

Archaeological Survey of Grand Teton National Park
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Ethnohistoric data indicate that two Indian groups regularly exploited the flora, fauna, and raw material resources of the Jackson Hole area during the early historic period: the Wind River Shoshoni (Shimkin, 1947) and the Sheepeater (Hultkrantz, 1970). Others, such as the Gros Ventre of the Prairie and the Blackfoot, made periodic excursions into the region to exploit the trappers. Archaeological evidence (Love, 1972; Frison, 1971a) suggests that the prehistoric occupations of Jackson Hole, on an annual, seasonal basis, extends back to about 8500-9000 B.P. Although the base of a Folsom point (ca. 10,500 B.P.) is known from the higher elevations of the Gros Ventre Mountains (Love, 1971), the earliest archaeological material in the valley itself is related to the Agate Basin horizon which is well known elsewhere in Wyoming.

The Early Prehistoric Period, which ended around 2500 B.C., is represented in the extensive collections (+ 800 complete points) made by W. C. Lawrence from the north end of Jackson Lake. The site is now under water. Included are point types such as Agate Basin, Allan, Eden, and Scottsbluff, as well as the Cody Knife and a variant of the latter which is double shouldered and is termed by Love (1972) the "square based knife." An example of the latter was found this summer by a tourist on the Reuel site in a dry stream bed near the north point of Emma Matilda Lake. Examples of these point types and the knives are also known from other, smaller, sites in the valley (Love, 1972).

The Owen site, found on the 1972 survey, is a long knoll (ca. 1000') located on the east shore of Emma Matilda Lake and rises about 40 feet above it. The southern and western sides are partially eroded and large quantities of flakes, cores, and fire cracked rocks are clearly visible on the surface. I also found two square-based lanceolate points, one of local quartzite and one of fossilized wood which ultimately derived from the Wiggins Formation in the Absaroka Mountains to the northeast (J.D. Love, personal communication). Also recovered were an exhausted blade core and a large piercing tool. The site may also date to the Early Prehistoric Period.

Brief reconnaissance of the area between Two Ocean and Emma Matilda Lakes suggests that it will be highly productive. Between the two sites just mentioned is a high ridge (7000' elevation), probably of glacial

origin, which is filled with quartzite cobbles. It apparently served as a raw material source as numerous flaked cobbles were seen on the surface. Two additional sites are known. One is located on the outlet of Two Ocean Lake, and one at the mouth of a small stream which enters Two Ocean Lake from the south.

Most of this area is still unsurveyed however. Still it is my impression that an easy passage to and from the major camp site at the north end of Jackson Lake and the east side of Jackson Hole and the passes to the east may be effected between these lakes. During the earlier part of the Early Prehistoric Period, particularly when there was still glacial ice in Jackson Lake, discharge of water down the Snake may have been much higher. Sections of the Snake, e.g. the Oxbow, may have been blocked or very swampy during the early summer. Thus, passage would have either been impossible or quite uncomfortable. According to the quad sheets and Ranger Milligan of the Park Service, there are at least two low level routes between these two lakes.

The general lack of sites of all ages along the northern part of the Snake in the Valley, particularly on the west side supports Love's (1972) hypothesis that the river was a major barrier. Travel to and from Jackson Lake and the eastern passes apparently went north of Lozier Hill, the high ridge that blocks Emma Matilda from the Snake. This area is also rich in game such as elk, moose, and mule deer. Further, bison may also be seen there today. There are a number of wallows (one about 100 yards from the Owen site) and several bentonite licks near the unnamed lake between the two major lakes (J. D. Love, personal communication). For these reasons, I have great hopes for the area and next year plan to survey it intensively and to test both the Owen and Reuel sites.

The Middle Prehistoric Period (ca. 2500 B.C.-A.D. 500) is well represented in the valley by the McKean complex (Love, 1972). However, I found no obvious sites of this time interval in my survey. The Late Prehistoric Period (A.D. 500 to contact) shows a wide variety of side- and corner-notched points which apparently do not fit well into existing projectile point categories (Love, 1972). It is possible that some of them may date earlier than the Late Period based on comparisons with the Mummy Cave sequence to the north (Wedel et al., 1968). Surprisingly absent from the currently known 175 or so sites in the Jackson Hole area is the very late (ca. A.D. 1700) small side and/or basally notched projectile points used by Shoshonean speakers in the Green River Basin to the south (Frison, 1971b). This may indicate one of two things:

1. Although Shoshones were present during the historic period in Jackson Hole, they did not begin to exploit this area until after their mobility had been greatly enhanced by the horse.

2. These points were specifically related to the killing of game such as antelope--e.g. the Eden-Farson site in the Upper Green River Basin (Frison, 1972b)--and the Shoshones did come into Jackson Hole but for activities such as fishing and plant gathering.

Both of these possibilities need to be considered.

Special cognizance was made of several problems, the solution of which will require major assistance from our colleagues in the Natural Sciences. I think it is worthwhile to mention some of them briefly.

As noted, the archaeological sequence begins at ca. 9000 B.P. with the Agate Basin points recovered from the north end of Jackson Lake. Yet, Love and Reed (1968: 111-12) report that pond deposits located just south of the Jackson Lake Moraine were overridden by ice at about 9000 B.P. according to the C-14 dates. Thus, we have the interesting situation of projectile points having been left at the site which, according to geological evidence should have been either under ice at that time or right at the ice margin.

Other geological problems are numerous. For example, the Snake River terrace sequence outlined by Walker (1964) relates the higher terraces with glacial stages earlier than Pinedale. However, it appears that the oldest true river terrace (T3) dates after the formation of the Burned Ridge Moraine at about 15,000 years ago, and T2 and T1 after the Snake had cut its present outlet from Jackson Lake. The latter, hence, are post-9000 B.P. The delineation of post-Pinedale faulting (Love, 1972) and landslide activity (Bailey, 1971; Love, 1972) and their relationships to prehistoric exploitation of Jackson Hole also constitute major questions at this time.

The prehistoric inhabitants of this area were, of course, dependent upon game and vegetal resources. Palynological studies, such as those conducted by Baker (1970) in Yellowstone Park, would provide us with the vegetational history of this area between the retreat of Pinedale ice and historic times. Paleontological studies of the same time interval should also clear up some perplexing questions. For example, paleontological data (Love, 1972), meagre as it is, suggests that even though Jackson Hole is currently known for its elk herd, bison may have constituted a far larger proportion of the big game fauna than elk. The single archaeological site excavated on the Elk Refuge (Frison, 1971a; Love 1972) produced bison, bear, and mule deer, but no elk. One level of the site is C-14 dated at A.D. 1480 \pm 115 (Love, 1972; 71), but there are a variety of different point types suggesting that this trap was used over a considerable period of time.

If elk, as today, were a major component of the big game fauna, why do we have so little evidence of their presence or for Indian utilization of them? For example, Signal Mountain is used presently as a summer range by the elk. However, I found no evidence of Indian sites around this prominent landmark. I think that the solution of this problem should be of interest not only to the archaeologist, but also to the wildlife biologist.

As with any successful project, I believe that we have uncovered more problems than we can currently answer or will solve for some years. I can only agree with Frison (1971a: 37) that "it will require a number of years and specialists in many disciplines before the cultural systems that were in existence in the Jackson Hole area can be satisfactorily explained."

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