cliffs in Yellowstone, Bitch Creek, and one unknown source.

During the 1986 field season, a gorget of marine shell was found, also suggesting participation in a long-distance trade network. Unfortunately, most of the material utilized in such a network were probably perishable.

Summary

There are presently plans for one additional year of fieldwork at Jackson Lake and several years of analysis before the project is complete and as much information as possible has been wrung from the small pieces of stone and bone collected. A minimum of 2 years of

analysis after the final field season will be necessary before all six research objectives can be thoroughly discussed.

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